

# CO-OPETITION: A BUSINESS STRATEGY FOR SMES IN TIMES OF ECONOMIC CRISIS

DOROTHEA KOSSYVA<sup>a\*</sup>

KATERINA SARRI<sup>b</sup>

NIKOLAOS GEORGOPOULOS<sup>c</sup>

<sup>a</sup>Department of Business Administration, University of Piraeus, Greece

<sup>b</sup>Department of Balkan, Slavic and Oriental Studies, University of Macedonia, Greece

<sup>c</sup>Department of Business Administration, University of Piraeus, Greece

## Abstract

Cooperation between competing organizations (co-opetition) to achieve common objectives has become a prerequisite for global competitiveness and innovativeness. Co-opetition is a business strategy which emphasizes both cooperative and competitive relations between two or more organizations. It implies that firms, especially Small and Medium-sized Enterprises (SMEs), perform better when they are involved in competitive and cooperative relationships at the same time and combine their complementary strengths to create synergies. The present study discusses the various definitions and types of co-opetition strategy and addresses the implications of economic crisis on SMEs. Finally, the paper suggests that co-opetition could be an appropriate business strategy for SMEs in difficult economic conditions provided that they develop a co-opetitive portfolio with different kinds of partners by seeking to obtain the advantages of each partnership and become more competitive.

**JEL Classification:** M10

**Key words:** co-opetition, SMEs, economic crisis, strategic management

## 1. Introduction

The constantly changing and challenging global business environment requires firms to be proactive, flexible and open-minded if they want to succeed. In fragile economic conditions, firms are called on to deal with difficult external circum-

---

\* *Corresponding author:* Dorothea Kossyva, Department of Business Administration, University of Piraeus, Karaoli & Dimitriou 80, 185 34, Piraeus, Greece. e-mail: dkossyva@unipi.gr

stances, so they need to find new ways of conducting business, in order to survive and increase their competitiveness and innovativeness. Cooperation between independent organizations to achieve common goals has become a prerequisite in today's networked and knowledge-based economy.

Over the years, organizations have formed alliances with other parties in order to gain a better position in local and global markets and create competitive advantages (Kossyva and Georgopoulos, 2011). As P. Drucker (1996) stated, "*The greatest change in corporate culture, and the way business is being conducted, may be accelerating growth of relationships based not on ownership, but on partnership*".

As uncertainty increases, the ability of firms to adapt in their external environment and to remain competitive is closely related to their capacity to innovate. Hence, it is crucial for firms to continuously develop innovations in order to create value for their buyers and of course value for their stakeholders. Furthermore, they have to be able to identify and explore business opportunities, so as to exploit future competitive advantages (Sarri *et al.*, 2010; Kossyva and Georgopoulos, 2011). In order to succeed in that, they need to accelerate the innovation process through more flexible forms of collaboration such as co-opetition (Acharya 1999; Bengtsson and Kock, 1999).

Co-opetition is a dynamic process in which organizations seek competitive advantages arising from both cooperation and competition. Through this process, organizations look for complementary partners, as a way of promoting their own resources; transferring and creating knowledge; exploring entrepreneurial opportunities, without losing sight of their own interests (Kossyva *et al.*, 2012). Therefore, firms are called on to initiate collective actions with their competitors to create value in a market and at the same time they compete to capture the created value individually (Bengtsson and Kock, 2000; Kossyva and Georgopoulos, 2011).

Undoubtedly, the current economic crisis has caused severe damage to global economies and has created a number of challenges for business firms. The global financial crisis has significant impact on business activities, especially on small and medium-sized enterprises (SMEs). SMEs are considered the worst affected as they have to face several challenges such as reduced sales, decreased liquidity, fall in demand for goods and services, increased payment delays on receivables as well as tightening in credit terms (OECD, 2009).

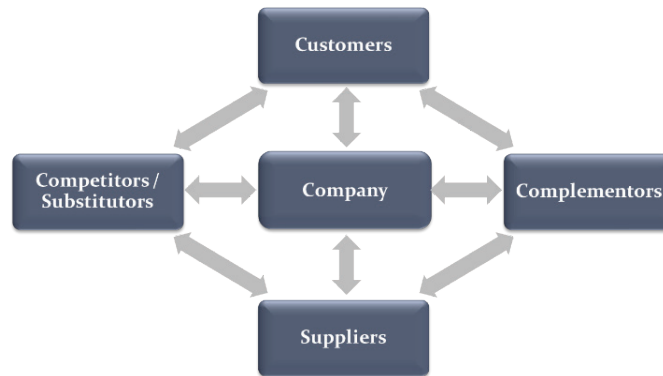
The present study discusses the definitions and types of co-opetition strategy and addresses the implications of economic crisis on SMEs. It focuses on small and

medium-sized enterprises (SMEs) as they play a vital role in every economy worldwide and are key drivers for employment, innovation and growth. Furthermore, it stresses the importance of SMEs forming co-opetitive relationships in order to gain access to complementary resources and skills. Finally, the paper suggests that co-opetition could be an appropriate business strategy for SMEs in difficult economic conditions provided that they develop a co-opetitive portfolio with different kinds of partners by seeking to obtain the advantages of each partnership and become more competitive.

## 2. The concept of co-opetition

The term “co-opetition” was first introduced in 1993 by Raymond J. Noorda, founder and CEO of Novell Corp. Later, Adam Brandenburger, Professor at Harvard Business School and Barry Nalebuff, Professor at Yale School of Management adopted this term in their best seller book called “co-opetition” (Brandenburger and Nalebuff, 1996). According to these authors, co-opetition is defined as the combination of cooperation and competition for value creation. Co-opetition is based on game theory where business is a game with multiple players (firms) who play multiple roles and depend on each other. A business game is different from sports or war where there are winners and losers. Taking part in a business game, firms may obtain more benefits at the end, as their interaction might generate positive-sum games. It means that the success of a firm does not necessarily mean the failure of others but there can be multiple winners.

Brandenburger and Nalebuff (1996) developed a framework which is called “Value Net” to depict the relationships and interdependencies among different players of a business game (figure 1). The Value Net constitutes a network of co-opetitive relationships in which organizations “play” multiple roles and look for complementary partners to create value. It includes five players of a business game; the focal firm, its suppliers, its customers, its *substitutors* or competitors and its *complementors*. In the center of the Value Net the firm in question is placed. On the vertical axis there are the suppliers and the customers who contribute equally to the value creation process. On the horizontal axis there are the *substitutors* and the *complementors*. *Substitutors* are firms which can replace the focal firm, either by selling to its customers, or by buying from its suppliers while *complementors* are defined as players whose products are valued more when they are combined with the products of the focal firm. For example, a software company needs a hardware company to improve and market its products or services.



**Figure 1:** The Value Net

Source: Brandenburger & Nalebuff (1996), p. 16

The above definition of co-opetition is rather broad as the cooperative and competitive part is distributed among various actors who are influenced by the behavior of other actors in the value chain. According to the broad approach, co-opetition is considered as a context where two competitors (computer manufacturers) can be complementors through their collaboration with a third firm (software producers) (Bengtsson *et al.*, 2010). Consequently, the broad approach views co-opetition as cooperation among indirect competitors for value creation.

In contrast, many authors focus on a more narrow approach of co-opetition (Bengtsson and Kock, 2000; Bengtsson *et al.*, 2010; Gnyawali and Park, 2011; Ritala, 2012). They define it as cooperation between two or more direct competitors in some activities and at the same time competition in some other activities. For example, two competing firms may cooperate in activities far from customers, such as manufacturing, and at the same time compete in activities close to them, such as sales, in order to increase their market share (Bengtsson and Kock, 2000). Therefore, the narrow approach views co-opetition as a process where cooperation and competition are two interrelated parts of either a dyadic or network co-opetitive relationship which are divided between activities rather than the actors of a business game. A network co-opetitive relationship arises when the most major competitors within an industry cooperate through joint marketing initiatives in order to promote a new idea or technology and at the same time they compete in consumer markets. This type of co-opetition is called collective horizontal co-opetition (Choi *et al.*, 2010).

Dagnino and Padula (2002) argue that co-opetition is the integration of cooperation and competition where organizations have partially convergent interests in order to create new value and forms a new kind of strategic relationship between firms. Thus, they term the interdependence among different organizations as a “co-opetitive system of value creation”, which is based on Kanter’s (1994) approach that cooperation leads to competitive advantage when the focus is on new value creation (Kossyva and Georgopoulos, 2011). Through this system, organizations exchange and create value to become more competitive and gain competitive advantages over other competitors. Moreover, the authors (Dagnino and Padula, 2002) have distinguished two kinds of co-opetition for value creation; *dyadic* and *network* co-opetition. Dyadic co-opetition refers to the relationship between two competing business organizations whether on one or more levels of the value chain, while network co-opetition refers to the situation where more than two organizations cooperate and compete at the same time along one or more levels of the value chain.

A notable example of *dyadic* co-opetition is the joint venture between Sony and Samsung called S-LCD for the development and production of 7<sup>th</sup> generation liquid crystal display (LCD) panels for flat screen TVs (Gnyawali and Park, 2011). This partnership was critical for both firms because they could not develop LCD technology in isolation (Katsanakis *et al.*, 2011). Both rivals contributed their technological capabilities in order to increase and lead the LCD TV market while each firm launched its own TV model in the market to appropriate a larger market share individually (Gnyawali and Park, 2011). Another example is the alliance between Apple Computer Inc. and Sony Corporation. The two global computer manufacturers formed an alliance in order to carry out cooperative research and development (R&D) activities, so as to manufacture more powerful desktops and laptops (Garaffo, 2002).

There are many examples of *network* co-opetition as well, such as the joint venture among Nokia, Sony Ericsson, Samsung, and Psion called Symbian for the creation of an operating system to compete against traditional computer companies (Garaffo, 2002). Another example is the case of SAP, the ERP software provider, which developed a business ecosystem consisting of clients, suppliers, other software providers and research institutions. The aim of this initiative was to create value for participating actors through the exchange of information and knowledge (Gueguen and Pelleguin-Boucher, 2004).

Therefore, co-opetitive relationships consist of two dimensions; value creation and value appropriation. The first dimension arises from cooperative activities

while the second arises from competitive activities. Value creation derives from joint efforts with direct competitors who have complementary and relevant resources and capabilities. Through this process competing firms which have common interests, form alliances in order to increase the size of a market or create a new one. Value appropriation derives from diverse interests where firms compete to capture the created value for individual purposes. At the same time, competing firms try to exploit the resources gained through cooperation, depending on their knowledge base and absorptive capacity, and use them for future competitive advantages (Ritala and Hurmelinna-Laukkanen, 2009; Kossyva and Georgopoulos, 2011). The philosophy of co-opetition is that the purpose of each firm might not be the elimination of its competitors, but the exploration and exploitation of future competitive advantages by changing the game to their benefit.

### **3. The impact of the economic crisis on SMEs**

The economic crisis which started in September 2008 with the collapse of Lehman Brothers has caused severe socio-economic changes worldwide. More specifically, in the European Union the Gross Domestic Product (GDP) declined by 4.2% in 2009 and the employment growth rate was -2.1%. The unemployment rates have increased to 10.0% and 10.7% in 2011 and 2012 respectively with the lowest unemployment rates accounted in Austria (4.3%), Germany and Luxembourg (5.3% in both countries), the Netherlands (5.8%), and the highest levels in Greece (26.8%) and Spain (26.1%) (Eurostat, 2012).

Undoubtedly, the economic crisis has affected both large and small and medium sized enterprises (SMEs) as it made business opportunities less certain. As a result, business firms have suffered a significant decrease in demand and revenues, staff lay-offs, stressful working environments and reluctance to invest in long-term activities (Kash and Darling 1998; Archibugi *et al.*, 2013). However, SMEs are more vulnerable in difficult economic times than large enterprises for many reasons. First of all, they cannot undertake downsizing activities as they are already small. Furthermore, they lack sufficient capital to finance their investments, they have a lower or no credit rating and they are less diversified in their economic activities (OECD, 2009).

Small and medium-sized enterprises (SMEs) constitute the majority of enterprises in the European Union, as they account for over 99% of all enterprises. Although the definition of SMEs varies from country to country, there is evidence that in most countries SMEs are considered the most sensitive sector and the most af-

affected by the economic downturn (OECD, 2009). According to the European Commission definition, an SME is an enterprise which “employs fewer than 250 people and has an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro”.

SMEs play a significant role in all economies as they are considered the key drivers of employment, innovation and economic growth. Furthermore, due to their size, they are more flexible than larger firms and have the ability to create and sustain entrepreneurial opportunities by implementing new services and launching new products more easily. Therefore, their entrepreneurial activities can result in economic welfare, creation of new jobs and national competitiveness (Zikou *et al.*, 2011). It is worth mentioning that in the OECD regions, SMEs employ more than half of the labor force in the private sector (OECD, 2009).

As demand for goods and services has declined, SMEs have to face conditions of weaker cash flow and less equity reserves; the deficiency of resources and the lack of necessary skills to pursue long-term strategies (Ates and Bititci, 2011; Wesson and De Figueiredo, 2001). They also have to deal with difficult circumstances, such as liquidation problems, extended payment delays on receivables and on accounts payable, and even worse the increased number of insolvencies and bankruptcies. In Belgium, for instance, 43 % of surveyed SMEs experienced extended delays in their receivables while in the Netherlands, 50 % of SMEs have to cope with longer payment terms from their customers. In countries like Denmark, Italy, Ireland, Norway and Spain the percentage of insolvencies was higher than 25%. Thus, in Sweden, bankruptcies increased over 50% in 2009 compared to the previous year (OECD, 2009).

Overall, the main challenges most SMEs are called on to deal with are the following (Hodorogel, 2009; OECD, 2009):

- Downturn in demand for goods and services.
- Increased payment delays on receivables as well as on accounts payable.
- Rising prices of raw materials.
- Liquidity problems.
- Increasing insolvencies and bankruptcies.

In order to survive and continue their activities, SMEs respond by cutting costs, reducing assets, planning personnel lay-offs, extending their own payment delays and or cancelling new investments (Lussier, 2008). However, SMEs, unlike large firms, are characterized by flexibility, adaptability and resilience. Therefore, they are able to perceive the opportunities created by the economic crisis in order not on-

ly to ensure business continuity but also to explore and exploit entrepreneurial opportunities. This could be achieved either by participating in collaborative networks or by forming alliances with direct competitors to combine their complementary strengths and create new markets. Besides, recession conditions are considered as *“periods of ‘creative destruction’, that contribute to economic restructuring, during which industries decline, while new ideas, technologies, products and industries emerge and become the driving forces of subsequent economic growth”* (Bryson 1996; Kitching *et al.*, 2009).

#### **4. Co-opetition in SMEs: Advantage-seeking through the development of a co-opetitive portfolio**

Small and medium-sized enterprises (SMEs) face tremendous challenges in their attempt to pursue entrepreneurial opportunities, given a lack of resources and capabilities, their dependence on a niche customer base, high risks of failure as well as limited market presence (Gnyawali and Park, 2009; Bengtsson and Johansson, 2012). The short product life cycles, the high uncertainty and risk of developing products and services, the market and technological convergence, the need for external resources and high R&D costs constitute the factors that increase the likelihood of co-opetition in SMEs (Gnyawali and Park, 2009). Furthermore, Eikebrokk and Olsen (2005) argued that in terms of efficiency, complementarities, lock-in and novelty, the formation of e-business alliances in SMEs is positively correlated with e-business value-creation.

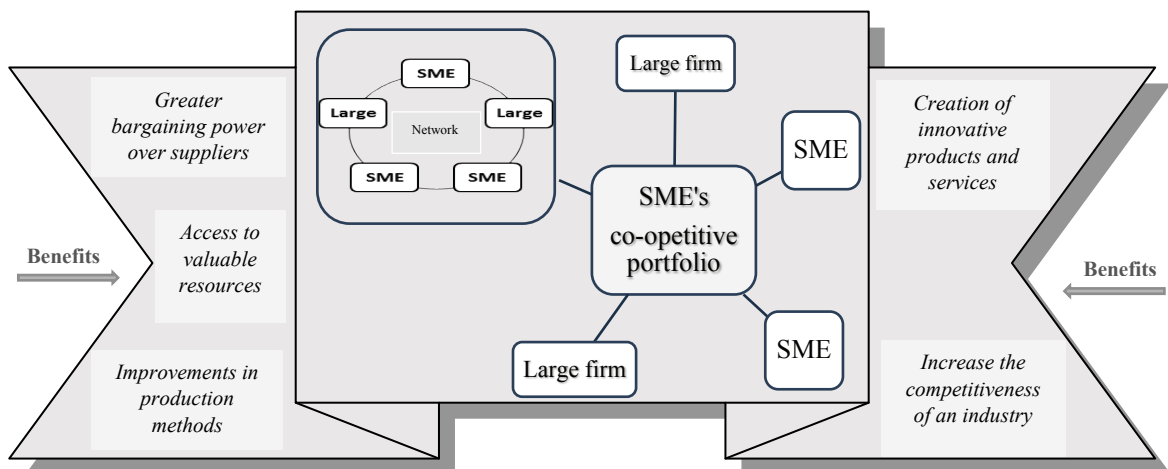
Co-opetition strategy implies that co-opetitors are critical sources of innovation, especially in fast-paced industries, where firms are not able to develop new products or services in isolation. By collaborating with competitors, SMEs have the opportunity to create temporary “blue oceans” collectively and gain “first mover” advantages over other competitors. Competing firms have market commonality, face common challenges and possess similar and complementary resources and capabilities (Afuah, 2000; Gnyawali and Park, 2009; Kossyva and Georgopoulos, 2011). Therefore, they perform better when they are involved in co-opetitive relationships by acquiring new knowledge and skills and accessing complementary capabilities which will produce synergistic effects.

In order to achieve this, it is suggested that an SME will have to form different types of partnerships so as to build a “co-opetitive portfolio” that will allow it to manage each collaborative agreement separately (figure 2). Developing a “co-opetitive portfolio”, an SME will be able to collaborate with other SMEs within the



same industry, with large competitors, as well as take part in various business networks by seeking to obtain the advantages of each partnership. The types of collaborative agreements will vary based on the degree of interdependence among co-opetitors. The most frequent forms of collaboration between competing organizations are the following (Dyusters and Hagedoorn, 2000):

- Licensing
- Second sourcing agreements
- Cross-licensing
- Mutual second sourcing agreements
- Joint R&D agreements
- Minority equity
- Joint ventures



**Figure 2:** Potential benefits from an SME's co-opetitive portfolio

As shown in figure 1, an SME can develop a co-opetitive portfolio consisting of competing organizations in order to create added value through the exchange of financial capital, ideas, experiences and knowledge. More specifically, co-opetition among SMEs creates economies of scale, reduces uncertainty and the timespan for R&D, mitigates risk, accelerates the product development process, leverages resources and enable market entry (Gnyawali and Park, 2009; Morris *et al.*, 2007; McCutchen and Swamidass, 2004). The technological uncertainty and the integ-

ration of partners' knowledge through in-learning lead to the development of innovations among SMEs (Bouncken and Kraus, 2013). Co-opetition strategy enables SMEs to establish different kinds of relationships with their competitors in order to explore and exploit a variety of international opportunities (Kock *et al.*, 2010).

SMEs have limited knowledge stocks and lack of market power which inhibit their ability to create competitive advantages. In contrast, large firms have strong market power, put heavy emphasis on efficiency, are able to provide a wider spectrum of complementary resources and are more skilled at creating competitive advantages (Quintana-Garcia and Benavides-Velasco, 2004; Ketchen Jr. *et al.*, 2007). Therefore, collaboration with large firms within the same industry enables SMEs to enter new markets more easily as well as develop and sustain business opportunities. Quintana-Garcia and Benavides-Velasco (2004) found that co-opetition between SMEs and large diversified companies has a positive effect on firms' technological diversity and overall innovative capability.

The participation of SMEs in business networks enables them to identify customer needs and find innovative ways to address them by creating better products or services than other SMEs which act alone (Slater and Narver, 1995; Nasution *et al.*, 2011). In business networks, SMEs are able to create value through the exchange of valuable resources and capabilities, especially knowledge. Their main objectives are to reduce costs and uncertainty, accelerate the creation of new knowledge, streamline workflow and increase performance (Kossyva *et al.*, 2012). Furthermore, SMEs that participate in various networks consisting of different kinds of competitors have the opportunity to develop R&D projects and gain access to specific and complementary resources and capabilities. Schiavone and Simoni (2011) propose two different types of co-opetitive relationships; *intra-network* and *inter-network* co-opetition. Intra-network co-opetition constitutes a cooperative relationship between competing organizations within a network, while inter-network co-opetition occurs when firms and organizations take part in several projects and therefore cooperate with firms and organizations from competing networks.

Taking into consideration the above arguments, the present study deals with the positive effects of co-opetition strategy on SMEs and considers it a beneficial business strategy in times of economic crisis. Furthermore, it focuses on the narrow definition of co-opetition which involves cooperation between two or more direct competitors in activities far from customers, such as manufacturing and R&D, and at the same time competition in activities close to them, such as sales and mar-

keting. In this case, competitors are defined as “actors that produce and market the same products” (Bengtsson and Kock, 2000).

The downturn in demand for goods and services, the rising costs of raw materials, increased payment delays on receivables as well as on accounts payable, liquidity problems, and increasing insolvencies and bankruptcies constitute the main challenges that most SMEs are called on to deal with in difficult economic times (Hodorogel, 2009; OECD, 2009). In order to respond to the above conditions, it is suggested that SMEs have to develop a co-opetitive portfolio with different sizes of competing organizations which will bring a variety of different resources, capabilities and skills to the collaborating actors and therefore lead to the following potential benefits:

- Creation of innovative products and services.
- Improvements in production methods.
- Access to valuable resources.
- Greater bargaining power over suppliers.
- Increase the competitiveness of an industry.

#### *Creation of innovative products and services*

According to its various definitions, co-opetition strategy involves the cooperation among two or more organizations within the same industry by combining their complementary strengths in order to develop innovative products, services and technologies. Many studies argue that co-opetition generates positive effects on a firm’s innovation performance and is an effective way of creating completely new innovations under high market and technological uncertainty, high positive network externalities and low competition intensity (Quintana-García and Benavides-Velasco, 2004; Ritala, 2012; Bouncken and Kraus, 2013). Therefore, through co-opetition, competing organizations initiate collective actions with their competitors to create value in the market and at the same time they compete to capture the created value for individual purposes. They also have the opportunity to obtain new technological knowledge and use it for generating and developing innovative products and services (Quintana-García and Benavides-Velasco, 2004; Ritala *et al.*, 2009).

#### *Improvements in production methods*

The improvements made in production methods, such as input materials, task specifications, work and information flow mechanisms, and equipment that are used to produce products (Damanpour, 1992) are crucial for the effectiveness and ef-

ficiency of innovative products and services in global markets (Luo, 2007). By forming co-opetitive relationships, competing organizations combine their know-how in order to improve the way they produce their products. In this way, they use fewer resources, or use their current resources more efficiently and achieve economies of scale and scope (Gnyawali and Park, 2009; Ritala, 2012).

#### *Access to valuable resources*

Due to their smallness, SMEs have to deal with the lack of financial resources and raw materials, rising R&D costs, limited knowledge required for product development process, and limited time available for pursuing business opportunities. Competitors have high degrees of market commonality and resource similarity and complementarity (Gnyawali and Park, 2009). Therefore, by combining their resources and skills they obtain more benefits than by acting alone. Through co-opetition, they gain access to financial, human and technological resources, acquire new knowledge, and look for complementary capabilities.

#### *Greater bargaining power over suppliers*

SMEs are also called to cope with the rising prices for raw materials used in the production process. By joining their strengths with other firms within the same industry, they have greater bargaining power over their suppliers as they are able to jointly order larger volumes of raw materials at lower prices.

#### *Increase the competitiveness of an industry*

The mutual support among co-opetitive partners within an industry might increase the competitiveness of an industry and ensure its long-term sustainability. Firms operating in the same industry support each other when various problems arise – such as the lack of critical raw materials, limited access to financing, which is considered the most significant challenge for the creation, survival and growth of SMEs – and deliver services to clients on time, so as to prevent an industry shrinkage. They are also able to share the switching costs of production and deal with the high requirements of distributors and sophisticated consumers (Choi *et al.*, 2010).

## **5. Conclusions**

The fragile economic business environment requires new cooperating structures and alternative ways of conducting business in order for organizations to achieve their business objectives and enhance their competitiveness (Kossyva and Georgopoulos,

2011). Co-opetition strategy constitutes an alternative business strategy for firms to form alliances with various competitors and look for complementary resources and capabilities in pursuit of business opportunities. In order to deal with difficult external conditions, firms need to have strategic flexibility and to adapt quickly in their external business environment. Through co-opetition, firms are called to initiate collective actions with their competitors to create value in the market and at the same time they compete to capture the created value individually. Taking part in various business games, firms may obtain more benefits at the end, as their interaction might generate positive-sum games. It means that the success of a firm does not necessarily mean the failure of others but there can be multiple winners (Brandenburger and Nalebuff, 1996; Ritala and Hurmelinna-Laukkanen, 2009).

Small and Medium-sized Enterprises (SMEs) are called on to deal with difficult circumstances including the downturn in demand for goods and services, the deficiency of resources and the lack of necessary skills to pursue long-term strategies, liquidation problems, extended payment delays on receivables and on accounts payable, and even worse the increased number of insolvencies and bankruptcies (Hodorogel, 2009; OECD, 2009). However, their response actions against severe economic conditions, such as cutting costs, cancelling new investments, reducing assets, and staff lay-offs, do not contribute to their long-term survival (Lussier, 2008). Consequently, in order to ensure their business continuity and become more competitive, they have to establish partnerships with direct competitors who have complementary strengths and face similar challenges as the economic crisis makes them less willing or even unable to undertake business initiatives on their own.

This paper discussed the definitions and types of co-opetition strategy as well as the implications of economic crisis on Small and Medium-sized Enterprises (SMEs) and suggested that co-opetition might be an appropriate business strategy for overcoming it. By adopting co-opetition strategy, SMEs gain access to financial resources and valuable knowledge which will enable them to improve their core competencies, pursue large-scale innovation projects, create new products and services in less time via joint innovation efforts and increase their product range. Therefore, it was suggested that SMEs have to build a “co-opetitive portfolio” consisting of different kinds of co-opetitive partners; other SMEs, large enterprises as well as taking part in business networks. Developing a “co-opetitive portfolio”, will allow them to manage each collaborative agreement separately and try to obtain the advantages of each partnership. The potential benefits that SMEs might gain from co-opetition strategy are the creation of new products and services, the improvement of

production methods, access to valuable resources, greater bargaining power over suppliers due to higher volumes of raw materials at lower prices, cost sharing in product development, the production process acceleration and new market entry. Furthermore, competing organizations support each other when various problems arise – such as the lack of critical raw materials, limited access to financing, which is considered the most significant challenge for the creation, survival and growth of SMEs – and deliver services to clients on time, so as to prevent industry shrinkage.

However, co-opetition strategy is not a panacea. SMEs should also take into consideration the potential disadvantages of co-opetition which are the high risk of opportunistic behavior among partners, technological risks, management challenge, loss of control, information leakage as well as miscommunication (Gnyawali and Park, 2009; Kossyva *et al.*, 2012). In terms of innovation, co-opetition is considered a risky strategy which can be harmful for a firm's innovation performance (Nieto and Santamaria, 2007; Ritala, 2012; Kossyva and Georgopoulos, 2013). There is a high risk of opportunism and a lack of trust when competing organizations share knowledge as they might lose their proprietary knowledge (Gnyawali and Park, 2009; Bouncken and Kraus, 2013). Therefore, SMEs have to develop the ability to manage and maintain many different co-opetitive relationships so as to balance both cooperative and competitive elements. The factors which are likely to make a co-opetition strategy successful are the management commitment, the development of high trust and dependency as well as communication management in order to systematically plan, implement, monitor and review all communication channels within and outside the company (Chin *et al.*, 2008; Bouncken and Kraus, 2013).

Due to its high complexity, co-opetition strategy raises public policy issues as firms' potential anti-competitive behaviors may arise. Such behaviors mainly concern the fear of collusion between large firms which can lower the degree of competition in a market by restraining outputs and raising prices. They might be advantageous to firms in the short term but eventually firms' long term sustainability is undermined. Despite the fact that co-opetition is considered a value-creating strategy for the participating actors, sometimes it may reduce the competition and become harmful for the customers (Gnyawali, He and Madhavan, 2008; Ritala, 2012). From the antitrust regulators' point of view, co-opetition is likely to be problematic in the downstream side of the value chain, such as joint marketing activities, but in the upstream aspect, such as R&D and product development may not be problematic. As far as SMEs are concerned, it is suggested that co-opetition strategy is unlikely to cause anti-competitive effects because they cannot efficiently

build collective strengths to determine prices and dictate competition in the market (Gnyawali and Park, 2009). Therefore, it is proposed that antitrust policy makers should stimulate co-opetition since it is expected to have a positive impact on an industry's competitive intensity and increase its attractiveness. It would also be useful to establish a legislative and institutional framework based on best practices which will lead to the creation of an ethical business environment for the implementation of co-opetition.

The present paper was only a part of the authors' attempt to discuss through literature the various definitions and types of co-opetition strategy and suggested that co-opetition could be a beneficial business strategy for SMEs to confront the economic crisis and create business opportunities. Despite the growing interest in co-opetition strategy as an emerging and under-researched construct, the development of theoretical frameworks is still in an emergent phase. Thus empirical research should be conducted either through large scale or in-depth case studies in order to support the considerations previously mentioned. Therefore, a future study is necessary to examine whether SMEs can manage different forms of co-opetitive relationships and gain advantages of each partnership. It is suggested that researchers should take into consideration certain factors such as the level of trust and commitment between competing organizations, the previous co-opetition experience of the focal SME and its competitor-partners, and their co-opetition mindset – i.e. if senior executives regard co-opetition as a short-term or long-term strategy, as well as an emerging or a deliberate strategy. Finally, it would be interesting to investigate the above theoretical approaches in countries that face the consequences of economic crisis so as to find out whether co-opetition is a beneficial business strategy for SMEs which operate in these countries.

## References

- Afuah, A., 2000, "How much do your co-opetitors' capabilities matter in the face of technological change?", *Strategic Management Journal*, 21, 387-404.
- Archibugi, D., Filippetti, A. and Frenz, M., 2013, "The impact of the economic crisis on innovation: Evidence from Europe", *Technological Forecasting & Social Change*, 80, 1247-1260.
- Ates, A. and Bititci, U., 2011, "Change process: a key enabler for building resilient SMEs", *International Journal of Production Research*, 49, 5601-5618.
- Bengtsson, M. and Eriksson, J. and Wincent, J., 2010, "Co-opetition dynamics – an outline for further inquiry", *Competitiveness Review: An International Business Journal*, 20, 2, 194-214.
- Bengtsson, M. and Kock, S., 2000, "Coopetition in business networks – to cooperate and compete simultaneously", *Industrial Marketing Management*, 29, 5, 411-426.

- Bengtsson, M. and Kock, S., 1999, "Cooperation and competition in relationships between competitors in business networks", *Journal of Business & Industrial Marketing*, 14, 3, 178-194.
- Bengtsson, M. and Johansson, M., 2012, "Managing coopetition to create opportunities for small firms", *International Small Business Journal*, DOI: 10.1177/0266242612461288.
- Brandenburger, A. and Nalebuff, B., 1996, *Co-opetition*, New York, Currency Doubleplay.
- Bouncken, R.B., and Kraus, S., 2013, "Innovation in knowledge-intensive industries: The double-edged sword of coopetition", *Journal of Business Research*, 66, 10, 2060-2070.
- Bryson, J., 1996, "Small Business Service Firms in the 1990s Recession in the United Kingdom: Implications for Local economic Development", *Local Economy*, 11, 3, 221-236.
- Chin, K.-S., Chan, B.L. and Lam, P.-K., 2008, "Identifying and prioritizing critical success factors for coopetition strategy", *Industrial Management & Data Systems*, 108, 4, 437-454.
- Choi, P., Garcia, R. and Friedrich, C., 2010, "The drivers for collective horizontal coopetition: a case study of screwcap initiatives in the international wine industry", *International Journal of Strategic Business Alliances*, 1, 3, 271-290.
- Dagnino, G.B. and Padula, G., 2002, "Co-opetition Strategy: A New Kind of Inter-firm Dynamics for Value Creation", Paper Presented at EURAM: Second Annual conference – Innovative Research in Management, Stockholm, 2002, <http://ecsocman.hse.ru/data/977/644/1219/coopetition.pdf>.
- Damanpour, F., 1992, "Organizational size and innovation", *Organization Studies*, 13, 3, 375-402.
- Drucker, P., 1996, *Nonprofit prophet*, The Alliance Analyst, available at: [alliance-analyst.com](http://alliance-analyst.com).
- Duysters, G., and Hagedoorn, J. (2000) "A note on organizational modes of strategic technology partnering", *Journal of Scientific and Industrial Research*, 58, pp. 640-649.
- Eikebrokk, T.R. and Olsen, D.H., 2005, "Co-opetition and e-Business Success in SMEs: An Empirical Investigation of European SMEs", *Proceedings of the 38th Hawaii International Conference on System Sciences*, 3-6 January, Big Island, Hawaii, ISBN: 0-7695-2268-8.
- Eurostat, 2012, *Unemployment statistics*, Obtained from Eurostat website: [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Unemployment\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Unemployment_statistics) (February 24, 2013).
- Garaffo, F., 2002, "Types of Coopetition to Manage Emerging Technologies", EURAM: Second Annual Conference, Innovative Research in Management, 9-11 May, Stockholm.
- Gnyawali, D.R., He, J. and Madhavan, R. 2008, *Coopetition. Promises and challenges*, In C. Wankel (ed.), 21st Century Management: A Reference Handbook, 386-398. Thousand Oaks, CA: Sage.



- Gnyawali, D. and Park, B.-J., 2011, "Co-opetition between giants: Collaboration with competitors for technological innovation", *Research Policy*, 40, 5, 650-663.
- Gnyawali, D. and Park, B.-J., 2009, "Co-opetition and technological innovation in small and medium-sized enterprises: a multilevel conceptual model", *Journal of Small Business and Management*, 47, 3, 308-330.
- Gueguen G. and Pellegtin-Boucher E., 2004, "Coopetition and IT business ecosystems: the success of SAP", the European Institute for Advanced Studies in Management, September 16-17, Italy.
- Hodorogel, R.G., 2009, "The Economic Crisis and its Effects on SMEs", *Theoretical and Applied Economics*, 5, 79-88.
- Kanter, R.M., 1994, "Collaborative advantage: the art of alliances" *Harvard Business Review*, 72, 96-108.
- Kash, T. and Darling, J., 1998, "Crises Management: Prevention, Diagnosis and Intervention", *Leadership and Organization Development Journal*, 19, 4, 179-186.
- Katsanakis, I., Kossyva, D. and Vorria, E., 2011, "Co-opetition Strategy in Business Excellence: Confronting the Economic Crisis", *Proceedings of 14<sup>th</sup> QMOD Conference on Quality and Services Sciences*, 29-31 August 2011, San Sebastian, Spain, ISBN: 84-8081-211-7, pp. 949-958.
- Ketchen, D.J. Jr., Ireland, R.D. and Snow, C.C., 2007, "Strategic Entrepreneurship, collaborative innovation, and wealth creation", *Strategic Entrepreneurship Journal*, 1, 371-385.
- Kitching, J., Blackburn, R., Smallbone, D. and Dixon, S., 2009, *Business strategies and performance during difficult economic conditions*. (Project Report) London, U.K.: Department for Business Innovation and Skills (BIS). 77 p.
- Kock, S., Nisuls, J. and Soderqvist, A., 2010, "Co-opetition: a source of international opportunities in Finnish SMEs", *Competitiveness Review: An International Business Journal*, 20, 2, 111-125.
- Kossyva, D., Galanis, K., Sarri, K. and Georgopoulos, N., 2012, "Adopting an Information Security Management System in a Co-opetition Strategy Context", Paper Presented at the 8th National and International Conference of Hellenic Society for Systemic Studies (HSSS): Systems Approach to Strategic Management, 5-7 July 2012, Thessaloniki, Greece.
- Kossyva, D. and Georgopoulos, N., 2011, "Co-opetition Strategy: Fostering Innovation for Competitiveness and Growth", Paper Presented at the International Conference: Rethinking Business and Business Education in the Age of Crisis, 20-22 October 2011, Island of Chios, Greece.
- Kossyva, D. and Georgopoulos, N., 2013, "Co-opetition strategy and innovation: positive and negative effects", Paper Presented at the 9th National and International Conference of Hellenic Society for Systemic Studies (HSSS): Systemics for Process Cohesion, 11-13 July, 2013, Volos, Greece.
- Kossyva, D., Sarri, K. and Georgopoulos, N., 2012, "Female Business Venturing in Tourism: Exploiting Advances through Value Creation Networks", *Proceedings of 2<sup>nd</sup> Advances in Hospitality and Tourism Marketing and Management Conference*, 31 May-3 June 2012, ISBN: 978-960-287-139-3.

- Luo, Y., 2007, "A coopetition perspective of global competition", *Journal of World Business*, 42, 129-144.
- Lussier R., 2008, *Management Fundamentals: Concepts, Applications and Skill Development*, 4th edition, Cengage Learning, USA.
- McCutchen, W.W. and Swamidass, P.M., 2004, "Motivations for strategic alliances in the pharmaceutical/biotech industry: Some new findings", *Journal of High Technology Management Research*, 15, 2, 197-214.
- Morris, M.H., Kocak, A. and Özer, A., 2007, "Co-opetition and small business strategy: Implication for performance", *Journal of Small Business Strategy*, 18, 1, 35-55.
- Nasution, H.N., Mavondo, F.T., Matanda, M.J., and Ndubisi, N.O., 2011, "Entrepreneurship: Its relationship with market orientation and learning orientation and as antecedents to innovation and customer value", *Industrial Marketing Management*, 40, 336-345.
- Nieto, M.J. and Santamaria, L., 2007, "The importance of diverse collaborative networks for the novelty of product innovation", *Technovation*, 27, 367-377.
- Quintana-García, C. and Benavides-Velasco, C., 2004, "Cooperation, competition, an innovative capability: a panel data of European dedicated biotechnology firms", *Technovation*, 24, 927-938.
- OECD, 2009, "The Impact of the Global Crisis on SME and Entrepreneurship Financing and Policy Responses", Centre for Entrepreneurship, SMEs and Local Development.
- Ritala, P., 2012, "Coopetition strategy – when is it successful? Empirical evidence on Innovation and Market Performance", *British Journal of Management*, 23, 307-324.
- Ritala, P. and Hurmelinna-Laukkanen, P., 2009, "What's in it for me? Creating and appropriating value in innovation-related co-opetition", *Technovation*, 29, 819-828.
- Ritala, P., Hurmelinna-Laukkanen, P., Blomqvist, K., 2009, "Tug of war in innovation-coopetitive service development", *International Journal of Services Technology and Management*, 12, 3, 255-272.
- Sarri, K., Bakouros, Y. and Petridou, E., 2010, "Entrepreneur training for creativity and innovation", *Journal of European Industrial Training*, 34, 3, 270-288.
- Schiavone, F. and Simoni, M., 2011, "An experience-based view of co-opetition in R&D networks", *European Journal of Innovation Management*, 14, 2, 136-154.
- Slater, S. F. and Narver, J.C., 1995, "Market orientation and the learning orientation", *Journal of Marketing*, 59, 3, 63-74.
- Wesson, T. and De Figueiredo, J.N., 2001, "The importance of focus to market entrants: a study of microbrewery performance", *Journal of Business Venturing*, 16, 377-403.
- Zikou, E., Naumov, M., and Sarri, K., 2011, "Entrepreneurship as a factor for economic growth", *Proceedings of the 1<sup>st</sup> international conference for undergraduate, graduate and post graduate students of students' association of south and eastern Europe and the Black Sea region economic universities (ASECU YOUTH)*. Rostov-on-Don, Russia, 259-263.