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Article

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The Role Played by Knowledge Intensive Business Services in Knowledge Economy: New Faces and Challenges

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Abstract

Knowledge is now perceived as the basic core of organizations, is becoming more a role in the recognition and capitalization of entrepreneurial opportunities. A growing number of researches have been show knowledge as basis for creation of new organizations. This study aims to evidence the role played by knowledge intensive businesses services (KIBS) today and to highlight their new faces and challenges for 21st century. More specifically, it highlights how several critical factors are involved in development of competitive and innovative system. We argue that the contribution of these organizations on economic development is not a simple process, and to recognize the specific characteristics of KIBS and linking them within a specific context will be an important step.

Key-words

Knowledge organizations; intensive knowledge; KIBS; service sector; Innovation.

Introduction

Despite the growing awareness that innovation is not simply confined to processes and technical products, some recent research on innovative activity have been focused only on technical innovation and particularly in the manufacturing sector (Becker and Dietz, 2004; Huergo and Jaumandreu, 2004; Lynskey, 2004; Nieto and Santamaria, 2005). Only recently the innovation in services has been given more importance (Gallouj and Weinstein, 1997; Tether, 2003). According to Tether et al. (2001), innovation in service organizations is traditionally seen as something that happens very slowly.

The European Commission (2009) argues that the competitiveness of enterprises is closely related to this sector since the business services sector is an important economic sector. This importance is due to this sector has evidenced growth rates in value added and higher employment in recent years. Its importance to the competitiveness of European enterprises and economic growth should be subject to a policy of increased attention. There is great potential for

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enhancing its role in the European economy through the implementation of measures to improve their conditions. This will be done by improving the business environment for Small and Medium Enterprises (SME) within this sector and providing support to increase productivity, job creation, competitiveness, enterprise cooperation, public promotion and the modernization of general government.

The role played by KIBS (knowledge intensive business services) in innovation is stated due to the fact of not having a single performance in innovative activity, as it would be to simply meet the wishes of demand and more specifically, the desire of their clients, but by creating bridges of knowledge or bridges for innovation between business and science (Miles et al. 1995; Czarnitzki and Spielkamp, 2003).There are authors who argue that the origin of a third industrial revolution lies in the importance that has to be given to KIBS (Tether and Hipp, 2002).

Another approach is presented by the OECD (1999; 2005; 2005b) and demonstrates the role of KIBS in the communities where they settle: to generate innovation and technological responsiveness in economic agents and to create a system of connectivity between these agents. Mamede et al. (2007) investigated the extent to which KIBS differ from other industries. They specifically analyzed the patterns and determinants of entry of these organizations (incentives to entry, barriers to entry and the conduct adopted by existing organizations in preventing the entry of new ones), their performance during their life cycle and survival of these organizations comparing them with other group of organizations. They concluded that their workflow is different from other industries, because their emergence is more related to the availability of their entrepreneurs' relevant skills than with the incentives (e.g. incentives to create technology-based organizations). However, they found that during their life cycle these organizations survive through financial support and the constant recycling of knowledge of their employers and employees.

The KIBS are considered to be the most dynamic components of services sectors in most industrialized countries (Strambach, 2001). They have been triumphant in driving many an economy forward and their growth especially in ICT related sectors has closely been related to its advancement (Ferreira et al., 2010). They are now being seen as the reply to several challenges faced by the economies around the world. There are several opportunities for KIBS growth in the 21st century, evidenced by increasing demand for scholars and specialist expertise,

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and by expanding of international markets. In this sense, this study intends to emphasize the role these organizations have today and to focus on their their new faces and challenges for 21st century. More specifically, it aims to highlight how several critical factors are involved in development of competitive and innovative system.

After this introduction, we present the key concepts of this organization face, then the benefits and importance of this face and its critical success factors. Required steps to create this side and challenges and the future of this organization are evidenced. Finally, the conclusions, limitations and future research are draw.

The nature and key concepts of this face of organization

In this research context, knowledge is a core concept which should be defined. Knowledge is today perceived as the basic core of enterprises, increasingly assuming a role in the recognition and capitalization of entrepreneurial opportunities (Andersson, et al., 2009). The increasing number of research has been showed the knowledge is the main factor for creation of new business giving emphasis to spillovers of knowledge coming from universities and other R&D institutions. At this first point we will address the key concepts of this (knowledge) face of organization. The question arises *what is the nature of this face of organization?*

According to Audretsch and Lehmann (2005) the generated knowledge arises from the collaboration between organizations and public research institutions. For Acs et al. (2006) entrepreneurial activity will to be even better in the sense that investments in new knowledge are relatively high at the same time that organizations, especially the new ones resort to the true source of knowledge (universities and R&D).Here we specifically address the KIBS to the extent that they are creators, users and transmitters of intensive knowledge.

Hauknes (1999) draws our attention to an issue of particular relevance: after all what is *knowledge intensity* (this issue is governed by the terms of transactions and source of services). This author suggests two dimensions for knowledge intensity: (i) knowledge that is sought for a particular service provider. Depending on whether the supplier is more or less expert in knowledge-intensive, so those looking for a supplier of such service choose a vendor or other;

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and (ii) the knowledge one seeks in a particular service of knowledge-intensive. In this case the depth of knowledge allows customers to choose one service over another taking into account their greater or lesser degree of high knowledge intensity.

According to Alvesson (1995), the meaning of knowledge intensive can be translated as service organizations that perform complex intellectual operations, where the human factor is fundamental. Also, Miles et al. (1995) distinguish three essential characteristics of KIBS: (i) the high importance that these organizations give to professional knowledge; (ii) the desire of these organizations to be primary resources to information and knowledge, or use their knowledge to produce services that serve as intermediaries between them, their clients and their production processes; and (iii) the great importance of the type of services that KIBS provide the level of competition and competitiveness.

It is now important to make a distinction in terms of types of KIBS. According to several authors (Frell, 2006, Miles and such, 1995; Doloreux and Muller, 2007, Shearmur and Doloreux, 2008), they can be divided into two groups: Technology KIBS, which include the following activities: Activities related to information technology, research and development, architecture and engineering activities and related consultancy, testing and technical activities analysis. And Professionals KIBS: Legal sectors, accounting, bookkeeping and auditing activities, tax consultancy, market research, as well as the entire advertising industry.

The base of the economy (in terms of business) is shaped by the competitiveness of organizations, so they organize their production functions and through its ability can change the rules of competition (Rutten, 2003). Thus, at this level of thought there were important changes since the 80's, as a result of a phenomenon which is called the second Industrial Revolution (Piore and Sabel, 1984), a phenomenon that has attracted the attention of several authors that gave it different terms: globalization (Bartlett and Ghoshal, 1989), the new competition (Best, 1990), specific sources of national competitive advantage (Porter, 1990), the concentration of organizations on their core competencies (Hamel and Prahalad, 1994), the ratio of knowledge creation in organizations (Nonaka and Takeuchi, 1995), the role of territorial development in the global world (Storper, 1997), intelligent regions (Maskell et al, 1998). What all these researchers have in common is precisely showing that the most important changes that occurred in the economy, were due to organizations investigate new ways to improve their competitive

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advantage. This research has become essential for organizations, especially after the worldwide economic crisis of the early '80s, and it has witnessed an unprecedented technological development, which has dramatically altered the economic landscape (OECD, 1992).

In fact, knowledge became a crucial concept in today's economy and it has become the key to competitiveness and firm's success is closely dependent on its ability to develop, and use knowledge more efficiently than its competitors (Rutten, 2003). According to Lundvall (1994), this showed that capitalism had reached the point where knowledge was the most strategic resource and learning was the most important process (Markides, 1997). The know-how had become a central feature abreast of innovations in processes and products. As Schumpeter (1942) argued that technology was a factor that could not be separated from economic development. What is new in the latest theories is not the importance given to technology or knowledge in general but the fact of making knowledge the central point of their studies. Particularly since the 80's, the emphasis on knowledge has increased in a more consistent manner. In these more recent theories, knowledge plays an important role in such a way that leads the various authors to converge in the study of knowledge-based economy (Rutten, 2003Cooke, 2002 and 2009; Kodama, 2009).

Piore and Sabel (1984) tried to make sense of the economic crisis then sweeping the world. They analyzed what was the cause of the end of the era of mass production. They highlighted the crucial role played by knowledge and technology and stated that the only way out of the crisis of the early '80s was specialization. This required a shift in technology paradigm (of craft production) as well as the creation of new regulatory systems. For these authors, the new technologies could enable small-lots production (contrary to mass production practiced by then), allowing organizations to specialize in niche markets and responding to changes in a more flexible way. However, for organizations to explore the potential benefits of flexible specialization, they should organize themselves in order to facilitate innovation. That is, they should adopt new regulatory systems. The regulatory systems developed by these authors look for business and competitiveness in a microeconomic perspective. Already in 1984, Piore and Sabel enunciated several principles that are within the current economic development predicting the great possibilities in the sector of ICT at the workplace being that today most people cannot develop a work activity without these ICT (Piore and Sabel, 1984). To these authors,

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technological development is a major force that can help in adapting to economic development. Jacobs (1969) argued that knowledge-based economies have four characteristics that distinguish the economy of the early '80s: the dissemination of the ICT sector; reduction of the life cycle of the product and technology; the unmaterialisation and network economies. Gradually, these characteristics have become more evident and more important (Rutten, 2003).

We finally have a new competition that depends upon the ability of organizations to design products of higher quality than competitors. Technology alone cannot explain why a firm can make better products than other competitor firm, and maybe it can only explain the lower price level. Knowledge and technology together can be the explanation for this differentiation ability of some organizations over others.

Today practically all organizations can be considered to be knowledge organisations, in that knowledge is their main resource and source of differentiation (Dawson, 2000). Also differentiation is one of the keys to competitiveness, but this force must be combined with other forces such as knowledge, in order to make an appropriate use of technology (Porter, 1990). The efficiency of knowledge organizations depends on their knowledge capabilities, organizational skills and behaviors (Dawson, 2000). Undoubtedly, the primary resources of knowledge organizations are not the traditional ones (financial capital, land, and facilities). The new field of intellectual capital has been developed in order to understand the nature and value of the intangible resources which are the basis of the productive capacity of knowledge-based organizations (Dawson, 2000): Human capital (the skills and capabilities of the people in the organization); structural capital (organizational infrastructure and processes); and relationship capital (relationships with clients, suppliers, distributors, partners, alliance members, academics, regulators and others).

Within organizations where work depends on personal dynamic interactions with others, knowledge has both an active and a social dimension (Brown and Duiguid, 2000). Knowledge has a dynamic nature because it is continuously shifting through experience and learning not only in individuals, but also in organizational knowledge where there are processes in place to transform tacit knowledge to explicit knowledge (Broadbent, 1998), allowing others in the organization to use it for decision making. It is an influential power that can be employed to overcome barriers, influence decision-making, and usually enable and strengthen individuals and

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organizations so that they can carry out goals and complete work effectively (Dawson, 2000; Stewart, 2001).

This definition of knowledge brings together the task of knowing as well as the artifacts that mean knowledge, and it stresses the dynamics of routines, processes, and practices, further reinforcing the idea that knowledge is by its nature a force in motion (Dawson, 2000).

Benefits and importance of this organization in the 21st century

There are many voices advocating the importance and role of KIBS play in the economy and in the dynamic of regions (Marshall et al. 1987; Hansen, 1993, Miles et al., 1995, Muller and Zenker, 2001; Czarnitzki and Spielkamp, 2003, Miles, 2003), there are however few studies on innovative activity in the services sector (Koch and Strotmann, 2008. For Howells (2000) this is mainly due to service sector to be very heterogeneous in its origin, discouraging in this way many researchers. Nevertheless, a steady increase in the number of organizations in the services sector has been noticed. Particularly, the KIBS are the the carrier vehicles of knowledge to the general public. In this sense, we will address the main benefits of this organization answering to the following question: *Why is this kind of organization important in the 21st century?*

At this point we will address the main benefits of this organization through knowledge transfer from universities to these organizations - KIBS. Basically the importance of this organization is two-fold (Strambach, 2001): (i) it contributes both to a general economic growth and the growth of particular industry clusters. Using external service suppliers are able to focus their limited resources more successfully on their core businesses; and (ii) external services are used to exploit better knowledge and capabilities as component of the business processes.

In this sense, we can argue that KIBS can have a key role in the design and implementation of new products and services. They are vital as creators, and facilitators of technological and managerial innovations (Sirili and Evangelista, 1998; Muller and Doloreux, 2009). In particular, small KIBS have been recognized as holding the position of dynamic and central occupants of "new" knowledge-based economies. This position is achieved through their

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creative innovations in their own benefit, so they left to be seen as mere adopters or users of new technologies designed by others. This recognition has stimulated new and growing research into this sector of services (Wong and He, 2005).

As providers of knowledge intensive services, their presence in a particular location is often regarded as an important enabler of competitiveness of regional industries. According to Dall'erba et al. (2007), there is a clear correlation between the rate of employment provided by KIBS and the level of productivity of the non-KIBS, i.e. all other enterprises in the EU regions where they are located. Although the debate about the growth of KIBS, unfolds around their new skills and growth of the tertiary sector in general, it is increasingly clear that both the new manufacturing processes and new services and innovations have their origin in the KIBS (KaraÃmerlioglu and Carisson, 1999; Tomlinson and Miles, 1999, Frell, 2006).

According to research undertaken by Frell (2006), the importance of KIBS is related to their nature. The technological KIBS employ people with higher degrees of qualification, and this is related to their level of innovation. In turn, the professional KIBS, there are the providers and clients that promote innovation. In the case of manufacturing enterprises, as they have no interest in investing in R&D, their level of innovation is very low. According to Amara et al. (2008), KIBS come from knowledge-based services. In this industry, transactions consist of knowledge, and the outputs are often intangible. The innovations result, in most cases, of new combinations of knowledge rather than new combinations of physical artefacts.

Coffey (2000) highlights the growing interest by producers of services (High-Order Producer Services-HOPS) has been recognized for its important role in Western economies since the late '70s and early '80s. As producers of services, it has been seen its rapid growth in this specific segment of the economy (Daniels, 1985, Coffey and Shearmur, 1997). According to Alvesson (1995), the meaning of "knowledge intensive" can be translated as service organizations that perform complex intellectual operations, where the human factor is fundamental. KIBS form a category of service activities that are often highly innovative and it eases innovation in other economic sectors, including manufacturing (Miles et al., 1995).

The analysis of the role of KIBS in innovation processes brings into focus the ways in which knowledge is produced and used in the economy, as well as the role of KIBS in these

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processes. The production of a particular service is often the result of a joint effort of services, such as customer service (customer satisfaction is the main objective) (den Hertog, 2000). In this vein, KIBS act as catalysts that promote the fusion of different knowledge, especially tacit knowledge, located in the innermost part of organizations and also in the services sector (den Hertog, 2000, Strambach, 2001).

Note that KIBS may play three roles in supporting organizations in other sectors: facilitators of innovation, carriers of innovation (as they have a key role in the transfer of innovation) and sources of innovation (since they begin innovation) (Miles et al. 1995; Bilderbeek and den Hertog, 1997). That is, innovation is the engine of progress, competitiveness and global economic development (Romeu, 1994; Johansson et al., 2001). Globalization forces the organizations to innovate and to keep up with the competition. This globalization helps in the consequent developments of the KIBS sector. The KIBS need themselves to work globally and their networks and operations can no longer be confined to domestic level. This enlarges the need for more consistent and sophisticated communication systems. Global networking will also ensure that KIBS perform and innovate in ways which are different from those already existing.

Three main knowledge processes which are common across knowledge organisations (Dawson, 2000): (i) adding value to information; (ii) generating, capturing and sharing knowledge; and (iii) Applying knowledge. These knowledge processes are important for this organisations as them develop their capabilities and keep or improve their competitiveness involving the interplay between human capital and structural capital. How? If knowledge is successfully detained this means that human capital is transformed to structural capital which can include both databases of information, as well as processes which facilitate organization to perform tasks more efficiently and create value for their clients (Giju et al., 2010). However, to create value knowledge should be applied within a specific business context.

The critical success factors of this organization

The capabilities are an important success critical factor of this kind of organization (Rockart, 1982; Zander and Kogut, 1995; Le, 2001; Croteau and Li, 2003; Teece, 2003; Kuan, 2005). Dawson, 2000) identified four fields for developing organization knowledge capabilities:

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individual technology (it refers to technology which can increase the effectiveness and capabilities of knowledge workers); organizational technology (for example, digital technology); individual skills and behaviors (the effectiveness of knowledge workers; and organizational skills and behaviors. In Dawson's perspective, even when the other three fields are well developed, if an organization's culture and internal behaviors do not sustain its knowledge capabilities, these will stay basically unproductive.

Some of these tools are already usually implemented in knowledge organizations, such as search engines, e-mail filters and rule-based push technology (Dawson, 2000b). Others are only just beginning to be employed, such as intelligent agent technology. A critical aspect is facilitating the internalization of information as personal knowledge by people (Dawson, 2000b). Organizations should drive in increase of these primary knowledge skills into all of their internal training and advance programs. Strategic capabilities are perhaps the most dynamic of organizational knowledge capabilities (Markides, 1997; Dawson, 2000) and they must be developed specifically in order to build a high degree of responsiveness to re-observe continually the models of organizational strategic thinking.

Such rethinking of the nature of the business and the nature of the organization itself characterizes paradigm shifts that are the hallmark of business model innovation. Such paradigm shifts will be attributable for about seventy percent of the previously unforeseen competitive players that many established organizations will encounter in their future (Hamel and Prahalad, 1994). The role of KIBS in innovation systems, especially as support activities in manufacturing industries and SME in general has been reported by several authors (Cooke, 2001; Wood, 2005) and evidences other type of critical success factor. For Wood (2006), the importance of the growth in KIBS in regional development exists mainly through:

- Acquisition of fundamental knowledge for innovative SME and the public sector in order to support the knowledge economies;
- The increase in demand for external auditors of SME. This search shows that these organizations are concerned to be competitive, and it is here that KIBS play a key role because they play this audit role;

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- The importance that each region gives to its adaptability, the domestic and international standards and market trends, reflected in the demand for these services through the use of knowledge service;
- The natural tendency that KIBS have to adapt to new business and technical knowledge, which are essential to address the new needs facing the region. This often involves working in all the institutions established in those regions, presenting new opportunities for innovation and change;
- The way in which KIBS have been developed, fosters the emergence of a new fluidity in the exchange of knowledge. This happens between the international, national and regional clients in collaboration with each of these scales. Thus, it increases learning and relationships in an increasingly globalized world;
- The ratio of exchange of knowledge coupled with regional characteristics, such as the quality of manpower, skilled and experienced, the actual division of labour between specialized agencies, including KIBS and other commercial services, flexibility of movement of competence between these organizations to support the changing needs of enterprises and regions, reflects itself in the increase of the "birth" of SMEs, as well as the emergence of the institutional and political structures;
- Depending on where technological innovation occurs, and the adoption of technologies to knowledge, technological innovation by itself cannot boost regional economic success. That success depends on a more general non-technological innovation and its capacity of adaptability, such as the ability of management and marketing methods, which are increasingly encouraged by KIBS.

Some progress has been made, regarding the acceptance of services, including KIBS, as contributors to the increase of technology and innovation (den Hertog, 2000; Haukness, 2000, Muller and Zenker, 2001; Gallouj, 2002). Miles (2001) recognized the KIBS as those which play a key role as intermediaries in innovation systems. The ratio of organizations with KIBS from other sectors clearly has a positive influence on these same organizations (Freel, 2006). This ratio increases the use of R&D, increases the capacity of employees, and promotes cooperative relationships, thereby increasing the rate of innovation.

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According to Sheamur and Doloreaux (2008) there are two perspectives that show how the KIBS contribute to innovation and competitiveness: The way in which KIBS interact with other local players with the objective of innovation and the consequent production of regional development. So this first perspective suggests that KIBS should participate in developing regions since synergistic effects occur in these regions. Moreover KIBS can participate in regional development, but instead of being located in the regions, they may be located elsewhere in the country, or participating in the distance. These two perspectives require us to propose here the location decision as last other critical success factor of this organization.

The location of these businesses and their contributions to local economies has been analyzed by several researchers (O' hUallach'ain and Reid 1991; Coffey and Shearmur 1997; Gong, 2001).Their location in the urban system, their overall sensitivity to agglomeration economies (Eberts and Randall, 1998; Poehling, 1999; Wernerheim and Sharpe, 2003) and their tendency to form clusters in space (Coe, 1998; Keeble and Nachum, 2002) have been documented through various methodological tools. Most of these studies was motivated by interest in investigating the dynamics of local economies, regional development and wonder why some regions grow more and faster than others (Moyart, 2005). According to Malecki et al. (2004), KIBS are located mainly in cities, because these are the sites par excellence for business innovations, as well as the networks that lead to innovation.

The Required steps to create this face

According to Ouwersloot and Rietveld (2000), one of the key points of economic development is technological innovation: the introduction of new production techniques, products or services. However, the emergence of these new elements is usually preceded by an intensive R&D process. Thus, according to these researchers, the location of R&D is influenced by several factors. So, they have identified four external factors that may influence business location decisions: (i) labour supply; (ii) infrastructure of knowledge; (iii) physical infrastructure; and (iv) agglomeration effects.

Costa et al. (2004) analyzed the mechanisms that led to the location of new technology-based organizations in Spain and suggested that the location of the organizations had to do with

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the type of industry and the life cycle of the product, with which the company was working on. Thus, when the manager finds a place to implement his firm he should consider whether this environment is more favourable to make its production process. This environment can be more or less populated, and it can contain a greater or lesser variety of productive activities. However, through their empirical study, it was concluded that the most populated and developed cities have lost attractiveness for the setting of businesses, compared to their counterparts, smaller and more rural. Nevertheless, when observed, the new science-based organizations prefer to locate themselves and cluster in large cities. Thus, the location of organizations is closer or farther away from the big cities depending on the company and its activity. KIBS were also analyzed as vectors of information exchange. Thus, its role has been analyzed in terms of its innovative performance, as facilitators, carriers and sources of information between organizations. Thus the regional development and competitiveness is a by-product of the activities of KIBS, since they are thought to have precisely this role in the regional innovation system (den Hertog 2000; Muller and Zenker 2001; Wood 2005; Simmie and Strambach, 2006). A consequence to this kind of approach is precisely that regions may create autonomous growth processes, generating a so-called competitive advantage (Cooke and Leydesdorff, 2006).

In this sense, we can argue that innovation and regional competitiveness are two dimension which KIBS have an important role to perform as we can see on following figure1.

Challenges and the future of this organization

In this context, and given the considerations previously made, there are two pertinent assertions. First, some approaches show how KIBS can be involved in the regional economic development. Knowledge and entrepreneurial skills are core components to building socially inclusive and highly participatory economies in an increasingly global and competitive world. In this sense, knowledge services in stimulating economic growth and achieving is very important to millennium development goals. The importance of knowledge transfer and cooperation between these organizations and other organizations and institutions is currently very valued due to its enormous contribute for regional development. Thus, it becomes important to analyze how

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spillovers of knowledge appear between KIBS and organizations as well as the effect of the distance between the places where knowledge is produced and where it is effectively applied.

Second, the KIBS may contribute to an improvement and consolidation of the regional competitiveness, through various mechanisms. The consistency of the creation and dissemination of regional knowledge can be achieved by adapting the curricula of schools to their own regional needs (e.g. the characteristics of the labor market). In this sense, this organisation has a vital role to employ the skilled workers that emerges from the universities. The knowledge transfer activities that should be developed by different partnerships among KIBS and others institutions allow inferences about the future positive impact of these organizations in development and competitiveness of knowledge economies. However, several factors suggested as promoting greater efficiency and development of the process of knowledge, in the future: (i) a strong regional innovation policy, science and technology; (ii) the autonomy in the regional financial capacity; (iii) increase the degree of openness; (iv) develop the dynamic network between KIBS and others organizations; and (v) the prevalence of the logic of cooperation on the logic of competition.

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Conclusions

Along this research, the nature and key concepts, benefits and importance, critical success factors, and challenges and future of KIBS are discussed here with a generalized global perspective. Through this study the need for these services has been seen and identified at various levels in the economy. KIBS are an integral part of the knowledge economy and present a important part of the settings for a society in development change. The chapter contributes to the understanding of the role of KIBS in the 21st century highlighting the main faces of this type of organization and it to contribute to extending previous research in the area.

More specifically, the chapter highlights how several critical factors are involved in development of competitive and innovative regional system. Furthermore, we argue that the contribution of knowledge organization on regional development is not a simple process, as the characteristics of the environment and organizations change over time. It is important to recognise the specific characteristics of KIBS and linking them within a specific context will be an important step. According to the knowledge spillover theory research institutions are incapable to entirely exploit all of the new knowledge they create and some researchers suppose this knowledge is geographically localised. Thus, as revealed some studies, regions with higher levels of knowledge creation provide more knowledge spillovers, leading to promote entrepreneurial opportunities. The nature of KIBS is such that it moves strong areas of influence with regards to performance and expansion of their clients. They have developed rapidly over the past few decades and will keep on doing so as they are the catalysts for innovation and competitiveness on which the economies of the future are going to be driven.

Every study has inevitable limitations. In a general way, we can present as main limitation the conceptual nature of the study which missing empirical evidences. And in this sense, it does not enable us to measure any effect of the role of KIBS in innovation, entrepreneurship and regional development. Although these limitations are important and must be taken into account, nevertheless we are convinced that this study should contribute to a better understanding of this theme. Furthermore, it can be seen as a further step to provide to the academics and policy-makers a conceptual study to support the existing knowledge and

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generation of new learning regarding to new faces of KIBS and their influence on regional economies.

As future research, we introduce the following ones: What types of competences are needed within different organizations at the different stages of innovation processes? Can KIBS be a designer of innovation? If innovativeness needs a core supportive culture and innovation environment, how could KIBS facilitate the development of the encouraging culture and environment in organizations?

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