Sustainable marketing strategy under globalization: a comparison between p-KIBS and t-KIBS sectors

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Abstract. The recognition of the relevance of knowledge-intensive business services (KIBS) is becoming especially acute in the European Union and even more important for many emerging economies. The objective of this paper is to explore what are the differences in marketing strategy to sustain the competitiveness of KIBS in the local and global markets in the last five years. In addition, this research compares what are the differences between the technology-based (t-KIBS) and professional-based (p-KIBS) business services. The empirical evidence is based on quantitative and firm-level data gathered through an email questionnaire which yielded 128 qualified responses from the small enterprises in Czech Republic. The analysis is based on descriptive statistics and non-parametric tests to compare the differences between the two groups of enterprises. The empirical evidence displays a diversity between t-KIBS and p-KIBS in usage of marketing policy such as pricing policy, brand or company presentation as well as the markets they operate on in the last five years. The research contributions of this study are twofold. First, the results have implications for managers involved in business development of service industry and second, results could be useful for government efforts to support the development (export) activities of KIBS as a heterogeneous category.

1 Introduction

It is well known, that the knowledge-intensive business services (KIBS) as a small proportion of all services, is significant in terms of economic benefits and as the key part of the growth in value added, employment and labour productivity [1]. The recognition of the relevance of KIBS firms is becoming especially acute in the European Union [2] and even more important for many emerging economies [3, 4]. The empirical analysis of the Visegrad countries conducted by [4] revealed, that despite of just a few years of development of advanced services in Central and Eastern Europe, they already play an important role as advance business providers, however many countries do not reveal much data (out of the V4 countries, only Hungary and Poland provide data such as FDI).

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Therefore, aggregate statistics are not useful for long-term analysis or drawing international comparisons. In the Czech Republic, the importance of the manufacturing industry prevails, which is reflected in the relatively lower share of market services and thus the KIBS in the structure of the Czech economy. However, this segment represents a facilitator of knowledge, external information, and an innovation to other business clients from private and public sector especially manufacturing sector [5]. The interconnection between KIBS and the private manufacturing sector contributes to the many benefits of both KIBS and the manufacturing sector in enhancing their competitive edge and innovation [2].

The structure of this paper is as follows. The following section introduces the theoretical framework consisting of sustainable marketing strategy with focus on KIBS sector. The subsequent methodology section provides the details of data collection and analytical methods. The fourth section presents the findings of the analyses. The results are discussed with the aim of answering the proposed research questions. The final section summarizes the conclusions of the study and provides the implications for future research.

1.1 Sustainability, sustainable marketing strategy and globalization

In this paper, we define sustainability using the dominant definition established by the World Commission on Environment and Development (WCED): "Sustainable development means meeting the needs of the present without compromising the ability of future generations to meet their own needs." This business definition mean that firms engaged in sustainability need to seek strategies that simultaneously create economic value into future.

As institutions such as OECD or Eurostat suggest, the sustainable marketing strategies involving innovations and significant changes in design, placement, promotion or pricing. These strategies lead to tactical marketing actions such as changes in sales or distribution methods, advertising or permanent exhibitions. The objective is to increase appeal for the firms' products and/or to enter new markets. These actions focus on customer's needs, opening new markets, or repositioning a company's product with the intent to increase sales. Firms focusing on marketing actions are likely to have a better ability to increase customer satisfaction, also to successfully adapt to changing market needs, to discover and exploit business opportunities and to access new information and resources in order to develop new competitive products or processes.

The main goals of marketing strategies for business leaders are to fill market needs, grow market share, and increase shareholder value [6]. Small business leaders should gather all insights regarding marketing activities to forecast growth and sustainability patterns [7]. Marketing strategy is closely related to marketing mix as combination of four elements: the product planning, the price fixation, distribution system, and promotion to meet the need of targeted market and at the same time used to meet the need of marketing. Product, price, promotion, and place are the traditional 4P concepts in relationship marketing for small business owners to improve its competitive position in the market [8]. Driven marketing approaches involve the initiation of product strategies that foster the development of product positioning, formulation, advertising, and pricing. Changing the product might be necessary to maintain or grow market share because product characteristics are also factors of brand loyalty [9].

According to [10] the firm competitive strategies in terms of distribution, price, reputation and innovativeness appear as the most significant determinants of sustainable development of KIBS. Marketing activities such as marketing communications, personal selling, competition-based pricing, product development, and distribution may help emphasize differentiation-based product market strategies to meet market goals [11]. Marketing new products keeps customers aware of new offerings; for long-term growth

organizations must involve innovation and insights from customers [12]. Executives use promotion, advertising, fundraising, and public relations as principles of marketing operations and strategy [13].

The localization effects and globalization effects are also manifested in a number of forms which relate to the growth of KIBS. This group of services may be pulled into international markets as a result of the location decisions of their existing clients, and the requirement to follow them as they move to new locations, or they may form part of a push by KIBS firms themselves to enter and exploit opportunities in overseas markets [14]. As [15] argues, the market reach of KIBS often extends well beyond their regional bases to national and international nexuses of "corporate exchange", which is particularly the case for very well-established KIBS such as legal services and accountancy. Globalization and localization effects are generally interconnected, rather than diametric forces [16]. For instance, successful connectivity in global spaces is often the outcome of an initial system of localized interaction, whereby it is the knowledge crossing hallways and streets that initially catalysis intellectual exchange and knowledge transfer across oceans and continents.

1.1.1 Defining of p-KIBS and t-KIBS

This sector is characterized by private sector of small enterprises with high level of knowledge and orientation of its services to other companies and organizations that are predominantly non-routine [5]. Further, two types of KIBS are usually defined [3] the more traditional professional services (p-KIBS) such as accountancy, legal, management consultancy services and the more technology-based KIBS (t-KIBS) such as computer, engineering, R&D and testing services etc. Following [1] and [10] are KIBS further divided as technology and professional according aggregated subsectors (see Table 1).

Table 1. Classification of KIBS activities according to NACE 2

NACE Rev. 2	Description of section	Description of division	Type
Section J, division 62	Information and Communication activities	Computer programming, consultancy and related activities	T
Section J, division 63		Information service activities	T
Section M, division 69	Professional, scientific and technical activities	Legal, law and accounting, consulting activities	P
Section M, division 70		Activities of head offices; management consultancy activities	P
Section M, division 71		Architectural and engineering activities; technical testing and analysis	T
Section M, division 72		Scientific research and development	T
Section M, division 73		Advertising and market research	P

1.2 Sample and methods

The research question for the purpose of this research is "Are there differences in marketing development strategy between the technology-based (t-KIBS) and professional KIBS (p-KIBS) according served markets?" From this question there was defined null hypothesis that there are no differences between p-KIBS and t-KIBS and "there is correlation between marketing development strategy with served target markets of KIBS enterprises".

Primary research was conducted on a sample of small enterprises in the Czech Republic operated in the market. Based on retrospective data over the 5-year period, it has been identified innovation development strategies and related changes within the business. The source of contacts to respondents was the university database Amadeus for which selection criteria were selected:

- Headquarters in the Czech Republic, only private profit sector of market services (limited liability companies, joint stock companies and self-employed).
- The enterprises had to be in operation for more than 5 years and there should not be a presumption of bankruptcy or insolvency.
- The size determined by total number of employees is between 9 and 50.
- Owner should be a senior executive (CEO) and must be in the top management or in the board of directors and has majority share (50.1%).
- Classification of economic activity according to NACE 2 (see Table 2).

Table 2. Structure of respondents according to KIBS classification by NACE Rev.2

KIBS by NACE Rev. 2	Theoretical		Empirical		Type
	Absolute	Relative	Absolute	Relative	
Section J, 62	300	25,00%	37	28,90%	t-KIBS
Section J, 63	21	2,00%	3	2,30%	t-KIBS
Section M, 69	214	18,00%	19	14,80%	p-KIBS
Section M, 70	64	5,00%	7	5,50%	p-KIBS
Section M, 71	407	34,00%	40	31,30%	t-KIBS
Section M, 72	17	1,00%	4	3,10%	t-KIBS
Section M, 73	191	16,00%	18	14,10%	p-KIBS
KIBS total	1 214	100,00%	128	100,00%	-
t-KIBS total	754	62,10%	84	65,62%	-
p-KIBS total	469	37,90%	44	34,38%	-

2 Results and discussion

We divided a geographical market served by KIBS into five dimensions: local, regional, national, EU member states, outside of EU according their percentage of total sales/turnover. This item was constructed on Likert-scale measure and coded as 0 (0%), 1: (1-20%), 2: (21-40%), 3: (41 -60%), 4: (61-80%), 5: (81%-100%). The served markets was recoded into three broad categories as local (regional and local markets), national and international (EU markets and out of EU markets) for evaluating overall level. It is clear from the following Figure 1, that the local and national market within the Czech Republic dominate the small KIBS geographic scope. Nevertheless, the international markets represent important potential for global operations, especially for T-KIBS sector.

In our case, we didn't identify purely "born global" company (focus of operations only on foreign markets). Results suggest, that the highest level of services with operation in the international market are sectors such as computer related activities, engineering and architectural sector. The lowest of percentage of total sales/turnover in international space are related to the services provided being bound by the laws or regulations of the nation/country concerned with the domain of legal, accounting and other activities (close link with government and public procurement). The international nexuses of "corporate exchange ", are particularly the case a well-established and large companies as legal services and accountancy but not for small private companies within KIBS sector. We recognise a considerable share of operations in foreign markets in sectors such as advertising and market research and business management consultancy.
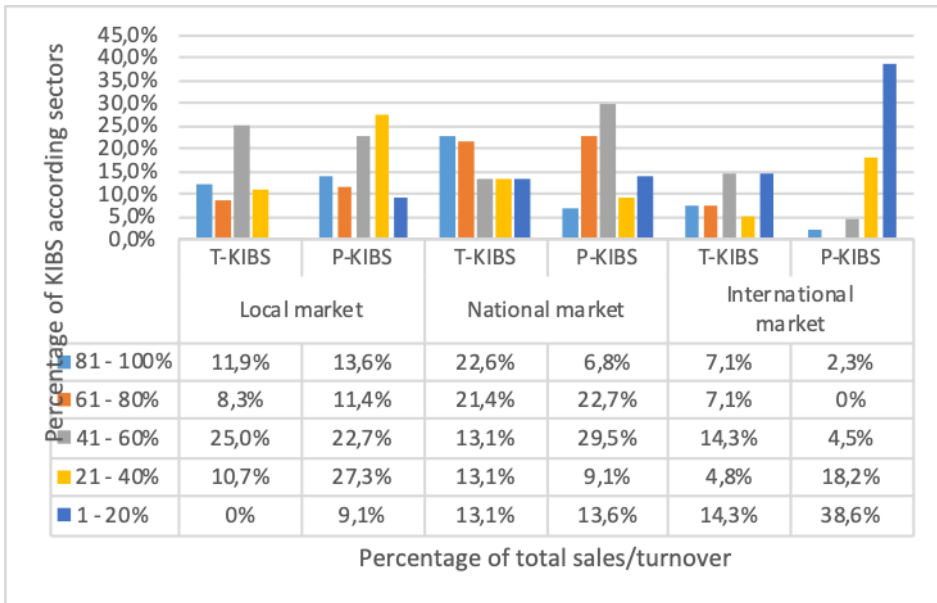
Fig. 1. Served markets by t-KIBS and p-KIBS

Because the data exhibits skewness, which implies departures from normality, the distribution-free non-parametric tests are used to examine whether there exist significant differences. The Mann–Whitney test is used for two group comparisons to test whether there exist significant differences between sectors. The next table 3 show, that there are significant differences with respect to the operations on local (Sig.=0,000) and international (Sig.=0,002) markets served. Whereas the focus of research has been on KIBS operating in the market at least 5 years, most of them are already well-established and operating across the nation/country.

Table 3. Statistics of non-parametric tests for grouping variable sectors

Description of overall index and individual items included	Grouping variable sectors: p-KIBS and t-KIBS			
	Mann-Whitney U	Wilcoxon W	Z	Sig.[a]
Overall level of market served	1084,500	4654,500	-3,883	,000*
Local market	1127,000	4697,000	-3,238	,001*
National market	1674,000	5244,000	-,887	,375
International markets	1264,000	4750,000	-3,035	,002**

[a] Asymp. Sig. (2-tailed), * Sig.≤ 0.05, ** Sig.≤ 0.01.

Further, we used exploratory factor analysis (PCA with a Varimax rotation) to reduce the number of variables for explanation of marketing development strategy adopted by KIBS. The examination of out-put variables is based on Sum Factors as the average score of multi-item scales. In evaluating the exploratory factor analysis, several criteria are used: the total variance explained ($\geq$ 0.50), the factor loading ($\geq$ 0.50) and the internal consistency was measured with Cronbach's alpha giving results above the critical limit of 0.60. The items of marketing actions incorporated the changes according to literature review. This item was constructed on Likert-scale measure 1: strongly agree to 5: strongly disagree. As can be seen from table 4, the pattern of loadings suggests that the one factor resolution exist of which together explained 56, 53% of the variance with KMO 0,772.

Table 4. PCA with Varimax rotation

Factor name	Name of the items included	Loadings	Cronbach´s alpha
Marketing development strategy	The development required the change in the current customer segments	0,723	0,754
	The development required change in company and product presentation	0,785	
	The development required the introduction of a new distribution channels	0,722	
	The development required the introduction of a new pricing policy of service offered	0,516	
	The development required the change in communication with customers	0,698	
	The development required change in brand of services offered	0,738	

The next Table 5 show differences in overall received marketing development strategy (Sig.=0,022) between sectors with significant differences in product presentation (Sig.=0,000), price strategy (Sig.=0,002) and brand of services offered (Sig.=0,002). Product presentation is very important marketing tool in terms of penetration or entering new markets and help to promote brands. Building a valuable brand increases customer value perception, gives the product a higher quality level, increases profitability [17] and lead to the sustainable development of these companies. Companies that have a strong brand name achieve better performance and marketing capabilities [18]. It seems that T-KIBS are more capable implement changes in brand offered on international markets, whereas P-KIBS perceived changes in product presentation on national market.

Table 5. Statistics of non-parametric tests for grouping variable sectors

Description of SUM Index and individual items included	Grouping variable sectors: p-KIBS and t-KIBS			
	Mann-Whitney U	Wilcoxon W	Z	Sig.[a]
Marketing development strategy	1394,000	4964,000	-2,294	0,022*
Customer segment	1760,000	5330,000	-,454	,650
Product presentation	1310,000	4880,000	-2,783	,005*
Distribution channels	1628,000	2618,000	-1,152	,249
Price strategy	1130,500	4700,500	-3,714	,000**
Communication with customers	1601,500	5171,500	-1,305	,192
Brand of services offered	1420,500	4990,500	-2,324	,020*

[a] Asymp. Sig. (2-tailed), * Sig.≤ 0.05, ** Sig.≤ 0.01.

As table 6 show, there are significant correlation between the markets served and perceived changes in marketing actions. Results show that marketing development strategy correlate with operations on national (d=0,18) and international markets (d=0,22). Further, the operations on international markets in the last five year requested the changes in product presentation (d=0,23), distribution channels (d=0,27), communication (d=0,18) and brand of service offered (d=0,20), whereas, the operations on national market requested the changes only in product presentation/promotion.

Table 6. Bivariate correlation matrix

	1	2	3	4	5	6	7	8	9	10
1. Marketing strategy	1,00									
2. Customer segment	0,74**	1,00								
3. Product presentation	0,83**	0,43**	1,00							
4. Distribution channels	0,53**	0,43**	,42**	1,00						
5. Price strategy	0,11	0,00	0,19*	0,14	1,00					
6. Comm.	0,64**	0,33**	0,46**	0,44**	-0,02	1,00				
7. Brand of services	0,69**	0,47**	0,49**	0,34**	0,21*	0,30**	1,00			
8. Local market	0,13	0,01	0,13	-0,01	-0,07	0,03	0,07	1,00		
9. International markets	0,22*	0,15	0,23**	0,27**	0,02	0,18*	0,20*	0,02	1,00	
10. National markets	0,18*	0,05	0,31*	-0,11	0,07	0,14	0,04	0,22*	0,20*	1,00

** Correlation is significant at the 0.01 level (2-tailed), * significant at the 0.05 level (2-tailed)

3 Conclusions

Marketing strategies have an effect on financial outcomes for small businesses and lead to the sustainable development of these companies. An effective marketing strategy increased sales and dominance in a targeted market [6]. KIBS managers/owners are tasked with using various communication levels to determine which consumer populations are most likely to talk about a company brand to help influence quantifiable ways to sales and profitability [19]. Executives can use marketing communications to obtain information and advice, offer information about products, and persuade target customers on the merits of a particular product [20].

T-KIBS have more international potential with the ability to implement changes in brand offers to sustain development and competitiveness on global scale. This does not mean that P-KIBS have no global potential, but depends on close interconnection with laws, regulations of the nation/country and close link with government and public procurement (e.g. traditional accounting). The research found a considerable potential of P-KIBS in foreign markets in sectors such as advertising and market research and business management consultancy, which are wider usable for commercial purpose, B2B oriented companies. However, the highest level of services with operation in the international market are IT services, engineering and architectural/design sector.

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