The Factorial Mirror (FAM) Concept of Small and Medium-sized Enterprises (SMEs) and the Firm Impact Sphere (FIP): The Connection to the Business Bridging Tactics

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The Factorial Mirror (FAM) Concept of Small and Medium-sized Enterprises (SMEs) and the Firm Impact Sphere (FIP): The Connection to the Business Bridging Tactics

Adli Abouzeedan

E-globalization is a terminology of high significance when focusing on smaller firm mechanisms of survival and growth in the new IT-based economy. One of the new approaches to understanding the interaction between the firms' activities and their environments is the concept of the 'Firm Impact Sphere'. The 'Firm Impact Sphere' (or FIP) concept was initially proposed by Abouzeedan and Busler (2002a, 2006a). The FIP concept facilitates better perception of the business environment of today.

In relation to that, it is worth recalling that scholars made an effort to categorize a firm's performance factors related to internal environments versus the ones related to the external environment of the firm, by arranging the various factors of impact into individual groups, such as the SPF classification system (see Abouzeedan 2002). In that paper, the equivalency between the sub-groups within the SPF-classification system was established. That work was developed further by a later paper by Abouzeedan (2003), where the author discussed how to relate equivalent groups of parameters. To do this, he introduced the concept of the mirror effect using the 'Factorial Mirror' concept (see Abouzeedan 2003).

In this article, I try to illustrate how the ‘Factorial Mirror’ (or FAM) concept can be utilized to understand the relationship between the external and internal parameters incorporated in the firm performance models and relate that concept to the Firm Impact Sphere (FIP) framework of analysis. I then proceed to connect that analysis to bridging tactics and alliances’ formation. In the context of this discussion, I introduce the BFF Triangle as an abstract presentation to the said. By understanding how manipulating parameters of the external environment would alter the internal environment of the firm, scholars should be able to build a better perception of the dynamism behind the ability of firm bridging tactics to transfer themselves into workable alliances.

Keywords: Small and medium-size enterprises, SMEs, firm impact sphere, localized firm impact sphere, semi-globalized firm impact sphere, globalized firm impact sphere, SPF classification system, factorial mirror concept, globalization, e-globalization, bridging tactics, strategic alliances, BFF triangle

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Introduction

Background

The nature of the economy today is different from what it was just three decades ago. The introduction of the Internet at the beginning of the 1990s introduced a new form of economy based on ‘e-globalization’ dynamics. The terminology ‘e-globalization’ was first introduced by Abouzeedan and Leijon (2004) and Abouzeedan (2005). The two writers, in the two mentioned works, described the nature of e-globalization but they stopped short of introducing a clear definition of the concept. In this article, I try that based on the background given by the two researchers for the terminology e-globalization.

The definition I propose for e-globalization (also written as E-Globalization in some other sources such as in Abouzeedan and Busler 2002a, 2006a) is:

E-globalization (or E-Globalization) is the process of interconnecting the various regions of the globe and the resulting transformation of the economical, social, cultural and political nature of the human societies through the mechanisms generated by the introduction of Information Technology tools. This interconnectivity started by the introduction of the personal computers during the eighties and took a real kick off due to the customization and commercialization of the Internet and the subsequent launching of the World Wide Web at the beginning of the 1990s.

For the rest of this article, I will use the forms E-globalization or e-globalization in my discussion.

In the e-globalization environment and the resulting e-globalized economy, the interaction between the external and internal parameters affecting firm performance is of another nature than in the classical economy. That is the essence of the contingency approach to organizational build-up which focuses on the environment of the firm. One of the analysis tools which provides a holistic perception of the firm’s interaction with an environment is the Firm Impact Sphere (FIP) (see Abouzeedan and Busler 2002a, 2006b). That is why it is of great importance to incorporate the IT impact on organizations and their performance, when we try to build an understanding of their structures and performances in our analysis, as we seek a correct perception of the nature of the economies of today. The desire to achieve that has induced a great research effort focused on understanding the relationship between IT and organizations, their structures and performances. This effort became most intense during the 1990s and the opening years of the twenty-first century. According to Palvia et al. (2002), interest and research in global information techniques is relatively recent. Nevertheless, the definition of global IT has evolved and expanded since then. Palvia (1998) identified three components of the global IT. The first component is information systems and technology which are global in scope. The second is information systems and technology which varies in different cultures and countries. The third component is IT products and services that are built in one country and used in another. Referring to Fuller (1996), computers and IT software programmes are, theoretically, business tools which can be used to reduce costs, create stronger linkages with customers and to innovate and facilitate niche
marketing. The group of firms which benefited most from the IT is the smaller enterprises. In reference to Fuller (1996), studies suggest that computers are used by small businesses for operational or administrative undertakings, rather than for ‘strategic’ decision making applications. To induce better performance in these firms, the utilization of the IT tools in strategic planning is of great significance and it will affect the performance of the organizations.

**Organizational Performance**

Turban et al. (1999: 5) stress that IT is becoming the major facilitator of business activities in the world today. Other researchers too have pointed to this fact in earlier works (see for example, Tapscott and Caston 1993). Dertouzos (1997) informed us (as in Turban et al. 1999: 5) that IT is an active facilitator of basic changes in the structure, operation and management of firms, due to capacity enhancement. A literature review conducted by Melville et al. (2004), revealed that studies examining the association between IT and organizational performance are divergent in their conceptualization on key constructs and their inter-relationships. According to Melville et al. (2004), previous research has shown that IT utilization in firms’ operations contributes to the improvement of their organizational performance. This is confirmed in other works such as Brynjolfsson and Hitt (1996) and Kohli and Devaraj (2003). The value created in business due to the utilization of IT depends on various factors, which includes the type of IT, management practices, and organizational structure, as well as the competitive and macro environment (see Cooper et al. 2000; Dewan and Kraemer 2000). Morgan (1994) expressed the view that IT has changed organizations and made them flatter, smaller and faster in performing their operations. Based on what Morgan has postulated, I argue in this article that such flatter structures of organizations may facilitate the build-up of alliances across the globe better, by choosing suitable connectivity nodes between the corresponding sections of the involved organizations without the need to re-orient the whole organizational matrix of the firms. Within that context, the Factorial Mirror (FAM) concept can be called upon in relation to bridging tactics analysis.

The Factorial Mirror (FAM) concept was first introduced by Abouzeedan (2003). The concept tries to connect the internal versus the external environment of a firm. One factor which has in a dramatic way, impacted both the internal as well as the external environment of organizations, is the recent advances in the Information and Telecommunications Technologies. IT tools are improving the speed and reliability with which information is passed not only within an individual organization but also around the globe. Dramatic reductions in the cost of obtaining, processing and transmitting information are changing the way we do business today (see Porter and Miller 1991). I stress that the IT impact on an organization is transferred most obviously on organizational performance. A good reflection of this is how the external and internal firm performance parameters would enhance the competitiveness of the firm. Michael Porter is behind the concept of value chain analysis as the key for an organization to be competitive (see Porter 1980, 1985). The concept was developed as a method for analyzing the sources of competitive advantage available to a firm. The value chain paradigm
assumes that competitive advantages result from a combination of the many different activities a firm pursues during the course of business, rather than coming from one individual source. In her work, Smith (1999) concluded that it is important that new entrepreneurs set up their businesses with a strategy for IT in mind. Such strategies should be impeded in any models trying to evaluate firm performance.

**Firm Performance Models**

Many researchers worked with developing models for prediction of Small Medium-sized Enterprises’ (SMEs) performance as well as different firm dynamic theories (see for example, Abouzeedan and Busler, 2002b; Abouzeedan and Busler, 2004a). The two researchers, in their review of firm performance modes, studied a spectrum of factors and parameters affecting the performance of SMEs. Some of these factors are financial while others are non-financial. Scholars studied internal and external parameters affecting a firm’s performance. Because of the many factors, which may affect SMEs’ survival, success and growth, studying them needed a tool of categorization. A first attempt to achieve that was attempted by Crick and Dana (2004). The two scholars, using the internal and external classification system, provided a summary of the factors that have been found in previous studies, to motivate firms to export. Abouzeedan (2002) developed a tool for the classification of parameters affecting small firm performance, the SPF classification system. In the SPF system, the performance related factors are dichotomized into two types of parameters. The first group is ‘internal’ factors or parameters and the second group is the ‘external’ parameters. The ‘internal’ parameters cover all that is mostly related to the internal environment within the company. The ‘external’ factors, on the other hand, are related to the external environments in which the business is embedded.

Abouzeedan and Busler (2009) used the SPF classification system to run a semitopology analysis on the existing firm performance evaluation models. The two writers found that the SIV® model is one tool which has the widest range of parameters represented in accordance with the SPF classification system.

Understanding the relationship between a firm’s internal environment and the external environment surrounding the firm, is of extreme importance while studying the various bridging tactics including strategic alliances.

**Strategic Alliances**

The topic of strategic alliances has been investigated using diverse approaches. Brown and Pattinson (1995) explored some of the issues related to the strategic management of alliances resulting from the impact of Information Technology and Telecommunications. Lei and Slocum (1992: 81–83) define alliance as ‘coalignments between two or more firms in which the partners hope to learn and acquire from each other the technologies, products, skills, and knowledge that are not otherwise available to their competitors’. Ngai and Wat (2002) argue that globalization and IT are radically changing the face of business and organization. IT is being adopted and incorporated into nearly all organizations that have invested heavily in IT infrastructure for the overall success of their businesses.
Pudney (2001: 163) looks at how organizations are achieving a competitive advantage from partnering. He studied many forms of collaborations between firms.

Often discussions about collaboration between firms across borders do neglect the issue of the coupling between Internet and other IT tools and the management styles practiced in such collaborating work. However, there is always pioneering researchers who look at new frontiers and work to update our perception build up. Among such pioneers are Dr Leo-Paul Dana and his colleagues. Dana et al. (2002) introduced the new terminology ‘Internetization’ in the emerging IT-based economy as a synonym for the word ‘Internationalization’ in the traditional economy. According to the researchers mentioned earlier, the term ‘Internetization’ refers to the process of adoption and diffusion of e-business systems and Internet technologies by innovative entrepreneurs. Referring to the same source, ‘Internetization’ shares some core notions with ‘internationalization’ in accordance with the Uppsala model. Other researchers built on that effort. Abouzeedan et al. (2003) introduced the concept of ‘Internetization Management’. Later, Abouzeedan and Busler (2007) discussed how Internetization Management can be used in running strategic alliances.

The first section of this article is a short introduction. In the next section I look at the organizational environment. In the section that follows I reflect on the Factorial Mirror concept. In the next section I look at the connection between the FAM and the FIP concepts and finally I present my conclusion.

The Organizational Environment

Background

The interaction between the internal and external environment of a firm is an important dimension to care of, while understanding why and how small firms build their alliances across borders. Abouziedan (2003) hypothesized about the existence of a ‘mirror’ relationship between parameters of equivalent ‘external’ and ‘internal’ sub-groups. He also developed a mirror-pair concept to be displayed in what would be known as the mirror-pair diagrams. The inducing of this division is extremely important as most of the latest organizational theories view firms as open systems with mutual interaction between the internal and external conditions. The characteristics of the environment within an organization vary depending on how we perceive that organization.

Following Dill (1958), Scott (2003: 197) defined the task environment as those features of the environment which are relevant to the organization when viewed as a production system. These include, in particular, the sources of inputs, markets for outputs, competitors and regulators. Several theoretical frameworks provided guidance to empirical studies of how an organization relates to the task environment. These include contingency (Donaldson 2001; Thompson 1967), strategic choice (Baum 1998; Child 1972), competitive strategy (Porter 1980), resource
dependence (Pfeffer and Salancik 1978), transaction cost (Williamson 1981) and knowledge base (Nonaka and Takeuchi 1995). Porter (1980) regards decisions concerning product differentiation and focus to be among the most significant ones made by organizations while determining their comparative advantage strategies. Since no organization generates all of the resources necessary for its goal attainment or survival, organizations are forced to enter into exchanges, becoming interdependent with other environmental groups, typically other organizations (Scott 2003: 197). This interdependence between organizations, which Scott (2003: 197), has labelled the ‘Resource Dependence Approach’, has given rise to considerable theoretical and empirical work since the early 1970s. Porter (1980) conducted an analysis dealing with competitive strategies appropriate for firms confronting varying market configurations. Using a different set of assumptions, transaction cost theorists and population ecologists have also examined the relation between task environments and organizational forms.

The nature and scope of the organization’s domain is a critical concern for all organizations. Domain definition concerns not simply the general area of activity, but the particular roles or functions that the organization will perform (Scott 2003: 198). One topic of importance is the way in which the firm business domain has been altered by progress in IT tools. Abouzeedan and Busler (2002a) argue that IT is having a clear and profound effect on small firm management. Management activities, which were time consuming as well as labour intensive, are taking far less time and effort to be performed using the new IT tools. The managers of SMEs are becoming aware of this and SMEs are catching up by adapting new IT technologies. IT is used today in all aspects of business activities including sales and marketing, purchasing, financial transactions, administration, accounting and communicating. Abouzeedan and Busler (2006b) argue that:

These advances in Information Technology also facilitate a healthier environment to practice bridging techniques, such as strategic alliances. Utilizing such partnership structures would have required significant effort and was historically beyond the limited resources of the smaller firms. Within the context of the new realities of the e-globalization and IT-economy, building functioning partnership structure is far easier than before this advancement.

The said is more true for smaller enterprises in comparison to larger enterprises. In either case, the issue of IT impact brings up the discussion about the firms’ performance and the organizational environment into existence.

**Firm’s Performance and the Organizational Environment**

One important category of the origins of the advantage of firm’s performance is the nature of the ‘local’ environment in which the firm is based (Porter 1991). Porter (1991) has observed striking concentrations of successful firms in particular locations, which suggests that something about these locations is fundamental to creating and sustaining advantage. Rhenman (1973) used the terminology ‘environment’ to characterize the observable factors affecting the recurrent cycles and patterns
in organizations, when he argued that there is no life cycle or phased sequence applicable to all organizations. Among such influential environmental factors, according to Kazanjian (1988), are technological discontinuities that introduce radically new technologies to existing industries (Tushman and Anderson 1986) as well as the emergence of new industries and shifts in demand patterns. Abouzeedan and Townsend (2005) argue that the environment concept would differ slightly depending on whether we consider the firm as a ‘Closed System’ in accordance with older ‘Rational’ organizational theories, like scientific management, decision making, bureaucratic and administrative theories or as ‘Rational Open Systems’ as in the Contingency Theory, among others. In the ‘Closed System’, the environment is completely separated from the organization and the boundaries are clear and sharp. In the ‘Open System’, there is a degree of diffusion and the boundaries are not that sharp. The way we regard the firm, either as open or closed system, affects our understanding of the factors which determine and influence organizational performance.

Referring to Zinger et al. (2001) previous studies on the factors affecting early stage performance of Canadian micro-enterprises have identified a wide array of underlying variables of impact including industry structure (Sandberg 1986; Sandberg and Hofer 1987), owner/manager characteristics and background (Reuber et al. 1990; Smith and Gannon 1987; Wingham and Kelmar 1992), utilization of professional assistance/training programmes (Good and Graves 1993; Kent 1994), availability of resources (Brush et al. 1998; Chandler et al. 1994; Stevenson et al. 1999) and environmental factors (Everett and Watson 1998). According to Zinger et al. (2001), some scholars, notably among them Keats and Bracker (1988), Orpen (1985) and Stearns et al. (1997) have focused on management practices and their influence on small business performance. Referring to Roper (1998), in the PIMS (Profit Impact of Market Strategy) models, firm’s performance is measured purely in terms of return on investment. According to Zinger et al. (2001), a number of researchers have cited the firms’ ability to successfully develop and launch new products and services as one of the major factors influencing SMEs’ performance (see for example, Chaston and Mangles 1997). In addition, and according to Smith and Gannon (1987), the effective use of budgets and reporting systems can also have a direct impact on the well-being of the enterprise. A lot of firms’ performance studies rely heavily on financial indicators (see Abouzeedan and Busler 2002b and 2004a). Different financial measures have been utilized to evaluate small performance including sales volume (Boyle and Desai 1991; Cardozo et al. 1996; Chandler et al. 1994), number of employees (Birely and Westhead 1990, Shrader et al. 1989), number of customers and increases in market share (Sexton 1986). Contrary to this approach, some researchers did not see a consistent set of variables that could be directly linked to success or failure (see Lussier 1996). Some even criticized the simplified financial ratios’ approach to study SMEs performance (cf. Klofsten 2002; Davidsson and Klofsten 2003). A much broader conception of ‘performance’, was implicit in the framework outlined by Roper (1998), embodying both growth and profitability measures along with other indicators of firms, including market position.
Still, I do believe that understanding what governs and facilitates better firm performance, is essential to decide on the management practices utilized in running and operating enterprises.

**Firms’ Performance and Management Practices**

**Firms’ Performance and Strategic Decisions**

The way firm’s performance is connected to the issue of decision making processes is of significant importance within the context of understanding the facilitation of bridging tactics. According to Ross Jr. et al. (2000), although several studies have addressed whether strategic decisions affect performance (for example, Boulding et al. 1994; Rhyne 1986) and also how firms make specific decisions (for example, Cyert and Marsh 1963), but there has been little examination of the recurrent decision making process and its effects on firm’s performance. The research done by Ross Jr. et al. (2000), deviated from the typical approach of strategic planning studies. Instead of linking planning style to performance, they centred their attention on understanding the effects of: (i) managers’ focus, i.e., whether managers attend to external factors, internal factors or both in their decision making and (ii) the complexity of their decision making processes. In this way they provide insights into managers’ mental models for recurrent decisions (see Boulding et al. 1994). Another approach to understand the decision making in a firm is to connect its management practices to its performance.

Scholars such as Keats and Bracker (1988) and Orpen (1985), focused on management practices and their influence on the performance of small businesses. According to Orser et al. (2000), such research has not led to any agreement among researchers as to what drives small business growth. In our studies of causal relationship, it is not always easy to catch the indirect impacts. Kotey and Meredith (1997) categorized key management variables affecting the performance of small enterprises based on functionality, into four groups—financial, marketing, human resource and operations management. Firm performance and desired growth can be related to the export activities of the firm. A wide body of literature exists on the export behaviour of the SMEs. Studies have addressed a number of issues associated with managers’ international business practices and arguably, these have largely been from an exporting perspective. These have tended to involve issues such as, managers’ perception about their overseas competitiveness, motives for engaging in international activities, barriers in operating overseas and export assistance requirements (see for example, reviews such as Aaby and Slater 1989; Bilkey 1978; Miesenböck 1988). By the end of the 1970s, researchers predicted that there will be an increasing interest in identifying the factors associated with the conduct and performance of the small, dynamic firm and the relationship among these factors (Keats and Bracker 1988). Dandridge (1979) and later Robinson and Pearce (1984) suggested that small firms are different from larger firms in a number of aspects including management characteristics, resources and range of strategic options. According to Robson and Bennett (2000) rather than employment growth, owners and managers of SMEs are usually most interested in financial performance.
Often the decision made in a firm’s life cycle governs its abilities to nourish and expand. Correct strategic decisions would help a firm to grow while bad decision making can lead to failure.

**The Firm’s Growth**

There are different ways to express a firm’s growth. One such way is to look at the firm’s profitability. Profitability focuses on the earnings of firm’s owners (Kalleberg and Leicht 1991). In their work, Robson and Bennett (2000) used three measures for SMEs’ growth—percentage change in employment, percentage change in firms’ turnovers and change in profitability per employee. Other measures of firm’s growth that could be used are market share, return on capital employed and measures of productivity. Hakim (1989) made a distinction between businesses which are actively attempting to grow and those which are not. Referring to Robson and Bennett (2000), earlier attempts to explain the SMEs’ growth focused on three main areas. Firstly, the effect of SME’s size where the issue is the absolute numbers of jobs generated by firms of different initial sizes. Secondly, there has been a debate about picking winners, where contention revolves around how many firms, as a proportion of the initial stock, are responsible for employment creation (Freel 1997). Thirdly, there has been a distinction between the new and old firms, where different authors have argued that employment creation can be attributed to the formation of new firms rather than the growth and expansion of those firms that are already in existence, at the start of any period under analysis (Robson 1996).

Several hypotheses have been presented about management objectives and behaviour as reasons why firms grow (see Trau 1996). For example, the ownership, control and discretionary behaviour of managers are seen by Baumol (1959) as factors driving the objectives of a firm including sales revenue maximization. Marris (1964) took the argument further by focusing on managerial expertise and Williamson (1964) stressed the role of managerial discretion. It is thus suggested that profit maximization need not be the only driving force of the business. O’Farrell and Hitchens (1988) identified several other factors that explain SMEs’ growth including—stages of growth, the strategic view and the strategic management perspective (see Gibb and Scott 1985).

One of the most widely posited hypotheses related to the issue of firm’s growth is that it is a result of chance, irrespective of the management’s goals and strategies. This is associated with Gibrat (1931), who presented a series of postulations about firms’ growth. According to these: (i) there are many causes of size change, (ii) none of these alone is believed to extend a major influence on size change, and (iii) their effect is independent of the size of the firms. Referring to Roper (1999) an owner-manager, a group of partners or members of a family dominate the management of most small businesses. Other studies, according to Roper (1999) have chosen to adopt a partial perspective, focusing specific issues (cs. Roper 1997; Brockhaus 1982).

In the next sub-section, I look at competitiveness and firm performance.

**Competitiveness and Firm’s Performance**

The topic of competitiveness in relation to a firm’s performance has been discussed within
various contexts. Referring to Crick and Dana (2004), a review of literature suggests that a wide body of knowledge exists on the issue of firms’ competitiveness in overseas markets (see for example, Crick and Bradshaw 1999; Katsikeas et al. 1996; Styles and Ambler 1994). Nevertheless, when considering the issue of competitiveness, it is apparent that a single agreed measurement does not exist; also, there has been an overlap between the means and sources of the competitiveness. Even worse yet, some recent research has in-tended to frequent or dichotomize the important parts of the problem of competitiveness, rather than integrating them (see Crick and Dana 2004). Porter (1991) assumed that a firm’s success is manifested in attaining a competitive position or series of competitive positions that lead to superior and sustainable financial performance. Scholars such as Andrews (1971), saw each company as unique with its own history, personality, capabilities and set of current policies. Every industry is also unique with its own circumstances and critical success factors. Roper (1999) pointed out that the framework used to explain firms’ strategic choices is similar to that used in the previous analysis of technological innovation (for example, Harris and Trainor 1995; Love et al. 1996; Roper and Hewitt-Dundas 2001). According to Roper (1999), these models are extended, however, to allow for the potential catalytic role of the owner–manager.

Roper (1999) stressed that a relationship of significance, while thinking about firms’ competitiveness, is the one between firms’ strategic choices and business performance. The author adopted a formulation that follows relatively closely the argument developed in a number of studies associated with the PIMS (Profit Impact of Market Strategy) project (see for example, Buzzell and Gale 1987; Carroll 1985). In the extent of larger businesses’ units, the findings suggest that firms’ performance can be explained in terms of firms’ current market position—thought of as representing the outcome of past strategy—and their current strategic choice. In the PIMS models, however, firms’ performance is measured purely in terms of return on sales and return on investment which are purely financial indicators. A broader concept of ‘performance’ is implicit in the framework outlined in Roper (1999). The framework embodies both growth and profitability measures along with other indicators of firms’ market position.

McFarlan’s (1984) theme of IT for competitive advantage has been built on by a number of researchers in relation to smaller business, for example, Porter and Miller (1985). Principally, the arguments presented by McFarlan have been that IT is a resource that small firms can utilize to behave like bigger firms.

In order to evaluate how IT can be utilized to enhance the competitive advantage of a firm, we need to grasp the kind of parameters which are incorporated in the firms’ performance models.

**Firms’ Performance Parameters**

Acar (1993) categorized factors affecting the growth and performance of SMEs into two groups—factors related to the external environment and factors related to the internal environment. Abouzeedan (2001) implied a categorization trend as he separated, for some degree, the financial from the non-financial parameters in the basic equation of
the Survival Index Value (SIV®) model (see Abouzeedan 2001; Abouzeedan and Busler, 2002c). Gibb and Scott (1985) used the terms ‘internal factors’ and ‘external factors’ when they discussed the subject of strategic planning in SMEs. Referring to Zinger et al. (2001), earlier studies on the topic of small business performance in the early stage identified a group of underlying variables which have an impact on firms and their conduct. The relative importance of these different elements of impact on firms’ performance varies from study to study.

Helms and Renfrow (1994) used the three-category approach defining input measure (number of employees), output measure (gross sales) and longevity measure (length of time in business) to classify small businesses when introducing their life cycle model. It is to be noticed that the longevity measure that the authors used in that work is actually the age of enterprise. Other researchers, particularly Abouzeedan (2001) and Abouzeedan and Busler (2002c), used the bookkeeping (registration) date as the start of the company life although it may be that the actual business activities started at a later date. This is a more simplified and straightforward definition enabling a better comparison between ages of different enterprises (see also Penrose 1959).

A sound performance parameter categorization is able to help scholars in developing new firm performance models.

**Evaluating Firms’ Performance**

Crick and Dana (2004) pointed that there are two groups of studies which can be identified from existing business literature, to act as a basis for differentiating between successful and less successful firms. The first approach is to identify a set of criteria from a review of literature, and use these to distinguish between successful and less successful firms based on subjective cut-off points/in data under investigation (see for example, Das 1994; Samiee and Walters 1990). Crick et al. (1994), suggest that such issues include firms’ export ratios, profitability and growth. This approach has some drawbacks. The used criteria do not determine the objectives of specific managers and therefore, assumptions about performance are to some extent, imposed on the data set. In another approach to firms’ performance studies, a pre-determined group of firms that have been judged as successful are used as the sampling frame (see Cunningham and Spigel 1971; Michell 1979; Styles and Ambler 1994). However, problems exist in establishing the credibility of the selection criteria of the particular designation to a firm to be a successful or not successful one. Indeed, there is arbitration whether firms meet all or just part of the overall criteria and therefore, on what basis they have been judged to be successful.

Researchers such as Crick and Bradshaw (1999) stressed that most of the models developed for small company’s performance relied solely on financial ratios (see for example, Altman et al. 1977, 1994). However, some of the earlier developed models, such as by Argenti (1976), included both financial and non-financial ratios. One of the unique review works done to review SMEs’ performance models is done by Abouzeedan and Busler (2002b) and Abouzeedan and Busler (2004a). There exist a number of firms’ performance models of varying degrees of
Adli Abouzeedan


complexity and relative completeness. The SIV® model which appeared in the first years of the twenty-first century brought again the older attempts of Argenti of building firm performance models that contain financial as well as non-financial parameters. The SIV® was developed by Adli Abouzeedan under the supervision of Professor Michael Busler, while doing his PhD at Washington International University (see Abouzeedan 2001; Abouzeedan and Busler 2002c). Later, Abouzeedan and Busler (2004b) used the SIV® model to run an analysis on a Swedish successful fishery company.

To be able to build more accurate firms’ performance evaluation models, we need to understand the environment within which the firms are operating today.

The Realities of the New Economy

The New Economy of the Information Technology

Information technology tools are dramatically transforming today’s economy at different levels and in diverse ways. Some researchers have already spoken about the new types of economies. They have discussed the discrepancies between the ‘spatial’ and the ‘scale’ economy, the latter being the older, more traditional one (see Polenske 2001, 2002). Abouzeedan and Leijon (2004) and Abouzeedan (2005) differentiated between the traditional form of globalization which was powered by non-IT methods and the globalization phenomenon that is facilitated by new information technology tools. The two researchers called the latter e-globalization. One of the clear outcomes of the impact of IT on business forms in the new economic era, is the emergence of the facilitation of resource sharing between enterprises.

According to Bonk (1996), in this electronic arena, small and large companies alike can combine appropriate resources from anywhere in the world to reach target markets anywhere. These shared resources may include products, marketing, sales, distribution, research engineering, technology transfer, finance and various mutual support services. This ability to share resources is especially important to SMEs that previously lacked complementary resources to participate in global markets. Several researchers have identified potential management areas for the application of IT, as pointed by Fuller (1996). Such areas include production management (Sharp et al. 1990); marketing (Alpar and Reeves 1990; Lincoln and Warberg 1987; Nobble et al. 1989) and management decision making (Gupta and Harris 1989). As noted by Holzinger (1995), the establishment and solidification of the entertainment, communication and information industries are helping SMEs to improve their management practices and sale revenues.

The extent of the IT business value depends on a variety of factors, which includes the type of IT applications, management practices, organizational structure, the competitiveness of the firm and the macro environment (Cooper et al. 2000; Dewan and Kraemer 2000). The research indicated that often smaller firms do not fully appreciate the value they generate from the usage of IT tools. As such, the business value may be captured by end-customers in the form of lower prices and better quality (Bresnahan 1986; Hitt and Brynjolfsson 1996). As argued by Melville et al. (2004), in the network era, electronic linkages within and among organizations are
proliferating, thus altering the methods in which firms acquire factor inputs, convert them into products and services, and distribute them (see for example, Hammer 2001).

In the next sub-section, I discuss the impact of IT on an organization.

**Impact of Information Technology on an Organization**

The potential benefits that an organization can obtain when it utilizes IT are extensive and include efficiency gains (for example, the automation of clerical procedures), increased management effectiveness (for example, in decision making) and improved business performance (for example, by entering into strategic alliances with other firms) (see Fink and Kazakroff 1997). As pointed out by Fink and Kazakroff (1997), in the small business domain, IT systems would prove to be invaluable in tracking customer orders, correspondence, delivery and payments. Bhattacherjee (2001) raised the point that the nature of online firms’ interaction with customers is also transforming business techniques from traditional communication channels such as telephone and mail, to electronic mail and web-based forms, from full-service to self-service, and from mass marketing to personalized marketing. With reference to Globerman et al. (2001), the Internet has dramatically reduced the costs of ‘point to multipoint’ communication, making it easier for brokers and other information providers to supply information to their customers. In addition, the relatively low cost of opening a website has made it easier and less costly for those in possession of information to make that information accessible to all, in one well-known (electronic) location.

One clear impact of IT on smaller firms in the new e-globalized age, is the way we can define the physical space within which a firm’s activities are apparent.

**The Concept of the Firm Impact Sphere and its Significance**

The physical space on which the firms have an impact has changed drastically in the last two decades due to the IT revolution. A recent effect to account for that phenomenon was proposed by Abouzeedan and Busler (2002a, 2006a). The two researchers introduced a new framework when it comes to understanding the operational side of a firm’s activities including bridging tactics and partnership structures. The two researchers named the new concept as ‘Firm Impact Sphere’. Abouzeedan and Busler (2002a, 2006a) defined the ‘Firm Impact Sphere’ as ‘the geographical area, within which the business activity is conducted, encompassing all forms of functional, operational and strategic processes performed by the firm’. The two researchers hypothesized that there are three, theoretically possible, types of such firm impact spheres. These are the ‘Localized’ Firm Impact Sphere, the ‘Semi-globalized’ Firm Impact Sphere and the ‘Globalized’ Firm Impact Sphere. For the convenience of the readers, Abouzeedan and Busler (2006a) used the abbreviation FIP, for the Firm Impact Sphere. As such the ‘Localized’ Firm Impact Sphere can be designated as ‘Localized’ FIP.

Abouzeedan and Busler (2002a, 2006a) argued that in the ‘Localized’ Firm Impact
Sphere, business activities are conducted in a limited geographical region within the immediate area of the company. According to the two writers, in the past almost all SMEs had an ‘Impact Sphere’ of this sort. Communication and transportation possibilities were very limited. The firm purchased its raw material, semi-products or complete products from within close proximity of its location and sold its products and services to the local population. Abouzeedan and Busler (2002a, 2006a), propagated the idea that such a situation lasted until the 1980s.

The ‘Semi-globalized’ Firm Impact Sphere or ‘Semi-globalized’ FIP

The ‘Semi-globalized’ FIP started, as Abouzeedan and Busler (2002a, 2006a) noted, to be a reality as a result of the introduction of smaller, relatively cheaper personal computers in the market in the late 1980s and early 1990s. As such the communication barrier started to collapse across the globe. The impact sphere of the firm expanded beyond its immediate geographic area. Suddenly small firms could reach larger areas with the enhanced communication capacity. The impact of their business activities began to reach a far wider region and the status of a ‘Semi-global’ impact started to materialize. Abouzeedan and Busler (2002a, 2006a) displayed their expectations for the Firm Impact Sphere to extend further in the coming years until we get to the next stage, the ‘Globalized’ FIP.

The ‘Globalized’ Firm Impact Sphere or ‘Globalized’ FIP

As Abouzeedan and Busler (2002a, 2006a) stressed, communication barriers in the new area of IT are collapsing quickly. However, some barriers remain which tend to hinder the total impact of SMEs to be fully propagated across globe. These barriers are due to geographical limitations. The first, according to Abouzeedan and Busler (2002a, 2006a), is the transportation and the time attached to these activities. Further, they argued that other factors are also hindering the expansion of the impact sphere of a firm to extend over the entire globe. Barriers of a cultural, social and political nature will exist for at least the foreseeable future. However, ultimately these barriers, though not completely eliminated, should be significantly reduced to the point where the impact sphere of the individual SME will reach the global level, as Abouzeedan and Busler (2002a, 2006a) have anticipated. Thus a ‘Globalized’ Impact Sphere will be attained. Under these conditions, the outer borders of the ‘Globalized’ FIP represent the whole of the globe and not just a larger limited geographical region.

Abouzeedan and Busler (2006a) argued that within the context of each type of Firm Impact Spheres, there are attached distinct characteristics related to a firm’s performance. The two writers proposed seven such characteristics. These are—(i) firm’s impact, (ii) firm’s-size growth mechanism, (iii) firm’s resources abundance, (iv) firm’s growth potential, (v) firm’s internationalization possibilities, (vi) firm’s management flexibility and (vii) firm’s operative thinking. The clarifications of these dimensions are given in Table 1, as it appears in Abouzeedan and Busler (2006a).

There is a need to look at how the parameters of firm performance can be understood in relation to the Firm Impact Sphere, taking into account the issue of the dichotomy of
The Factorial Mirror (FAM) Concept of Small and Medium-sized Enterprises (SMEs)

The ‘organizational environment’ expressed as the external versus the internal one. I do that by introducing the reader to the SPF classification systems.

The SPF Classification System

Background

The SMEs Performance Factors (SPF) classification system was first introduced in a working paper by Abouzeedan presented at Udevealla Symposium in Udevealla, Sweden in 2002 (see Abouzeedan 2002). This article was used to categorize the factors affecting the performance of SMEs. The SPF system categorizes the factors affecting firms’ performance into two groups of internal parameters and external parameters. Abouzeedan (2002a) defined ‘internal parameters’ as ‘the factors affecting the performance of SMEs and which the company has significant control on. They shape the internal environment within the firm.’ Abouzeedan (2002) defined ‘external parameters’ as ‘the factors, which the company has far less significant control on. The “external” parameters controlled, basically, by the external environment in which the enterprise is existing.’ As pointed out by Abouzeedan (2002), the internal parameters are categorized into five sub-groups—structural parameters, result-related parameters, enhancement parameters, owner/manager related parameters and management capacity parameters. The exact definitions of these sub-groups are presented in Table 2, as it appears in Abouzeedan (2002).

The external parameters are also categorized into five sub-groups—(i) infrastructural parameters, (ii) financial pressure parameters, (iii) financial anti-pressure/promotion parameters, (iv) entrepreneurship vitalization parameters and (v) human-resources parameters. The exact definitions of these parameters are presented in Table 3, as it appears in Abouzeedan (2002).

Some researchers do not see a value in grouping the different factors within such a system. They feel that differentiation is the required thing and not addition. However, Abouzeedan (2002) expressed his belief that organizing our knowledge about factors

Table 1

Clarification of the Distinct Characters of Firm Performance in the Firm Impact Sphere

<table>
<thead>
<tr>
<th>Distinct Character</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm impact</td>
<td>What is the extent to which firm activities are felt by the external environment?</td>
</tr>
<tr>
<td>Firm-size growth mechanism</td>
<td>What is the mechanism by which the firm grows?</td>
</tr>
<tr>
<td>Firm resources abundance</td>
<td>What is the extent to which the firm enjoys resource availability?</td>
</tr>
<tr>
<td>Firm growth potential</td>
<td>What is the extent of the firm ability to grow?</td>
</tr>
<tr>
<td>Firm internationalization possibilities</td>
<td>What are the possibilities that a firm would choose to internationalize?</td>
</tr>
<tr>
<td>Firm management flexibility</td>
<td>What is the extent to which the firm’s managerial decisions are based on alternative solutions?</td>
</tr>
<tr>
<td>Firm operative thinking</td>
<td>What kind of approach the firm management use to tackle operational questions?</td>
</tr>
</tbody>
</table>

Source: Abouzeedan and Busler 2006a.
### Table 2
SPF Classification System: The 'Internal' Parameters

<table>
<thead>
<tr>
<th>Type of Parameters</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural parameters</td>
<td>Parameters which are related to the physical structure of the company such as company age and number of employees.</td>
</tr>
<tr>
<td>Result-related parameters</td>
<td>Parameters which are money related in nature and they reflect the financial health of the enterprise. Examples of such parameters are annual turnover, production costs and profit margin.</td>
</tr>
<tr>
<td>Enhancement parameters</td>
<td>Parameters which enhance and promote better performance of the company. These are usually financial in their nature (except technology intake).</td>
</tr>
<tr>
<td>Owner/manager related parameters</td>
<td>Parameters related to the degree of the entrepreneurial traits of the top managers. These are non-financial in nature. These parameters obtain a more important role as the enterprise becomes smaller in size.</td>
</tr>
<tr>
<td>Management capacity parameters</td>
<td>Parameters related to the quality of management of the firm as a whole including top managers. These parameters obtain more importance as the enterprise becomes larger.</td>
</tr>
</tbody>
</table>

Source: Abouzeedan 2002.

### Table 3
SPF Classification System: The 'External' Parameters

<table>
<thead>
<tr>
<th>Type of Parameters</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructural parameters</td>
<td>Parameters which are related to the size, extension and quality of the macro economy in total. Examples of such parameters can be the physical size of the market in the country, or in a specific geographic area, the size of the market of a specific sector of the economy, the youth-ness of selected sectors of the economy, and definition of small businesses in the country. The common factor is that these parameters are non-financial in nature.</td>
</tr>
<tr>
<td>Financial pressure parameters</td>
<td>Parameters which are related to financial regulations and parameters which impose financial stress on the small company. Examples of such parameters can be level of corporate taxation in the country, interest rates, VAT level and customs.</td>
</tr>
<tr>
<td>Financial anti-pressure/promotion parameters</td>
<td>Parameters which are related to financial regulations granting financial support to the small business sector including different grant programmes.</td>
</tr>
<tr>
<td>Entrepreneurship vitalization parameters</td>
<td>Parameters which are related to entrepreneurial programmes aimed at encouraging business start-ups and ventures in society. These parameters are non-financial in nature.</td>
</tr>
<tr>
<td>Human resources parameters</td>
<td>Parameters which are related to the educational and professional standard in society and how it is responding to the needs of the small companies' personnel. These parameters are non-financial in nature.</td>
</tr>
</tbody>
</table>

Source: Abouzeedan 2002.
related to firms’ performance is essential to build up better performance models. He advocated strongly for creating systems of categorization and in the process, he proposed the SPF classification system.

Central to the SPF classification system is the concept of parameters equivalency.

**Parameters Equivalency**

There is an equivalency between the sub-groups within each major group of the SPF classification system, i.e., the internal sub-group versus the external sub-group parameters (see Abouzeedan 2002). For example, it can be said that the infrastructural parameters sub-group of the external parameters is the equivalent of the sub-group, structural parameters of the internal parameters. This equivalency concept is shown in Table 4, as it appears in Abouzeedan (2002). Abouzeedan and Busler (2009) used the SPF classification system to evaluate the degree of covering to the various groups of performance parameters in a number of selected models. The two writers found the SIV® to be the model covering best and most complete of the sub-groups incorporated in the SPF classification system.

In the next section, I look at the Factorial Mirror (FAM) concept.

**The Factorial Mirror Concept**

**Basic Idea**

When Abouzeedan (2003) introduced his Factorial Mirror concept, he hypothesized that for each parameter within the internal parameters’ sub-group of the SPF classification system, there is a mirror parameter within the equivalent external parameters sub-group. This implies the following theoretical outcome:

1. A major alternation of the status/or numerical value of an external parameter will have its highest effect on the mirror internal parameter.
2. The most directly affected set of parameters will be the parameters of the equivalent internal sub-group to the one of which that particular external sub-group parameter is a member.
3. There will always be minor effects from a major alternation of status/or numerical value of the external parameter on the other internal parameters. We cannot assume that such effects of major alternations of external parameter would not spill over to parameters of the other non-equivalent internal sub-groups.

### Table 4

<table>
<thead>
<tr>
<th>Internal Parameters Sub-groups</th>
<th>External Parameters Sub-groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural parameters</td>
<td>Infra-structural parameters</td>
</tr>
<tr>
<td>Result-related parameters</td>
<td>Financial pressure parameters</td>
</tr>
<tr>
<td>Enhancement parameters</td>
<td>Financial anti-pressure/promotion parameters</td>
</tr>
<tr>
<td>Owner/manager related parameters</td>
<td>Entrepreneurship vitalization parameters</td>
</tr>
<tr>
<td>Management capacity parameters</td>
<td>Human resources parameters</td>
</tr>
</tbody>
</table>

Source: Abouzeedan 2002
Abouzeedan (2003) argued that the Factorial Mirror concept is a useful tool by which we would be able to relate the international and the external environment of the firms. He went on to confirm that such an approach had not been tried before, at least not in such an explicit way. He gave examples to clarify this viewpoint. He argued that, for example, when a specific business sector grows in size, an eventual growth of individual firms occurs and that in turn, increases the firm’s size in the sector. The reason is that an expansion of a sector reflects an increase in demand. The new larger market stimulates growth of smaller firms into larger ones. It also stimulates the establishing of new enterprises. However, Abouzeedan (2003) stressed that firm size does differ from one sector to another. According to the SPF classification system, the sector size is a parameter of the sub-group ‘infra-structural parameters’, which is one of the five sub-groups composing the ‘external’ parameters. The mirror parameter of the sector size is the firm size, which is a member of the sub-group ‘structural parameters’. The last sub-group is one of the five sub-groups making the ‘internal’ parameters group (see Abouzeedan 2003).

Abouzeedan (2003) discussed another example recalling firm’s age, which is a ‘structural’ parameter. As the sector is aging, the life span of an individual firm would be increased. A sector in decline will force a larger number of firms to exit the business. The conclusion as expressed by Abouzeedan (2003) is that the firm’s age, which is an internal parameter, is a mirror parameter of the sector age, which is an external parameter.

The newly introduced tools of the Firm Impact Sphere and the Factorial Mirror concept can be utilized to deal with the way small firms can compete in the e-globalized markets of today through corporation tactics.

Tactics of Corporation across Borders

Background

Cooperation between different entities to achieve common goals is well-known
behaviour within the domain of human activities. Historically, this is more obvious in the area of commerce. This fact was stressed earlier by other scholars including Kanter (1994) who argued that alliances between companies, whether they are from different parts of the world or different ends of the supply chain, are a reality of life in business today. There is also a clear connection between the ability of a firm to compete and its approach to the issue of partnership build-up. As Kanter (1994) correctly pointed out, in the global economy a well-developed ability to create and sustain a fruitful collaboration gives companies a significant competitive advantage. Kanter’s work and his research group uncovered three fundamental aspects of business alliances. The first aspect confirms that alliances must yield benefits for all partners. The second aspect is that for alliances to be deemed successful they must involve both collaboration (creating new value by a combined effort of the partners) and exchange (getting something back for the effort involved). Third, alliances require a dense web of interpersonal connections and internal infrastructures that enhance learning (see Kanter 1994).

The way different partners value the expected outcome of a relationship is influenced by the local culture. Kanter found that the North American companies, when compared to other firms, take a narrow, opportunistic view of relationships based solely on the financial terms of the alliance relationship. Asian companies, on the other hand, place more emphasis on the human quality of the relationship. European enterprises had a middle of the road approach where both components are present in an appropriate mix (see Kanter 1994).

The Corporative Continuum

Cooperative arrangements between companies range along a continuum from weak and distant to strong and close (Kanter 1994). One extreme of such an arrangement is embedded in the mutual service consortia. In this form of cooperation, similar companies in similar industries, combine their resources to gain a benefit that is too expensive to acquire alone. The other extreme form of cooperation is the value chain partnership such as supplier–customer relationships. At the mid-range of the spectrum, there is the joint venture. According to this form of cooperation, companies pursue an opportunity that needs capability from each of the two partners. Companies in different industries with different, but complementary skills, link their capabilities to create value for ultimate users (Kanter 1994).

Internationalization and Information Technology

Referring to Gabrielsson and Kirpalani (2004), traditionally internationalization and global research approaches have evolved around two schools of thought—the process school and the economic school. The former assumes that the firm follows a behavioural approach (Cyert and March 1963). The latter relies on the rational that focuses on the question of how internationalization happens. Referring to Smith (1999), the founding directors of new businesses may find themselves thrown onto a steep learning curve, which they must begin to climb if the firm is to succeed (see Frank 1988; Jovanovic 1982). It is important that the directors approach the new venture with an open and receptive mind, with a keeness to
learn both about their own business and about the environment in which it operates. Katz (2002) brought our attention to the fact that the advent of the Internet has brought about a new form of business organization, called the Virtual Instant Global Entrepreneurship (VIGE). VIGE builds on the existence of particular structures and structured processes on the Internet, which when utilized, result in the creation of a firm in the virtual world. The resulting firm is global from its inception offering sales worldwide, with structures or structured processes often facilitating global financial exchanges (for example, currency movements and conversions). Referring to Dana and Wright (2002), the profound change occurring at the micro-economic level is the demise of the company as the primary unit of competition. Referring to the two researchers, management has long viewed the company as a ‘black box’, a self-contained unit with clearly defined parameters, within which the various management functions take place. The emphasis has been on internationalizing value-added functions to bring them more fully within the control of a firm’s management, and on building walls around the firm to help secure the retention of its internal proprietary advantages from competitors. However, firms that follow this philosophy to business would not survive in the new age of e-globalization. Only firms who are willing to join forces with other businesses are able to survive and grow.

**Bridging Tactics**

Referring to Scott (2003: 203), while buffering tactics are primarily associated with protecting the technical core of the firm, bridging tactics are oriented towards the security of the entire organization with regard to its environment. Abouzeedan and Busler (2006a) argued that such concern for the issue of a firm’s security is of great significance when we are tackling the new e-globalized economy, as the level of competition is more severe. Bridging tactics address, in particular, the power position of an organization versus its exchange partners. Virtually all of the formulations of power and exchange relations among organizations are built on the conception of power developed by Richard Emerson (1962). Emerson’s formulation is useful for several reasons when applied to a given organization and a set of organizations to which it relates. In Emerson’s view, power is not viewed as some generalized capacity but as a function of specific needs and resources that can vary from one exchange partner to another. Thus, it is possible for an organization to have relatively little power in relation to its suppliers, but considerable power in relation to its buyers. Further, we would expect each supplier’s power to vary with the importance of the resources it supplies and the extent to which alternative suppliers are available. Scott (2003: 203) argued that the most complete analysis of bridging tactics till date has been provided by Pfeffer and Salancik (1978). Their conclusion was that, ‘The typical solution to the problem of interdependence and uncertainty involves increasing coordination, which means increasing the mutual control over each other’s activities’ (see Pfeffer and Salancik 1978: 43).

Bridging tactics include bargaining, contracting, cooperation, hierarchical contracts, venture capital, joint ventures, strategic alliances, mergers, associations and government connections (see Scott 2003: 204–11). Pudney (2001: 165) claimed that the key to high
performance and the creation of genuinely innovative methods for working together lies in the understanding and management of some categories of interlinked factors. Together these make what he called the SCOPE model for a successful partnership. The SCOPE model is an acronym for a combination of these sets of factors, where inadequate performance in one or more of the categories may severely inhibit the formation of a high-performing partnership. The factors incorporated in the SCOPE model are categorized into five groups—(i) strategic factors; (ii) cultural and chemistry factors; (iii) organizational and operational factors; (iv) performance review factors and (v) equity factors (see Pudney 2001).

In the next section, I discuss the connection of each of the Factorial Mirror concept and the Firm Impact Sphere to the issue of bridging tactics.

The FAM and FIP Concepts and the Connection to Bridging Tactics

The FAM Concept and the Connection to Bridging Tactics

The Factorial Mirror (FAM) concept focuses on the relation between the internal parameters of a firm’s performance and its mirroring on the external environment. As such, it can be used as an analytical tool to study the way bridging tactics are initiated and how structural alignments between firms are created. One of the major mechanisms of bridging tactics is strategic alliances. This form of bridging tactics presents a middle way between the very loose forms of connections between organizations and full integration of enterprises across borders in case of firm subsidiaries and local branches. Because of this, strategic alliances are located in the middle of the bridging tactics continuum where the interaction between the external and internal environment are somewhat equally distributed. On the other hand, the looser form of connections has more open access between the two environments. On the other extreme, the organizations are enclosed into their own well-defined internal environments.

There are two groups that are able to benefit from the usage of the Factorial Mirror concept in studying bridging tactics. The first is researchers within the field of firm corporation mechanisms. By relating the ‘external’ to the ‘internal’ environment of a firm, scientists are able to refine the existing firm performance models and develop them further to incorporate elements of outward expansion into new markets within and across national borders. The second group is that of policy makers who are concerned by the impact of their legislations in the area of export promotion and the nursing of expansion-focused firms. By monitoring the impact of alternation of the external factors on the internal environment of the firm, policy makers will be able to investigate the projected effectiveness of their schemes and policies in relation to cooperative structures. They can even, in cooperation with scientists, build up virtual models where they can simulate such an organizational environment based on the Factorial Mirror concept approach. Lessons learned from using the simulation tests can be used to understand the mechanisms of bridging tactics in the e-globalized economy.

In this article, I argue that although the FAM concept was originally developed with SMEs in mind, the concept would function...
also in case of large network structures regardless of the size of the firm. I also stress that although there is more diffusion between the external and internal environments and the associated difficulties in distinguishing the two environments in the new e-globalized economy, the differentiation between the two is still feasible. As such the Factorial Mirror concept is valid even under prevailing conditions in the e-globalization world.

The probability of successful strategic alliances can be visualized within the context of the environment within which the enterprises are operating. That is where the importance of the Firm Impact Sphere concept is most realized. In the next sub-section I discuss the Firm Impact Sphere in relation to the bridging tactics and its capacity to help us in understanding how smaller firms expand and grow.

The FIP Concept and the Connection to Bridging Tactics

Abouzeedan and Busler (2002a, 2006a), as mentioned earlier proposed three types of Firm Impact Spheres—the ‘Localized’ FIP, the ‘Semi-globalized’ FIP and the ‘Globalized’ FIP. The two writers theorized that the ‘Localized’ Firm Impact Sphere lasted until the 1970s. According to Abouzeedan and Busler (2006a), in the era of the localized economy using bridging teachings was very difficult. In the localized FIP context, networking demands resources that were still beyond a smaller firm’s capacities.

Building strategic alliances would not have been possible even for the larger firms since they needed excessive availability of resources under the economic conditions of that period. According to Abouzeedan and Busler (2006a), in the ‘Semi-globalized’ Firm Impact Sphere analogy, the smaller enterprises found some success in breaking the barriers that slowed down cooperation and expansion in the international arena. Advances in communication, and to a lesser extent in transportation, facilitated that internationalization.

As Abouzeedan and Busler (2006a) have argued, when we proceeded into the ‘Semi-globalized’ stage of the Firm Impact Sphere realities, a smaller firm gained much of the strategic alliance build-up capacities needed in the context compared to the era of the ‘Localized’ Firm Impact Sphere. They stressed that many smaller firms still could not benefit from the new situation. This is even truer in the developing countries where IT possibilities are limited. In the ‘Globalized’ Firm Impact Sphere analogy, the smaller firms are supposed to gain an unprecedented competitive advantage and they could engage themselves easily in partnership structures. Smaller firms can utilize the whole range of bridging tactics including the strategic alliances effectively by a full utilization of the IT tools.

In this article, I intend to aggregate the three elements of Bridging Tactics (or BIT), The Factorial Mirror (FAM) Concept and the Firm Impact Sphere (FIP) in a single theoretical framework, under the nomenclature, the BFF Triangle. In Figure 2, I present an abstract framework for the BFF Triangle. In the next section, I discuss the BFF Triangle in detail and reflect on the message embedded in it.

The BFF Triangle

Background

The BFF Triangle function as an abstract representation of the anticipated interactions
between its three elements—FAM, FIP and BIT—each of them is formed as one of the three edges of the triangle. These edges serve as connective lines covering the expected analytical input they feed the others with. As such the edges symbolize three aspects of significance in relation to how the three concepts of FAM, FIP and BIT represented by the three corners of the triangle, are attached. These aspects are dynamics, extension and reflection.

**Dynamics**

In this article, I argue that the connectivity between the FAM concept and the various bridging tactics referred to collectively as BIT, covers the dynamics and mechanisms of that relationship. The FAM concept facilitates for us an understanding as to how the two parties engaged in building a corporation scheme such as strategic alliances are tied and how they impact each other’s performance. This is due to the fact that the FAM concept helps us in grasping how the fabrics of the two internal environments of the two entities in a cooperative form are embedded within the external environment.

**Extension**

FIP in relation to bridging tactics covers the extension aspect of the relationship in building cooperation schemes. When the two partners involved in bridging tactics build up interact, the FIP of each partner determines the extent to which each firm’s impact sphere of activities is merging in the other partners’ sphere of impact. The rule is that the two
parties need to have similar FIPs to be able to engage equally in such a relationship. Having two FIPs of a completely different nature would impact negatively on the possibility of the successful build up of a cooperative form.

**Reflection**

The relationship between the FAM and FIP concepts within the framework of the BFF Triangle takes care of the way the firm’s performance parameters are reflected in the impact extension of a firm’s activities.

**Conclusions**

In this article, I tried to conceptualize on the way in which two recently introduced theoretical framework namely, the Factorial Mirror (FAM) concept and the Firm Impact Sphere (FIP), can be related to bridging tactics (BIT) techniques, used to establish a cooperative structure between firms across borders. I argued that the relationship between FAM and bridging tactics covers the dynamics dimension of the build up of cooperative structures. On the other hand, the relationship between FIP and bridging tactics covers the extension dimension of the build up of the cooperative relations between firms. The relationship between the FAM concept and the FIP concept is reflective in nature. I aggregated this reasoning into a conceptual framework with the nomenclature Bridging tactics-FAM-FIP Triangle or the BFF Triangle. The corners of the triangle present the named three concepts. The three edges of the triangle are representative of the three input relationships: dynamics, extension and reflection.

The BFF Triangle helps us in utilizing the new tools of analysis, FAM and FIP, in understanding how bridging tactics would function in reality. It gives management teams a good insight as to whether the outcome of the proposed bridging tactic structures can be as desired. This would have implications both at the micro economic level as well as at the macro economic level.

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