From Offshoring to Reshoring: The Pendulum Swings

Spencer Fraseur
University of Texas at Arlington, USA

Abdul A. Rasheed
University of Texas at Arlington, USA

Abstract

After decades of offshoring, many US companies are reshoring their manufacturing operations back to their home country. Many of the cost advantages that led these organizations to offshore in past decades have diminished, and there is also an increasing awareness of the hidden costs of offshoring. We provide a detailed analysis of the reasons for the sudden swing of the pendulum from offshoring to reshoring. We identify the various hidden costs of offshoring and offer recommendations for managers looking to make the best shoring decision.

The Pendulum Swings toward Reshoring

Intel recently announced that it would invest $20 billion into two new semiconductor plants in Arizona and revealed plans for building a brand-new factory in 2022 located just outside of Columbus, Ohio.[1] General Motors is reshoring its battery production back to the US where a new hub for lithium-based products is being established. As steel prices have skyrocketed lately, US Steel has decided not to build its new $3 billion factory abroad, but in the US instead. According to the Reshoring Initiative, some 1,800 US firms are intending to reshore at least part of their manufacturing process. [2] Recent evidence indicates that America's reshoring trend is accelerating.[2] As this trend gathers momentum, it is important that managers make such consequential decisions based on a comprehensive analysis of all the factors involved.

The recent decisions by many U.S. corporations to bring manufacturing back to the US is a dramatic reversal of the shoring strategies they pursued

in the previous decades. Starting in the early 1980s, millions of American manufacturing jobs moved abroad, devastating hundreds of small towns and communities. This movement was initially motivated by the availability of low-cost labor in foreign locations. In the subsequent decades, firms began offshoring, not just manufacturing, but information technology and even research and development (R&D). Customers benefited from lower prices, and the companies benefitted by achieving higher profit margins. So, why is the pendulum swinging back in the opposite direction now? Why are companies attempting to reshore after decades of offshoring? In this article, we explain the reasons behind the recent sudden surge in reshoring. We also offer specific strategies and suggestions for firms to utilize when considering reshoring.

OFFSHORING TO RESHORING

The mass exodus of manufacturing jobs from the United States has attracted plenty of public attention. Offshoring factories and warehouse sites to other countries looked to be the future of manufacturing until the pendulum slowly began to swing in the opposite direction. The trend of reversing previous offshoring decisions is most commonly referred to as 'reshoring' which is defined as, "...the process through which a transnational corporation relocates all or part of valuable activities conducted abroad to the home country of the transnational corporation".[3] The trend toward reshoring first began about fifteen years ago when a 'perfect storm' of factors contributed to its rise. The economic downturn, a greater emphasis on sustainability, and the drive for flexibility and improved cost performance, drove firms to reconsider the appropriate 'shoring' decision.[4] Reshoring gained momentum as a viable alternative to offshoring after the economic recession in 2008 which led many companies to re-evaluate their global supply chains.

The 2019 European Reshoring Monitor reported over 250 high-profile reshoring cases in the previous four years including Apple, General Electric, NCR, Ford, and Zentech, bringing over 1,312,000 jobs back into the US.[5] In a recent report from Deloitte, around 62% of manufacturers surveyed were actively engaging in reshoring or nearshoring.[6] In 2022, firms were on pace to reshore almost 350,000 jobs, representing a 25% increase year over year.[6]

Looking back, we can see two distinct waves of offshoring and outsourcing. The first wave of offshoring firms represents early adopters who saw opportunities in other countries and sought competitive advantage. The primary reason for offshoring was the search for lower labor costs and lower taxes. While the initial wave of companies who moved production offshore

might have seen multiple cost benefits by doing so, the second wave of offshoring was most likely due to bandwagon effects.[7] Companies in the second wave, however, encountered diminishing returns from offshoring. Firms found that many of their rival companies' products were also made in the same or adjacent factories which meant cost parity at best, but no competitive advantage. Worse, increasing labor demand in many of these countries led to higher labor costs. For example, annual wage rates in China which averaged $1,127 in 2000 increased to $5,471 by 2010 and increased even further in 2020 to $14,343 in many provinces.[3,8] This increase in labor costs erased China's labor cost advantage which has caused many companies to simply relocate back home to where they might have existing infrastructure. Unlike the offshoring decision which was primarily centered around creating a competitive advantage based on lowering costs, reshoring has several different motivations. This new trend is shifting the pendulum away from a focus on low-cost and low-quality products, to higher-cost, higher-quality product offerings.

Different Types of Shoring Decisions

Where to locate an activity is an important strategic decision for most firms. There are several choices available to firms and the final decision is ultimately based on a variety of strategic considerations. Firms can engage in offshoring, onshoring, backshoring, and reshoring. We will start by explaining these different types of shoring decisions in more detail.

Offshoring describes a firm locating one or more functions of its business outside of the national boundaries of its home country. It may involve shutting down specific activities at home and moving them abroad. In recent years, it has also involved decisions to locate activities abroad even though they could have been performed at home. In this case, it still constitutes offshoring although there is no actual relocation of an activity because it was never performed at home to begin with. In many cases, when an activity is offshored, the firm may still be performing the activity in-house. That is, they open a facility abroad, hire employees and perform the activities that they previously carried out in the home country. But in many cases, offshoring may also involve outsourcing. That is, the company relinquishes the activity to a foreign vendor so that the activity is now performed outside the firm as well as outside the country. Figure 2 provides a summary of the strategic choices for outsourcing and offshoring.

Figure 1. Outsourcing and Offshoring Trajectories

Many firms have engaged in a practice called **nearshoring** in recent years.[9] Nearshoring is when a company decides to relocate its offshore manufacturing activities to a neighboring country adjacent to its home country.[9] For US firms, Mexico has been a preferred location for nearshoring due to its proximity and lower labor costs.[10] Labor costs in Mexico are now 20% lower than in China due to significantly steadier wages, increased worker productivity, beneficial trade agreements, exchange rates, energy costs, and greater training and infrastructure.[11]

Another term used in the context of shoring decisions is **on-shoring**. On-shoring specifically relates to a firm's decision to locate manufacturing activities closer to market demand .[9] If a US firm is producing in Brazil to meet Brazilian market demand it can be called on-shoring. If a US company is producing in the US to satisfy domestic demand, that is also on-shoring. If, on the other hand, a US company is producing in China to satisfy US demand, it is offshoring. If a US company is producing in Mexico to satisfy US demand it is nearshoring. And finally, if a US company is relocating production back to the US after it was previously offshored, that is reshoring. The focus of our paper is mainly on reshoring while acknowledging other types of shoring decisions.

Reshoring can be considered the exact opposite of offshoring. Ellram defined it as, "moving manufacturing back to the country of its parent company."[12] It is important to clarify that reshoring relates only to the location of an activity rather than who performs that activity. Therefore, irrespective of whether the activity is performed in-house, or is outsourced to an independent supplier, as long as it is being brought back home, it can still be considered reshoring.[9]

Second, reshoring is not an "all-or-nothing" decision.[9] That is, a firm does not have to necessarily relocate all of their manufacturing activities back to the home country to be considered as having reshored. Reshoring can be either partial or full. That is, part of an activity can be brought back to the home country and the firm does not have to necessarily shut down or divest its foreign facilities.

A final definitional issue is whether it is necessary that the activity was previously performed in the home country. The previous offshoring decision may or may not have involved moving production from the home country to a foreign country. The decision may have been to offshore right from the beginning. If all or part of an offshored activity is being brought to the home country, it can be considered reshoring.[13] 'Back shoring' is a term that is often used interchangeably with reshoring.

Why Reshore?

After nearly four decades of frenzied offshoring, many US firms are now having second thoughts. The obvious question is why? To understand why firms are deciding to reshore, we have to first understand the primary motivations that led them to offshore and then examine whether these reasons still hold good after four decades.

The dominant motivation for offshoring and outsourcing has been cost savings, primarily labor costs. They either shifted production to company-owned facilities or external vendors through contractual arrangements. It is estimated that between 1977 and 1999 alone, MNEs reduced their U.S. manufacturing jobs by over 3 million using offshored production.[14] Another major motivation for locating production abroad was the desire to be close to certain emerging markets. As income levels started increasing around the world beginning in the 1980s, it unleashed enormous purchasing power in developing countries such as India, China, Indonesia, and Latin America.[15] It made little economic sense to produce in high-cost locations like the United States and then export to these countries. Locating production in these places enabled the MNEs to keep their prices at a level that customers in these countries could afford.

Offshoring has also been driven in recent years by the search for highly specialized pools of human talent. For example, most software firms such as Google and Microsoft have large operations in India due to the relatively easy availability of highly skilled software professionals within the country. Other reasons for offshoring include efforts to acquire strategic resources, gain location advantages, and seek favorable political environments.[16] The incentives offered by various foreign governments to locate operations in their countries were also an important factor in many cases. Beyond these substantive reasons, there were also bandwagon effects at play. A bandwagon effect occurs when firms follow one another in their strategies because they fear that not doing so might cause them to miss out on opportunities to create a competitive advantage.[17]

The combined result of the pursuit of cost advantage, the need to locate production close to certain markets, access to specialized pools of technical

expertise, and the bandwagon effect, was a mass exodus of both production and service activities to foreign locations. Not only the MNEs, but domestic consumers also benefited from lower prices and abundant availability of consumer goods. Despite all these advantages, many MNEs are now rethinking their shoring strategies because of two broad sets of factors: changes in economic and political conditions and a growing recognition of the hidden costs of offshoring.[15]

Economic and political changes

Nationalist sentiments are on the rise everywhere. There has been a growing consumer sentiment against offshore production in many parts of the world. Examples like the "Make America Great Again" campaign in the US, the "Make in India" campaign in India, and Brexit in Europe, show the increasing stridency of economic nationalism. Companies are careful not to alienate their domestic stakeholders and many firms have responded by announcing decisions to bring manufacturing back home. Growing economic nationalist sentiments are compounded by the well-documented "country-of-origin" effect in marketing. Products made in low-labor cost countries are often perceived as "cheap" or "low quality" irrespective of their actual performance attributes.

Governments are incentivizing firms to return home. Given that the US is the country that saw the heaviest migration of manufacturing jobs to other countries, it is not surprising that it has launched several initiatives aimed at bringing back these jobs. The Inflation Reduction Act and CHIPS Act put forth a set of provisions aimed at increasing the reshoring of manufacturing activities which included tax deductions, credits, and other financial incentives for products made in the United States, Canada, or Mexico.[10] Furthermore, the Biden-Harris executive order 14017 led to a comprehensive review of supply chains and manufacturing while establishing the very first Supply Chain Disruptions Task Force.[18] Taken together, these represent an increasing desire to stem the outward flow of manufacturing jobs and incentivize firms to reshore some of their foreign operations. Many state governments are also offering grants, tax abatements, and a variety of other monetary and non-monetary incentives to firms in hopes of luring them to develop manufacturing activities in their states.

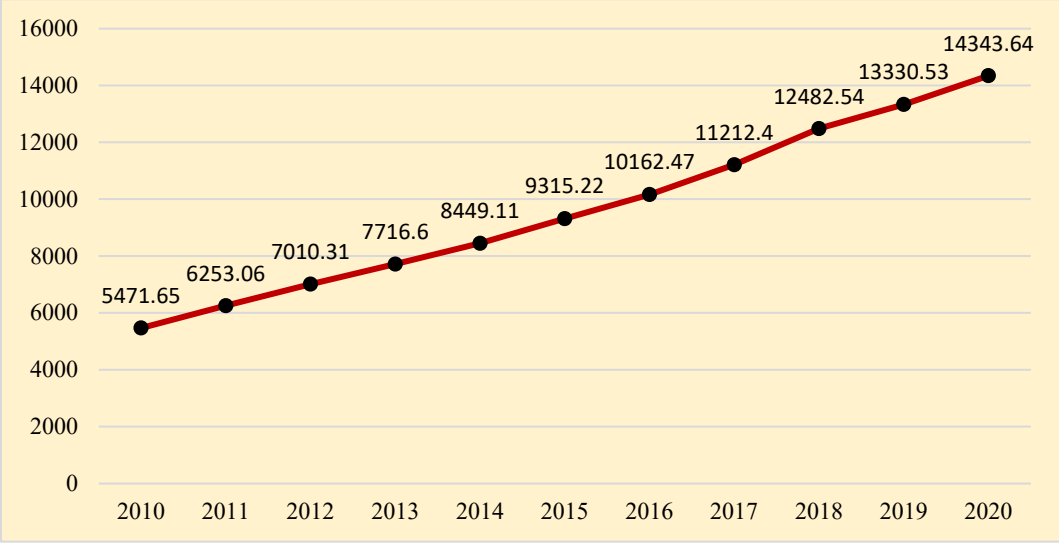
Geopolitical uncertainties have made offshoring less attractive. Many recent events have made companies question the wisdom of offshoring. The supply chain disruptions that arose during the COVID-19 pandemic as well as the Russian invasion of Ukraine have wreaked havoc on

the production plans of many firms and industries.[19] One of the most severely hit was the auto industry which had to curtail production due to a shortage of semiconductor chips. The severe backups in ports like Los Angeles made the availability of much-needed components and finished goods highly uncertain. In a world of increasing uncertainties, it seems prudent to have production facilities located close to home even if it might cause modest increases in costs.

Cost considerations

Labor cost advantages are diminishing. The most compelling motivation for companies to shift production abroad was the allure of lower labor costs, but labor cost savings are a transitory advantage. For instance, the annual wage of Chinese workers was only around $1,004 in 1978, a mere 3% of the average annual wage in the United States.[20] In the following years, as more western companies shifted production to China, the resulting demand for labor led to exponentially increasing labor costs. The average annual wage of workers in urban cities in China was $15,188 in 2020, representing a 7.6% increase from the previous year.[21] Compared to 2000, the average annual wage rate in China among urban workers increased 13.48 times from $1127 to $15,188 by 2020.[21] Figure 2 shows the accelerating wage growth in China.

Figure 2. Average Annual Compensation in China (In US Dollars)



Adapted from Statista.[9]

In a development that could not have been anticipated even a few years ago, many labor-intensive industries are now fleeing from China to other countries seeking labor cost advantage once again. For example, electronic assembly is increasingly shifting to Vietnam and the garment industry to Bangladesh because China is no longer attractive from a labor cost perspective. Mexico's labor costs in the manufacturing sector are now lower than that of China. Manufacturing labor costs per hour in China increased from $5.78 to $6.50 (72 cents) between 2019 and 2020 while Mexico only increased from $4.66 to $4.82 (16 cents).[22]

Manufacturing is increasingly automated. Manufacturing was once extremely labor intensive and even today in our mind it evokes images of thousands of workers on an assembly line performing mind-numbingly repetitive tasks for low wages. Increasingly, most manufacturing tasks are done by robots that can be programmed to perform complex and repetitive tasks with near-perfect precision and accuracy. Advances in technologies such as sensors, machine-to-machine communication, data analytics, artificial intelligence, 3D printing, and robotics, are transforming manufacturing, reducing the need for human labor in production. Such skills required to be a productive worker are more difficult to find in low-labor-cost countries.

Hidden costs of offshoring

Although there are many advantages to offshoring, it also comes with many drawbacks. Managers often fail to estimate the entire range of costs associated with offshoring functions of their business. In general, it has been found that: (1) "the more complex the offshoring process is, the more that cost-estimate errors will occur, (2) design orientation and experience negatively moderate the extent of cost-estimation error, and (3) task-related and transaction-related factors drive the hidden costs of offshore outsourcing."[23] We explain below many of the hidden costs of outsourcing.

Low wage rates do not always mean actual lower labor costs. A comparison of labor costs across countries may be misleading because it does not take into consideration labor productivity. Labor productivity is a function of two things: individual skill level and the use of productivity-enhancing tools. If labor cost is half of the domestic cost in a country, but labor productivity is also half, there is no net labor cost gain. Therefore, instead of looking at labor costs, what is more important is to look at labor costs adjusted for productivity.

Labor cost is only a small part of the final price. On the surface, it might seem that there is still a huge gap between China and the US and hence offshoring should continue to be attractive, but actual labor cost savings is a function of the labor content in a product. For example, an athletic shoe that retails for $100 in the US may have a production cost of only $20. Of this, if we assume that $8 is the actual labor cost, a 60% saving in labor cost is actually only a $5 savings on a $100 product. Once you consider the additional shipping and other logistics costs, the savings are not significant. Generac Power Systems, an energy technology company, offshored its alternator manufacturing to China to take advantage of low labor costs. The company believed that offshoring it could save them $100 per alternator.[24] Over time, that $100 gap began to narrow as labor costs and shipping costs began to increase rapidly so the company decided to reshore to their dormant manufacturing facility in Whitewater, Wisconsin. With the new advanced manufacturing equipment in place, Generac can produce an alternator with just one worker in the time it took four workers in their previous manufacturing facility in China.[24]

Shipping costs and tariffs add to the total cost. Shipping a component or product produced abroad to the home country involves additional transportation costs that could have been avoided if the production was home-based. Shipping costs have been extremely volatile recently. Shipping a standard container in March of 2022 cost around $8,200, representing a six-fold increase over pre-pandemic costs. Shipping costs have continued to rise and hit a peak of $10,400 in September 2021.[25] In addition, due to bottlenecks at many major ports delivery times increased significantly. The need to establish "safety stock" that could be provided at distribution centers to better serve their customers can also add to the costs. In addition, the home government can arbitrarily impose tariffs to discourage imports or because of deteriorating relationships between the home and the foreign country.

Response time is increasingly critical in today's competition. In a world of ever-changing customer preferences and expectations, response time is of critical importance. If you cannot give your customers what they want when they want it, your competition likely will. Coordinating with foreign vendors or foreign facilities to change the specifications of a product is a time-consuming process. More importantly, as we have seen in the case of products from cell phones to computer chips, a pre-condition for competitive advantage is a firm's ability to cope with the fast pace of obsolescence of their products and to design and introduce new iterations.

Cycle time will inevitably slow down when it involves coordination across geographically dispersed facilities.

Layoff and ramp-up costs can be significant. A decision to offshore production is based on a comparison of variable costs per unit of output. Such an approach ignores two significant one-time costs associated with the decision to offshore. First, if the decision is to discontinue production at home, the firm will incur the costs of laying off workers and closing the domestic facility. Second, setting up operations abroad also involves significant upfront costs of scouting locations, building new facilities, hiring workers, and the cost of expatriate employees. Even if offshoring is done through outsourcing to a vendor in a foreign country, there are costs associated with selecting a foreign vendor, drawing up a contract, and managing it.

Coordination costs are often underestimated. Offshoring, regardless of whether the activity is performed by the firm or a foreign vendor, leads to a substantial increase in coordination costs. The costs of coordination increase in direct proportion to the complexity of the tasks. That is, outsourcing a million T-shirts to a foreign vendor has low coordination costs compared to outsourcing a complex software project. The problem of coordination is compounded by differences in time zones and communication. A great deal of information gets lost in translation requiring additional travel by executives from the home country and the need for detailed documentation. Given the differences in legal systems and the difficulty in enforcing the provisions of the contract, additional legal costs are also inevitable.

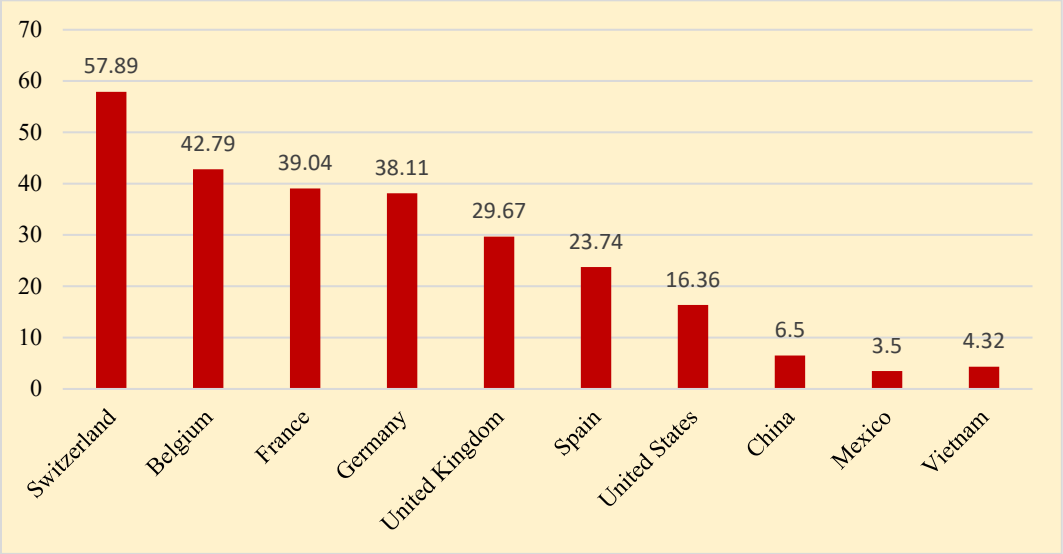
Supply chain breakdowns can bring production to a halt. The supply chain problems of 2021-22 have been a wake-up call for many companies who had dispersed their value chains in search of cost advantages. Bottlenecks in any stage of the value chain immediately led to problems throughout the chain. These bottlenecks led many companies to halt production as in the case of the US auto industry. Firms like Wal-Mart ended up chartering their own ships to ensure supply. The supply chain problems made many companies rethink their just-in-time inventory strategies and realize that buffer inventories may be necessary to deal with supply chain disruptions which inevitably led to higher unanticipated costs. For example, DiaSorin, an Italian biotechnology company, is currently in the process of moving part of its production back to Italy to have a safety net in case of future disruptions.[26]

Foreign incentives will not last forever. Governments routinely offer a variety of incentives to foreign firms to locate in their country. These include tax holidays, subsidies, and the provision of inputs like land, water, and electricity, at nominal prices.[27] Many firms engage in months of bargaining with foreign governments to secure comprehensive incentive packages before they relocate production. This, however, is vulnerable to a phenomenon called "obsolescing bargain." That is, once a firm has relocated, it has no additional bargaining power. Even if the rules do not change, these incentives eventually expire, and costs will escalate.

Intellectual property may be lost. In today's knowledge economy, the most vital assets of a firm are its knowledge assets. Offshoring greatly increases the risk of theft of intellectual property or its accidental leakage. In 2022, a report indicated that a Chinese state actor had infiltrated 30 multinational firms and taken over several hundred billion dollars in intellectual property.[28] The Organization for Economic Co-operation and Development (OECD) estimates that China alone is responsible for over a half trillion dollars each year of intellectual property theft.[29] The Special 301 Report, An annual project created by the Office of the U.S. Trade Representatives (USTR) shows countries like China, India, Mexico, Russia, and Indonesia as being among the worst offenders for intellectual property theft.[30] The risk of loss of intellectual property is even higher when a firm outsources manufacturing to a contractor in a foreign location with weak intellectual property laws.

Labor cost advantages seldom lead to lasting competitive advantage. Although cost considerations are important in developing a company's strategy, lasting competitive advantage is rarely built on labor cost advantage alone. The very fact that almost all the leading Japanese and European auto manufacturers have set up assembly plants in the US in the last twenty years suggests that they have not found US labor costs to be a major hurdle. Contrary to the popular notion that US labor costs are prohibitively high, there are many countries with much higher labor costs than the US as shown in Figure 3. Plenty of firms from such countries have built strong competitive positions despite their labor cost handicap. Low labor costs or favorable exchange rates may give a firm a fleeting advantage, but strong competitive positions and world leadership require the development of cutting-edge technologies and innovative business models.

Figure 3. Average Hourly Labor Cost in 2020



All data was converted from Euros to USD. Adapted from Statista.[41,42]

Separating R&D from manufacturing may cause competitive decline. A common pattern followed by many US firms is to do research and development in the home country while offshoring manufacturing. On the surface, this may seem like an optimal division of labor given the availability of R&D talent in the US and the low labor costs abroad. Research, however, indicates that such a separation actually makes continuous improvements and refinements of the product difficult.[31] For example, a company that is shipping a product with design flaws may continue to do so for a longer period of time before a change from R&D can be properly implemented to fix the problem. Spatial separation of R&D from manufacturing freezes the product depriving it of the possibility of continuous improvement that results from the constant interaction of different functional areas.

Communication and knowledge transfer barriers limit the benefits of offshoring. Companies that decide to pursue offshoring often do not fully anticipate subsequent issues with communication barriers and effective knowledge transfer. While codified knowledge is easier to transfer, the most important types of knowledge are often tacit. Transferring tacit knowledge to new locations presents many challenges. This leads to increased transaction costs and slower production as firms try to assimilate into the manufacturing country's culture, customs, and language while still maintaining production. These communication issues are compounded by

differences in time zones, governmental restrictions on data transfer, and other problems.

Reshoring Strategies: Some Recommendations

Just as offshoring was very often a frenzy in which firms imitated each other in a process of collective migration in search of cost savings, a massive re-migration is also not a viable strategy. The US is already experiencing labor shortages and there is not a vast army of unemployed waiting to be hired into manufacturing jobs. Modern manufacturing requires advanced skills that most high school graduates do not possess. Reshoring decisions must be based on a careful evaluation of long-term competitive and strategic considerations. Reshoring motivated solely by economic nationalism goes against every tenet of economic theory and can only lead to economic distortions and inefficiency. So, what are managers to do? We offer a few suggestions for managers to consider while they are making shoring decisions.

Location advantage is more important than cost advantage

Location decisions are essentially a balancing act between controlling costs and leveraging the capabilities of the location.[32] Location advantages are an integral part of internationalization decisions. Cost advantage may be one of the location advantages but not necessarily the most important advantage. Location advantages include resource-seeking, marketing-seeking, efficiency-seeking, and strategic asset-seeking advantage. Resource-seeking advantage concerns a firm's ability to possess certain resources only available in certain regions. Market-seeking advantage concerns exploiting the availability of local labor, suppliers, access to domestic markets, and government regulations/trade policies that might affect the cost advantage of manufacturing at a certain foreign location. Efficiency-seeking advantage is when a firm makes a location decision based on cost-related factors. Lastly, strategic asset-seeking advantage considers the location of the firm's customer base, gaining localized tacit knowledge. Thus, location decisions should be ultimately based on a careful evaluation of all location advantage considerations. If such an evaluation shows that reshoring may be advantageous for a firm despite potentially higher costs, then a firm should pursue reshoring. Recent research suggests that firms are increasingly moving toward strategic asset-seeking instead of focusing only on cost.[33]

BMW: Overcoming Skilled Labor Shortages

One of the most prevalent challenges organizations that reshore often face is a shortage of skilled workers. For instance, consider the durable goods manufacturing industry which faces a large labor shortage. According to the United States Chamber of Commerce, even if every experienced unemployed individual within that industry were suddenly employed once again, the industry would still have a labor shortage of 35%.[38] access to skilled domestic technicians may hinder relocation efforts unless a plan is in place to train new workers. This is not only applicable to the durable goods manufacturing industry either. In fact, the entire manufacturing industry lost approximately 1.4 million jobs at the beginning of the pandemic. What can reshoring organizations do to help solve the skilled labor shortage in their industry?

According to an article by the University of South Carolina, Bayerische Motoren Werke GmbH (BMW) as of 2014, had facilities at 29 different locations in 14 countries.[39] When deciding to move BMW X model manufacturing to two production sites in North and South Carolina, they quickly realized the lack of skilled labor available. This did not stop them from constructing the largest production site of the company's portfolio in Greer, South Carolina, and another in nearby Spartanburg, North Carolina. Today, Spartanburg now assembles all BMW X models. BMW successfully overcame the skilled labor shortage by working with local schools to develop programs to train high school seniors to develop the advanced skills necessary for automobile assembly. BMW also started leadership training programs with local colleges and universities and invested over 12 billion dollars in the project. The investment in the local community has paid off for BMW and they now produce over 5 million cars from these production sites and have created over 11,000 jobs for the region in which they operate.[39]

Be adaptable

Despite pronouncements about the death of distance and the flatness of the world, significant differences still exist among countries in terms of political systems, economic development, culture, and administrative practices. Economic and political conditions within countries are always in a state of change and relationships among countries remain unpredictable. No location is ideal forever. Cost conditions, taxes, tariffs, and trade relationships among countries change in unpredictable ways. The lesson to be learned from these economic and geopolitical uncertainties is that firms need to be highly flexible concerning the spatial configuration of their value chain activities. In a dispersed value chain, a vulnerability in any location can have cascading effects on the rest of the firm. Building flexibility and resilience into the value chain is therefore critical. For example, consider Toyota, the pioneer of just-in-time manufacturing, which was a source of

significant advantage, experienced serious disruptions in their production as a result of a catastrophic earthquake and tsunami in 2011.[36] Shoring decisions, including reshoring, must be made with long-term flexibility and resilience in mind.

Focus on the true sources of competitive advantage

True competitive advantage is rarely built based on cost savings. This does not mean that cost is unimportant or irrelevant. Every manager understands that costs must be contained. Successful companies such as Apple and Nike became world leaders in their product categories by inducing greater willingness to pay on the part of their customers. Of course, both companies have outsourced production to low-cost countries. Such outsourced and offshored production enhances their margins, but their competitive success is built on unique products for which customers are willing to pay a premium price.

Consider all costs, not just labor costs.

Decisions to offshore based on labor cost, which is only one component of variable cost, ignore several hidden costs that could make the benefits from offshoring considerably less than anticipated. Total costs include the costs of shipping, cost increases due to fluctuating currencies, and other factors that go beyond the manufacturing process. Other hidden costs include midnight phone calls, delivery delays, IP leakage, communication challenges, travel, and other unforeseen costs. It is equally important to be prepared for gradually increasing costs because as more foreign companies move to a low-cost location, costs associated with labor, real estate, and other services tend to increase over time. The firm may find it difficult to maintain the same quality standards. Sentiments towards a foreign country can change leading to customers avoiding products manufactured in a specific country. Therefore, before considering offshoring or any shoring decision, managers would be wise to consider not only the manufacturing costs but also realistically determine total costs including hidden costs.

Strive towards 'right' shoring

To frame the location decision as one between offshoring and reshoring is, in itself, a false dichotomy. Instead of asking whether a firm should offshore or reshore, we should be asking how can a firm right shore? Jumping into the reshoring bandwagon today can be just as bad a decision as offshoring was two decades ago. Dispersion of the value chain to benefit from location advantages and subsequent coordination of these dispersed activities are key to competitive success. For instance, an electronics

company may find it beneficial to offshore their motherboard creation, and nearshore their sound and video card production, while simultaneously reshoring their specialized processor chip manufacturing and design implementation processes.

Conclusion

Over the last forty years, many of the factory jobs that once represented a prominent sector of the American economy disappeared as companies migrated to China, Taiwan, Mexico, and other countries. In recent times, we have seen a reversal of this trend with many of the world's largest firms beginning to reshore their manufacturing operations. Like the swing of a pendulum, organizations have gone from offshore to reshore to take evasive action against rising costs and gain an edge against the competition with a myriad of new growth opportunities. The shoring decision is a difficult one for firms because it involves long-term irreversible resource commitments. As companies begin the process of returning home to manufacture, such decisions must be taken with a full understanding of not only cost but also other equally important strategic implications

Authors

Spencer Fraseur is a Strategic Management Ph.D. candidate at the College of Business at the University of Texas at Arlington. He obtained his undergraduate degree and MBA from Florida State University in 2020. His areas of research include reshoring and offshoring, firm reputation, legitimacy, international business, and leadership. He has presented his research at various national and international conferences including the annual conferences of the Strategic Management Society, Academy of Management, and the European Group of Organizational Sciences.
email: spencer.fraseur@uta.edu

Abdul A. Rasheed is Eunice and James L. West Distinguished Professor of Strategic Management and International Business at the University of Texas at Arlington. He obtained his PhD from the University of Pittsburgh in 1988 and his MBA from the Indian Institute of Management, Calcutta in 1981. His areas of research interest include international comparisons in strategy and governance, corporate restructuring, and implications of capital market integration for strategy. Dr. Rasheed's research has appeared in journals such as Academy of Management Review, Strategic Management Journal, Journal of Management, Journal of International Business Studies, Journal of Management Studies, Strategic Organization, Journal of International Management, Academy of Management Executive, and Corporate Governance: An International Review. He has taught at Nanyang Technological University, Tongji University, and the Beijing University of Science and Technology. He serves on the editorial boards of several journals

including Journal of Management Studies and Group & Organization Management.
email: abdul@uta.edu

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