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Article

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Amfiteatru Economic Journal

Provided in Cooperation with:

The Bucharest University of Economic Studies

Suggested Citation: Cătoi, Iacob; Tudor, Liviu; Bisa, Cristian (2016) : Knowledge-Intensive Business Services and Business Consulting Services in Romanian Changing Economic Environment, Amfiteatru Economic Journal, ISSN 2247-9104, The Bucharest University of Economic Studies, Bucharest, Vol. 18, Iss. 41, pp. 40-54

This Version is available at:

<https://hdl.handle.net/10419/168986>

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KNOWLEDGE-INTENSIVE BUSINESS SERVICES AND BUSINESS CONSULTING SERVICES IN ROMANIAN CHANGING ECONOMIC ENVIRONMENT

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Please cite this article as:

Cătoiu, I., Tudor, L. and Bisa, C., 2016. Knowledge-Intensive Business Services and Business Consulting Services in Romanian Changing Economic Environment. *Amfiteatru Economic*, 18(41), pp. 40-54

Abstract

In today's economy companies are faced with the necessity of accelerated change. Stepping up the pace of change requires the use of advanced knowledge-intensive services and cooperation with change management professionals. Therefore, there should be a positive correlation between the dynamic of the overall economy and the development of the market for knowledge-intensive business services and, in particular, for management consulting services. This paper aims to explore this correlation in the Romanian current economic context, providing a description of the market for business consulting services, an analysis of the territorial distribution of knowledge-intensive business services in Romania and a multidimensional analysis of the statistical relation between knowledge-based services / management consultancy services and the economic performance indicators.

The activity of knowledge-intensive services providers has a positive and strong impact on the national and regional economy, fact determined by the statistical analysis on public data available at National Trade Register Office during 2008-2014. The effects of business consulting projects are visible in clients' financial results after one or two years. Currently, Romanian enterprises are more likely to request consulting services in order to increase their profitability, instead of their income.

Keywords: Knowledge-intensive business services, business consulting, change management, Romanian economic environment

JEL Classification: M21, O47, D 83, C32, H12

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Introduction

Wealth has always been associated with possession of physical, human and financial resources, but knowledge revolution changed all this (Nicolescu, 2003). In 1996, knowledge was already considered “the driver of productivity and economic growth” in OECD economies (OECD, 1996) and nowadays organizations are fighting to obtain, create and use knowledge as efficiently as possible.

Knowledge-Intensive Business Services’ (KIBS) evolution is an important indicator of transition from industrial economy to knowledge-based economy (Malgorzata, 2013). Also, international studies (Strambach, 2008; Schricke, Zenker and Stahlecker, 2012) show a strong relationship between KIBS’ development and economic prosperity of a nation, because of the use and conversion of knowledge for economic gain and increased value added.

Considering the socio-economic swifts, change is not optional anymore and, therefore, organizations all over the world increased their usage of change management tools from 34% in 2003 to 79% in 2014 (Prosci, 2014).

Change is an inevitable reality. If it is addressed in a structured manner, following the directions offered by international literature and practice, the efficiency of the management process will grow significantly (PMI, 2014; Prosci, 2014).

Based on Lewin’s Change Model in the ‘50s (Petrescu, 2010) and other models presented in modern literature (Anderson and Anderson, 2001; Kotter, 1996; Luecke, 2003; Prosci, 2007 etc.), professional change management appears to be a complex process which involves four phases.

In the first phase, **identifying the need for change**, an enterprise would define the problem determining its need to change, create an urgency feel, persuade at least 75% of the managers that the current state must be changed, identify the type of change needed and estimate the change process results and its impact on the organization. If the enterprise is focusing on profitability, it would realize a benchmark vs. its competitors’ profitability, would analyze cost and profit centers, would estimate the improvement potential in terms of profitability, would determine the necessary actions and resources for improvement and would plan strict milestones for achieving the potential for improvement.

The second phase, **creating the required background for change**, implies finding a sponsor for change process, identifying a leader and a team that adopt and foster the desired change, ensuring training for leaders and employees, developing a clear vision regarding change and clearly communicating it, defining SMART objectives and projecting solutions to reach the needed state. An organization focused on profitability will carefully approve financial and other resources dedicated to the consulting project and will coach leaders and employees in order to diminish their change resistance to the specific negative impact of the profitability focused change.

The third phase, **implementing change**, usually involves the following actions: communicating and acting according to change vision and strategy, gaining the support of opinion leaders, providing sponsorship, coaching and training to lessen resistance to change, creating behavior models throughout the examples of leaders or departments that successfully implemented change in the past, focusing on results to be achieved rather than on activities conducted, monitoring and adapting the change process to the realities in the organization, rewarding employees who contribute actively and quantifiable to change and

celebrating achievement of significant milestones in the process of change. An organization focused on profitability will additionally act on fast completion of pilot projects in order to obtain quick success and to motivate future efforts of profitability enhancement, as well as identifying and stimulating employees to embrace rapidly the project's idea in order to advocate it internally, in both formal and informal manner.

The fourth phase, **consolidating change**, is focused on recognizing and rewarding employees' efforts, updating policies, procedures, systems, structures etc. in order to maintain the results, ensuring a favorable leadership for perpetuating change and preparation for future changes. When preoccupied by profitability, the organizations will reward employees and managers active in increasing organization's profitability and will support the entire organizational system to integrate and master the new states.

More than just vision and leadership, dealing with all this aspects require advanced and specialised interdisciplinary knowledge, experience and intuition in correctly diagnosing situations. This requirements led to the emergence of a new profession: the change management professional. The activity of this new profession is closely related with business consulting services and the KIBS in general.

Economic prosperity is fostering the development of Business Consulting Market, the field of KIBS that constitute the focus of this paper, due to financial resources available for consulting projects. On another hand, Business Consulting services have a great influence on enterprises, regardless their economic situation. In case of economic prosperity, Business Consulting organizations' services are requested in order to exceed the competition's performances, which implies change. In case of economic decline, Business Consulting organizations are offering solutions to their clients' hardships, which also imply change. Change is part of any organization life, but KIBS, in general, and Knowledge-Intensive Business Consulting Services (KIBCS), in particular, are fostering change, as an opportunity to learn and to create knowledge in order to propagate it for economic interest.

This paper approaches Knowledge-Intensive Business Services' and, particularly, Business Consulting Services' coordinates in Romania and evaluates their impact on Romanian economy and economic sectors. This statistical analysis' results are emphasizing the necessity of introducing Change Management, in order to actively exploit the environmental factors and improve their situation regarding economic indicators, spatial distribution and fulfilment of their business objectives. More than that, Business Consulting players can promote Change Management, in order to foster both organizational and overall national economic growth, because when each enterprise is able to handle change efficiently, national economy is able to do so, too.

1. Literature review

KIBS are service businesses that involve "economic activities which are intended to result in the creation, accumulation or dissemination of knowledge" (Miles et al., p. 18), as defined for the first time, in 1995. They are private companies, supplying knowledge-based products or services (den Hertog, 2000), relying heavily upon professional knowledge, creating or carrying knowledge through their services, and addressing their offer especially to other businesses (Miles et al., 1995), while using cumulative learning processes (Koch and Strotmann, 2008). They can be Traditional Professional Services (P-KIBS) or Technology-based KIBS (T-KIBS). P-KIBS are enterprises offering services requiring a high level of specialization, in order to help other organizations to navigate/negotiate

complex non-technical systems: Legal and accounting activities, Business and management Consulting, Advertising, Market research, Architectural and engineering activities and Other professional scientific and professional services. T-KIBS are enterprises using scientific and technological knowledge: Hardware and software Business Consulting, Research and experimental development and Other computer and information related activities. (Miles et al., 1995; Eurostat, 2011)

Therefore, Business Consulting suppliers are Knowledge-Intensive Business Services. They are “expert companies that provide services to other companies and organizations” (Smedlund and Toivonen, 2006, pp. 2), involving “economic activities which are intended to result in the creation, accumulation or dissemination of knowledge” (Miles et al., p. 18), and using cumulative learning processes (Koch and Strotmann, 2008). Therefore, they are supporting change and organizational growth.

Business Consulting KIBS are not only *important users of new technology and knowledge*, but also *carriers and creators* of those (Miles et al., 1995, p. 17), proving again their affiliation to KIBS. According to their role in customers’ innovation, just as KIBS in general (den Hertog, 2000; Miles et al. 1995), Business Consulting organizations, in particular, can be: *sources of innovation*, when the organization is “the driving force behind service or process innovations, passed downstream to customers”; *carriers of innovation*, when the organization has the prominent role “to transfer innovation developed by other firms and/or in other industries to their customer”; *facilitators of innovation*, when the organization is joining its forces “with customers to help them develop their own innovative services, but they are not directly responsible for the innovation” (Alvisi, 2012, pp. 101). Innovation is generating change.

An European Commission study (2012, pp. 40) “confirmed the dynamic growth of knowledge-intensive services in European regions” during 2002-2007 period, growth rate reaching over 5% in France and some regions of Germany, Austria, UK, Greece and Romania (Figure 1), and proved “that regional wealth and knowledge-intensive service employment are highly related”, the correlation coefficient being 0.7 for KIBS/GDP.

“KIBS are regarded as particularly relevant to modern economies because their prominent role(s) in enabling SMEs to innovate in a more effective, cost-effective and/or timely manner” (Alvisi, 2012, pp. 100). A Prosci’s study (2007) shows that Change Management doubles the organization’s effectiveness in accomplishing their objectives, in time and in budget. Therefore, Change Management is able to help all organizations, to achieve their purpose.

Change management is a complex process, using a structured approach in order “to plan, initiate, realize, control, and stabilize the change process on both the corporate and the personal level by handling obstacles carefully” (Singh, Saeed and Bertsch, 2012). It is a “program consisting of clearly defined, time-framed actions needed to take an organization from an undesirable state A to a desirable state B, with both states being clearly defined and measurable” (Taher et al., 2012, p. 347).

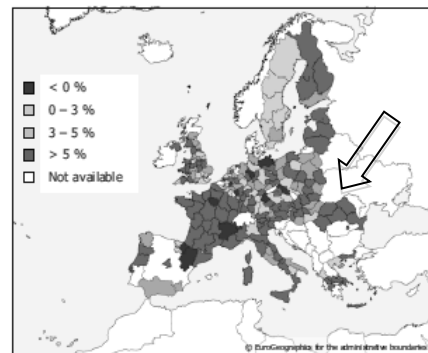


Figure no. 1: Annual growth rate of Knowledge-Intensive Services

Source: European Commission, 2012, p. 19

All organizations, including KIBS, are changing permanently and the manner they are reacting to change is critical to their wellbeing. KIBCS role is to support their clients in their transformative experience, therefore, they should take into consideration Change Management perspective, guiding them in a structured manner, through a scientifically based process, meant to facilitate overcoming obstacles such as inefficient communication about change, employees' resistance to change, lack of continuity and so on.

2. Research Methodology

This paper's **purpose** is to offer a complex image of Romanian KIBS', and particularly KIBCS', coordinates regarding economic results, spatial distribution and impact on economic sectors and regions, but also on national economic indicators in the context of current changing environment. Operational definition of KIBS, P-KIBS, T-KIBS and KIBCS (see Table no. 1) is based on international literature and derived from most prestigious opinions on the matter (Miles et al., 1995; Eurostat, 2011).

Table no. 1: Operational definition of Knowledge-Intensive Business Services

| OPERATIONAL DEFINITION OF KIBS | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| P-KIBS are enterprises offering non-technical services requiring a high level of specialization. | T-KIBS are enterprises using scientific and technological knowledge. |
| P-KIBS activities: Legal and accounting activities; Business and management consultancy (KIBCS); Advertising; Market research; Architectural and engineering activities; Other professional scientific and professional services. | T-KIBS activities: Hardware and software consultancy; Research and experimental development; Other computer and information related activities. |

Source: Miles et al., 1995; EUROSTAT 2011.

This study's **objectives and hypotheses** are:

Objective 1: Illustrating **KIBS' spatial distribution in Romania**, differentiated by P-KIBS and T-KIBS, regarding their number, turnover and share in total employment.

Hypothesis: (1.1) KIBS distribution is not uniform throughout the country.

Objective 2: Describing **Business Consulting market development in 2008-2014**.

Hypotheses: (2.1) KIBCS in particular, as well as P-KIBS and T-KIBS had a negative evolution during 2008-2014, being influenced by the post-crisis economic environment; (2.2) An enterprise's economic evolution is influencing its decision regarding buying Business Consulting Services; (2.3) The consumption of Business Consulting Services is influenced by client sectors' turnover and their employees' efficiency.

Objective 3: Analysing the **overall relation and, particularly, the impact of KIBCS' on Romanian economy, its economic sectors and counties**.

Hypotheses: (3.1) High correlation coefficients are recorded between KIBCS and national/regional/sectors economic indicators; (3.2) The impact of KIBCS' on enterprises and national economy is becoming visible in their financial outcome after one or two years; (3.3) There is a causality between Business Consulting's and National Turnover; (3.4) The causalities between

KIBCS' Turnover and profitability indicators for economic sectors (Profit per employee and Net Profit Margin) are higher than the one between KIBCS' Turnover and national turnover, because in Romanian present economic circumstances, Business Consulting's purpose is rather to ensure enterprises' profitability than their real economic growth (expressed in turnover); (3.5) Small and Medium Enterprises (SMEs) are behaving and are impacted by KIBCS differently than large enterprises.

The hypotheses have been tested based on public data available at National Trade Register Office, for 2008-2014 periods. Data have been provided by Romanian enterprises through their official declarations regarding location, field of activity, turnover, net profit and number of employees, and have been structured as presented in Table no. 1.

SPSS 19 has been used to analyze data in order to determine correlations hypothesized to be found between data series and causalities, which have been determined through regression analyses delayed by one or two years. The delayed analyses were needed in order to evaluate KIBCS impact on national economy and its sectors, because in the year of consulting service delivery, the high costs involved determine a lower short-term profitability, economic results being positively impacted in the following years.

3. Results and discussions

The results of our study supply an accurate and recent portrait of Romanian KIBS situation, differentiated by P-KIBS and T-KIBS, regarding their number, turnover and share in total employment (Objective 1). In the second section, Business Consulting has been entered in analysis: (1) describing KIBCS' market evolution in 2008-2014, concurrently with the evolution of P-KIBS and T-KIBS (Objective 2), (2) testing the influence of Romanian economy conjuncture on KIBCS, as well as KIBCS impact on overall Romanian economy and on economic sectors after one and after two years, and (3) evaluating the difference between KIBCS' impact on SMEs and Large Enterprises (Objective 3).

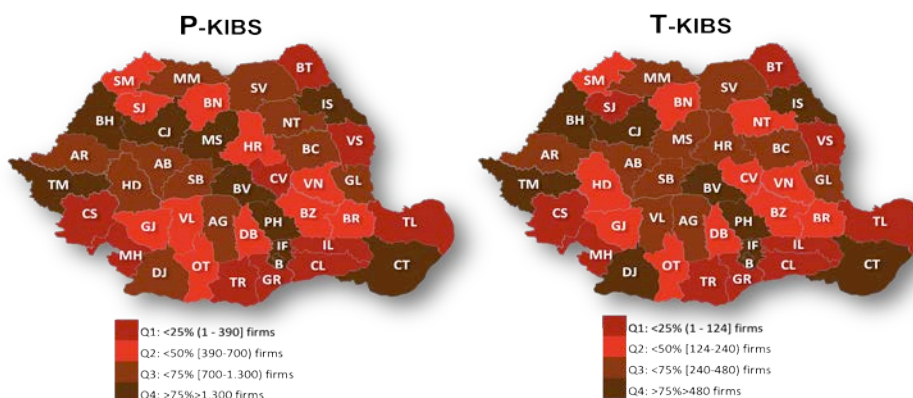
3.1 Knowledge-Intensive Business Services' coordinates in Romania

An European Commission study (2012) offers a draft portrait of Romanian KIBS in 2007: share of KIBS on total employment is higher than 11% in Bucharest and less than 5.2% in other regions; compound annual growth of KIBS in 2002-2007 has been over 5% in Bucharest as in N, NE and NW regions; except Bucharest, Romanian regions have very low average of KIBS, which is explained by their economic structure shaped by agriculture and manufacturing, with a certain focus on high and medium high-technology sectors (European Commission, 2012).

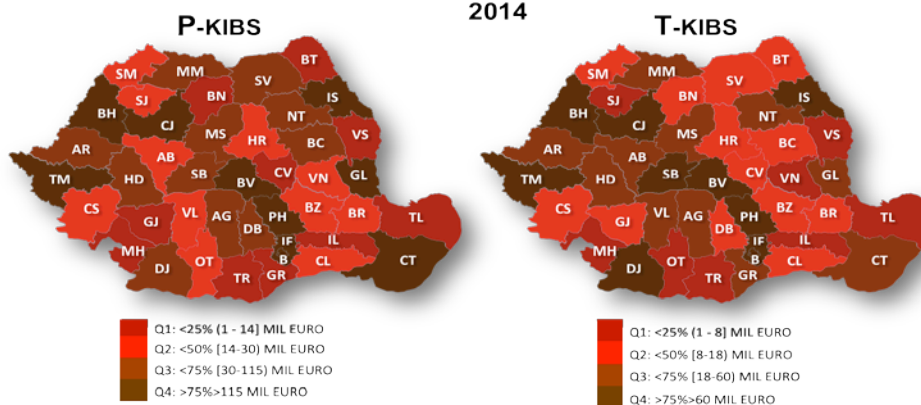
In order to create a more **accurate and recent picture of Romanian KIBS**, we studied KIBS' spatial distribution in terms of number, turnover and share in total employment. Today, 8% Romanians and 14.8% Bucharest habitants are working within KIBS (at national level, 5.2% in P-KIBS and 2.8% in T-KIBS). Although in Romania there are almost three times more P-KIBS than T-KIBS (62464 P-KIBS and 22487 T-KIBS) and P-KIBS are offering twice as many workplaces, they exceed T-KIBS' turnover with only 12.5% and their profit with 16.4%.

Analyzing the **spatial representation of Romanian P-KIBS and T-KIBS**, represented in the maps below (Figure no. 2), it can be observed where economic environment is best developed in Romania and where national authorities have to get more involved in order to determine future growth, how KIBS are contributing to regional turnover and rate of employment, and which are the specialization patterns (P-KIBS and T-KIBS) at regional level.

KIBS' number in 2014



KIBS' Turnover in 2014



KIBS' share in total employment in 2014

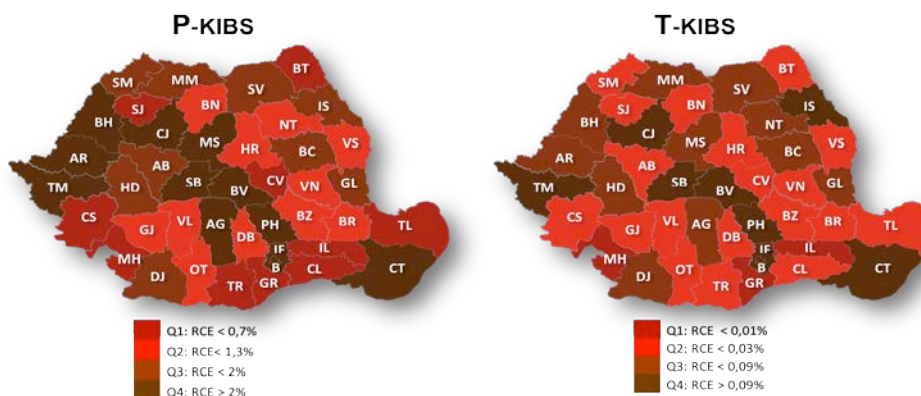


Figure no. 2: Spatial distribution of P-KIBS and T-KIBS in Romania

The present study confirmed the Romanian KIBS' concentration in Bucharest economic area, as presented by the European Commission study (2012) from 2002-2007, revealing a more accurate image of current situation. While Bucharest KIBS' share on total employment is remaining higher than 11% (14,8%), other Romanian regions increased their share on total employment, starting lower than 5.2% in 2007 (European Commission, 2012) until 8% in 2014. In spite of this improvement, the fact that KIBS contributed with only 5.3% of the total turnover proves that Romanian economy is not yet knowledge-intensive.

Few counties are following Bucharest remotely regarding their KIBS' turnover: Cluj (6.6%), Ilfov (4.6%), Timis (3.3%), Prahova (3.2%), Bihor (2.9%), Brasov (2.6%) etc. Since Ilfov and Prahova are serried with Bucharest, it can be stated that they belong to the same economic area. Other economic areas relevant to KIBS seem to be linked to higher education development: Cluj, Timisoara, Brasov, Iasi and Constanta.

KIBS centralization in metropolitan area of Bucharest is reflected also on Romanian Business Consulting market, 68% of these companies being located here. KIBCS' distribution by Romanian counties, just as their centralization, is determined by economic factors, while also contributing to economic regional growth. KIBS are usually flourishing in economic developed areas, determining in the same time economic growth.

Regarding Romanian counties economic conjuncture's impact on KIBCS, there has been identified a strong, representative correlation between **Turnover per employee** at regional level and Business Consulting Turnover in 13 counties and between **Profitability** at regional level and Business Consulting consumption in 17 counties: Bucharest (Pearson r 0.6 and -0.3), Cluj (Pearson r 0.7 and 0.5), Ilfov (Pearson r -0.5 and -0.6), Timis (Pearson r 0.6 and 0.7), Prahova (Pearson r 0.9 and 0.6).

In 2014, KIBS obtained only 5.3% of the total turnover in Romania, which doesn't offers an optimistic diagnosis on its transition from industrial to knowledge-based economy. It is true that some organizations might be considered KIBS without having the basic KIBS characteristics, because they have been incorporated initially in an industry considered KIBS, while others might not be part of these industries and still presenting KIBS characteristics (Muller and Doloreux, 2007), but even so, their share in national turnover cannot be much better.

3.2 KIBCS' in Romania: an impact analysis

During the analyzed period, **Business Consulting market evolution** has been highly correlated to the national economy dynamic in terms of turnover (Pearson r 0.87), proving that consumption of Business Consulting services increases in case of a positive trend in other economic sectors. But Romanian national economy reflected, after the crisis in 2008, the changing global economic climate, with a negative evolution of annual turnover rate (-8.7%). As presented in Figure no. 3, the most affected by economic recession after 2008 crisis has been T-KIBS, which registered in 2009 a 48.4% turnover decline. In the same year, P-KIBS declined with 33.2% and Business Consulting KIBS with only 19%. The crisis' impact has been stronger on T-KIBS in the interval of 2008-2014 and their turnover has been decreasing with 27%, compared to P-KIBS' decreasing only 20% (hypothesis 2.1).

Influenced by political and economic instability during the analyzed period, Business Consulting's turnover has been also underperforming, recording a decline of 11% and a compound annual change rate of -1.9%. The lower impact of economic crisis on Business Consulting is explained by the utility of these services in both prosper and difficult situation. Situation improved in 2014 with a small positive growth rate of 2.6%, but considering that in 2013 the Business Consulting turnover decreased with the same percentage as previous year's growth, the future is still uncertain.

Even in this uncertain economic situation, some players in Business Consulting market are thriving, because of their proven utility for their organizational clients, creating a high level of satisfaction while helping them navigate the continuously changing environment. Top 10

players in Management Consulting KIBS realized a turnover of EUR 70.5mn. The leader on Management Consulting market is McKinsey & Company, with a turnover of EUR 24.9mn, followed by Accenture Central Europe B.V Amsterdam, Holland – Bucharest Branch (EUR 13.4mn) and PricewaterhouseCoopers Management Consultants (EUR 7.6mn).

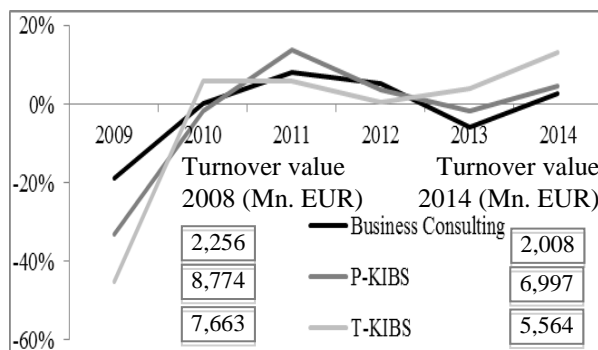


Figure no. 3: Turnover dynamic (%)
during 2008-2014

Considering the effects of Romanian economic recession on enterprises', regions' and economic sectors' performances, and the evolution of KIBCS outlined above, we performed an impact analysis of Business Consulting KIBS on national Romanian economy and its sectors. As stated before, we consider that the impact of KIBCS' on enterprises and national economy is becoming visible in financial outcome after one or two years, because Business Consulting determines high costs, rather than results, in the year of service delivery. Starting from this, our analysis splits in different time frames: when analyzing **indicators** of KIBCS and national or economic sectors' indicators **in the same year**, the results will show at macroeconomic level how **economic conjuncture is affecting Business Consulting consumption**; when analyzing indicators of KIBCS and **delayed** national or economic sectors' indicators, **with one or two years**, the results will reflect **consulting impact on national or sectors' economy**.

3.2.1. KIBCS' impact on Romanian economic sectors

Business consulting market dynamic in 2008-2014 was a good one considering the economic conjuncture. This evolution can be explained by the existing funds for consulting consumption, which is suggested by the high, positive, correlation between Consulting Turnover and economic sectors' Turnover in the same year (first column in Table no. 1; hypothesis 2.2). It can also be explained by the high, positive, correlation of one third of economic sectors between KIBCS' Turnover and Industry's Turnover per Employee in the same year (second column in Table no. 2), suggesting that there are sectors where efficiency per employee is the trigger factor for Business Consulting consumption (hypothesis 2.3).

As seen in Table no. 2, there are many positive and strong correlations between KIBCS and national economic sectors indicators (hypothesis 3.1), suggesting that most enterprises possess a good business perspective and available funds needed for consulting fees. Apart from same year correlation, suggesting the intensity of economy's impact on KIBCS' activity, the delayed correlations, show that Romanian enterprises' turnover might have been impacted too little by Business Consulting in the last seven years, the consulting projects being focused more on increasing their efficiency. The correlation of KIBCS' Turnover and National Net Profit Margin (expressing profitability) is very high after two years (Pearson r 0.97), suggesting that hypothesis 3.2 is correct.

In the analysed period, there have been only four economic sectors where, encountering a very hostile environment after 2008's crisis, Business Consulting consumption wasn't influenced by their turnover, registering a low correlation. Three of the economic sectors where turnover correlation has been low (Real Estate, Financial Intermediary and Hunting, Fishing and Aquaculture) seem not to have an impact on Business Consulting, their correlation coefficient being very low in all indicators, while Insurance, Reinsurance and Retirement Funds impacts it only at Net Profit Margins level (Pearson r -0.71). The negative correlation suggests that while Net Profit's share in Total Revenue is decreasing, their demand of Business Consulting Services is increasing, which is a normal behaviour for a mature market in distress.

Analysing the same indicators, but with **one year time lag**, the correlation with economic sectors' is low, which suggests that consulting projects' effects on turnover are not visible after the first year, due to limited number of projects focused on growth, challenges from business environment or limited implementation capacity available in client companies. There are, though, few economic sectors that enjoy the positive effects of Business Consulting services after only one year, targeting through Business Consulting a turnover growth (Beverages Industry - Pearson r 0.90) or a profitability growth (Professional services 0.85, Constructions 0.80 and IT&C 0.74).

Table no. 2: KIBCS' Turnover correlated to economic sectors, reflected in...

| | TURNOVER | | TURNOVER / EMPLOYEE | | NET PROFIT MARGIN | | |
|----------------------------------------------------|--------------|---------------|------------------------|---------------|-------------------|---------------|----------------|
| | Same year | 1 year gap | Same year | 1 year gap | Same year | 1 year gap | 2 years gap |
| Art&Culture | 0.78 | -0.01 | 0.74 | -0.84 | 0.49 | -0.47 | 0.38 |
| Industry | 0.93 | -0.32 | 0.46 | -0.76 | 0.65 | 0.45 | -0.80 |
| Public Administration | 0.92 | -0.52 | 0.14 | -0.45 | 0.45 | -0.68 | -0.39 |
| Agriculture | 0.80 | -0.38 | 0.46 | -0.43 | 0.30 | -0.71 | -0.82 |
| Insurance Reinsurance, Pension Funds | 0.15 | 0.13 | 0.11 | 0.02 | -0.71 | -0.04 | 0.58 |
| Chemical Products | 0.94 | -0.30 | 0.36 | -0.39 | -0.45 | -0.52 | 0.41 |
| Retail | 0.94 | -0.36 | 0.51 | -0.59 | 0.42 | -0.05 | 0.65 |
| En-Gross Trading | 0.85 | -0.54 | 0.40 | -0.42 | 0.80 | 0.03 | 0.04 |
| Construction | 0.66 | 0.52 | 0.93 | 0.07 | -0.19 | 0.80 | 0.48 |
| Electrical & Electronical Equipment | 0.89 | -0.28 | 0.27 | -0.40 | 0.07 | 0.17 | -0.40 |
| Energy | 0.85 | -0.51 | 0.36 | -0.39 | -0.54 | 0.08 | 0.25 |
| Pharmaceutical Products | 0.91 | -0.31 | 0.12 | -0.37 | -0.72 | -0.32 | 0.74 |
| Real Estate | -0.33 | -0.47 | 0.30 | -0.78 | -0.35 | -0.53 | 0.91 |
| FMCG | 0.86 | -0.10 | 0.79 | -0.21 | -0.20 | -0.63 | 0.81 |

| | TURNOVER | | TURNOVER / EMPLOYEE | | NET PROFIT MARGIN | | |
|--------------------------------------|--------------|---------------|------------------------|---------------|-------------------|---------------|----------------|
| | Same year | 1 year gap | Same year | 1 year gap | Same year | 1 year gap | 2 years gap |
| AUTO Industry | 0.91 | -0.29 | 0.41 | -0.38 | 0.19 | -0.60 | 0.53 |
| Beverages | 0.77 | 0.90 | 0.54 | -0.54 | 0.27 | 0.45 | 0.96 |
| Mining | 0.84 | -0.64 | 0.33 | -0.23 | 0.06 | 0.08 | -0.65 |
| Financial Intermediation | 0.14 | 0.23 | 0.12 | 0.30 | 0.47 | 0.22 | -0.30 |
| Education | 0.65 | -0.23 | 0.66 | -0.67 | 0.66 | 0.10 | -0.52 |
| IT&C | 0.67 | -0.37 | 0.43 | -0.90 | 0.31 | 0.74 | 0.20 |
| Wood, Paper, Furniture | 0.92 | -0.20 | 0.37 | -0.55 | -0.22 | -0.28 | 0.52 |
| Production of Machinery | 0.80 | 0.19 | 0.28 | -0.62 | -0.09 | -0.61 | 0.44 |
| Media, Advertising & Publishing | 0.68 | -0.13 | 0.45 | 0.04 | 0.09 | -0.77 | 0.97 |
| Metal Products | 0.85 | -0.80 | 0.23 | -0.53 | 0.34 | -0.82 | 0.79 |
| Sanitation, Water & Waste Management | 0.81 | -0.77 | 0.40 | -0.92 | 0.50 | -0.24 | -0.41 |
| Private Health | 0.25 | -0.18 | 0.51 | -0.56 | 0.53 | 0.13 | 0.53 |
| Business Support | 0.88 | -0.21 | 0.79 | -0.22 | 0.61 | 0.55 | 0.35 |
| Professional Services | 0.88 | -0.05 | 0.84 | -0.33 | 0.72 | 0.85 | -0.36 |
| Forestry Services | 0.83 | -0.30 | 0.25 | -0.52 | 0.29 | 0.05 | 0.07 |
| Glass&Ceramics | 0.79 | -0.42 | 0.39 | -0.78 | -0.35 | -0.15 | 0.62 |
| Textile | 0.92 | -0.28 | 0.30 | -0.37 | 0.25 | -0.50 | -0.10 |
| Transport&Cargo | 0.90 | -0.39 | 0.43 | -0.61 | -0.24 | -0.61 | 0.98 |
| Tourism&Food | 0.88 | 0.05 | 0.72 | -0.49 | 0.47 | -0.23 | 0.73 |
| Hunting&Fishing | -0.38 | 0.78 | -0.46 | 0.77 | 0.00 | -0.31 | -0.06 |
| Other activities | 0.82 | 0.15 | 0.72 | -0.77 | 0.85 | -0.13 | -0.08 |
| NATIONAL ECONOMY | 0.87 | -0.43 | 0.73 | -0.54 | -0.21 | -0.24 | 0.97 |

3.2.2. KIBCS impact on Romanian SMEs' and Large Enterprises' profitability

The statistic analysis of causalities between KIBCS and national economy performance has been determined through linear regression, with a time lag of one or two years, so that economic indicators would not reflect preponderantly costs, as in the same year, but to reflect the positive effects of consulting projects.

Causality between KIBCS' and National Turnover (hypothesis 3.3), expressing **real growth**, delayed by one year could not be statistically determined at 95%, but only at 80% Confidence Interval (if $t_{calc} = 1.755$ and $t_{0.10;5} = 1.476$, $t_{calc} > t_{tab}$). With two years time lag, there is no significant correlation or causality between Business Consulting's Turnover and National Turnovers in two years, which suggests that when pursuing revenue growth, most of effects of consulting projects are taking place in the first following year. The low causality between the two variables (Consulting and National Turnover delayed with two years) confirms once again that, in present national economic circumstances, Business Consulting's main purpose is not to ensure enterprises' revenue growth, but their profitability (expressed either in net profit margin, either on profit per employee).

Analysing KIBCS' Turnover impact on the two indicators expressing enterprises' **profitability** at national level (Table no. 2), we encounter a statistical significant relationship with Profit per Employee after one year and Net Profit Margin after two years (Table no. 3; hypothesis 3.4). This suggests that consulting projects resulting in increased

effectiveness and reduced employee costs have rapid effects, while a more complex approach request a longer time to implement and capitalize.

Table no. 3: Statistical regressions' results

| Statistical Indicators | Turnover of Business Consulting KIBS predicting... | | | | | | | | | | | |
|---------------------------|----------------------------------------------------|----------------|-----------------------------------|----------------|---------------------------------------------------|----------------|-------------------------------|----------------|---------------------------------|----------------|-------------------------------------------------|----------------|
| | National Profit per employee | | Profit per employee in SMEs | | Profit per employee in Large Enterprises | | National Net Profit Margin | | Net Profit Margin in SMEs | | Net Profit Margin in Large Enterprises | |
| | 1 year gap | 2 years gap | 1 year gap | 2 years gap | 1 year gap | 2 years gap | 1 year gap | 2 years gap | 1 year gap | 2 years gap | 1 year gap | 2 years gap |
| R | 0.85 | 0.81 | 0.95 | 0.56 | 0.76 | 0.29 | 0.24 | 0.97 | 0.79 | 0.44 | 0.96 | 0.76 |
| R Sq. | 0.73 | 0.65 | 0.91 | 0.32 | 0.58 | 0.08 | 0.06 | 0.94 | 0.63 | 0.19 | 0.91 | 0.54 |
| Sig. | 0.03* | 0.09 | 0.004* | 0.32 | 0.08 | 0.64 | 0.65 | 0.006* | 0.60 | 0.46 | 0.003 | 0.16 |

Note: * 0.05 Significance Level

Further, we considered the hypothesis stating that small and medium enterprises (SMEs) are behaving and are impacted by KIBCS differently than large enterprises (hypothesis 3.5), knowing that they are more likely to be knowledge intensive (European Commission 2013), therefore relying more on Business Consulting to obtain knowledge and being more open to execute adjustments. The results (Table no. 3) prove that **SMEs** demand Business Consulting in order to improve their profitability per employee, while **large enterprises** demand Business Consulting to improve their overall profitability, both perceiving positive effects after only one year.

The research showed, through KIBS' territorial representation, that these companies are clustered especially in Bucharest metropolitan area. KIBS' and KIBCS' activity is influenced by national economy, while they are also highly impacting Romanian sectorial and national economy. KIBCS' positive effects on other enterprises, as well as on regional and national economy, can be noticed after one year when profitability is obtained on behalf of employees and after two years when it is obtained on behalf of more complex processes. The fact that Romanian enterprises are still chasing profitability rather than turnover growth is also suggesting that they are operating in a volatile environment, affected by 2008 crisis, needing help to adapt to permanent changes and to conserve their financial resources, which itself can be done with change management tools.

Conclusions

Knowledge-Intensive Business Services (KIBS), just as Knowledge-Intensive Business Consulting Services (KIBCS), are highly inter-correlated with Romanian economic dynamic. Because of continuously changing global and national economic environment, KIBS and KIBCS need to be prepared for their own change, but also for assisting their clients involved in a change process. Change Management process is already very complex, being defined by hundreds of scholars in different perspectives, but it becomes even more complex in the context of Romanian market's peculiarities. Therefore, this paper investigated Romanian KIBS and KIBCS specifics.

The research has offered a series of **new findings and perspectives**: Romanian KIBS' territorial representation is presenting a more accurate picture on national regions regarding knowledge-intensive economy; research demonstrated that effects of KIBS/KIBCS on economic indicators are delayed with one or two years; the main peculiarity of

KIBS/KIBCS in Romania, disclosed by this research, is the focus on profitability, which is differently measured and realized by SMEs and large enterprises; the presented change management perspective aims to help Romanian enterprises focused on profitability being more effective.

At first, it has been investigated the **Romanian KIBS' territorial and quantitative coordinates**: 8% Romanians and 14.8% Bucharest inhabitants are working within KIBS; P-KIBS are offering twice as many workplaces, exceeding T-KIBS' turnover with 12.5% and their profit with 16.4%; KIBS contributed with only 5.3% of the national turnover which suggests that Romanian economy has yet much to grow in its transition from industrial to knowledge-based economy. Change Management perspective is able to help KIBS grow, while adapting to national economy's fluctuations.

KIBS and national economy have a two-way **relationship**: economic growth fosters KIBS' wellbeing and KIBS are fostering national/sectorial economic growth; T-KIBS suffered more than P-KIBS because of Romanian economic negative trend in 2008-2014. In current uncertain environment, Change Management is becoming an important organizational strength.

Romanian **KIBCS relationship with national economy** has many peculiarities: 68% of KIBCS are located in Bucharest, which is the most important economic centre in Romania; KIBCS' evolution has been highly correlated to the national economic dynamic, being in a negative trend in 2008-2014, but giving signs of improvement; KIBCS' decline during the analysed period has been less accentuate than other KIBS' decline, reminding us that consulting services are used both in economic favourable and adverse conjuncture; almost all economic sectors' Turnover had been positively and strongly correlated with KIBCS' activity; correlations suggest that only 40% economic sectors are consuming consulting services in order to optimize their activity (high correlation of their Net Profit Margin with KIBCS Turnover); in Romania, consulting services are usually performed in order to ensure profitability, rather than increase income and real growth; KIBCS' Turnover is impacting differently two indicators expressing enterprises' profitability - Profit per Employee in overall economy and in SMEs after one year and Net Profit Margin in overall economy after two years and in large enterprises after one year. Regardless the organizational objective (growth or profitability), Change Management becomes a critical instrument for enterprises, especially when adapting its process to Romanian peculiarities.

The main **limit** of our study is that, because of the inexistence of primary sources of information, we cannot know how many enterprises are actually consuming Business Consulting and how they have been impacted by this, which means that the positive correlation or impact at sectorial or national level might also be caused by a good economic conjuncture. A further, more detailed research on KIBCS would show the specific behaviour of Business Consulting consumption in Romania.

Another aspect to consider is the trend toward globalization in Professional services. Professional services met "a massive expansion of international activity over the last two decades" because of "the gradual decline of national regulatory regimes under pressures of 'free trade' and the increased international standardization of certain forms of professional services has opened up more possibilities for the internationalization of firms in this area"; modern technology makes it easier "to facilitate forms of cross-national team-building and cooperation" (Morgan, Sturdy and Quack, pp. 3). Therefore, some positive outcomes in our

economic indicators, in general, and in Large Enterprises, in particular (since SMEs are less probable to afford international services), can be caused by international Business Consulting enterprises, which are not considered in this study. Therefore, further research on this topic is recommended to proceed with a survey on Business Consulting Services' consumption in Romania, differentiated on SMEs and Large Enterprises, on economic sectors and counties, while considering the results of this secondary sources' research.

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