

**UNIVERSITY OF MISKOLC
FACULTY OF ECONOMIC SCIENCE**

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Theses to the Ph.D. dissertation with title

**Evolution of Business Crises and the Methods of
Prevention**

Name of the Doctoral School: „Enterprise Theory and Practice”

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Miskolc, 2009

I. Purpose, history and method of research

The viability of the companies is determined by the adaptation to the changes and challenges of the environment. The viability of business depends on what extent the companies are able to influence their environment in order to achieve their own objectives; therefore the viability of business needs to be permanently maintained and developed in today's accelerated information society, in the world of globalization. This factor must be especially emphasized in the case of the crisis management, in a territory which seventeen years ago still not existed officially in Hungary in its present form, moreover it is a very "young" branch of science on macrolevel in the western economies and democracies. It is true that the crisis analysis has been studied by some more earlier researches – ex: Keynes – but the classical crisis analysis included macroeconomic approaches with the examination of their spreading effects. The work and the analysis about today's world economic crisis first of all deal with the analysis of the corporate and the national economy environment, and with the help of this analysis study the business problems. With regard to the circumstances of the changed world economy, the crisis and their treatment with microeconomic character are granted an increasingly larger role in the analysis of the current economy, not only within the ex-socialist countries but more and more in the more developed parts of the world, as well.

During my research I have dealt with the microeconomic analysis of crises and I have had the purpose to find those possibilities and methods by exploring the territories of crisis, which help in the prevention and surmounting of crises. In my dissertation I have studied the national and international literature and have evaluated the results of my practical research work. Based on these, on one hand by exploring the circumstances of the evolution of crises and by building on these, on the other hand, I have made efforts to analyze the practical adaptation possibility of the model of the explored condition system through particular business instances. I have considered it essential to highlight the crises and the prevention tools from several sides: both organizational, logistics and quality sides. In my view my work becomes duly actual due to the above mentioned world economic processes as well as to the present status of the economy of Hungary.

In the framework of my research activity I have dealt with the analysis of business crises for more than ten years and I have researched the alternatives for solution both from theoretical and practical aspects. I got into contact with the theme as a graduating university student, then at the beginning of my professional career I started to work deliberately with a company, which dealt with the revitalization and the restructuring of assets of companies. Later on, I had, as an active manager, the opportunity to experience in reality the problems implied in crisis situations, where I was (have been) responsible for the solution of problems not only as external expert, but as a manager number one.

In the dissertation the management of the evolved business crises are also highlighted. To this end, I have come to the definition of the crisis management tools, starting from the definition of crises through the crisis territories. From among these I have regarded the preventive tools as being the most effective ones, especially the exact Crisis Resistance Coefficient (CRC) index enabling the preparation of the current crisis status map or snapshot. By this doing, similar to monitoring procedures, we can bimonthly receive snapshots about the actual status of the company, which is important because the success of the management of a crisis is

determined by the early intervention. By the application and permanent development of the CRC index the vibrations and fluctuations, that may be determined as premonitory signs of crises, become early perceivable.

II. New or modern scientific statements of the paper

- 1. The business basic processes go on two complementary operating systems, which subsystems are divided into eight more subdivisions. A crisis at company level develops when there are functional disorders at least in two of all the subdivisions.***

The business operation could be good when the two subsystems determining the business processes: the professional operation system and the serve system are able to create and to maintain a continuously renewable balance and a harmony with an economic view in the input and output processes. Follow this, the normal business operation stops when these processes aren't balanced anymore. Disorders can be formed in the subdivisions, one or two conditions of the profitable operation could be in danger or disappear. I define the operation troubles of the subdivisions as a domain/field crisis. Providing the operation trouble of one or more subdivisions exceed a critical mass limit (when more domain/ field crisis are added), the trouble will be indirectly formed in the operation of the other subdivisions. The troubles and the crisis (field/domain crisis) are as the dominoes, they can cause newer and newer problems, newer and newer field could be infected by them and they are able to induce whole business operation disorder with a negative synergetic effect. This state is called as a crisis at company level. According to me a crisis could be developed when operation disorders are formed at least in two of eight subdivisions.(field/domain crisis). In this case, it could be expected that the above mentioned operation disorders could be indirectly extended to the other subdivisions and they will cause a crisis.

- 2. The crisis is a multifactor state, one single factor leads to crisis only in special, extreme cases, the simultaneous existence of at least one external and one internal factor is necessary for the evolution of crisis. In extreme cases one internal factor is also sufficient for the evolution of crisis, but one external factor itself does not lead to any crisis.***

During my research activities (in chapter 2 of the dissertation) I have profoundly dealt with the reasons for the evolution of crises. During my professional career I have had the possibility to monitor more than 70 companies facing any crisis situations. I have been able to get secondary information on the companies and I have had the opportunity to examine the companies on a primary basis during the deep-interviews made with the managers. I have observed that managers often tend to specify one reason, in general a market reason for the explanation of crisis situations. On the basis of the data collected through the monitoring I have concluded that generally the crisis situation was not brought about by the specified reason or not solely by the specified reason. The market reasons were in all cases completed by an internal organizational and / or technological reason, the collective effect of which results in a crisis. For example, the organization reacts to an external sudden change dictated by the market with non-appropriate reactions, or does not react at all by trusting, that the external circumstances would later on change or return to their original condition (I address the organizational response-reactions in chapter 2.2. of the dissertation). I can mention as an example the case of IKARUS, where everybody told me about a crisis situation brought about

a market “force majeure”. It was for me acceptable that a political transformation and the related loss of market are regarded as a crisis situation brought about by the environment, I have realized however, that the actual crisis situation was caused by the non-appropriate response-reaction or the total absence thereof. In this changed market situation the aged, inflexible organization was completely unsuitable for finding any new ways with a changed strategy. Instead, it permanently concentrated on the increase of the number of sold buses in order to achieve the intended break-even point.

According to Dinya[2] one single factor rarely causes any crises, two or three factors are often combined. According to my researches, one single factor can lead to a crisis only in special, extreme cases, during my examinations I have distinguished external and internal reasons and have concluded that the simultaneous existence of at least one external and one internal factor is needed to the evolution of a crisis. In order to prove my thesis, I analyse the response-reactions of the organization in my dissertation, since the quality of the response given to any crisis situations brought about by external problems is determined by the proper responsiveness of the organization. If the organization reacts correctly to the external crisis situation, then the problem would not develop to any actual crises. The correct organizational response-reaction refers generally to good business operation (in this case to the absence of internal crisis causes). If the organization reacts not correctly, then it generally does so due to any internal crisis factor. The same is true vice versa, because also an internal crisis cause has to be associated with an external factor so that the problems could be escalated. As an example I could mention several large multinational companies or the companies from Israel, Mexico or Brazil mentioned by Adizes[1] (usually with state monopoly positions), where unmotivated and untalented managers and their colleagues do not drive the company to bankruptcy, because in spite of this the external circumstances provide the conditions for operation. Consequently, only one external or internal crisis factor does not result in any crisis, in general the simultaneous existence of both is necessary for the crisis. These were as a matter of fact symptoms typical for the bureaucracy and death phase of aging organizations as described by Adizes [1].

Here we can see that we speak about a crisis brought about by the simultaneous impact of an external and an internal problem. It has also become obvious that external crises bring about the evolution of internal crises or their escalation and these lead to the actual crisis at company level.

From a technical point of view there is the possibility for an internal factor for leading to the evolution of crisis without any external reason, but this can occur only in very rare and extreme cases. For instance, for the development of the financial bankruptcy of Barings bank the series of bad decisions of a careless and irresponsible broker was enough, no external factors were required. I have, however, to note that also in this case an additional internal factor was needed beside one of the internal (human) factors: the deficiencies of internal controlling and system operation. The employee would have been irresponsible in vain, if the business system did not enable him to “commit excesses”.

The hypothesis is proven by me on one side through theoretical models in chapter 2 of my dissertation, and I have been able, on the other side, to prove it in practice with the help of the Crisis Resistance Coefficient (chapter 6 of the dissertation) developed by me. The Crisis Resistance Coefficient is a measurement method indicating the resistance-capability of companies against the current crises in a quantitative form.

3. Crisis situations are typical not only in the last stage of the business life cycle, but they can be perceived in each point of the life cycle. Consequently, revitalization points also occur in each phase of the life cycle.

The last stage of the classical business life cycle is called the stage of decline or crisis (Kociszky[3], Timmons[5]). According to the traditional interpretation it is this stage where crises evolve and where any possible points of revitalization are created (Figure no. 1). This interpretation accepted also by me has, however, been modified as a result of additional researches.

The theories and approaches of life cycle are analyzed by literature from several aspects. As for my research the analysis of crisis situations emerging at various points of the life cycle was the most exciting issue. Krystek [4] formulated the basic model of business crisis, where the crisis was divided according to chronological phases of crisis management. At each stage of the crisis curve (or linear line) broken down by him to five stages so called chance-points were included. This means that at each of these five stages (perception of crisis, internal actions, trouble-shooting, efforts for further existence and termination) we have possibility to put an end to the crisis. In my research I have aimed at proving the existence of the same possibility – chance points at each point of the business life cycle.

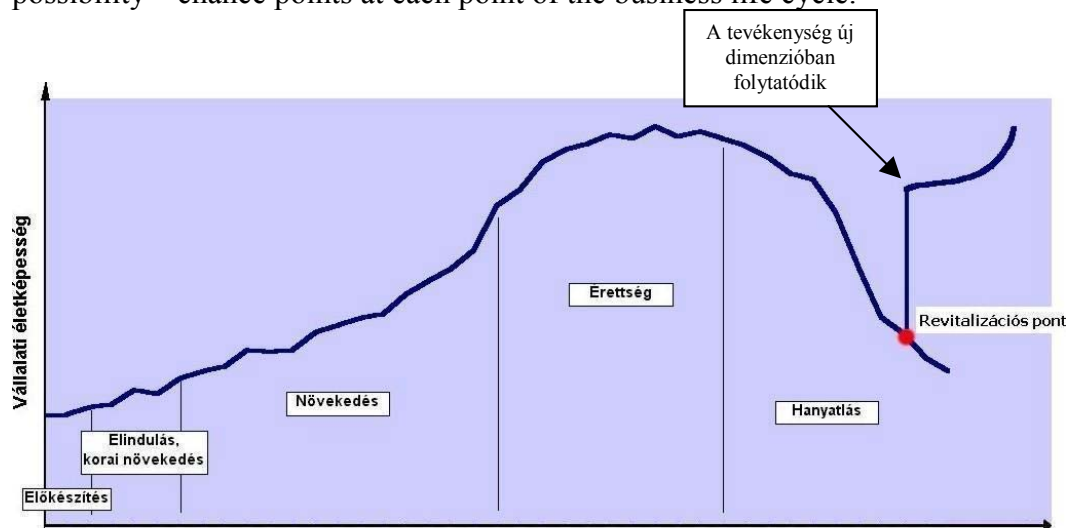


Figure no. 1 Stages of the business life cycle. (Based on Timmons, [5] own transformation)

The activity is carried on in a new dimension.

Business viability

Preparation – Start, early growth – Growth – Maturity – Decline – Revitalization point

During the examination of crisis situations I have observed (chapter 4 of the dissertation) that they occur more frequently in the phases preceding decline than in the phase of the decline. For instance, according to Timmons the phase of growth is for such a point of view more dangerous than that of decline (Timmons [5]). Following the setup of the hypothesis I have typologized and examined by categorization the crisis factors typical for the relevant stages. On the basis of my researches I have concluded that the classical life cycle theory is put in a new light, as crisis situations may occur at any points of the business life cycle with the same probability.

The above realization has a great significance on one part in the treatment of business crisis situations, and from the aspect of any possible revitalization strategies, on the other, because if the crisis situations can emerge in each stage of the life cycle, then the revitalization points

are permanently present, too. Consequently, if the crisis (or at least a potential form thereof) can be found in every stage of the business life cycle and every stage renders possibility for the re-dimensioning or revitalization of the operation of the company, then the activity of the company can at any time be revitalized or re-dimensioned.

This realization enables us at the same time to group and analyze the companies according to the revitalization capability. The classification according to revitalization capability opens a way also towards a new research field. This research field tries to typologize the degree of business determination and examines the correlations as which business operation forms and to what extent are from the outset determined from the aspect of crises and revitalization. Of course, we are searching for the methods of the resolution of determination, as well.

The business life cycle is from the aspect of crisis situation and revitalization is newly illustrated in Figure no. 2 below.

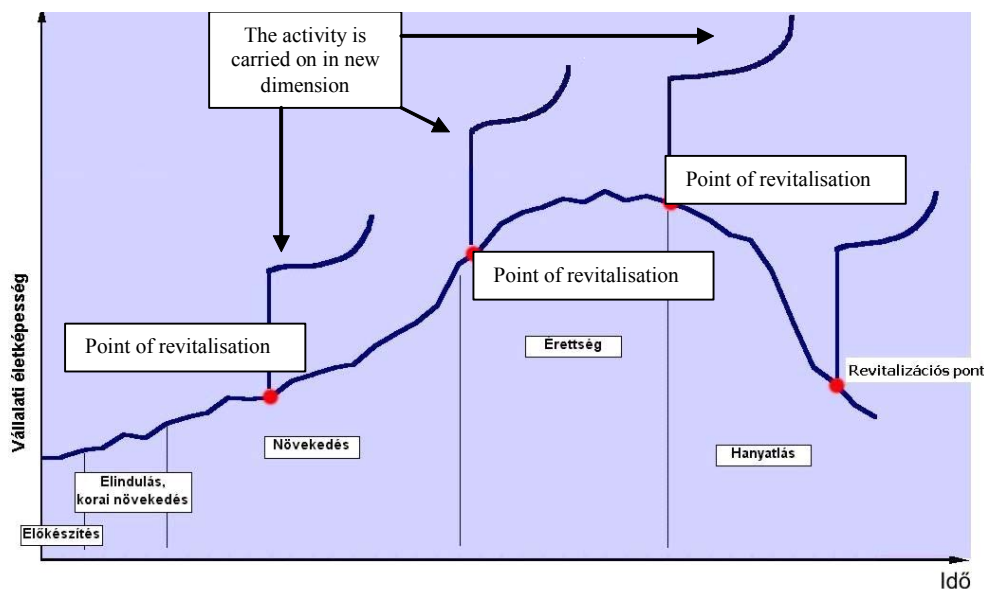


Figure no. 2. The business life cycle and the revitalization points (illustration prepared by myself)

4. *After a while a so called psychological bond is created between the founder – owners and their company, which in the initial stages of the business life cycle has a beneficial influence on the operation of the company, but which later on rather prevents it. The psychological bond must be cut off in the stages of early growth and maturity of business life cycle, or else the crisis sensitivity of the company would increase. The importance of this thesis is much more higher in the case of technocrat owner – management working in a postsocialist environment.*

It can be concluded from the above that in a certain phase of the business life cycle (usually in maturity phase) the time comes in the life of every company, when the owner must cut off this psychological bond. Under the cutting of the psychological bond I mean the waiving of the operative control of the company and the assignment of the company to an expert management. During my researches I have made the statement that if they fail to do so the crisis sensitivity of their enterprise will increase significantly. We can also formulate so that the exposition to crisis of the company is determined by the strength (or weakness) of the bond. Naturally, this statement is not valid for the so called one-person enterprises.

In order to prove my thesis I have examined 70 small and medium sized enterprises that have similar ownership structures and development. All enterprises were founded at the beginning of the nineties, they were or have been without exception in the ownership of individuals and some kind of technocrat management style was typical for the management style prevailing there. Each company subject to the examination was interested in carriage or logistics and they have been in the maturity phase of their business life cycle.

With the help of responding to a list of ten questions the companies have been divided into two groups. With half of the companies the owners have had a significant part in the operative management of the company (group "B"), while with the others the psychological bond has been cut off and the owners have more or less only an owner's part indeed (group "A").

During this it could be stated that for a decisive proportion of the companies in group "A" even the danger of unstable status did not exist for the listed indices (the majority of them were in a dynamic or stable state). It occurred only with one company that the proportion of the equity fell to 44% and with the same company the proportion of customers and suppliers, the liquidity acid test ratio and the signs of debt service referring to crisis could be observed. With each company in group "B", at least three indices showed unstable figures or those referring to crisis situation, but in case of 70% of the companies all five indices reduced below the unstable level. The detailed chart has been attached in Annex no. 5.

On the basis of the results my hypothesis has been justified according to which the companies, where the founder owners are active as operative manager number one in the maturity stage of the business life cycle and they possess a large majority of their decision-making powers, are with a larger probability exposed to any crisis situations. Consequently, the resistance-capability of the company against crises can be improved by the loosening or cut-off of the psychological bond. On the other hand I have to remark, this topic has to be studied more because I have found some differences among the Eastern European companies' owner and the Western European companies' owner.

5. The knowledge and application of preventive methods contribute largely to the avoidance of any possible crisis situations

There are tools with the development of which the crises can be prevented and the organization becomes more prepared for overcoming the crisis, respectively. The preventive tools suitable for the prevention of any problems related to the points of the business life cycle as defined in thesis 2. can be classified. The typologization of the crisis types typical for each stage of the life cycle and the categorization of the preventive tools render possibility for the increase of the effectiveness of the struggle against crises.

For the purpose of the examination of the correlation between the application of preventive tools and the evolution of crisis situations the Crisis Resistance Coefficient method as described in thesis 7 is excellently suitable.

6. *The crises and their management methods can be typologized. Crises can be treated with such standard methods for which, nevertheless, the execution of extra duties of customization to different extent for each company may be required.*

According to my researches the efficiency of the management of crises depends on the recognition of crises and on the adequate treatment method. The differentiation of crisis types is a strategic issue in this regard, just like the precise diagnosis of illness in case of ill people. Following the precise diagnosis the most appropriate therapy or in the case of crisis the most effective and useful method for crisis management can be defined.

The dissertation includes the criteria required for the identification of crises and for the development of a correct crisis management method in such a practical manner, which renders assistance to any manager for the successful crisis management. The dissertation includes the standard methods and tools, as well, that can be applied for any companies by taking into account the local specific needs and circumstances.

7. *The resistance of businesses against any crisis situations can be measured with the Crisis Resistance Coefficient (CRC). The qualitative and quantitative improvement of information flow will significantly increase the businesses' Crisis Resistance Coefficient index.*

In certain respect the companies operate like the human organization (Adizes[1]). The internal mechanisms are processing any external impact in a different manner. The healthier the internal structure is, the more resistant it will be against the external negative impacts. For companies the resistance-capability against sicknesses is symbolized by the crisis resistance.

The index of the resistance-capability against crises has been calculated by me with the Crisis Resistance Coefficient system developed and tested by me. This index can be calculated with the help of a criteria system of a maximum total score of 2000, for which I have adapted a Kesseling product benchmarking method to parameter-comparison method. I have weighted the input parameters by taking account of crisis resistance aspects from 2 to 10. For the evaluation of the input parameters I have elaborated a special system of aspects. The input side of the criteria is provided by the data-recording repeated bimonthly. The stabilized condition (low scattering) of the CRC levels and its figure approaching the maximum score suppose a high level resistance-capability against crises.

The verification of the CRC hypothesis has been carried out by me during a research work of almost ten years through the analysis of several companies. With the figure series measured on the basis of data collection and analyses executed for seven member companies of the IKARUS company group between 1999 and 2003 the fact has been justified that the crisis resistance levels are mostly influenced by the quality of information flow. Through the measurement of the CRC index included in the thesis one could conclude that the better the quality of the information flow is within the organization, the better CRC evaluation the company was granted. The information structures within the company can be operated by the integrated management systems in the most comprehensive and most effective way.

It has been proven that after the introduction of the system the scattering of the CRC indices reduced and the resistance of companies against crises improved significantly (chapter 6.3 of the dissertation).

III. Utilization of the research results and further trends of research

I foresee the utilization of my research to be implemented in the form below:

1. I would like to issue an independent note in this theme, which could in addition to theoretical typologization of crises provide practical advice, as well.
2. The national and international resources processed in the dissertation and the particular practical results are available for further researches (even in interdisciplinary frames) for researchers.
3. The material included in the dissertation renders possibility for the delivery of lectures and courses, both at Hungarian and international levels.
4. The results processed during my work can be published in higher educational lecture notes as independent chapter.
5. I see further utilization possibilities in the use of the dissertation for education activities at university level.
6. The results of the dissertation can be utilized also during a particular business operation, either via an external counselling activity or as a manager.

My research should serve first of all the further development of the recognition and management methods for crises. At the same time, additional issues will be formulated on the basis of the results so far achieved and there will be possibility for a deeper examination of certain fields. On the basis of these I would like to continue my research towards the following directions:

1. I am working on the grouping of companies according to revitalization capability, which enables me to analyze the companies by taking account of elements of both human factor and technological aspect and elements with industrial or sector specific approach. I would like to justify the hypothesis of mine, too, according to which there are companies that either due to operational or regional aspects are suitable for revitalization only partially or under specified conditions.
2. During the examination of the life cycle I have specially dealt with the problems of growth. During my future researches I would like to analyze this theme much more profoundly. I wish to explore those crisis factors that are first of all typical for the growth stage.

3. I would like to continue with the analysis of the crises for regional aspects, in particular in the current political and economic situation that has changed and is under change, respectively. In my opinion the accession to the European Union will profoundly amend the currently existing regions and will result in new regions establishing first of all on the basis of economic interests. In this situation the region will have a completely different impact on the life of businesses than previously.
4. The initial realizations related to the bond between the founder and general manager serve a proper basis for the further research of the theme. With statistical methods I would like to demonstrate not only the existence of the bond, but the strength thereof, as well, furthermore with what criteria one could specify its impact on the business operation.
5. The globalization processes at the current rate will change the demands for information flow at micro and macro levels. Consequently, the information flow within the company should increasingly rely on the external environmental information. The further examination of the interaction of these to each other can serve as a basis for the creation of a modern business crisis resistance model.
6. The research results are suitable for the provision of a comprehensive and practical aid for the management of crises. I would like to elaborate a more clear and simple methodology, which would be achieved through the further typologization of crises and the methods of overcoming thereof. The methodology would further strengthen the practical character of the tools.
7. The present research results are able to serve as a comprehensive and practical tool in crisis treatment. I would like to work out a much more simple and univocal methodology, which could be effected through a deeper tipologisation of the crises. This methodology could help the further enhancement of the practical character of the tools.

IV. Publications of the Author

Lectures delivered at scientific conferences

International Conference of PdD Students

The relationship between Corporate Restructuring and Regional Integration
University of Miskolc, Miskolc, August 11-17, 1997

Hungarian Consulting Development Project (USAID) Conference

Crisis as key factor of business
Budapest, September 9, 1997

MicroCAD '98 International Computer Science Conference

Impact of regional crises on the Hungarian industry
University of Miskolc, Miskolc, February 25-26, 1998

„Lieferanten für 2000” Konferenz (“Suppliers for 2000” Conference)
New roles for East-European component manufacturers
Berlin, May 10, 1998

Automotive e-supply solutions International Conference
E-purchasing in non-automotive sectors
Cannes, October 29-31, 2000

CEORG International Conference
Perception of Central European Products in EU
European Parliament, Brussels, October 18, 2000

World Economy Conference
Factors for real estate management
Hotel Forum, October 9, 2000

Automotive e-supply solutions International Conference
E-supply limitations for automotive suppliers (Workshop)
Barcelona, October 14-17, 2001

Innovation in logistics processes. Logistics Forum, Automotive section: Global logistics systems as tools for cost reduction
Cost-effective operation forms in the automotive industry
Budapest, March 1, 2002

Hungarian Iron and Steel Industrial Association Conference
Steel industry trends and revitalization of steel product manufacturers
Hungexpo Tükörterem (Mirror Hall), May 28, 2002

Hungarian Productivity Centre Conference: Modern productivity development methods
Correlation between lean management and revitalization
Hotel Benczúr, December 26, 2004

Österreichischer Automotive Cluster: Permanent success in the automotive industry
Revitalization as a tool for success in the automotive industry
Linz, May 6, 2004

MIBE 2006 Conference
The role of supply chain optimisation in crisis prevention
Miskolc-Lillafüred, Palota Szálló, September 13-14, 2006

ELA 2008 Conference
New rules of the game. Innovation in Logistics. 2008
Bruxelles, 30th. of November 2008

Studies, notes

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- Correlations of the development of steel industry regions
Menedzser, 2002/9 (coauthor: Tibor Szőke)
- Crisis situations in various stages of the business life cycle I.
Menedzser, 2003/12
- Crisis situations in various stages of the business life cycle II.
Menedzser, 2004/1
- Correlations of crisis situations and value generating processes)
Loginfo, 2004/12
- Logistics and business viability
Book, 2004
- Quality as a preventive tool for crisis management
Minőség és megbízhatóság, 2004/5
- Outsourcing as crisis prevention tool
Loginfo, 2005/1
- Supply Chain Management, Challenges and Paradoxes
Tranzit, 2005/5
- The role of supply chain optimisation in crisis prevention
GÉP, lectured publication, July 2007
- The role of supply chain optimisation in crisis prevention
MIBE 2006, appearance July 2007
- Vom ersten Weltkrieg bis zur Finanzkrise
ELA Conference Publication, 2008
- Crisis situations from logistical point of view
Book, projected appearance November, 2009

V. References

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