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The Dynamics of Inter-firm Cooperation within Global Business

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ABSTRACT
Inter-firm cooperation has been a long-established practice within the modern world of business. This paper, therefore, aims at examining this fact by tracking the dynamics of inter-firm cooperation in the past three centuries. The finding suggests that the purpose of strategic alliances among industries has altered after 1945. Industrial alliances prior to 1945 were motivated by increasing profits through market sharing, thus they operated like cartels. The cooperative capitalistic system was in question, nevertheless, when the idea of liberalism flourished after 1945. Major power such as the United States and its allies urged countries began to establish anti abuse of cooperation regulations and firms to start adopting competitive models of business. The inter-firm cooperation, in fact, did not diminish. Since the beginning of 1890s, there has been a trend for the re-emergence of the cooperative model of business between international firms. Unlike in the pre-World War II era, strategic alliance today has been established particularly within industries where innovation and technological development is crucial. Some factors have been identified as to shape this new development, including the governments' permission, an increasing cost for research and development, the emergence new competitors across the globe, and the need for developing expertise.

Keywords: Inter-firm, cooperation, cartelization, international business, capitalism, research and development

A. INTRODUCTION

The nature of multinational companies operate has, in fact, evolved along the history of modern world. Chandler (2009) identifies that there are three different modes of how capitalistic system works in the post-Westphalian era; these include competition-based, personal and cooperative capitalism. The first system can be found in United States system and the last is within the German economy. Meanwhile, inter-firm cooperation commonly occurs within economic systems either personal or cooperative, and it can be seen such as in the United Kingdom. Nevertheless, it should be noted that this categorical system is difficult to fully picture the nature of a particular country's economy because they may occur in one country at different times (Schröter, 1997).

This paper examines the practice of cooperative capitalism in today's globalized world. In particular, it seeks to address whether the purpose of inter-firm cooperation within industries changed altered after 1945. The finding suggests that the aim of inter-firm cooperation altered after 1945. Prior to 1945, inter-firm cooperation was more like cartelization where the main motive among industries was market-sharing. Meanwhile, the reason for inter-firm cooperation in today's era has been mainly motivated by the need for technological development and network building for the benefits of the learning process.

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This paper will be divided into four sections. The first section will define inter-firm cooperation. The second section will explore the motives as well as the forms of inter-firm cooperation from its first flourishing in the 1800s until 1945. The third section will discuss the impact of a liberal economic system after 1945 toward the practice of inter-firm cooperation. The fourth section will explain how the trend of inter-firm cooperation has increased since 1890, the motivations behind such phenomenon and the forms of recent inter-firm cooperation.

B. ANALYTICAL FRAMEWORK

Defining Inter-firm Cooperation

Inter-firm cooperation in general is about controlling either domestic and international market. It refers to "an agreement between firms or an organization of firms of the same branch of industry, which is designed to influence production or distribution of goods and services by the limitation of competition" (Schröter, 1996, p.129). This definition is right to depict cooperation in terms of cartel. However, this definition somewhat only captures the practice of inter-firm cooperation within an economic system that has limited numbers of business enterprises such as personal or cooperative capitalism. Within a personal capitalism system, for instance, Church (1990) explains that the structure of firms is organized around a single leader or a family. Consequently, it is easier for them to create agreement with their counterpart in the same area of business as to limit competition among them in terms of producing and selling products or services in the market.

However, the recent situation is different because competition is the principle of the world economy (Cantwell, 1989a). Therefore, it is more difficult for enterprise to limit competition by creating agreements to share in the market. Enterprises in the technological age, in order to maximize their profit, have established a complex network around the globe. They seek to establish partnerships with other firms that may provide whatever benefits for their business activities, such as production or technological development. Therefore, Anderson and Narus (1990) enlarge the concept of inter-firm cooperation as any coordinated act that is taken by alliance firms to achieve desired a result or outcome.

C. RESULT AND DISCUSSION

The Practice of Inter-firm Cooperation Prior 1945

The Decade of 1890s

The years of eighteenth century could be said as the beginning of a competitive global capitalism. International business during this era was in general characterized by the emergence of manufacture-based industry, a large market for good and services and competition between firms (Rosenberg, 1976). This circumstance, in turn, had caused further rapid innovation on industrial technology, or today is known as Industrial Revolution.

However, the situation began to shift to be a more cooperative business associated with cartel when the Napoleonic war started in the early 1800s. Each government in Europe, which at the time was the center of global market and production, made policies to apply an embargo and blockade toward their adversaries with the objective to cripple the latter's war machines (Findlay and O'Rourke, 2003). Unfortunately, this practice of business continued even though the war ended in 1815. Authorities preferred to maintain their policy to reject freeing regulations related to trade order to accommodate demand from their domestic manufactures that needed protection to sustain themselves due to their reliance on a relatively small home market. In France for example, Crouzet (1964) describes that French companies had turned to a more inward orientation and distrusted relying on the international market. Within such circumstances, soda companies in France agreed to regulate the market by establishing the Marseille Soda Cartel in 1838 (see also Schröter, 1996).

The case in Germany was somewhat different. In this regard, the establishment of the Rhenish-Westphalian Coal Syndicate (RWCS) in 1893 provided the impetus for the increasing of the cooperative model in Germany. With an intention to become a major player in world economics, a new united Germany under Prussian released some policies to encourage cooperation among its industries (Wengenroth, 1997). Under the norm of "competitive abroad, cooperation at home," the government issued a quota and fixed price aimed at protecting their infant industries from being competitive with each other for limited consumption of the domestic market, which otherwise might bring disadvantage for their sustainability. Also, the government increased trade tariffs as the barriers for importing products. As Wangenroth (1997) explains, this policy was supported by a judicial system which not only allowed a cooperative system, but also enforced it. In other words, quotas and increasing trade barriers then became the German's international trade policy.

The model of a cooperative economy spread quickly in many countries across Europe particularly after the 1890s until 1914 due to financial institutions' backing. Banks during this period had helped to implement vertical integration and concentration in particular by requiring firms to whom they lent their money to join a cooperative agreement. According to Church (1994), financial institutions preferred the inter-firm cooperation model of business because the system lowered the risk of their investment, to secure loans and to increase profit from efficiency.

To sum up, the initiative for inter-firm cooperation between the 1890s until 1914 was coming from the three different actors; those were business, government and financial institutions. Moreover, the motive to cooperate was market-driven. Cooperation within industries that had their technology was able to provide cost advantages for mass production was done by controlling the flow of products through coordinating production processes and distribution. Within industries that had their technology for producing goods outweighed profit generated from the market, oppositely, an inter-firm cooperation was done by distributors, such as a department store or other distribution chain.

Interwar Period

Europe was still as the center of the world economy within the first five years after the end of World War I, but it was in the phase of serious recovery. The recovery, nevertheless, did not take too long as countries in this region had been successful in making significant progress in the mid of 1920s, and they managed to resume, or even surpass, the production and income level before the war (Aldcroft, 2001). One of the strategies to achieve such speedy progress was a cooperative strategy implemented by governments and businesses.

Indeed, inter-firm cooperation was at its peak during the era of interwar. In Germany for example, registered cooperation rose significantly from 700 in 1910 to 3000 in 1930 (Schröter, 1996). While government policies were similar as such in pre war years and kept the cooperative system working at the domestic level, soon the model was adopted on the international stage by firms. To avoid competition within international markets in a fragile circumstance of recovery, firms made transnational agreements to cooperate for various purposes such as making quotas of production and areas of distribution for goods and services, as well as controlling the price and standard of products (Suslow, 2005). The Incandescent Lamp Cartel (Harding & Joshua, 2010) and the Nitrogen Cartel (Kudō, Akira and Hara, Terushi, 1992) are some instances of cartels that emerged in this period.

Economic crises at the end of the 1920s affected the nature of the cooperative model of business. During the crisis, it was clear that the public, businesses and governments in some countries were in favor of cooperation. For the governments, it was a strategy to guarantee their economic survival while business saw cooperation as useful to protect their interests by ensuring the stability of supply and demand (Schröter, 1997). Workers also agreed on cooperation because it was the safeguard of employment. Hence, in Europe, some governments passed laws to push firms into joining an agreement (Germany, France, the Netherland), some of them just controlled the cooperation (Italy, Spain), while other only allowed cooperation for activities abroad (UK, Denmark) (Schröter, 1996) . This trend increased during war preparation where firms in some countries, such as Germany, were encouraged to have a long contract to secure the supply of resources needed for military development. However, it should be noted that while cooperation was mainly for the reason to secure the market, the impact on technological development was relatively mixed. Competition and cooperation both happened in research and innovation activities among firms (Cantwell, 2000).

Inter-Firm Cooperation after 1945

The Flourishing of Liberalism

With the victory of the United States and its allies in World War II, the cooperative capitalistic system was in question. Because the US and the UK had been well known to favor a world liberal competitive market, they preferred to dismantle the cooperative system and move toward a competitive model. In 1947 and thereafter, they urged countries to establish anti abuse of cooperation regulations and firms to begin to adopt competitive models of business. As Chandler (2009) contends, "After the Allied victory in 1945 brought a strong commitment to competition in Europe, German managers accepted the American ways of competition." In the 1950s, countries started to issue laws that prohibited cartel-based cooperation, such as Germany who passed an act in 1957, Sweden in 1956, and Finland in 1954. Therefore, by the 1960s, the idea of the cooperative model was perceived to be more obsolete, and liberal economic policy had its justification to triumph over other capitalistic systems. In turn, liberalization by reducing the tariff barrier and free competition in the global market boosted economic growth overall (Schröter, 1997).

Research & Development (R&D) and Inter-firm Cooperation

Competition over the market had pushed firms to expand their operations worldwide related to their chain of production and distribution. Moreover, they needed to be innovative and efficient to develop products and deliver goods and services to the consumer. Pressing with these two factors, the strength of technology became important in determining firms' abilities to generate more profit as well as their sustainability in the competitive environment (Cantwell & Santangelo, 2002). In turn, research and development (R&D) branches of enterprises gained in importance and began to shift its function. Compared to the pre-World War II, which was much inward orientation, R&D in the post 1945 era has been more outward looking.

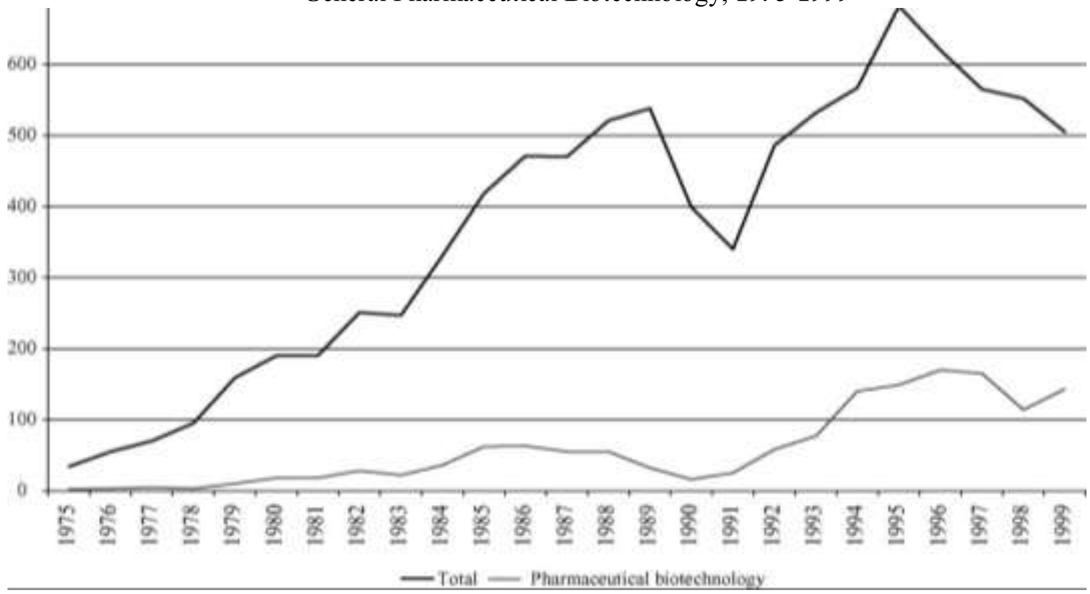
R&D Functions Prior and After 1945 (Mowery and Teece, 1996)

Prior 1945	After 1945
• Industrial R&D was more inward looking. • It was part of an effort to strengthen strategic function within firms as to prevent long strategic planning and investment to be interfered with day-to-day operation	• R&D branch has shifted to be more outward looking. • It has been focusing on seeking expertise in the innovation and technological development as well as network for learning process

According to Cantwell (1989b), companies' strategies in international markets since the 1950s have been influenced by their comparative technological strength. Based on the strength of their technological capabilities, corporations could be distinguished into two categories; those are groups consisting of firma that have advanced technological strength and those who are relatively weak. Companies within the first group are usually multi national that prefer to do internal expansion in diverse geographical locations than licensing other firms. Their technology related to production and distribution developed immensely and in wide array including information and communication as to support their operation in wide areas. The second group's common companies have smaller international operations and their technology is relatively specialized. Consequently, they are prone to licensing to other or foreign firms and to do joint ventures.

During the 1970s, the world entered an era where technology on transportation, communication and information progressed remarkably. Nonetheless, by the beginning of 1890s, there has been a trend for the re-emergence of the cooperative model of business between international firms, particularly within industries where innovation and technological development is crucial. Roijakkers and Hagedoorn (2006), for instance, show that the amount of inter-firm cooperation within pharmaceutical biotechnology has increased significantly since 1890s.

Numbers of Newly Established R Growth of **.1 Figure**&D Partnerships in
General Pharmaceutical Biotechnology, 1975-1999



(2006) Roijakkers and Hegedoorn :Source

The amount of cooperation within pharmaceutical biotechnology rose gradually from about 10 newly established R&D partnerships to 20 in 1980 and 40 in 1984.

In their effort to explain the nature of recent strategic alliances among industries, Mowrey and Teece (1996) come up with the conclusion that four factors have influenced the re-appearance of inter-firm cooperation since the 1890s. The first factor is the government policies to allow inter-firm cooperation that benefits technological innovation. The US anti trust policy for instance, changed during the 1890s with the issue of National Cooperative Research Act of 1984 and of 1993 as these acts were relaxing some regulations regarding inter-firm cooperation, particularly for the purpose of research for innovation. Such policies of allowing inter-firm cooperation for technological development and innovation has brought firms confidence to start intense cooperate, such as strategic alliance, with other firms to boost their technology and innovation. The second is the significant increase of cost for research and development, particularly in developing new product. As Mowrey and Teece (1996) notes, new product development in commercial aircraft increased around 10 percent annually. Therefore, it becomes increasingly difficult and is high risk for corporations to bear the cost of research and development within an economic environment characterized by intense competition.

The third aspect is the emergence of competitors across the world. While in the decades of the 1950s and 1960s Western countries, particularly the US, were dominant in industrial technology, the status was no longer attributed to them with the growth of Japan. Innovation and technological development occurred in various geographical locations, which meant the increasing financial consequences of being late to deliver innovative products to consumers. Therefore, it is to some extent more effective to collaborate with other firms in developing new products and services. The last factor to consider is the need of every firm to acquire various technologies in order to develop their expertise. For example, as a worldwide food processing company will need to improve regarding their material of production or distribution of product, they also need to collaborate with pharmaceutical, computer and telecommunication industries.

D. CONCLUSION

This paper assesses whether or not the purpose of inter-firm cooperation within industries altered after 1945, and if so, how they were changed. The finding suggests there has been an evolution on the mode of cartelization since the industrial revolution in the eighteenth century. Within the years between 1890s until 1945, inter-firm cooperation was more market driven. This cooperative model of business was commonly dismantled in the years following 1945. However, the amount of inter-firm cooperation has been growing since the 1890s, particularly within industries that rely on high technological development and innovation. Recent trends of inter-firm cooperation have been more motivated by the need to improve technology and to build networks that facilitate the learning process.

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