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Gaining Flexibility by Rethinking Offshore Outsourcing for Managing Complexity and Disruption †

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Abstract: The challenges confronting management in making decisions on offshore outsourcing have inevitably changed dramatically over the last decade. Offshore outsourcing today is characterized by a higher level of complexity and disruption brought about mainly factors of change, as: (1) the new waves of globalization; (2) the rapidly shifting conditions in the marketplace, which have made offshoring a vital part of global strategies, leading the way to new business models; (3) the increasing variety of models in the global supply chain; (4) the inroads of previous providers that have emerged as world-class competitors; and (5) the irresistible march of technological disruption. Threatening events, as terrorist attacks and wars, had disrupted the world economy since the 2000s. In these cases, supply chains were disrupted although soon restored. After these critical events, globalization was severely weakened by the arrival of the COVID-19 pandemic, on the threshold of 2020, and Russia's invasion of Ukraine dealt a blow to global supply chains, by 2022. Due to these complexities, the trend to outsource production to other countries might increasingly push companies to transform themselves into virtual organizations. Outsourcing strategies could therefore evolve moving towards a digital era.

Keywords: digital technologies; flexibility; innovation; offshore outsourcing; supply chain

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1. Introduction

In the globalized economy, multinational companies have led to the emergence in many countries of local enterprises capable of producing at low costs and at an acceptable level of quality. They are entrusted with all kinds of production and processing by an increasing number of companies that, with these decisions, not only reduce their production costs but also streamline their organizational structure.

In recent years, outsourcing strategies have undergone a profound evolution from simple forms of production contracts entrusted to third parties to arrangements encompassing more strategically relevant functions: from technological innovation to logistics, from customer relations to after-sales services.

The decision to outsource is not limited to production of modest technological and marginal content, but is increasingly extended to activities that-requiring 'core competencies', or being part of the 'core business' were considered inseparable from the company and not outsourceable [1–3].

In the course of this evolution, outsourcing has shifted the center of gravity from a 'tactical' choice-tending to have production outsourced in order to reduce production costs-to a 'strategic' choice, to redefine the very boundaries of the enterprise.

Quinn and Hilmer [1] have stated that management have to consider two strategic processes: (1) concentrating the own resources on the distinct and inimitable core capacities that generate value for the customer; (2) entrusting to third parties the activities considered non-core and for which the company has no special competencies. The concept of core competence was introduced into the economic literature by Prahalad and Hamel in 1990 [2], giving rise to many other definitions.

The initial interest in outsourcing rapidly gave way to serious concerns. The threat that cheap jobs in China, India and other countries pose to employment in more advanced economies has been a central theme in economic policy choices and election campaigns in recent years [4].

Larger supplier companies have moved out of the borders of their countries and into those of their customers in order to provide the best mix of cost, risk and quality. While companies from Western countries moved their production to India, Indian companies invested in Western countries.

Proximity, both geographically and culturally, is important to build customer relationships, to provide certain types of services and to give guarantees regarding data security and confidentiality.

The outsourcing sector is also gradually moving towards maturity. This suggests that the flow of jobs from rich to poor countries may be slowing down [4].

After a strong development in the 1990s and early 2000s, outsourcing has started to show signs of slowing down (measured in terms of number of contracts). As the development trend slowed down, the margins for supplier companies also began to fall.

Nowadays, global markets are subject to intense phenomena, which are sometimes even difficult to predict. Offshore outsourcing is characterized by a higher level of complexity and disruption caused mainly by change factors such as: (1) the new waves of globalization; (2) the rapidly shifting conditions in the marketplace, which have made offshoring a vital part of global strategies, leading the way to new business models; (3) the increasing variety of models in the global supply chain; (4) the inroads of previous providers that have emerged as world-class competitors; and (5) the irresistible march of technological disruption.

Threatening events, as terrorist attacks and wars, had disrupted the world economy since the 2000s. In these cases, supply chains were disrupted although soon restored. After these critical events, globalization was severely weakened by the arrival of the COVID-19 pandemic, on the threshold of 2020, and Russia's invasion of Ukraine dealt a blow to global supply chains, by 2022.

2. The Main Drivers of Change

Offshore outsourcing today is characterized by a higher level of complexity and disruption brought about mainly factors of change, as: (1) the new waves of globalization; (2) the rapidly shifting conditions in the marketplace, which have made offshoring a vital part of global strategies, leading the way to new business models; (3) the increasing variety of models in the global supply chain; (4) the inroads of previous providers that have emerged as world-class competitors; and (5) the irresistible march of technological disruption.

(1) Since their inception, the forces of globalization have pushed companies to develop new capabilities to enter international markets. The rules for competition have changed. Competing globally requires supply chains that seek the most efficient sources of supply, which means developing more complex supply chains, adapting to larger operational scales, and establishing relationships with more providers covering more functions and processes, and in more countries.

In recent times, an abrupt change in the degree of internalization of production and in the scope of offshore transactions has led to what we define as "the new waves of globalization". Leading Western economies are seeking alternative models. Three main consequences for offshore outsourcing have resulted from these changes: (1) an increase in the number of "participants" in international trade, and thus in the demand for products and services and in their supply; i.e., low-wage countries are now able to produce high-quality manufactured goods; (2) a revival of protectionism in Western countries; and (3) an "unbeatable" uncertainty that is forcing outsourcers to frequently revise their offshoring strategies. These and other consequences force firms to often restructure the supply chain.

(2) The recent wave of changes in the economic, technological and regulatory environment worldwide, as well as shifts in corporate thinking and digital disruption, have

made offshoring a vital part of any search for sustainable competitive advantage, and consequently for global strategies. Being competitive on a global scale has become increasingly important in most industries. Companies are exploring alternative ways that can raise the level of efficiency in the use of resources at all stages of the value chain, from R&D to production, logistics, sales and marketing. This move is leading the way to new business models, on the one hand by reducing costs, thereby improving profitability, and on the other by reducing the investment needs of outsourcers to increase shareholder value. Constantly reviewing core competencies is the basic premise for defining activities that a firm should retain for competitive advantage. The "core" is a shifting target, as competition changes and new technologies emerge, new activities become the core, and other activities that do not add competitive value are shifted to other organizations that can perform them better, faster, cheaper, or at least as efficiently.

(3) The complexity of business functions being moved offshore has increased the range of possible relations between the lead firms and their suppliers. As a consequence, organizations using the offshore approach have developed a variety of models to manage the relationships with their providers and to build international networks of production. We distinguish between the type of outsourcing agreement and the way in which the firm manages the supply chain by means of the distribution of value added and the sharing of technology along the various phases. As for the type of agreement with foreign vendors or with allied partners, solutions are far from being homogeneous. The characteristics of providers exert a profound effect as well: size, experience, skills, financial resources and organization. By managing the share of value added and of technology assigned to the various elements in the supply chain, outsourcers have strengthened their power asymmetry, thereby achieving the opportunity to pursue different strategies in their relationships with providers.

(4) Over the past two decades, some 'old' suppliers have become leaders in their industry. They are now able to compete with traditional multinationals on the same level and they have the advantage to produce in low-cost countries. Their entrance into the outsourcing arena has forced many players to restructure the organization of the global supply chain.

(5) In recent years, technology has profoundly impacted offshoring decisions as well as their implementation. There are no obstacles to the disruption of the previous equilibria. Modern methods have continued to uproot traditional practices, with many supply chains facing challenging times, necessitating in many instances a reorganization of the supplier network. Digital technologies are reshaping supply chains. The Internet of Things is set to transform the supply chain of many industries, from transport to manufacturing, banking to retailing. Acquiring digital skills has become a must for those firms that want to be competitive and in the vanguard in the near future. In this challenging and crowded market, new competitors are emerging all the time. New technologies can suddenly make room for new competitors from other industries, competitors who are often cash-rich and looking for new investments (i.e., Apple and Google in driverless cars). In such a context, flexibility is more important than ever for companies. An important reason for lead firms to establish a global supply chain is the flexibility this provides in allowing for rapid adjustments to changes in market demand and, to a greater extent, a shift in the risk to supplier firms from possible declines in demand and excessive inventory.

3. The Recent Tensions on Globalization and the Effects of COVID-19

The supply chain has been at the center of globalization over the past two decades. However, there has been no shortage of stresses on globalization, such as the financial crisis of 2007–2009, the slowdown in global economic growth, uncertainties about the future, Brexit, and the trade wars between the US and China.

On the threshold of 2020, with the arrival of the COVID-19 pandemic, globalization has been considerably weakened. Previously, many threatening events had occurred, from the 9/11 terrorist attack to the SARS-CoV-1 virus and the tsunami in Japan. However, the consequences of these events had only affected the affected geographical areas to a limited extent. Supply chains had been disrupted, but nevertheless restored within a short time.

The consequences caused by COVID-19 were traumatic and in this case the shock affected the entire global supply chain. Major economies went into recession within a few months and the effects are likely to remain in the economy and society for a long time.

The pandemic caused the largest and fastest decline in international flows in modern history [5], even giving some governments the excuse to withdraw from multilateral and free trade agreements.

The management strategies of companies with supply chains located in different countries, and far away from the market of origin, have been very complex and debated. The pandemic has reduced demand for many products in end markets. The need to provide flexibility and resilience to supply chains has forced companies to sacrifice short-term profit margins [6].

However, it is widely believed that globalization can contribute strongly to growth. Indeed, countries with higher scores on the DHL Global Connectedness Index tend to experience faster economic growth.

4. The Effects of Ukraine War on Globalization

Even after the COVID-19 pandemic, big companies showed less interest in true globalization. Non-economic facts, such as activist pressure against sourcing from countries known for human rights violations, further contributed to this trend. After two years of pandemic, Western governments were grappling with rising energy prices that threatened to slow economic recovery.

Russia's invasion of Ukraine in late February 2022 began to disrupt supply chains and the export of critical raw materials, from food and mining to car and aircraft production.

Energy prices increased precipitously and thereby inflation as well. "From crude oil to diesel to natural gas, the fossil fuels that power the global economy are trading at or towards record levels, threatening to redraw geopolitical relations between producers and consumers, drive up inflation and potentially even disrupt the fight against climate change" [7].

The war in Ukraine seems even to have debilitated the economy's ability to overcome its difficulties and regain its balance towards development, which it had previously demonstrated.

The globalization of supply chains has been weakened by the collision between the world's largest economies, on the one hand, and their major raw material suppliers, on the other.

It is widely deemed that the long-term impact will be to accelerate the division of the world into economic blocs and Russia will move towards trade and financial ties with China. "The invasion of Ukraine might not cause a global economic crisis today but it will change how the world economy operates for decades to come" [8].

5. The Evolution of Offshore Outsourcing towards Greater Flexibility for Managing Complexities and Disruptions

Globalization has driven the dispersion of markets. The reaction of companies has been to distribute core assets and create clusters of skills around the world. In this perspective, *"the innovative firm of the future will restructure each individual cell, the basic building block of the firm consisting of an occupation devoted to a product, and redeploy and relocate them globally, where it is most advantageous"* [9].

As early as 2000, Quinn remarked that: "Strategically outsourcing innovation–using the most current technologies an management techniques–can put a company in a sustainable leadership position [10].

It is widely recognized that many companies have difficulty to inject flexibility into the global value chain in the short term because they are anchored to old tools and unable to adapt to a changing environment. "The growing trend towards globalization and outsourcing is in fact leading many industries to outsource important parts of their business to suppliers often located in developing countries" [11].

Technological progress in the last two decades has strongly impacted offshoring decisions and implementation. As novel methods continue to overturn conventional practices, supply chains are being challenged and companies are forced to overhaul the existing supplier networks. In addition, new market segments may open up to competitors, who are often cash rich and in search of new investments, from sectors far removed from those the firms had to deal with in the past. These changes have led to the re-emergence of reshoring and to frequent power shifts among firms in the supply chain. Most significantly, there now exists an "unbeatable" uncertainty that can be dealt with only through increased flexibility in the design and management of the supply chain. For these reasons, offshore outsourcing is transforming the functions of traditional firms into a network of competencies [12].

Some authors argue that business competition in the future will lead the traditional company towards supply chain networks [13–15] and this evolution could lead towards virtual organizations. A virtual organization is defined as: *"a set of geographically distributed, functionally and/or culturally diverse entities linked by electronic forms of communication and relying on lateral and dynamic relationships for coordination"* ([16], p. 695).

In particular, Tuma ([17], p. 642) defines a virtual enterprise as a "production system with mainly independent enterprises as single elements, which can be dynamically insourced or outsourced depending on the market demands".

"The recent proliferation of cloud-based technologies will further boost *'virtualization' of firms. The progression of the corporation from a national to a multinational entity will evolve to the next generation, possibly into a seamless web of best-sourced people and processes around the globe bound together by a common vision and mission and managed through collaborative tools leading to a plethora of innovations*" ([18], p. 165).

The evolution of supply chains, prompted by the Fourth Industrial Revolution, allows an increasing use of digital technologies. Supply chain management has made the most from going digital.

As defined by Kinnett ([19], p. 5), digital supply chain is *"an intelligent, value-driven network that leverages new approaches with technology and analytics to create new forms of revenue and business value, through a centric platform that captures and maximizes the utilization of real-time information emerging from a variety of sources"*.

Digital supply chain can *"lower operational costs by more than 30 percent, reduce lost sales opportunities by more than 60 percent, and even reduce inventory requirements by more than 70 percent, all while making companies faster, more agile, granular, accurate, and efficient"* ([20], p. 1).

"The effectiveness of the development of modern business entities of various scales and profiles in a dynamically developing digital economy largely depends on the quality of the use of virtual outsourcing opportunities" ([21], p. 63).

In this perspective, the trend to outsource most of the production and economic activities and processes could transform companies into virtual organizations, improving the formation of flexible networks and agile organizational structures. This evolution will even push companies towards open innovation [22] and greater flexibility.

6. Conclusions

Nowadays, global markets are subject to intense phenomena, which are sometimes even difficult to predict. Management is challenged with a higher level of complexity and disruptions brought about in particular by the new waves of globalization and the irresistible march of technological changes. In addition, globalization has been severely weakened by the arrival of the COVID-19 pandemic, on the threshold of 2020, and Russia's invasion of Ukraine dealt a blow to global supply chains, by 2022.

There is now 'unbeatable' uncertainty that can only be addressed through greater flexibility in supply chain design and management. For these reasons, offshore outsourcing is transforming the functions of traditional companies into a network of competencies.

The evolution of supply chains, prompted by the Fourth Industrial Revolution, allows an increasing use of digital technologies. In this perspective, the trend to outsource most of the production and economic activities and processes could transform companies into virtual organizations, improving the formation of flexible networks and agile organizational structures.

Outsourcing strategies could therefore evolve by exploiting digital technologies, moving towards a digital era.

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