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Fast-Growing Innovative Companies: Regularities, Trends and Main Features of the Market's Behaviour

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Abstract
In this article, the phenomenon of fast-growth of innovative companies is explored. The results of research of 200 companies IT-industry for ten years (from 2002 to 2011) are shown. It is concluded that in the real economic conditions the trends of the company's growth should be considered only in conjunction with the of relevant market dynamics analysis. A new interpretation of the concept "business-gazelle" is based on classification of companies by the ratio of the growth rates and the extent of innovativeness of their activities is suggested. The real growth cases of innovative enterprise are considered. A scientific basis is given to the principle of maintaining the rate of fast economic growth of business due to permanent innovative development.
Keywords: companies' classification, innovation, fast-growth, market, real growth.

Introduction

The approved strategy "Europe 2020" emphasizes the need for of sustainable growth of EU economy until 2020. One of its key directions is ensure that innovative ideas can be turned into products and services that create growth and jobs. So much attention on the part of government institutions is due to the understanding of exceptional importance and relevance of innovative companies for the development of national and world economy, their ability to ensure significant growth in GDP of and improve the living standards of citizens.

The analysis revealed an interesting phenomenon – innovative companies are able to show strong growth even in a crisis economy. Moreover, this growth in some cases may exceed even the growth rate of "raw materials giants" (the largest international suppliers of raw materials). In addition, very important to remember that innovative companies not only grow on their own, but very often they also is stimulating the creation a cluster of related productions and services, acting as basis for their economic development.

It can be concluded that the energy needed for the overall economic growth is not distributed evenly among the numerous business entities, but most of it is concentrated in a relatively small numbers of companies, which, in this case, play the role of "driving force" for national and world economy. Because of the this J.Hayden and J.Basset (Hayden and Basset, 2009), considering the economic recovery USA and EU after the economic crisis have identified innovation as the primary tool not only capable of restoring economic balance but also to create conditions for the sustainable growth.

This article is devoted to the study of the phenomenon of fast growth of innovative companies. It based of the research of 200 companies IT-industry for ten years (from 2002 to 2011).

Phenomenon of Innovative Company's Fast-Growth

In the late 1970s, David Birch (Birch, 1979), an American economist carried out a research by the US Department of Commerce order. At that, he discovered an interesting fact – a considerable part of the GDP gain (up to 5%) and the overwhelming majority of new workplaces in the USA (over 80%) were created by a very small number (less than 3% of the total number) of companies. The key feature of those companies was a stable economic growth during a long period. David Birch gave such companies the name of "gazelles", pointing out their dynamic development if compared to other static firms, which used to prevail in the market (small "mice" and large "elephants"). Later on, such companies received another name – the "fast-growing companies".

Presently, there are various opinions on the issue of choosing a formal criterion for labeling a company as a fast-growing one. The two most common criteria are:

- The David Birch criterion (USA) – The annual growth rate of the products (services) sales must be at least 20% permanently shown during four consecutive years (starting with the income of $100,000 for the first year of observation) – proposed by David Birch (Birch, 1979).
- The criterion of the Organization for Economic Co-operation and Development (OECD, the European Union) – The annual growth of staff number must be at least 20% a year during three consecutive years (with at least 10 employees at the beginning of the period) – proposed by INNO-Grips (INNO-Grips, 2011).

Further research allows concluding that the main lever of such fast growth is the innovative development of the business (i.e. development based on implementation of new inventions and technology). Thus, in 1998, McKinsey specialists analyzed performance of a number of companies, which had managed to increase their sales twenty and more times within four past years. They concluded that more than half of them succeeded just due to occupying new or expanding the existing niches in the consumer market by means of implementation of new innovative products (Klintsov and Lenaizen, 1998). Analysis of British companies Cable and Willets (Cable and Willets, 2011) revealed that companies, which started using innovations in their activities in 2002-2004, later (in 2004-2007) showed two times better growth rate than non-innovative companies. At that, the fast growth was a surprise even for the companies themselves.

It is obvious that not every fast-growing company is innovative, and not every innovative company is a fast-growing one. The high rate of growth can be, for example, a consequence of the demand increase due to the market development or retirement of competitors as well as due to involvement of highly skilled personnel. Thus, for example, in developing markets, regular retail companies, which have managed to be first at occupying the market, show a good growth (such as the Groupe "Auchan" SA French Corporation, which opened their first grocery hypermarket in Russia in 2002 and resulted with a network of 54 hypermarkets by 2012). On the other hand, a large number of innovative companies in any countries might fail to have an impulse for fast-growth, and gradually turn to static companies ("mice" or "elephants"), or cease their activities at all (Zook and Allen, 1999).

Statistic data show the versatility of economic sectors, in which fast-growing companies are represented (as exemplified by the 1998 research of sectoral structure carried out by the McKinsey Company in the USA (Klintsov and Lenaizen, 1998)). However, the largest group of fast-growing innovative companies as a separate class is represented in hi-tech sectors, particularly, in the IT sector. The reason of that is that, presently, the highest business growth rates are shown in this segment. At that, the growth of businesses in the IT sphere is often dependent on new (innovative) products or solutions, which provide companies with strong competitive advantages and allow them to occupy new niches in the market, increase sales, thus ensuring development of profit and return

on investments. Introduction of a new unique product in the market allows a company to compete not only in terms of prices but also by direct influence on the offer and the demand (which literally means, “to create the market”).

At that, as the fast-growing companies are an integral part of the world and national economy, they greatly influence social and economic well-being of countries and the society overall. Fast-growing innovative companies do not just develop as such; they inspire creation of a whole cluster of associated companies and services around them, thus ensuring also their growth and development (Lilischkis, 2011) called such establishments “the ecosystem”). Governments of many countries where they presently receive systematic governmental support duly appreciated the importance of such companies. Lilischkis (Lilischkis, 2011) analyzes in detail the experience of developing a state policy with respect to fast-growing companies in the countries of Europe (Denmark, Estonia, France, Finland, Ireland, Netherlands, Spain and Norway), America (the USA and Canada), Asia (China, Singapore and South Korea), and in other countries (Japan, Israel and Australia).

Unfortunately, as the analysis of publications indicates, has not paid sufficient attention to the research of the innovative companies’ growth regularities (especially in the current economic crisis). This work contains the results of a large-scale research of the most extensively developing innovative companies, whose activity involves using computing hardware and information technology.

Baseline Information for the Research

The research work was carried out based on public reports of Russian innovative companies for the past ten years (2002-2011). The data of the Interfax’s SPARK Professional Market and Company Analysis System (SPARK-Interfax, 2013) were used as the source.

Form the whole array of IT companies conducting activities in the market during this period, 200 companies were selected, which met the following conditions:

- They were to be registered in the territory of the Russian Federation. Companies conducting business in the territory of the Russian Federation, but which were registered in foreign jurisdictions, were excluded from consideration (such as those registered in off-shore zones).
- They were to be private and commercial. Companies, in which the government share exceeded 25%, municipal companies and non-commercial organizations were excluded from consideration.
- They were to be independent. In Case a company is a diversified holding with consolidate financial statement, we included to consideration only assets, which the main activity was IT-technology.
- They were to be profitable. Companies whose activities failed to bring profit during the considered period were excluded from consideration.
- Their age was to be at least four years. New companies established between 2008 and 2011 were excluded from consideration.
- They are to conduct activities presently. Companies, which by 2013.01.01 ceased activities or were involved in a bankruptcy, were excluded from consideration.

Results

The key peculiarity of the operation of an innovative IT company is the limitation of period, within which a specific innovative product brings profit in the market.

For such a consumer market, a considerable saturation of the marketable space is typical – plenty of competing products, which have all kinds of technical and aesthetic features and which are quite often updated, are offered in the market. Therefore, the level demand for a specific product decreases continuously under influence of the scientific technological process, fashion and increasing consumer needs (as exemplified: Koch, 1999). On the other hand, technologies that consumer goods are based on currently change so dramatically that it results in both occurrence of new markets unknown before and cessation of old traditional ones.

Therefore, it is necessary to pay attention preliminarily to the historical values and tendencies of the Russian IT market behavior (refer to Figure 1). During the period between 2002 and 2011, three stages were clearly distinguished: Stage 1 – exponential growth of the IT-market (2002–2006), Stage 2 – market recession caused by the IT-crisis (2007–2010), Stage 3 – market recovery after overcoming the crisis (2011 – until present time).

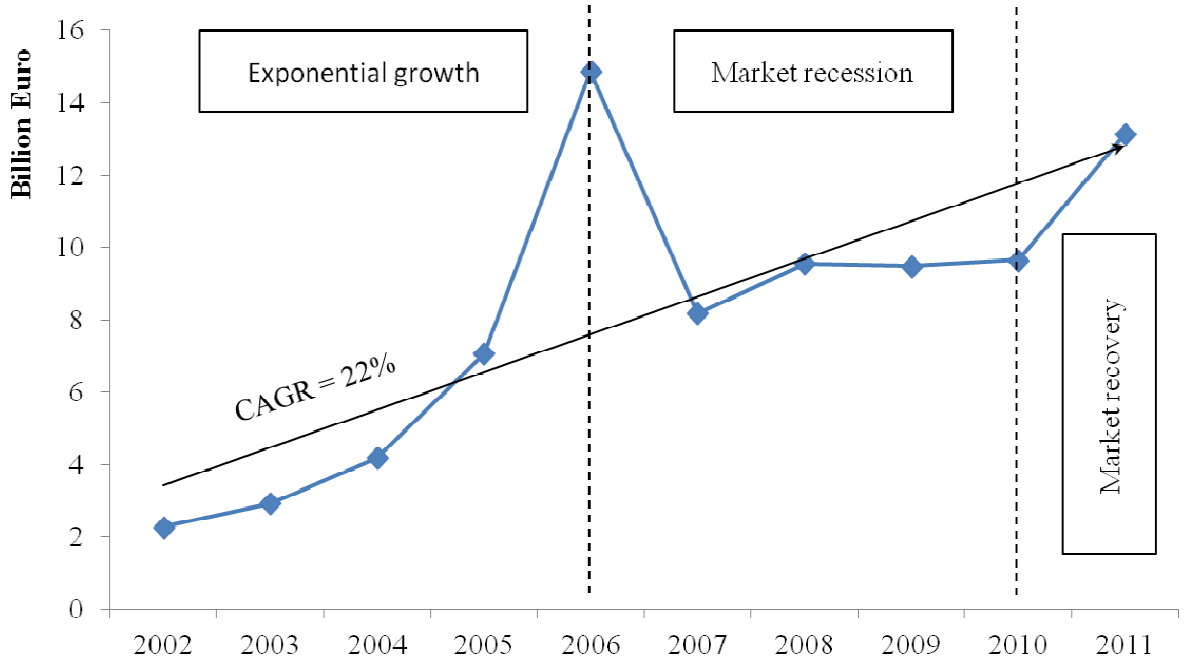

Figure 1: Dynamics of the IT-market in Russia

During the period of exponential growth (2002–2006), new innovative companies were actively created and developed in Russia; at that, 50% of companies, which functioned at that time, had certain attributes of fast-growing companies. Particularly, among the companies, which we have selected, 39% of them matched the David Birch criterion, and 57% of them matched the OECD criterion. It is to be noted that the contribution of previous periods (the era of the "market swing") in the total growth is insignificant (for example: CAGR value at the transition from the 2000–2011 period to the 2002–2011 period is not varies – CAGR = 22%).

Consideration of activities of several Russian companies, which functioned at that time, allowed Russian researcher Andrey Yudanov to identify the exponential nature of business growth as a key peculiarity of fast-growing companies (Yudanov, 2006). This conclusion is obvious provided we take into account that if the growth rate is strictly kept at 20% a year (as per the classical approach of David Birch) the growth dynamics can be precisely expressed with the following exponential equation (refer to Figure 2).

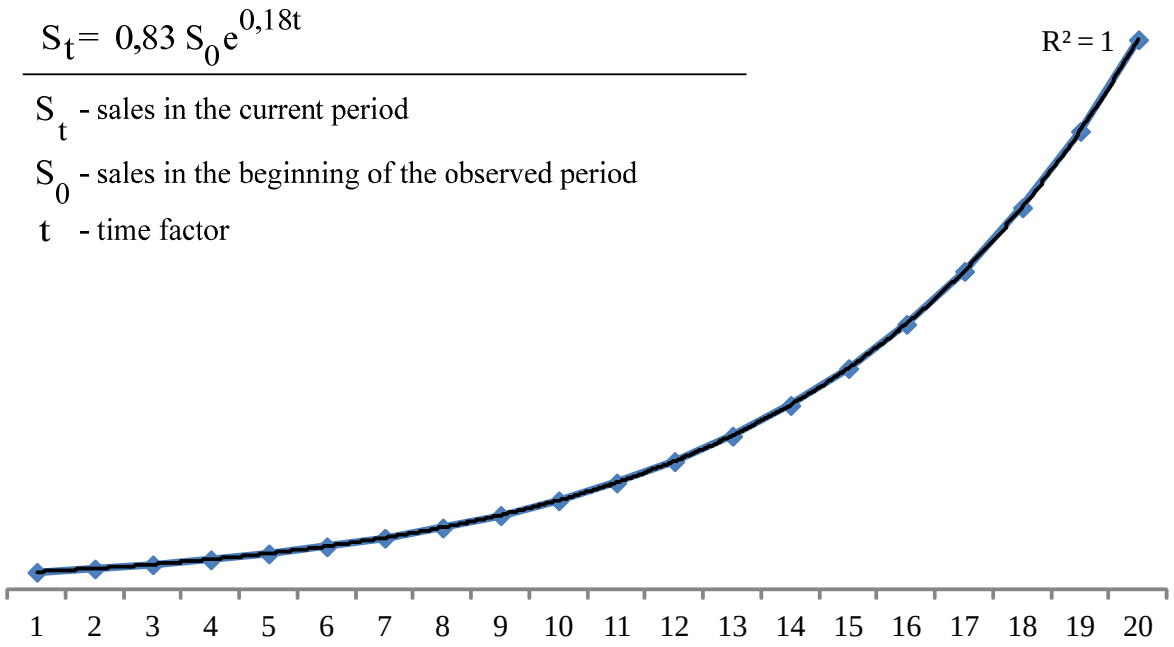

Figure 2: To the definition of the equation of busyness growth dynamics according to the classic approach of David Birch

However, the fact is important that the phenomenon of exponential growth is observed in practice only within a short period (3 to 6 years) and is more typical for initial stages of market development (particularly, in the considered example, for the period between 2002 and 2006). Thus, as the reason of the exponential growth phenomenon, we can state the occupation by a company of such a market niche, in which the demand is many times higher than the offer (unmet demand). Later on, as our research has shown, upon saturation of the market, the companies remarkably decrease their growth rates, too. Besides, the common tendency of the market for the decrease (e.g., during local or global crises) results in the decrease of business growth rates.

The last financial crisis demanded to reconsider the concept “the fast-growing company”. The main problem of approaches, which used until now is that they are not focused on the correlation of company's growing and the market's growing and requiring exponential growing of companies regardless of global financial, economic or industrial changes. Given the above, in this article we considered the growth of companies, only in relation to the dynamics of the market.

Taking the above said into account, we find it unreasonable to consider the growth of companies separately from the dynamics of the relevant market. The figure (refer to Figure 3) illustrates the comparison of the revenue growth rates of 200 analyzed companies (the dots) and the market growth rate (the full line). Besides, the Market±50% conditional corridor is marked (the dashed lines).

It is obvious that the growth rate of a certain part of the companies is much higher than the growth rate of the market (more than Market+50%). At that, some of those companies keep the outstripping growth rates during the completely considered period. They make 16% of the 200

companies we have considered (refer to Figure 4). Another 25% of companies keep their growth rates at the market level (they stay in the Market±50% range). And despite possible single growth bursts within the considered period, the total rate of development of the rest 59% of companies is below the market (less than Market–50%).

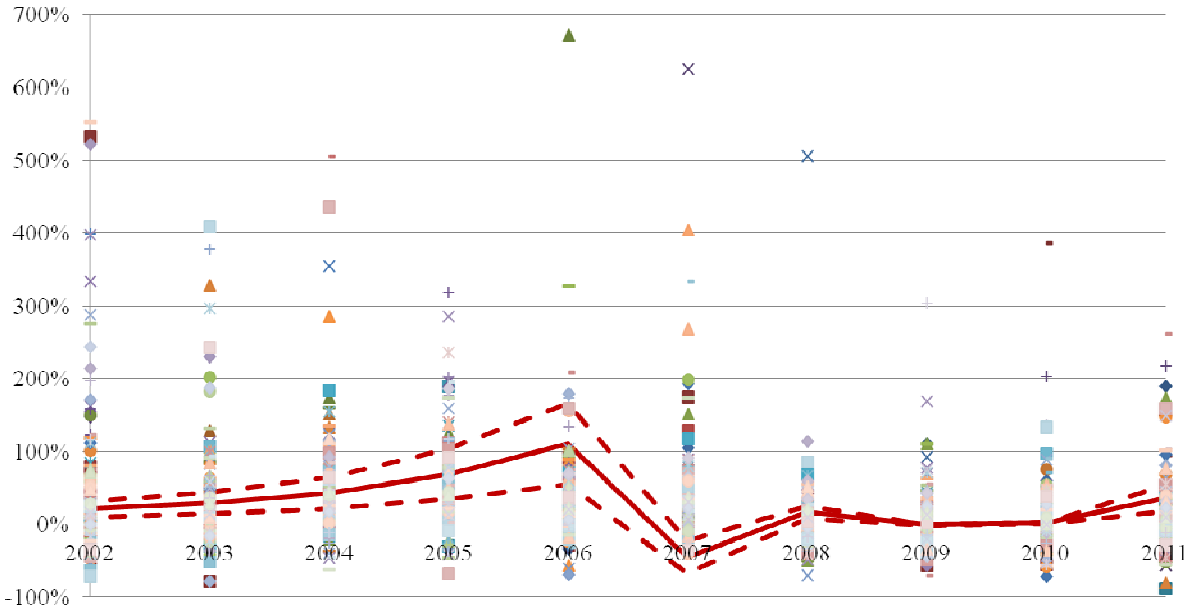

Figure 3: Comparison of the revenue growth rates of analyzed companies and the market growth rate (year by year)

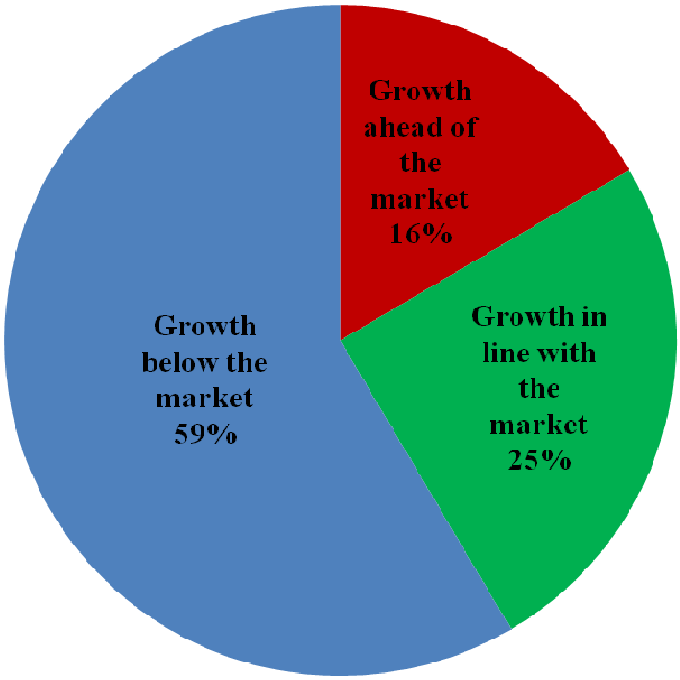

Figure 4: Comparison of the revenue growth rates of analyzed companies and the market growth rate (by CAGR)

For an owner of a company or an investor, the most attractive companies are those, whose growth rate is ahead of the market. We can say that such companies, virtually, create the industry (or, at least, some part of it). The outstripping development rate allows such companies to achieve and retain dominant positions on the market, which will finally result in a steep rise of the market value of their shares (Henrekson and Johansson, 2009).

As noted by marketing specialists, "according to statistic data, despite whose product is better, the leader of a market attracts 2.5 times more buyers on the average, than the seller who is in the second place does, and 4 times more buyers than the seller who is in the third place does" (CC&R Market Research Agency, 2010). Moreover, at that, it is obvious that people will trust new products more if the market leader, rather than an outsider produce them; therefore, leading positions in one segment often help a company achieve dominant positions in other market segments, which finally increases the value and the investment prospects of the business.

Besides, most of economic agents, including creditors, investors, banks, and public authorities, assess a company by its activeness and the results achieved in the market.

Thus, we can take the ratio of a company growth rate to the growth rate of the respective sector as the key criterion for treating a company as a fast-growing one. Then, we can suggest the following classification of companies (refer to Figure 5) depending on the ratio of business growth and economy sector's growth as well as on the extent of innovativeness of its activity, which is expressed through the level of products and technologies implemented by the company.

		Extent of innovativeness of the business (level of products and technologies)	
		Current products and technologies	**Prospective products and technologies**
Company growth rate	**Below the market average**	Unsuccessful Ordinary Company	Unsuccessful Innovative Company
	Equal to the market average	Ordinary Company	Innovative Company
	Above the market average	Fast-Growing Company	Fast-Growing Innovative Company

Figure 5: Classification of companies by the ratio of growth rates and the extent of innovativeness of the business

Companies, which show low (or even negative) growth, should be put into the category of unsuccessful companies. They include both traditional and innovative companies. It is obvious that such companies need appropriate recovery (which can involve complete change of activity); otherwise, after a while, the company can become unable to withstand its competitors.

Companies, which show medium growth for an industry, are the typical for the current economy traditional or innovative companies (IC). Efficient measures on optimization of activity demand promotion and increase of innovative activities can take such companies up to the level of

fast-growing companies. At the same time, unfavorable environment can cause a situation when the growth rates of such companies will be lowering and the company will pass into a negative phase.

The fast-growing companies, which show a growth rate above the sector average growth of companies, are at the lower level. At that, such companies can be divided into two classes: companies whose growth is achieved with traditional market instruments (FGC) and companies whose growth is achieved by means of implementation of innovative products or technologies (FGIC). It is the companies of the latter type, which have the most favorable development prospects and are the most attractive ones for external investors.

So today we can speak about a new class of companies "Fast-Growing Innovative Company" (FGIC) – the companies that fast economic growth is achieved due to the development and promotion to the market of the innovative products or services (refer to Figure 6). In this case, the growth rate of a company at least 50% higher than the rate of growth in the economies sector (market) where the company operates.

Fast-Growing Company (FGC)	+	**Innovative Company (IC)**	=	**Fast-Growing Innovative Company (FGIC)**
The company with the strategy of the fast economic growth (fast capture of the market niches, profit growth, growth of return on the investments, etc.)	+	The company which develops, manufactures and promotes the innovative products (services)	=	The company with the strategy of the fast economic growth, achieved by the development and promotion to the market of the innovative products (services)

Figure 6: Content of the term the "Fast-Growing Innovative Company"

The companies included in the FGIC- class can be divided into two large groups:

- Innovative companies – operating companies, which have begun to implement innovative projects.
- Innovative start-ups – companies, which begin their activity from issuing an innovative product.

The research of the growth of Russian innovative companies, made by us, has revealed that, in practice, the activity of most of them is characterized with sequential bursts of fast-growth followed by short-term periods of slow-growth and, sometimes, recession. The figure (refer to Figure 7) represents the dynamics of revenues of one of the companies reviewed within this research – JSC "LANIT DV", a company operating in the computer, networking, telecommunication, and information technology market. The respective periods can be clearly traced on the figure (fast-growth, slow-growth, and recession); but despite the recession periods are also present, the average yearly revenue growth rate of the company for ten years (2002–2011) was: CAGR = 46%, which is twice as much as the respective value of the market. Ultimately, the growth rate of the company can also be represented as an exponential function (similar to Figure 2 but with other parameters of the equation), the coincidence accuracy of exponent is still sufficiently high (R^2 = 94%).

Such behavior can be explained by the following: The activity of a growth innovative company represents a process of stage-by-stage development of new products and introduction of them in the market with the purpose of making profit. Such a project orientation of companies

makes the overall efficiency of their activities dependent on the success of certain projects. In some cases, losses from an inefficient innovative project (e.g. in case of failure of a project at the stage of a new model introduction in the market) cannot be compensated by selling previously developed products (old models) due to saturation of the market, aging, loss of consumer interest, introduction of alternative products by competitors, and so on. Besides, innovative companies are often multi-project, i.e. carrying out several innovative projects at a time, which may be interconnected or not, and belong to the same or different lines of business and fields of knowledge. At that, projects developed by the company cannot be equally efficient, which causes certain deviations while the general trend remains positive.

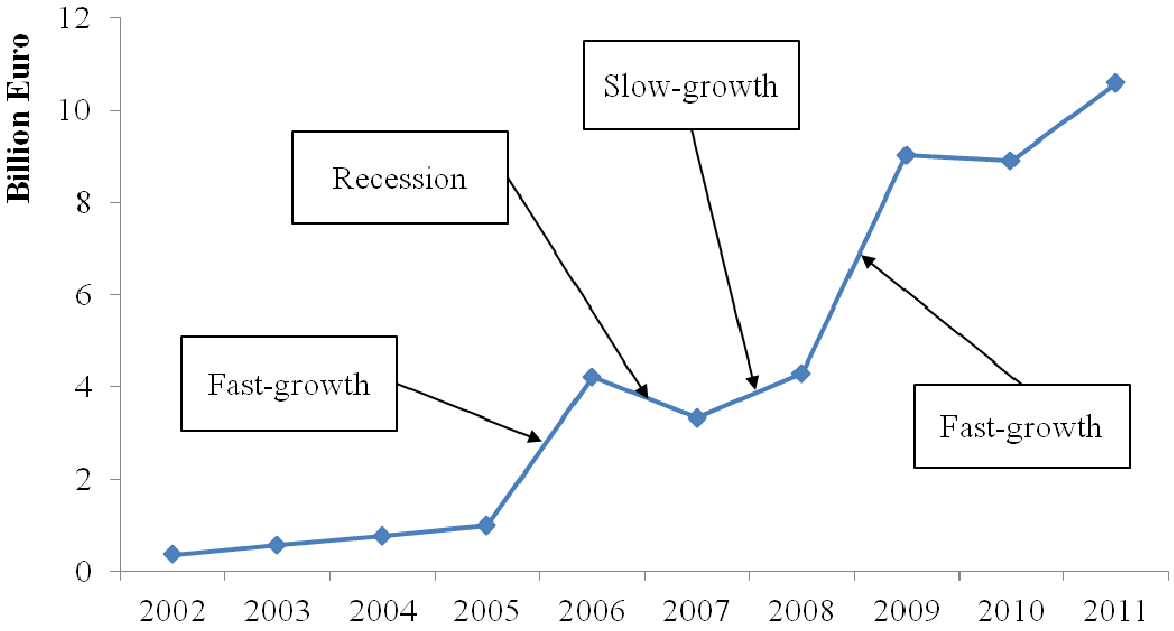

Figure 7: Real revenue growth dynamics of typical innovation company

However, a single failure, even if it causes a temporary loss of the fast-growing status, is not a tragedy for an innovative company. The innovation potential that the company has allows not only to compensate the consequences of a single failure, but also to intensify its development as soon as the failure has been overcome.

It is important to notice that, despite the recessionary situation with the economy, fast-growing innovative companies have not lowered their growth rates. The fast economic growth of the companies, which makes them very attractive for investors and banks, allows them even during recessionary years to gain sufficient financing for their further development. According to the McKinsey's research, innovative companies have not stopped their innovative developments even against the extraordinary background of economic recession (McKinsey & Company, 2009). During the crisis in Russia as noticed by researchers only a few ex-gazelles suffered bankruptcy or were forced to change the owner. Other companies returned to the path of fast-growth as they successfully had overcome the crisis.

Conclusion

David Birch also noted that “gazelles” find it very hard to maintain their status for a long time, and half of them quit the race every year joining the army of “mice” or “elephants” (Birch, 1979). At the same time, as we have shown before, such tendency is not typical for most companies. Practice knows some cases when companies kept high growth rate during decades (e.g. Hewlett Packard, Microsoft, and Apple). The reason of that is the permanent innovative development of the companies, which serves a base for ensuring stable economic growth of the business during years.

The phenomenon of long-lasting fast-growth can be explained through the approach suggested by a British economist Edith Penrose. In her work “The Theory of the Growth of the Firm” (Penrose, 1995) she presented a theory, according to which the growth rate of a company is not limited by the demand, but by internal peculiar assets (such as internal knowledge, experience and renown) and entrepreneurial potential of the management. It is the increment rate of these assets and the extent of the managerial staff flexibility, which finally determine the growth rate of a company, as Edith Penrose believes.

The approach of Edith Penrose initially seems to be contradicting to the facts – regular practice of most companies unambiguously evidences the priority of demand limitations over any other. Companies permanently have to adjust their production output to the level of demand for their products. If we take any annual report of any company, we can see that the main reason of the company’s fast or slow growth is, to its opinion, the demand dynamics. However, this contradiction can be easily explained with the following argument – for an innovative company, the limitation of demand for a specific product does not limit the growth abilities of the company as a whole.

Growth rate of a regular company is a value subject for permanent fluctuations. It is affected by the changes of national and sectoral conjuncture, price behavior, carrying promotional events, changes of sales network, and many other factors. At that, not only the actions of the company itself are important, but of its competitors, too. As a result, the real sales permanently deviate from the long-term trend line due to the influence of multiple disturbing forces.

If the company introduces a new unique innovative product in the market, it finds and occupies a market niche with a strong unsatisfied demand. In this situation, the demand limitations become much weaker, which removes the reasons of swings in production that depend on diminutions and expansions of the demand. A company that is not restricted with the demand develops at such maximum growth rate, at which it is able to increase its business activity. When the product output approaches the demand saturation, the innovative company introduces another new product in the market, which again removes demand limitations and conditions its further growth.

At that, due to the infinity of potential innovations, the growth ability of a company is boundless, too. For being more precise, innovative companies are able to keep their growth rate alive as long as they are able to maintain their innovative development rate.

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