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Gazelles in services: what are the specifics of their existence in Slovakia?

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Abstract. *Young dynamic service enterprises – gazelles – represent the modern economy phenomenon, which stimulates the growth by its operation, in particular of local economy. This article identifies the position of gazelles in services and defines their characteristic features with regard to knowledge intensity of their production. Research results document the dominant representation of gazelles in services within the framework of their sectoral distribution and their growing economic effects in the Slovak Republic. Knowledge intensity of production is determinant of gazelle innovativeness in services, and the result is supported by knowledge of higher intensity perception of innovation effects in a knowledge-intensive production of services.*

Keywords: innovation, gazelles, services, fast growing enterprises, knowledge.

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Introduction

Strategy Europe 2020 indicates an increase in the number of fast-growing enterprises as a political objective (European Commission, 2010). It further defines the "viable industry services" as the strength of the European economy. More than 155 million people can now be classified as workers in services, which is almost 70% of total employment. Services are involved in 71% of the gross added value in the EU economy. Europe 2020 defines the European services sector as the key to the productivity and growth, because it disposes of unused potential for growth. Several studies resulting in recommendations for different levels of economy governance define the rapidly growing enterprises as the key source and potential generator of economic growth, innovation and creation of well-being (OECD, 1998; 2000; 2002).

The article focuses on gazelles in services in the Slovak economy. The current structure of Slovak economy results in the production with low added value to a decisive extent. It is significantly integrated into the global value structures. The production is, however, carried out in particular in the lowest parts in value chains, since a large part of the automotive and electronics are performed by foreign owned companies, whose production is intended for export. So far no major efforts were recorded to diversify economy in other industrial sectors, thereby exposing the economy to volatility of external demand. On the other hand, however, the key industries will generate demand for intermediary products, including services. Therefore, also the structure of Slovak economy can be an effective environment for dynamization of service enterprises. And changing needs of consumers generate demand for new quality. The relevant research was conducted in the environment of Slovak firms. It was focused on productivity spillovers from foreign to local firms. The results show that the effect of the technology gap on productivity spillovers was conducive. Nonlinear effects were found in services and high-tech industries. Reverse productivity spillovers through capital were positive in the manufacturing industries (Jacobs at al., 2017).

Considerations of possible dynamization of service enterprises in the Slovak economy are closely connected with knowledge on the structure of economic activities in the national economy and also the extent to which the services are pursued. In 2015, the gross domestic product was to a large extent formed by the services in the Slovak economy. Services represented 72 % in this parameter. Market services accounted for 44% of the total GDP SR, after the removal of financial sector 40%. Results of GDP in the three sectors in the Slovak economy confirmed the intensive enforcement of services sector in the years 1995 – 2014. Referred data document the existence of characteristics of the services economy in the Slovak Republic (Kubičková et al., 2016; Drieniková and Kašťáková, 2016).

The topic of high-growth enterprises is relatively well represented in the foreign literature with numerous statistical monitoring of these enterprises being available. There is no consistent analysis according to the geographical definition. Published studies identify behaviour of young high-growth enterprises - gazelles. However, fewer are studies concentrated on the services sector. Knowledge of gazelles in connection with knowledge intensity of production is lacking. This article therefore deals with the issues of dynamic enterprises in services with the emphasis on differences arising from different level of knowledge intensity of their production.

Literature review

Identification of the phenomenon "enterprise – gazelle" in the current business is based on knowing the characteristics of high-growth enterprises. According to the OECD definition, high-growth enterprises (*High-growth enterprises* – HGE) are all business entities with an average annual growth of 20% which can be held for three consecutive years. According to the definition of the European Commission (2007) and the Manual on statistical demographics of enterprises (2007), growth can be measured by two criteria: increase of employment or turnover. The enterprise is included in the group in the case, if it meets at least one of the above criteria. HGE representation is statistically expressed as a percentage of enterprise population with

10 or more employees (OECD, 2015). Excluded are micro-enterprises with number of employees less than 9, which would have been able to generate these growths in view of the small number of employees much faster (Petersen and Ahmad, 2007; Dautzenberg et al., 2012).

Even if a relatively large amount of literature on the company growth phenomenon was published in the 1930s (Storey, 1994; 2010), the idea that small and medium-sized enterprises create jobs was first described by the economist David Birch in his publication *Job Generation Process* (1979). Birch assumed that new jobs are created mainly in small and medium-sized enterprises, in particular in those newly established. Birch and his colleagues (1997) examined this hypothesis in the USA. According to their studies, on average two thirds of all jobs are created by small and medium-sized enterprises.

Birch (1992) further developed his theory with a statement that "small percentage of firms creates a majority of new jobs". In 1994, however, Birch revised his works focused on the topic of enterprises that generate the majority of jobs, which he called gazelles. These were specific with their smaller size in his opinion, but a rapid expansion. Under Birch, these enterprises managed to double their turnover every four years. According to his findings, for example, in the United States of America app. 4 % of all enterprises were gazelles, which were responsible for 70 % of all new jobs (Zumbrun, 2009).

The term gazelle describes those enterprises that are able to generate high growth rates in a very short time period (Birch et al., 1997; Moreno and Casillas, 2000; 2007). He simply expressed the definition of gazelles of Eric P. Canada (1998), who defines the gazelle as a company that is experiencing extended period of rapid growth.

Firms called gazelles are young, fast-growing enterprises, primarily established as start-ups (Morgan 2010). Their counterparts are the so-called *elephants*, such as Wal-Mart (Zumbrun, 2009). These are giant enterprises with thousands of employees, which do not produce any significant increases in new jobs (Autiu et al., 2000). In addition to the above mentioned categories, professional literature also mentions the terms *sleeping gazelles* and *baby gazelles*. Swedish authors (Grundström et al., 2012) focused on the so-called *sleeping gazelles* in their study of the years 1997 – 2000. These enterprises are characterised as enterprises, which exhibit high increase in profits in a three year period, but these are not being accompanied by an increase in staff. Investigation was focused on the behaviour of these entities and identification of reasons, which prevent an increase in staff. They defined the enterprise growth as a change in the number of employees in three years. The results of the study show that sleeping gazelles can be identified as small and young enterprises, independent, without strong financial background, located on the market with significant opportunities for profit and with a high market concentration. Sleeping gazelles may, under optimal conditions, thus adopt a position of reaching a high profitability, but without political support concentrated on promoting growth of small enterprises and removing of barriers to growth, these enterprises do not generate new jobs, which, in the end, prevents their sustainable growth. Reasons preventing employment growth are the lack of entrepreneurial skills, non-availability of qualified personal capacity and regulatory measures.

Despite the fact that most of the relevant sources identify gazelles through the initial number of 10 workers, the literature also mentions the term *baby gazelles*. This term is used for very innovative micro-enterprises and/or small enterprises with the number of workers from 5 to 49, with a very clear objective of its existence – creation of wealth (Feindt et al., 2002). The fact is that micro-enterprises oriented on the production of software solutions, development and implementation of e-business processes, etc. are not dependent on the number of workers to a significant extent. Crucial is the quality of performance, staff qualification and their performance, which create products of high added value determining the high growth. Therefore, several studies monitor gazelles with number of employees from five. It depends on the specific characteristics of these enterprises whether the growth of revenues may be followed by the growth of jobs.

Views of foreign authors on the operation of gazelles in various sectors of economy differ. According to the authors Autio et al. (2000), Henrekson and Johansson (2008) and Parker et al. (2010), there is no specific sector of economy, were the gazelles were represented more significantly. In total, gazelles can be found in all sectors and industries (Mitusch and Schimke, 2011). Acs et al. (2008), however, indicate that some industrial sectors have higher percentage of gazelles, but are not limited only to high-tech industry. Kubičková et al. also state (2015) that the existence of gazelles is a phenomenon that is not typical for high-tech sector, but has a crucial position in services. However, there are differences between gazelles operating in the environment of technologically advanced EU economies and those that carry out their activities using limited progressive technologies. Birch and his colleagues (1997) have established that the high growth enterprises do not only operate in fast-growing sectors, and that only two of the Top 20 Industries were gazelles in the high-tech industry (electronics and manufacturers of devices). Further, they have come to a conclusion that most gazelles were in average or slow growing industry sectors, such as textile, paper products, heavy construction, stone and clay mining, and glass products. According to their observations, almost 30% of gazelles conduct business in wholesale and retail trade. Koehler and Moller (1998) indicated in their analysis that also production and wholesale belonged to the slower developing industries during the observed period, but nevertheless they produce the largest share of fast-growing enterprises. According to the authors, services were one of the fastest growing sector, but produced the lowest number of fast-growing enterprises. Under the Finnish study (Autio et al., 2000), gazelles have the highest representation in industry and in the production of motor vehicles. Recent studies of the authors Henrekson and Johansson (2008; 2010) mention that young, fast-growing firms achieve greater advantage in the tertiary sector – the services. Under the Portuguese Instituto Nacional de Estatistica (2014), gazelles are mostly present in the services sector, but they reach significant market shares also in construction. It is therefore clear that number of gazelles, as well as the share of gazelles in business subjects within the framework of individual sectors differs with regard to the key focus of economy.

Independently of the operation of gazelles in the various sectors of economies, the enterprises – gazelles are important for the development of trade and business, because they generate a large number of new jobs (Birch, 1979; Barkham et al., 1996; Zumburan, 2009; Henrekson and Johansson, 2008; 2010; Mote, 2012). These

enterprises are the main creators of economic growth of individual countries (Psenicny et al., 2014). According to the authors Mitusch and Schimke (2011), the business entities are important for economic competitiveness and development of all economies. According to the research of Frederick (2004), these firms play an important role in the regional restructuring and development.

Gazelles bring new products to the market and they are looking for new markets. They focus on effectiveness of their production and business processes, use information technologies and employ experienced workers (Christiaan Barnard et al., 1998). Most of them are enterprises that are the pioneers in structural changes in their field and have a developed corporate culture based in particular on innovations and search for new opportunities for asserting themselves on the market, or for the growth in the market share. They introduce mainly new ideas and innovation in their processes, therefore it may be presumed that these companies could be the biggest innovators in the market (Stone and Badawy, 2011; Knošková, 2015). The ability to promote innovation is a more important factor of growth in the case of these enterprises than their small size (Henrekson and Johanson, 2010). Gazelle ensures its critical size with its turnover, which represents a few million Euro (Autiu et al., 2000). Successful gazelles have significant experience with foreign trade and have experienced management (Barnard et al. 1998). Under Stone and Badawy (2011), it is possible to combine a beginning firm and a gazelle, because the company, which fills a gap in the market through innovation, has a huge assumption for the following growth.

Australian research of the environment of fast-growing enterprises, gazelles, focused on identifying differences and specifics operating at the stage of a rise of enterprise in enterprises – gazelles and in enterprises – non-gazelles (Cunneen and Meredith, 2007). Results show the ability of gazelles to risk, to act independently, intuitively and aggressively in the competition, while being able to benefit from networking. On the other hand, they are concentrated on the support of human resources quality and creativity development. Human capital represents the primary source of innovation in enterprises (Agoston, 2014).

The ability to base their economic growth on innovation is one of the important features attributed to gazelles by the authors (Henrekson, Johanson, 2010, Stone, Badawy, 2011, Barnard et al., 1998). It can therefore be assumed that the knowledge-intensive production can be a factor that determines the existence of gazelles. Knowledge-intensive production is identified by the employee structure. It consists of university graduates of min. 33% (Eurostat, 2009). The important features of knowledge-intensive production in the production of services include the constant need to adapt to clients and the business context (Mate, 2016), the promotion of creativity and innovation (Dell'era et al, 2015), the application of a high degree of knowledge aimed at solving clients' problems and the use of high-tech systems (Michalová, 2011), a strong position of knowledge in the input production system, professional employee skills (Haataja and Okkonena, 2004), a relatively high capital intensity and a high level of specialization (Miles, 2008). The service sector is heterogeneous and includes less or low-knowledge intensive services, as well as knowledge-intensive services. It is so inspirational, with regard to the possible support of gazelles, to deal with the differences in their existence and to find the

answer to the question: What supports the above-average growth in service enterprises – gazelles? And at the same time: How do gazelles use innovative activities for their growth (Kubičková et al., 2016)?

Further elaboration of the issue of gazelle's existence in the services sector in the Slovak republic was based in particular on the conclusions of the research by the authors Henrekson and Johanson. Those indicate that gazelles are younger and smaller than other enterprises, and their ability to grow rapidly is strongly connected with their age. Gazelles exist in all sectors, primarily in services (Henrekson and Johanson, 2010). As regards the impact of gazelles on the employment growth, the authors have reached the following conclusions:

- Fast-growing enterprises generate greater share of new jobs than other enterprises.
- Gazelles are younger than other enterprises.
- Gazelles may have different size. They can be found in particular as small enterprises. Large gazelles are important creators of jobs, but the sub-group of super gazelles is the biggest contributor to the group of created jobs. The ability to promote innovation is a more important factor in growth than their small size.
- Gazelles are not typical of high-tech sectors to the greatest extent. They exist in all sectors, but to the greatest extent they are recorded in the services sector. Innovations are an important factor for their growth.

Material and methods

The aim of this article is to identify the position of young dynamic enterprises in services within their sectoral deployment and to define their characteristic features with regard to knowledge intensity of their production. The study is based on the experience gained, in particular, from the environment of gazelles in services in the conditions of the Slovak economy.

The aim is achieved by scientific methods of analysis of secondary and primary data and the subsequent fusion into the relevant findings. The secondary research was based on a study and processing of domestic and foreign theoretical and statistical sources, as well as research studies, in particular in the databases ProQuest, Ebsco Host, Scopus, Web of Knowledge, OECD, Eurostat, Statistical Office of the Slovak Republic, ESDS Statistics. The methods of descriptive statistics were used to identify the position of gazelles in the Slovak economy.

The primary research was conducted in the period 11/2015 - 03/2016 by means of quantitative research using the questionnaire method in Slovak service enterprises identified as gazelles. Data collection took place via a web questionnaire accessible on http://gazely-podnikanie.sk/dotaznik/. The questionnaire consisted of six units representing relatively closed areas of research: A – subject identification, B – business environment and external factors, C – innovation activities of enterprise, D – regional organizations, E –internal factors, F – social responsibility of enterprises. It was a system of open questions (16 items), semi-closed questions (13 items) and closed questions (23 items). The paper analyzes the results of questionnaire surveys in the areas A, B and C, corresponding to 9 open questions, 10 semi-closed questions and 14 closed questions. The evaluation of the research was performed by the

application of mathematical and statistical methods; the analysis was performed using the MS Excel pivot tables.

Database of enterprises was generated from two statistical sources – the Statistical Office of the Slovak Republic and the company FinStat. A combination of these two sources has been chosen in order to reach the complexity of data conditioned by their availability. In 2015, the Statistical Office of the SR made the identification of gazelles in the Slovak Republic available for the first time, showing data from 2012 and 2013. Information on gazelles in the SR for the year 2014 have been supplemented from the database of FinStat company. The methodology of dividing economic activities by NACE, Rev.2, which is applied in the statistical reporting by Eurostat, was respected.

During the observed three-year period, 342 gazelles in total have been identified within the Slovak economy – in the services sector. To the greatest extent they were found in the section H Transportation and storage (34%), in the section I Accommodation and catering services (23%), and in the section M Professional, scientific and technical activities (22%). Section J Information and communication was represented by a 12 % share in the data. Section G Wholesale and retail trade; repair of motor vehicles and motorcycles was represented by 17 enterprises (5%) in the structure of enterprises – gazelles in services, Section N Administrative and support service by 10 companies (3%).

The following data on the following groups of enterprises were set aside for the purposes of meeting the selected research objective:

- Representatives of tourism (NACE I55 Accommodation, I56 Food and beverage service activities, N79 Activities of travel agencies, reservation services of travel agencies and related activities, R93 Sports, leisure and recreational activities),
- Representatives of business services (NACE J 62 Computer programming, consultancy and related services, J 63 Information service activities, M 70 Activities of head offices; management consultancy activities, M 72 Scientific research and development, M73 Advertising and market research).

The reason for selecting this basic set is the fact that the two groups of services differ in the knowledge intensity of production, which allows for identification of different features in the current issue.

Business services are represented by the divisions of knowledge-intensive services in the final set of the observed enterprises (*knowledge intensive business services* – KIBS).

Definition of tourism enterprises was based on the methodology NACE rev. 2, as well as the methodology of tourism satellite account. Both methodologies identically define accommodation and catering services as characteristic tourism services. We have also included travel agencies and recreational activities in the enterprises of tourism.

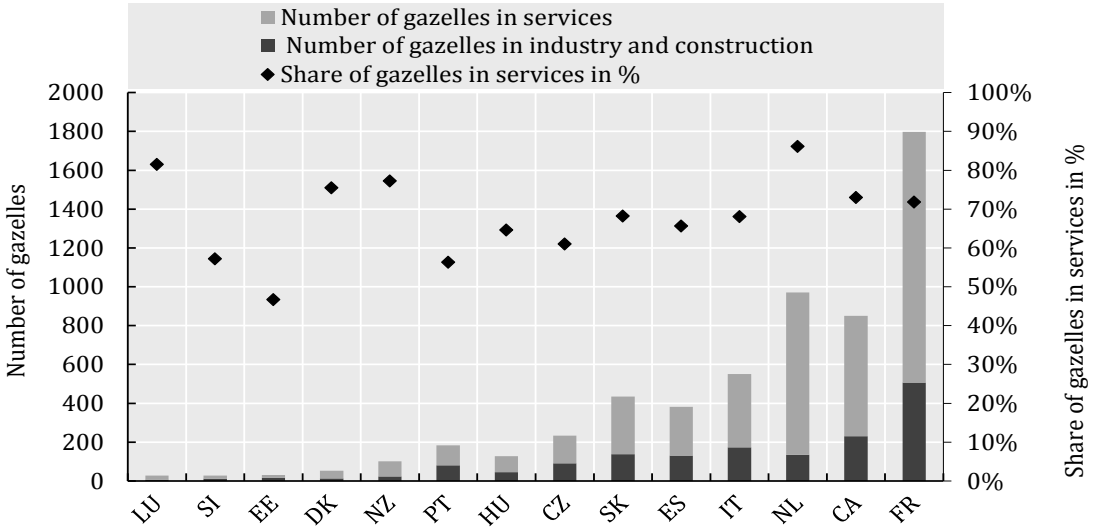
The database of enterprises in the research of the basic set consisted of the group of service enterprises, meeting the criteria of gazelles, in total 198 enterprises – respondents; thereof 112 enterprises were KIBS and 86 tourism enterprises. Intensity of introduced innovation impact in service enterprises is expressed as a weighted

arithmetic mean of individual business response values in the primary research, using the Likert scale, scoring 0-3 (0 - no impact, 1 - slight impact, 2 - significant impact, 3 - very significant impact). The value interval of individual elements intensity (specified effects) in the enterprises was [0;3].

Results

Initial finding on the operation of gazelles in services in the Slovak Republic was followed by the analysis of sectoral structure of young dynamic enterprises in OECD countries. The image of shares represented by young dynamic enterprises in the sectoral structure of enterprises (gazelles) with an emphasis on their weight in the services sector (♦) is presented in the chart below.

Chart 1. *Sectoral structure of young dynamic enterprises in the OECD countries, 2013*



Source: Own processing according to OECD data, 2015 (OECD 2015).

Prevailing representation of service enterprises in the total number of gazelles in the economy is evident in the selected group of countries. The highest value of the parameter was recorded in the Netherlands (86 %), Luxembourg (81%), and in the case of New Zealand (77%). The lowest value was recorded in the countries Estonia (46%) and Portugal (56%). Slovakia with nearly 70% of gazelles was included among the countries with significant operation of these enterprises in the services sector. It may be stated that most gazelles in all observed countries carry out their activities in this sector. Only around 30% of young dynamic companies operate in the sectors of construction and industry on average for both sectors.

The analysis confirmed the dominant representation of gazelles in services of all observed countries (excl. Estonia), including Slovakia. Gazelles are most often present in the field of Knowledge Intensive Business Services (39%) in the conditions of the Slovak economy according to the results of the primary research. However, if we combine the departments of services with low knowledge intensity of production

(in total 61% gazelles), we note that gazelles are a phenomenon typical of services, while knowledge intensity is not explicitly determinant prerequisite for their existence.

The options to quantify the economic importance of dynamic enterprises through economic performance (the volume of achieved revenues) are limited by the availability and the short period of statistical monitoring of these entities. In view of the above, however, it can be stated that the economic impact measured by the share of revenues volume generated by the gazelles of selected fields in total sales of those fields is not significant. Recorded values, however, have an increasing tendency; enterprises of business tourism have doubled the share of the observed quantity, retail even reached a sevenfold increase. Representatives of knowledge-based production services (section J) have seen the lowest value of the observed parameter, despite the fact that the dynamization options of economic growth are predicted precisely in the category of manufacturers capable of creating and trading sophisticated products on the market. However, the fact is that the total volume of revenues in the given field of services (J) recorded a higher increase than in other monitored fields, which logically also affects the reached share.

Table 1. *Share of revenues achieved by gazelles of selected fields of services in total revenues in the field, SR, in %*

	2012	**2013**	**2014**
I – tourism	0.75	0.98	1.4
G47 – retail trade	0.19	0.64	1.47
J – information and communication services	0.12	0.28	0.34

Source: own processing on the basis of FinStat data and the data of Statistical Office of the Slovak Republic, 2016 (FinStat 2016, ŠÚ SR 2016).

The result of monitoring the position of gazelles in services is remarkable when compared to gazelles of other branches of economy. Service enterprises clearly reached the highest share in the achieved revenues of gazelles in total, where these values are close to 90%. This confirms statements by various authors (Henrekson and Johanson, 2010) on priority action of dynamic enterprises in services also in the conditions of the Slovak economy.

Table 2. *Share of revenues achieved by service services – gazelles in revenues achieved by gazelles in total, SR, in %*

Year 2012	**Year 2013**	**Year 2014**
83.6	89.1	89.1

Source: own processing on the basis of FinStat data, 2016 (FinStat 2016).

Analysis of revenue development generated by dynamic enterprises – gazelles, foreshadows their prospective economic importance in the Slovak economy. Values in the observed period have increased in all observed gazelle groups, as well as in total. The highest dynamics of development was recorded in the M category (professional, scientific, administrative and support services), in enterprises of G category (wholesale and retail), and in enterprises of J category (information and communication services). Dynamics of gazelle's growth in services was higher in 2013 than in gazelles in total.

Table 3. *Development of revenues in gazelles in the selected fields of services in the SR, in €*

	2012	2013	Index	2014	Index
Gazelles in total	102,835,095	263,177,273	255.9	427,167,083	162.3
Services in total	86,004,640	234,564,230	272.7	380,686,660	162.3
I category	6,716,519	11,425,912	170.1	16,572,630	145.0
G category	34,485,796	116,783,571	338.6	196,520,289	168.3
J category	6,668,418	14,384,524	215.7	18,496,165	128.6
M category	196,386	1,121,246	570.9	1,675,637	149.4

Source: own processing on the basis of FinStat data, 2016 (FinStat 2016).

Characteristics of service enterprises – gazelles in the Slovak Republic

The ability of above-average economic growth of gazelles is associated with several facts that with varying degrees of intensity operate according to the economic development and innovation environment in which these enterprises exist. In general, creation and existence of gazelles are interpreted as a phenomenon conditioned by innovation. Under the conditions defined by the primary research, the origin of gazelle establishment in the Slovak Republic is explained particularly in connection with imitation, when 46% of the enterprises indicated that their establishment was stimulated by applying imitation, which had market application under the conditions of the Slovak Republic. Almost one fifth of the observed enterprises (19%), however, based its initial existence on the application of its own innovation. Prevailing application of intermediated innovations (imitation) is a reflection of relatively low innovation background existing in the environment of Slovak economy, which creates pressure on the application of innovation only to a limited extent.

An important factor in acceleration of economic growth of service enterprises is also the application of good practice on a new market, where more than one fifth of gazelles in the Slovak Republic explains its status by the expansion of foreign company to the Slovak market. This procedure can also be described as imitation, when certified business processes and production systems are used on a new market.

Separation from its mother company (spin-off) as the original and fundamental element of gazelles was stated in 7.9% of enterprises. Procedure for separating the business from the original structure is a consequence of specialization of activities. It is a situation in which the parent company does not have sufficient capacities for the effective, high-quality and progressive manufacture of products desired by the market. It is also possible that a parent company uses its products on an unsaturated market and the separated structure – gazelle enterprise uses the opportunity and benefits from a verified know-how in the framework of a new segment of clients. 6.3% of enterprises explains its foundation by a start-up concept. These findings confirm that the emergence of enterprises capable of economic growth acceleration within the group of observed services sections in the Slovak Republic is not conditional to a decisive extent upon the application of original innovations generated by own research and development activities of gazelles, but imitation.

The results of primary research have been used for the definition of characteristic features of gazelles in services. It can be seen that within the framework

of general characteristics, the knowledge intensity of production determines the employee structure in the enterprise, the remuneration of employees, and its geographic location. Other observed characteristic features are identical in both observed groups of gazelles.

Differences were recorded in the group of specific characteristics reflecting the innovative activity of gazelles. It can be definitely stated that the knowledge intensity of production is the determining factor of innovative activities of gazelles in services in the Slovak Republic. KIBS are characterized by different nature and greater intensity of innovative activities.

Table 4. *Features of dynamic service enterprises – gazelles in the Slovak Republic*

Characteristic features of young dynamic service enterprises – gazelles	
Tourism – production services with low knowledge intensity	**Knowledge Intensive Business Services – knowledge-intensive production of services**
General Characteristics	
Small and Medium Enterprise	Small and Medium Enterprise
domestic enterprise	domestic enterprise or company with foreign capital participation
does not conduct business in the form of a family enterprise	does not conduct business in the form of a family enterprise
has a network of suppliers predominantly of domestic or regional origin	has a network of suppliers predominantly of domestic origin
has a network of clients predominantly of domestic and regional origin	has a network of clients predominantly of domestic origin
dominant employee representation of 31 - 40 years or 21 - 30 years of age,	dominant employee representation of 31 - 40 years
does not have an employee structure shaped in favour of university degree employees	has an employee structure shaped in favour of university degree employees
employs mostly men	employs mostly men
provides average wage assessment for its employees	provides average to above-average wage assessment for its employees
has a directly linked management and ownership	has a directly linked management and ownership
situated mainly in cities	not dominantly situated in cities
Specific characteristics in the area of innovation	
focus on marketing innovation	focus on product and organization innovation
implementation of new products for the enterprise	implementation of brand new products for the domestic market
transactional and marketing processes leading to the final consumer (on-line sale) implemented as a priority within the process innovations	CRM systems for analytic purposes as a basis of decision-making processes implemented as a priority within the process innovations
organizational innovations aimed at employees	organizational innovations aimed at employees
further orientation of organizational innovations: change in the organizational structure; code of ethics; membership in a cluster and network	further orientation of organizational innovations: outsourcing activities; redesign of jobs; employee IT skills
marketing innovations aimed at the use of social networks	marketing innovations aimed at the use of social networks
gained public resources are being used as a priority for marketing activities	gained public resources are being used as a priority for the development and implementation of innovations
investment in innovation, on average, 7.1% of revenues per year	investment in innovation, on average, 13.0% of revenues per year
low rate of cooperation within the innovations	greater cooperation within the innovations with

with other entities (24%)	other entities (65%)
no cooperation with universities in the field of innovation	existing cooperation with universities in the field of innovations (13.5%)
below-average implementation of own research activities (16.7%)*	above-average implementation of own research activities (41%)*

*24% of SMEs in the Slovak Republic carry out research activities on their own cost (Kubičková et al., 2016)

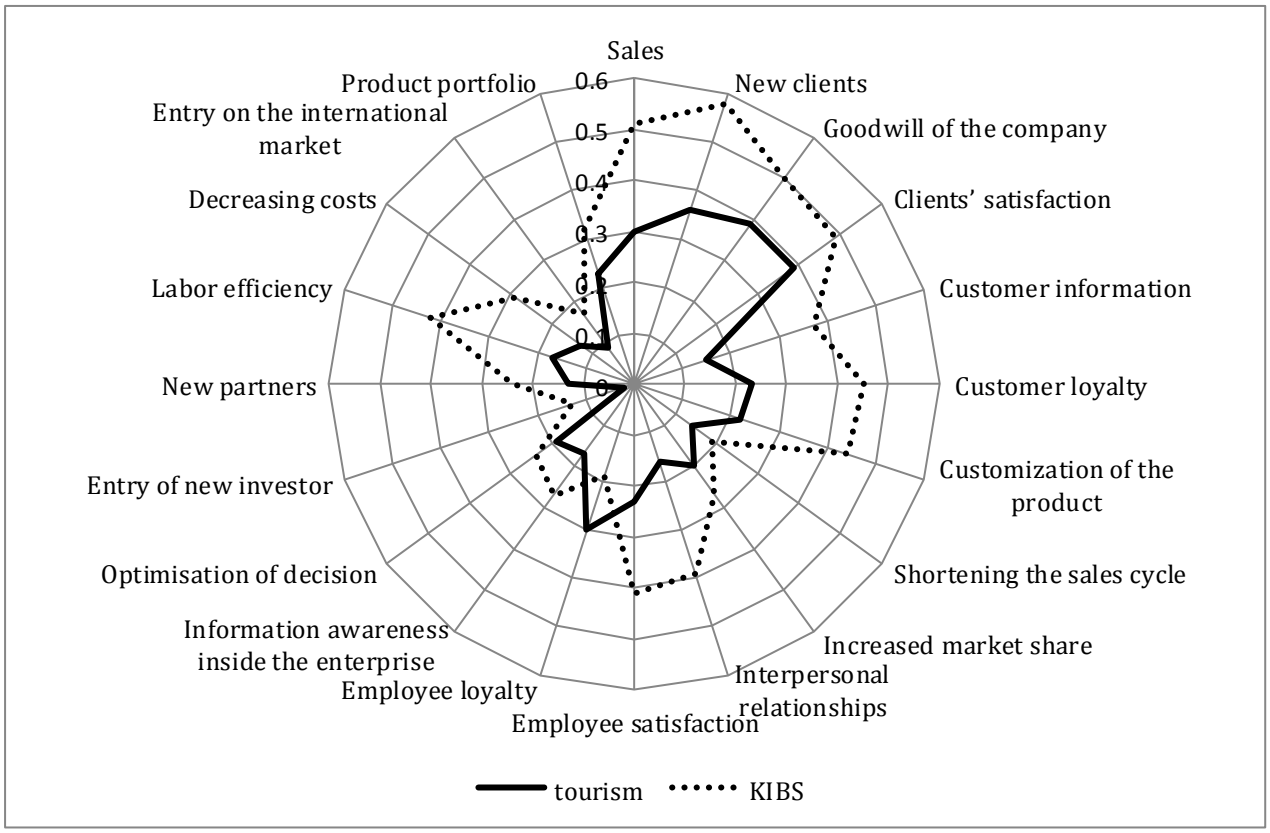
Source: Own research, 2016.

Innovative effects

By introducing innovations, the enterprises try to achieve effects in different areas that increase their growth and competitiveness. Maximum values of innovation intensity impact in the relevant fields of services (tourism and KIBS) in the Slovak Republic have been recorded in the areas of employees, consumers/clients and products by means of primary research results. None of the pre-defined effects, however, shows intensity higher than 0.6 from the defined interval [0;3]. It supports the thesis of under-average innovation environment in the Slovak economy that does not stimulate implementation of innovations with radical character that generate significant economic effects. Perception of effects is substantially more intensive in the field of KIBS, which are reflected by a more progressive innovative orientation and higher innovative intensity. Enterprises in tourism reached more significant effects only in the area of ensuring loyalty of employees. This can be explained by the demanding character of these services in direct contact of staff with the client, which requires experience enabling a qualified response to its current requirements.

Knowledge intensity is therefore an important factor of innovation effects. The result shows the significant importance of the business ability to introduce innovation in an optimal way and to prepare stimulating innovative environment. Management of innovations can thus be described as a decisive factor for the success of innovation (expressed by innovation effects).

Chart 2. *Intensity of implemented innovation impact in service enterprises – gazelles in the Slovak Republic*



Source*:* Own research, 2016.

KIBS gazelles present the most significant impact of innovations in the following areas: gaining new clients, increased revenues from sales, customization of the offer according to current client requirements, increased customer satisfaction, long-term relationship with customers, customization of the offer to the customers, higher labor efficiency, satisfaction of employees, improvement of interpersonal relations and building goodwill of the enterprise.

The following areas of the most intense effects of innovation can be identified in tourism enterprises: increased customer satisfaction, building goodwill of the enterprise, gaining new clients, increased revenues from sales, loyalty of employees.

The areas with the weakest impact of innovation in both observed groups are the following: reduction of environmental burden, entry of a new investor, obtaining the quality certification, setting up R & D units in the enterprise, entry into R & D project, R & D cooperation, access to financial resources, entry to the international market.

Conclusion

Study of the position of dynamic service enterprises – gazelles in the Slovak economy indicates their economic importance and justifies the importance of tools to support them. The analysis confirmed a dominant representation of gazelles in services in the

Slovak Republic within the framework of their sectoral distribution. Their operation in the service sector can thus be considered as one of the factors of its development.

Slovak gazelles in services are more innovative than small and medium-sized enterprises in general. It can be stated that innovation is a source of economic success. However, results of primary research documented differences in the observed enterprises – gazelles of general and specific nature in the area of innovation. We have observed greater innovation of enterprises – gazelles of knowledge-intensive business services (KIBS) in comparison with innovation of gazelles with low knowledge intensity (tourism). Knowledge intensity of production is determinant of gazelle innovativeness in services, and this result is supported by knowledge of higher intensity perception of innovation effects in a knowledge-intensive production of services. A negative finding is that gazelles do not use cooperation in research and development activities in an exhaustive manner. There is therefore a significant and unexploited potential of gazelles, which would under the conditions of accelerating the research activities in the various forms of cooperation generate further opportunities to dynamize the economic growth of enterprises and local economic structures.

Limiting factor for further study of growth factors of dynamic service enterprises in the Slovak Republic is above all a brief history and complexity of their statistical observation. Further studies in the field should therefore focus on the efficiency of economic growth factors of dynamic service enterprises – gazelles in the Slovak Republic.

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