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## Corporate Bankruptcy and Survival on the Market: Lessons from Evolutionary Economics

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**Corporate Bankruptcy and Survival on the Market: Lessons from  
Evolutionary Economics**

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## Corporate Bankruptcy and Survival on the Market: Lessons from Evolutionary Economics

**JEL Classification:** G33,

**Keywords:** *corporate bankruptcy and survival; creative destruction, evolutionary economics*

**Abstract:** The following paper is a theoretical and empirical study. The terminological differences between bankruptcy and insolvency have been indicated and compared in the article. Most frequently considered aspects of bankruptcy appear in definitions. The first of them emphasises the economic character of bankruptcy. Insolvency is a culmination of a lack of financial means and the loss of solvency, which does not have a fading tendency but develops into a permanent phenomenon. In legal terms, solvency is an institution, whose purpose is to stop the accumulation of debts and most frequently it consists on the liquidation of the debtor's estate. A critical review of the scientific achievements of the representatives of evolutionary economics within the scope of bankruptcy and the survival of enterprises was presented. The analysed case of the Beta company, which went bankrupt, indicates that the companies which are not able to undertake proper adjustments to competitive conditions of the market at the right moment are eliminated from it. The theoretical law "the survival of the fittest" finds then its reflection in practice. The following research methods were used in the article: a descriptive analysis and the trajectories of J. Argenti in terms of models. Detailed examinations of files of insolvency proceedings of the Beta company have been carried out.

### Introduction

Benjamin Franklin said that there were only two things certain in life: death and taxes. "Bankruptcy" and "insolvency" should be added to them (Cousins at al., 2000, p. 6). E. Mączyńska and Zawadzki (2006, pp. 21-24) point out that bankruptcies of enterprises are natural phenomena in the social market economy, ensuring necessary economic selection. However, they do not always facilitate a long-term increase of economic effectiveness. In relation to the increasing globalisation, a threat of the so-called insolvency chain (an insolvency domino effect) may be observed. According to A. Herman (2010) experiences arising from the last financial crisis in the global economy contribute to the awareness that insolvency and bankruptcy are an inherent feature of social market economies. According to F. Borman "Capitalism without bankruptcy is like Christianity without Hell." The market self-purifies itself from ineffective entities. Their resources may be utilised in a more effective manner by the more competitive entities. According to the theory of "creative destruction" by J. Schumpeter, the entities which are not adjusted or which are least adjusted are eliminated from the market. This raises many questions and doubts concerning the reasons of this phenomenon. But *scire est rerum cognoscere causas*. Many causes of bankruptcy, from strong market competition to tough luck, may be distinguished. Bankruptcy is a traumatic experience for many stakeholders, among others, owners, shareholders, employees and creditors. Bankruptcy contributes to the loss of: employment, savings, investments, movable and immovable assets. In the United Kingdom the loss of pension follows as well. As a result of insolvency the decrease of tax revenues and the destruction of regions also take place.

Herman (2010) points out that in contemporary market theory of enterprise there is still no developed bankrupt economics - such, which would demonstrate the processes and mechanisms of survival and insolvency of managing entities. There is a lack of one, consistent theory of bankruptcies and its elements are the part of separate economic theories. E. Mączyńska at al. (see 2010, pp. 5, 10) draws attention to the development of economics and bankruptcy economics.

## The notions of bankruptcy and insolvency

Bankruptcy and insolvency are not identical terms. Insolvencies fulfil the function of necessary selection in business and they fulfil a significant function of rationalisation, purifying the market from the entities which cannot meet the requirements of effectiveness, which constitutes at the same time the element of the protection of creditors and other entities.

The notions of bankruptcy and insolvency are frequently treated as synonyms (Mączyńska, 2009, p. 57). It is not precise as bankruptcy is the notion of, first and foremost, economics, while insolvency is basically a legal category (*Bankructwa przedsiębiorstw...* 2009, p. 4). Identifying bankruptcy with insolvency is justified only in case of culpable bankruptcy, consisting on the penalty which is proportional to fault, which is regulated by specific provisions. Non-culpable insolvency is not regarded as bankruptcy in the economic terms as it does not arise from the irregularities in the management of an enterprise but from the external reasons, e.g. fraud of counterparty. The differences between bankruptcy and insolvency have been presented in table 1.

**Table 1.** The differences between bankruptcy and insolvency

Bankruptcy and insolvency Insolvency ≠ Bankruptcy		Insolvency = Bankruptcy	
Non-culpable		Culpable	
Is not subject to a penalty	Unintentional	Intentional	Intentional profit-driven
<b>Is subject to a penalty</b>			
Criminal liability of entrepreneurs (a fine, deprivation of the right to perform particular functions, a custodial sentence)			
Milder penalty	More acute penalty	The most acute penalty	

Source: (Mączyńska, 2009, p. 57).

From the point of view of economics, a bankrupt is an enterprise which is not able to settle its debts and the value of its assets is not sufficient to cover all liabilities (a bankrupt is also an enterprise which, in spite of the occurrence of the above-mentioned premises, still operates a business).

In legal terms insolvency of an enterprise occurs only after the declaration of bankruptcy by the court. Its purpose is to satisfy equally all creditors of a debtor, who is not able to satisfy each creditor separately. Bankruptcy should prevent carrying out enforcement against a debtor only by some creditors (in the event the others don't have the enforcement title yet, e.g. when their claims have not been paid yet) and in case when there is a priority system in enforcement proceedings. This means that the fact of bankruptcy is established judicially on the basis of the request either from a debtor, or from some of creditors or a few creditors. In the first case it is voluntary bankruptcy and in the second one forced bankruptcy (Tokarski, 2013, p. 393-400). In economic terms, bankruptcy does not have to mean insolvency in legal terms, but each insolvency declared by the court means economic bankruptcy.

## Methodology of the research

### Research objectives

Scientific achievements of the representatives of evolutionary economics have been used to assess the adjustment of a selected enterprise to market requirements. The objective of the research was to recognise the mechanism of bankruptcy of a selected enterprise, whose object of economic activity was wholesale of food products, in the context of evolutionary economics. Among specific objectives the following have been indicated: the determination of the major reasons of bankruptcy as well as the presentation of bankruptcy trajectory of the purposely chosen young (around 5 years) food company Beta from Dolnośląskie Voivodeship.

## **The choice of the research object**

The Beta enterprise, which declared bankruptcy, has been chosen for the purpose of research. The choice of the company was deliberate. A changed name of the enterprise was given in the paper due to business secret and data protection. The enterprise operated a business in a legal form of a limited liability company. Bankruptcy petition of a debtor was filed in the District Court in Wrocław. Relatively poor knowledge of the topic of bankruptcy of food enterprises supports the need to introduce research which may contribute to the better recognition of this phenomenon, including also the basic driving forces.

## **Methods of data collection**

Data concerning bankruptcy of the selected Beta enterprise come from the insolvency court files and from the financial statements of the company. A critical analysis of subject literature, national and foreign one, has been carried out.

## **Methods of data processing**

Methods used in the paper:

- research case study,
- ratio analysis of financial statements,
- bankruptcy trajectory method of Argenti,
- examination of insolvency files.

The appearance and the development of crisis was presented by J. Argenti. He also distinguished three bankruptcy trajectories:

- 1) the bankruptcy trajectory of a newly established enterprise,
- 2) the bankruptcy trajectory of a young enterprise,
- 3) the bankruptcy trajectory of a mature enterprise (Argenti, 1976, p. 121).

Argenti distinguished four stages, which ultimately lead to bankruptcy:

- 1) problems in the operation of an enterprise start to arise, but they do not cause significant changes,
- 2) all irregularities deepen, mistakes are made,
- 3) significant irregularities concerning particularly the sphere of solvency appear,
- 4) the bankruptcy of an enterprise follows.

## **Method of presenting results**

The obtained results have been presented in a descriptive and graphic form.

## **Bankruptcy macroeconomic outlook**

Companies have been and continue to be the actual victims of the ongoing global financial crisis. Corporate bankruptcies in the eurozone were expected to increase by 21% in 2013 before ebbing back to a moderate growth rate of 7% in 2014. In Spain, it was expected a new all-time high with nearly 11 000 companies defaulting 2014. A high number of bankruptcies influences on soaring unemployment and a real phenomenon of deindustrialization. After record figures in 2009, another flood of bankruptcies – from the United States to China to France – poured into sectors with tax incentives coming to a halt such as construction and services. The acceleration in the number of bankruptcies is more a result of market fundamentals: from slowdown in household consumption in Europe to sluggish exports for Asia. In Europe, the retailing, furnishing, automobile and consumer electronics sectors have been hit strongly. It is this industrial Darwinism, against a backdrop of ongoing credit

rationing. The consequences are significant: in Asia, for example, companies are seeing their export markets decreasing and overcapacity is posing a problem (Subran, 2013, p.3).

The question arises if this economic turbulence (with the number of companies created also increasing in many countries) come to be synonymous with a renewal. According to the evolutionary theory of Schumpeter, such economic entropy could indeed foster a new beginning. The least adapted and, especially, the least innovative companies will give way to those that reinvent themselves and meet the needs of today. After the 2008 and the current chill in the economy, now Schumpeter's "perennial gale"; it starts to make a lot of sense. It is in sectors with high value added, intensive in talent, human capital and social capital, driven by research, innovation and entrepreneurship that these needs can be found. So the news may be bad, with soaring corporate insolvencies and heightening non-payment risk at a time when margins are already eroded. However, this could be a case of a step back in order to make a bigger leap forward. The condition for success is that adequate policy steps are taken in terms of innovation, business environment and incentives, especially to support startups, before it is too late (Subran 2013, p. 3).

Most frequently, bankruptcy precedes crisis, which is the effect of the impact of the adverse internal and external factors with a macroeconomic character. Among macroeconomic factors, the most influential one is the phase of the economic cycle, which includes a country and an economic growth rate. Unfavourable economic situation increases negative selection of ineffective entities, contributing to the change of resources allocation.

In many countries, there is a close correlation between the business cycle and bankruptcy figures. Generally, it takes GDP growth of 2% to 3% to stem the rise in bankruptcies, and there is a very high elasticity of bankruptcies to growth. A GDP growth reduction of 1 percentage point implies a 5% to 10% increase in bankruptcies. In the second half of 2008, however, these general approximations, seen in practice from the start of the 1990s, were significantly exceeded: on top of the normal shock resulting from the economic cycle came the abrupt addition of exceptional factors directly stemming from the nature and impact of the global crisis. In 2009, it was in fact the record collapse in economic growth, due to the collapse in demand, that explains the bulk of the rise in bankruptcies, which proceeded with exceptional ferocity (*Corporate insolvencies...*, p. 4).

The Banque de France stressed in particular that the higher level of business creations during the 2003–2007 period – itself correlated with the business cycle – may explain the increase in the number of bankruptcies (Bruneau et al., 2012, pp. 119 – 220).

There is agreement in the financial economics literature regarding the existence of a link between bankruptcies and the business cycle. This topic has already been extensively investigated and it is acknowledged that some interaction exists. However, there is no agreement on the channels by which bankruptcies and the business cycle interact, nor on how to measure the link. Regarding the channels of interaction, the business cycle affects the environment of firms, and hence may explain, with a lag, the changes in bankruptcies over time, in addition to firm-specific variables like financial ratios. On the other hand, bankruptcies may affect the business cycle, marginally through lost capacities of production, and more significantly through credit rationing as shocks to credit supply have often been shown to be leading indicators of the business cycle. In addition, banks may limit credit supply because they become more risk averse when they observe more bankruptcies or because larger losses constrain their ability to expand assets. As far as measurement is concerned, the approaches followed in many studies are usually partial, as they focus on one-way interactions between bankruptcies and the business cycle (Bruneau et al., 2012, s. 220). (Bruneau et al., 2012, s. 220) attempted to merge two strands of the quantitative economic literature regarding how the macroeconomic environment affects financial fragility, and conversely how financial fragility affects the business cycle. It also considered evidence that points to two-way interactions between business bankruptcies and the macroeconomy.

Staszkievicz (2013, p. 14) conducted correlation analysis on dynamic of GDP and company failure rate for Poland, Europe and USA for the period 2003-2011. It was found a negative correlation. An analysis was also undertaken for the relation between the rate of corporate failure in Poland and the rate of change of overall company's net turnover profitability. It was observed no statistically significant correlation. An alternative significant variable was pointed out for a linear regression model. Staszkievicz (see 2013, p. 14) partly confirmed others authors' results.

## Evolutionary economists on bankruptcies

The object of research, which is the economy, alters continuously. A. Hansen regarded this change as the first law of economics (Hansen, 1939, p. 1). Physiocracy, which developed in France over the period 1750-1780, finally losing ground to classical economics, which began to come from the United Kingdom, should be considered as the first economic theory in history. Physiocracy means the mastery over nature. Domination of the laws of nature over the laws of economics is the underlying law in this theory. The laws of nature are independent of the human will. They may and should be learned in order to be able to use them in a business activity. Later on this issue was ignored in economics (Bartkowiak, 2003, pp. 29-30, 33].

It was only after environmental limitations for a business activity started to become increasingly apparent (e.g. hurricane, drought, flood, etc.), that physiocracy started to return again. It found its particular reflection in the evolutionary economic theory of R. Nelson and S. Winter in 1982, belonging to Schumpeter's economic theory. For the researchers of evolutionary economics the needs to learn about the human motivations, a human decision-making processes, mechanisms of economic development and understanding of the activity of business entities become significant (Kwaśnicki, 1996, p. 2).

The terms “evolution” and “development” are often used interchangeably. The term “evolution” comes from Latin *evolutio* - unrolling (of a scroll); opening (of a book), *evolvere* – to unroll. The term “evolutionary economics” is currently used in many, sometimes very different, approaches to the analysis of economic processes. In the most general terms, it indicates the significance of economic and developmental changes, which is done in order to emphasise the opposition in relation to the economic analysis focused on the problems of balance and statistical models. In narrower terms, it refers to the metaphor based on the ideas of biological evolution taken from Darwin or Lamarck. Kwaśnicki (1996, pp. 3-4) says that nowadays a few detailed explorations of economic processes analysis characterised by the adjective “evolutionary” have crystallised:

- the economists, who perceive the economic process in a way proposed by Joseph Schumpeter, use the term “evolutionary economics” in order to underline the importance of economic changes in the long-term perspective, the role of innovation in the economic process and the approval of the role of an entrepreneur in the stimulation of a socio-economic development process. This approach is sometimes called Schumpeterian or Neo-Schumpeterian approach. The journal issued by the International Joseph A. Schumpeter Society is entitled *the Journal of Evolutionary Economics*. According to this approach, an evolutionary process is a dynamic and historical process, whose macroeconomic characteristics are the result of the behaviour of single business entities acting in microeconomic scale, whose characteristic feature is the diversity and heterogeneity of behaviours and two of its basic mechanisms are the search for innovation and the mechanism leading to the diversification of development and the selection process;
- the perception of the economic development of the Austrian School of economics is frequently defined as “evolutionary”, the work of Carl Menger, in particular his theory of the appearance of money and other social institutions, has a clear evolutionary character; frequent use of evolutionary analogies and metaphors by Friedrich von Hayek, especially in his later works referring to the concept of spontaneous development (e.g. *Fatal Conceit*) also allow to regard his approach as evolutionary;
- institutionalised theory of economics originated by Thorstein Veblen was defined by him as “evolutionary” or “post-Darwinian” economics; the works of Adam Smith, Carl Marx and Alfred Marshall and many others' are defined as having an “evolutionary” character;
- occasionally, the term “evolution” is used in the implementation of different mathematical approaches to describe economic phenomena, e.g. the chaos theory; some computer stimulations use the mechanisms of selection and the game theory (compare Kwaśnicki, 1996, pp. 3-4).

## Creative destruction

Unfavourable economic situation intensifies the phenomenon of negative selection of inefficient entities contributing to a change in the allocation of resources. J. Schumpeter abandoned the assumption of market balance between the demand and supply and balance in the enterprise – between the production size and price. According to him, the most important factor shaping the behaviours of enterprises was competition understood as launching new products, technologies, resources, organizational forms. Insolvency of an enterprise does not result from unfavourable external conditions, but delayed adjustment to new market requirements or lack of such adjustment. For this is the consequence of implementing innovations by the competitors. J. Schumpeter (1942) considered the bankruptcy of an enterprise as a necessary component of economic growth in macroeconomic terms (“creative destruction”). Insolvent enterprises release the assets involved, the use of which may be enhanced due to the innovations implemented and better organization (Pieńkowska, 2005, p. 21).

Schumpeter's proposal was to treat a business entity not as somebody (or something) maximising their behaviour in any conceivable way, but rather as entities pursuing to improve their situation in comparison to the situation of other business entities (Kwaśnicki, 1996, p. 22).

Armen A. Alchian searched for the ways of replacing neoclassical concept of maximising through the biological theory of natural selection. The application of the “natural selection” idea in the company's model was discussed by Alchian for the first time in 1950 and two years later by Penrose (Alchian, 1950; Penrose, 1952). Alchian argued that competition between companies is not defined by the motive of maximising profit but by “adjusting, imitating and based on the trial and error method search for the possibility to increase their profit.” Therefore, “those, who obtain *positive profit* survive; and those who lose are eliminated from the market” (Alchian, 1950, pp. 211-213), which is the statement in the spirit of Darwinism. The work of Alchian was a significant, preliminary step towards the use of evolutionary analogies in the construction of mathematical models of economic changes. The scholar states that “the economic equivalents of genetic transfer, mutation and natural selection is imitation, innovation and positive profit” (Alchian, 1950, p. 220). Alchian presents the manner of the analysis of the companies' behaviour in the competitive environment in a suggestive way (see Kwaśnicki 1996, p. 22).

The evolutionary theory situates itself on the axis beginning with the theory of resources and capabilities. According to the theory of resources and capabilities (Noga, 2009, p. 177), enterprises which are not able to overcome the so-called Penrose effect [1959] (the surpluses of the growth advantages over the growth costs, also called the costs of E. Penrose), go bankrupt. According to Penrose (1959), the costs of the growth of enterprises are all additional costs, born by an enterprise during the growth, which were not born by it when it was smaller. The elements of a structure (“genes”) of the evolutionary theory are routines. The approach proposed by Alchian and Penrose was developed and, more importantly, ingrained in the evolutionary paradigm by Nelson and Winter in their numerous articles and books - e.g. Winter (1964), Nelson and Winter (1980, 1982). In the evolutionary approach, both quantitative and qualitative changes are emphasised. The ways of making decisions by a human being are modelled in a manner which is much more satisfactory and closer to reality.

According to Marshall, companies have a defined period of duration in the intergenerational model, in which with the passage of time, family businesses lose their vitality and longevity originated by their founders systematically (Metcalf, 2007, p. 2).

Some of Marshall's successors, including the evolutionary researchers, have combined thinking about the companies and sectors in the category of population. Marshall perceived the analogy between a sector and a forest. He claimed that a sector is like a forest, which may grow and develop independently and transform and organise itself as it combines growing and falling trees becoming a mature and, it seems, a static plantation of similar and stationary members (Bloch & Finch, 2009, p. 141).

Marshall (1920, p. 280) argued that each new withdrawal from the market is an experiment, which may fail. Those, who stay on the market pay for the their failures and the failures of others. Marshall underlined fair and harmonious adaptation rather than creative destruction in the explanation of the economic development. He drew attention to the fact that companies may survive more by benefiting from the environment rather than transferring benefits to it. Enterprises and sectors are in the centre of



research of contemporary evolutionary economics, starting with the model research of Winter and Nelson (1982).

Steindl points out that entrepreneurs demand the risk premium for these investments, which are characterised by uncertain return, as compensation for the exposure to risk related to the variance of returns, extended to the risk of bankruptcy. Risk premium increases together with the sum of financial means necessary for the company in relation to equity. Steindl confirms the Kalecki's principle of increasing risk (Kalecki, 1937, pp. 440-447). Both small and big companies come across various opportunities to undertake an activity with a higher risk, which are characterised by a higher rate of return because of the economics of scale. Sufficiently high rate of demand growth in a sector may attract new entries of companies (Bloch & Finch 2009, p. 152). Initially, growing companies react to the unplanned increase of production capacities by the engagement in the aggressive price or sales competition. Marginal companies are not able to cope with aggressive competition because of a lower gross profit margin so they are forced to transfer the market share to growing companies. Some of them go bankrupt and leave a sector. Decreased gross profit margins also discourage the entries of new companies into a sector. Concentration of a sector increases in the absolute categories in a sense that together with the decrease of the number and the size of margin companies, the decrease of the total sales volume of small companies and the increase of the total sales volume of big companies take place as well (Steindl, 1952, 1976, p. 42-43).

### **The survival of the fittest on the market**

An enterprise (Noga, 2009, p. 179) is an organisation and an institution, a peculiar “phenotype”, which is the result of the interaction of a routine set (peculiar “genotype”, “hereditary” factors) and the environment conditions. Routines play a similar role to the genes in a living organism. Routines in an enterprise may be divided into:

- technical, allowing to manufacture,
- marketing, allowing to acquire better resources and to sell them,
- investment, allowing to create new production capacities,
- diversification, allowing to compete,
- tacit and idiosyncratic knowledge,
- innovative changes.

Changes of a routine set of an enterprise lead to evolutionary (stochastic) changes of its boundaries on the market, enterprises develop or go bankrupt. The objective of an enterprise is as fast entry into the market as possible (an enterprise using innovations is in the best situation) in order to achieve a high return on equity and to remain as long as possible on the market with the falling return on equity with which the competition cannot remain on the market (natural selection). The economy requires the development of routines (memories), which the market does not have but which enterprises and consumers have.

Competing between enterprises as a routine set and the ability of those routine sets to react to the environment contribute to the fact that the economy sectors (markets) evolve to the structures, in which only a certain group of enterprises, e.g. an oligopoly, remains. Yet, it is a stochastic process, non-deterministic, which is tried to be modelled, e.g. by means of Markov chains (probability distributions in time), as it is done in case of evolution of living organisms.

The relation between the development of enterprises and the overall economic advantages takes place through the natural selection. However, according to the principles of Lamarck and, therefore, not of blind selection, but the one, in which those, who are better at shaping routines (“genes”) and adjusting to the environment, survive. Macroeconomic policy does not have to select enterprises (routines sets) as it is done by the evolution. Macroeconomic policy may temporarily sustain weak routines but in a longer period (of evolution) they will be eliminated from the market. In this theory enterprises are “the engine” of growth and development. Selection results in the appearance of the most healthy enterprises, creating “healthy” growth, based on strong microfoundations (Noga, 2009, p.180).

The major representatives of the evolutionary theory are: Winter (1964, 1982, 1986, 1987a, 1987b), Nelson (1996), Nelson, Winter (1982, 2002), Teece, Dosi (1991), Mangolte (1992) and

Kwaśnicki (2000). The main representative of the evolutionary economics in Poland is W. Kwaśnicki, who has formulated the evolutionary model of industry development (see Kwaśnicki, 2000).

Some of the basic evolutionary ideas were borrowed by Spencer from the biologist Jean Baptiste de Lamarck (1774-1829) and the embryologist Karl Ernest von Baer (1792-1857). In his works, the scholar often referred to biological analogies and compared society to a living organism.

In two essays from 1852, a few years before the publication of Darwin's *On the Origin of Species*, Spencer had presented an original concept of evolutionary development. In these essays, Spencer presented the evolution as "a shift from undefined, inconsistent homogeneity to defined, consistent heterogeneity by a constant variation." The evolution is equivalent to the progress and the increase of effectiveness towards a certain ideal condition. Spencer perceived the evolutionary process as a shift from lower forms of an organisation or forms of life to higher ones, from worse ones to the better ones. He argued that complexity is usually related to the better forms, which are advanced and more adjusted (compare Kwaśnicki, 1996, p.12). Organisms which manage to survive are not necessarily the best ones, only relatively good. Organisms adjust to the local conditions in order to survive and to leave their offspring. The principle of the survival of the fittest was applied in the economics by the introduction of the principle of maximising profit - the company, which survived had the biggest profit. The unadapted entities, or least adapted are eliminated from the market. Similarly to the principle of "the survival of the fittest", the principle of maximising is in contradiction with experience; enterprises which generate relatively high profit survive on the market. Herbert Simon underlines the need to replace the concept of maximising with the concept of satisfying achievements (Kwaśnicki, 1996, p.12).

Veblen perceived institutions as the analog of biological genes. He interpreted social and economic development in the categories of Darwinian selection. "The life of a human being in society, similarly to the lives of other species, is the struggle for survival and, therefore, it is the process of selective adaptation. The evolution of a social structure was the process of natural selection of institutions." (Veblen, 1899, p. 188) (see Kwaśnicki, 1996, p. 18).

### **The relation between "age" and the number of bankruptcies. The survival of enterprises on the market**

The tests aiming to determine if there is a correlation between age and the number of bankrupt enterprises were carried out in the United States. S. Thornhill and R. Amit (2003, pp.7, 14-15) addressed the above-mentioned issue. The scholars carried out tests on 339 enterprises which went bankrupt in 1996. The lack of skills and experience in the field of the company management and a limited possibility of raising capital necessary to develop were the main problems of the enterprises which went bankrupt up to 2 years from the moment of setting up. The objective of the companies, which just enter into the market is the survival, managers and owners are very flexible and they try to adjust to the environment. Enterprises do not follow the changes in the competitive environment (Korol, Prusak, 2005, p. 64-67).

Similar tests were conducted in Europe and they had a questionnaire survey character as well. The above-mentioned analysis concerned such countries as the United Kingdom and Germany. From these it appeared that the lack of financial means was the biggest problem of enterprises. Respondents also drew attention to the insufficient flow of information, which arose from the lack of knowledge of entrepreneurs on the prevailing situation on the market.

A number of theories, whose purpose was to explain the probability of the survival of business entities on the market was developed in the economic literature. One of them is the liability of smallness concept, related to the liabilities of small enterprises. According to it, small companies have smaller chances to survive. P. Preisdorfer & T. Voss (1990, p. 107-129) claim that smaller enterprises are frequently incapable of competing with bigger companies. Small enterprises often do not have permanent outlets and because of this they are not able to provide their employees with such possibilities of development as the ones which are offered by bigger companies (Mączyńska, 2009, p. 113). It is also worth to indicate the liability of newness concept concerning the liabilities of new enterprises. Research on the correlation between the duration of business entity activity on the market and the survival plays an important role. According to this concept young companies leave the market faster than the older companies. Competition the new enterprises must cope with is one of the

underlying reasons behind this. Entering the market, the enterprises compete with organisations with well-established positions and they must gain reputation in order to acquire clients, suppliers and investors.

According to the concept, which has its roots in the industrial economics, only after entering the market are enterprises able to state if they can exist on it. The representatives of this approach search for the factors which will allow the enterprises to survive on the market and, in a broader sense, not only on the level of the company but also on the level of the whole economy. Assuming that structural characteristics of industry, such as market entry and withdrawal barriers and the intensity of applying new technologies exert a significant influence on the survival and the development of new enterprises on the market.

### **Corporate bankruptcy case of Beta: Lessons learned**

Even though the scenario and stages of the course of crisis as well as its signs are similar for many bankrupt enterprises, the process is different in younger enterprises and in mature entities, which have been operating on the market for many years (Argenti, 1976, p. 121). Depending on the age of a business activity, different factors have impact on it in particular periods. The trajectory concept of J. Argenti was confirmed by the research carried out by S. Thornhill and R. Amit. According to the results, there is a correlation between the age of enterprises and the number of bankruptcies. Young companies are heavily burdened with the risk of bankruptcy. The main objective of business activities in the initial phase of their existence is the survival.

The enterprise Beta, selected for research, had its registered office in Oborniki Śląskie. The company had two owners and it operated a business from 27 February 2003. Initial capital amounted to PLN 50,000 (100 shares, worth PLN 500 each). The main objective of the business activity was the wholesale of fruit, vegetables, meat and meat preparations, milk products, eggs, edible oils and fats, alcoholic and non-alcoholic beverages, tobacco products, sugar, chocolate and confectionery, tea, coffee, cocoa and spices, the retail of food, beverages and tobacco products. The balance sheet as at 30 November 2005 indicated the loss exceeding the sum of the initial capital and the assets of the company did not suffice to satisfy the repayment of receivables and the company lost financial liquidity permanently. The situation was caused by the circumstances independent of the company, in particular by the decline in the sales of food products of about 50%. As a result, on 13 December 2005 a bankruptcy petition including the liquidation of assets was filed in the District Court in Wrocław. The company settled all liabilities owed to the Tax Office, the Social Insurance Company (ZUS) and the employees.

The Beta company lost financial liquidity. As it is clear from court files, this condition was caused by the external causes. The sale of food products decreased by about 50%, which contributed to their expiry and withdrawal from sale. Enterprise struggled with the crisis caused by strong competition and a fast growing food discount, which used dumping prices. The Management Board of the company tried to defend itself against bankruptcy and, therefore, introduced the modernisation of the sales department, organised a self-service point of sale and expanded sales portfolio. It organised the promotion of sale in order to acquire new customers. The company reduced costs by reducing remuneration, redundancies and it decreased store space. Despite the undertaken actions, the revenues from sale decreased.

On 30 November 2005 the assets of the company amounted to PLN 375,237.91, almost 3 times less than in the previous year. The company had only current assets, in which inventory had the biggest share - 72%, short-term trade receivables from other entities constituted the remaining share. Short-term liabilities which amounted to PLN 564,011.95 dominated in liabilities. Equity of the Beta company constituted a negative value. The net loss in the amount (PLN -242,996.82) exerted the biggest influence on this item.

In 2005 a current ratio amounted to 0.67. It means that the Beta company had problems with the settlement of its liabilities from current assets. Short-term liabilities far outweighed current assets of the enterprise. The level of a quick ratio indicator was not satisfactory as well, since it amounted to 0.18. It was caused by the high level of inventory, which in case of this company was negative. It is clear from court files that the excessive amount of inventory of food products became expired. A receivables rotation ratio amounted to 21.44, which means that the company conducted too restrictive

policy of debt collection. A liabilities rotation ratio indicates the emerging problems of the Beta company with the settlement of liabilities. The reason of this situation was the significant growth of liabilities in relation to revenues. Despite the undertaken activities, whose aim was to emerge from crisis, the enterprise was not able to further carry out its business activity (tab. 2).

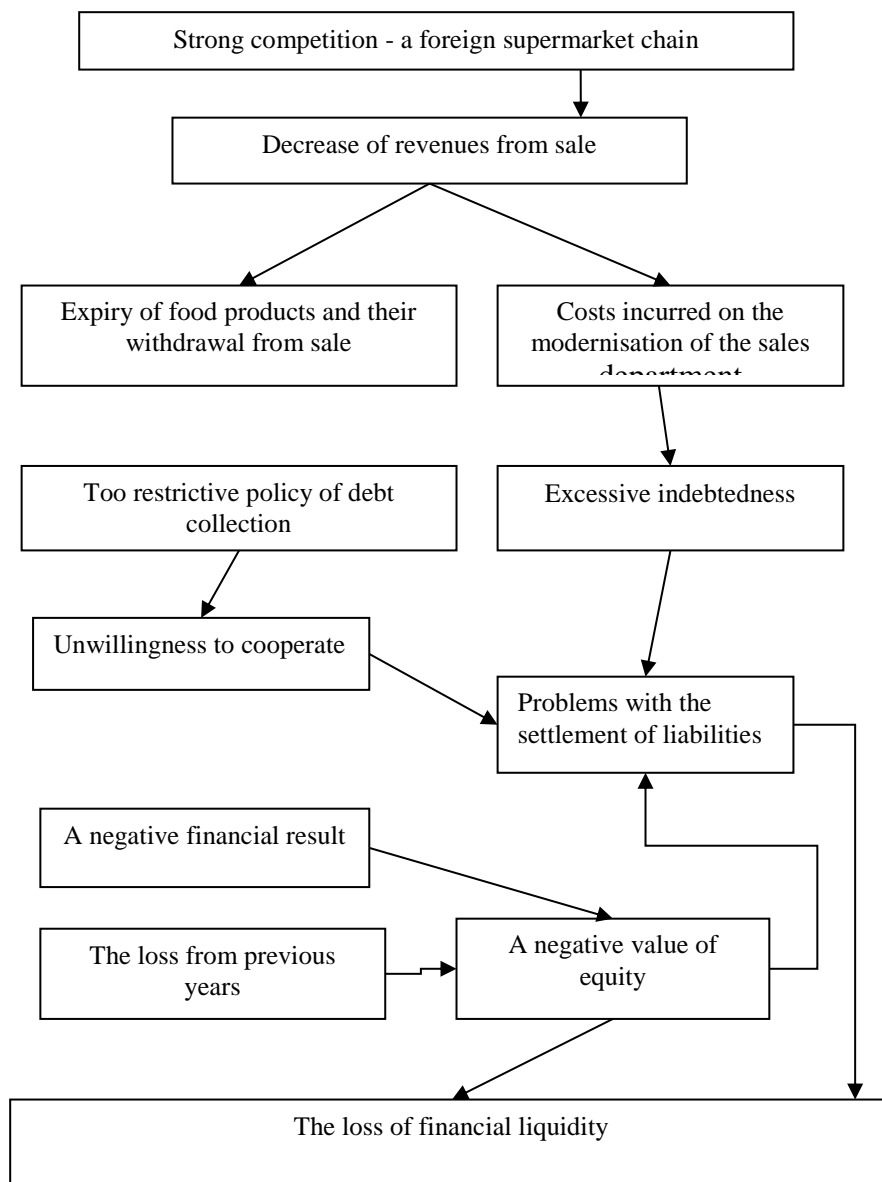
**Table 2.** The reasons of the Beta company bankruptcy

<b>The reasons of bankruptcy</b>	<b>Specification</b>
- strong competition,	+
- decline in revenues from sale,	+
- increase of liabilities,	+
- loss from previous years,	+
- negative financial result,	+
- high level of indebtedness,	+
- loss of financial liquidity,	+
- excessive amount of inventory,	-
- lack of fixed assets,	+
- restrictive policy of debt collection.	+

Source: Own research on the basis of information from insolvency files of the company.

The major determinant of crisis in its initial phase was the occurrence of decreasing sale share in the market, which is caused in many cases by the lack of a marketing strategy and an improper carrying out of marketing research (or its lack). The subsequent symptoms appear later, particularly those with a financial character. Permanent loss of financial liquidity was indicated as the main reason of insolvency. Additionally, the losses of the company in the previous years contributed to a difficult financial situation. Problems started from the expansion of foreign supermarket chains and markets. The enterprise lost its customers as the prices proposed by competition were much lower. Despite the actions aiming to lower business expenses, the company was not able to emerge from crisis. The problems related to the settlement of liabilities emerged. Subsequently, financial sphere factors occurred and, consequently, led to bankruptcy (fig.1).

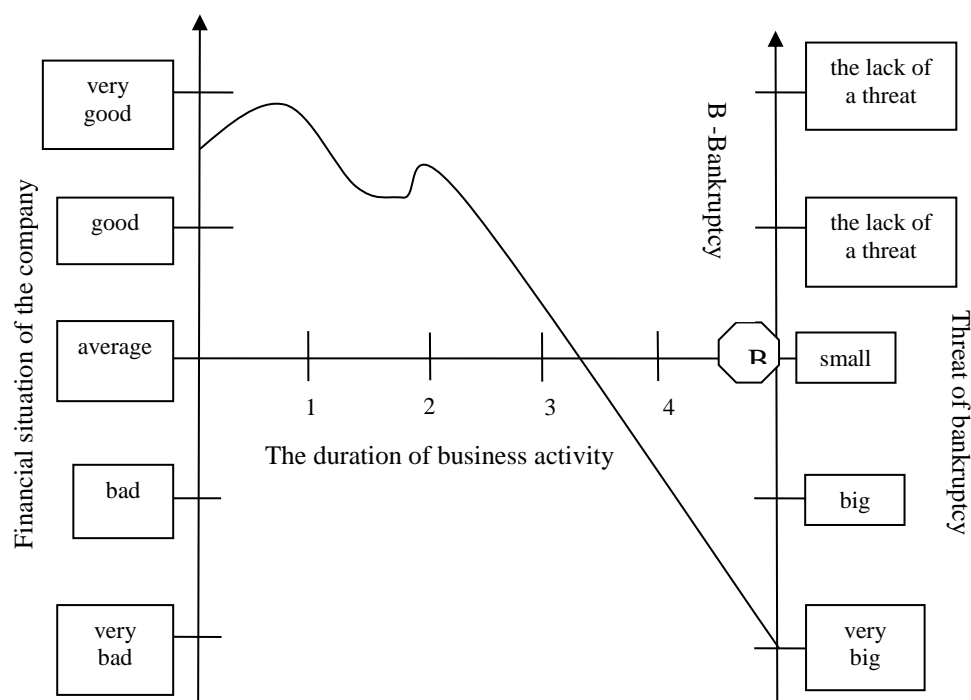
**Figure 1.** The mechanism of the Beta company bankruptcy



Source: Own research on the basis of information from insolvency files of the company.

The Beta company operated on the market for nearly 5 years. Within the period of two first years of its business activity, the financial situation of the company was good, and the enterprise was developing. Sales volume was at the appropriate level. After the second year of its activity, the financial situation of the Beta company deteriorated (fig. 2). The expansion of foreign market and supermarket chains exerted influence on this situation. The sale of products started to decline. The company undertook the activities aiming at the improvement of a financial situation but competition was very strong. The company started to bear losses, it was not able to settle its liabilities and it lost financial liquidity permanently. The owners were forced to file a bankruptcy petition.

**Figure 2.** The trajectory of the Beta company bankruptcy



Source: Own research on the basis of information from insolvency files of the company.

## Conclusions

1. Young enterprises are more vulnerable to the risk of bankruptcy. The discussed example inserts itself into research between “age” and the survival of the company. The survival was the main objective of the studied entity in the initial phase of its functioning. According to the evolutionary theory, the entities which are best adjusted to the market conditions survive on it. Despite many undertaken adjustment activities, the Beta company was not able to compete and to stay on the market and, therefore, it finally went bankrupt.
2. Creating the bankruptcy trajectory according to the methodology of J. Argenti, it was indicated that the financial situation of the Beta company deteriorated as a result of the emergence of fast-growing foreign supermarket chains, which used dumping prices. The purpose of foreign competitors was to conquer the market on which the Beta company was operating and eliminating it by applying much lower prices. The sale of food products decreased which was connected with the expiry of products and withdrawing them from the sales. Defending against the crisis the Beta company introduced the modernization of the sales department, expanded product portfolio and organised the promotion of sales in order to acquire new customers. Unfortunately, those activities involved additional costs and, therefore, the revenues from sale were still falling. The enterprise borrowed excessively. Additionally, too restrictive policy of debt collection discouraged cooperation with the company. The company had serious problems with the settlement of liabilities. The business activity generated losses and equity constituted a negative value. All of these factors exerted influence on the permanent loss of financial liquidity and, consequently, led to submitting a bankruptcy petition by the Beta company.
3. The issue addressed in the article becomes increasingly important from the point of view of the entities whose aim in the initial phase of their functioning is, first and foremost, the survival. The discussed case of bankruptcy is a specific lesson on evolutionary economics, from which the analysed company did not draw proper conclusions. Despite the repeated attempts to emerge from a difficult situation and to implement adjustment actions, the market eliminated the ineffective entity. Corrective actions were undertaken too late.

Apart from this, they were not sufficiently intense and effective. The achievements of the representatives of evolutionary economics, especially the one concerning “the survival of the fittest”, should be particularly significant in the age of uncertainty and the increase of the bankruptcy risk in times of the world economic crisis. The complex issue presented in the article requires further in depth research and conclusions should not be considered in relation to the whole population of enterprises.

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