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MODERN MANAGEMENT CONCEPTS IN SLOVENIAN AND AUSTRIAN COMPANIES: AN EMPIRICAL RESEARCH

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Abstract
This article presents the results of an empirical research carried out in medium and large-sized Slovenian and Austrian companies. The research was performed in cooperation with University of Technology Graz. The main aim of this research was to ascertain the state or the degree of presence of modern management concepts, like knowledge management, value management and virtual companies in Slovenian companies, respectively. Thanks to the simultaneous research, taking place in Austria, we were given the opportunity to compare the situation with their companies. Despite our initial expectations of greater difference between Slovenian and Austrian companies, especially because of economic and political history of both countries, it turned out that the situation in companies is very similar and that there are only some minor differences.

Key Words: Knowledge Management, Value Management, Virtual Companies, Empirical Research

1. INTRODUCTION

Knowledge management, value management and virtual company are all terms that have been present in the academic field for quite some time now. Lately, they can also be found ever more frequently in practice.

Knowledge and technology accumulation, transfer, application, and diffusion are the key to sustainable economic prosperity in the emerging global economy of the 21st century. Rapid advances in information technologies and declining costs of production, processing and diffusing knowledge and technologies have been transforming social and economic activities worldwide. The knowledge and technology revolution is critically different from the past industrial revolution in that it is based upon a shift of wealth creating assets from physical things to intangible resources based on knowledge and technologies. Knowledge is at centre stage in companies [1].

2. THEORETICAL BASIS

Knowledge systems are socio-technical systems that represent specific branching of industrial working systems (Fig.1). The employees of the company are the knowledge bearers, technical equipment however, is represented by tools and data bearers of the system, respectively [2]. It should be especially emphasised that the knowledge bearer is not a company, but the individuals employed by a company.

Drucker [3] describes knowledge even as the only meaningful economic resource in the knowledge society. Thus, effective management and transfer of knowledge and technologies are believed to be the most critical capability of individuals, organizations, and nations in the globalized 21st century knowledge society.

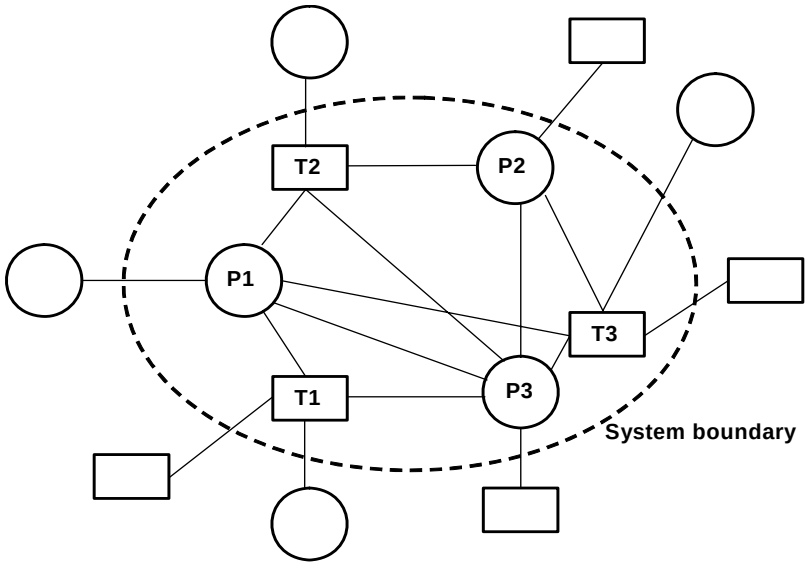

Figure 1: System of Knowledge [2].

Knowledge management is broad, multi-dimensional and covers most aspects of the company's activities. Experience shows that to be competitive and successful, companies must create and sustain a balanced intellectual capital portfolio. They need to set broad priorities and integrate the goals of managing intellectual capital and the corresponding effective knowledge processes. This requires systematic knowledge management. Knowledge management has two objectives:

- to make the enterprise act as intelligently as possible to secure its viability and overall success,
- to realize the best value of its knowledge assets [4].

Knowledge management is often described as a management tool and we can use it as information handling tool (collecting information, storing information, making information available and using information) or as a strategic management tool [5].

Value analysis was developed after the Second World War by Lawrence D. Miles, Purchase Manager from General Electronics. With the forementioned method he was able to purchase goods that were meeting higher demands than originally foreseen, with lower costs, in a systematic way. Commonly known and applied techniques (teamwork, systematic research, idea-searching concepts) were united by Miles into a method he named value analysis. Nowadays, value analysis is described as a system for solving complex and not always well-defined problems [6].

Miles` value analysis represents the foundation on which the value management has developed. Value management requires from management to implement all measures on the basis of value and function concepts in accordance with the general goals of the company. It consists of the integration of proven and structured techniques of solving problems, known as the value methodology [7]. The highest management must take care of proper value culture, which includes all members of the organization.

The concept of value management spreads more and more in industry. Despite its popularity, however, the extent of the subject related theory is very meagre in literature. One of the most important contributions to value management theory is done by Dumond [8] who develops implementation strategy for value management across companies. She has identified ten primary components in developing an organization that could consistently create value for its customers: organization mission and strategy, training, job design, interface relationship, performance measurement system, information system, process management, organizational culture, continuous improvement and customer success.

A virtual company is a network of a greater number of independent companies, institutions and/or individuals that get temporarily connected via inter-company information systems and acts towards the customer as a whole in order to create a specific, customer-adjusted effect (Fig. 2).

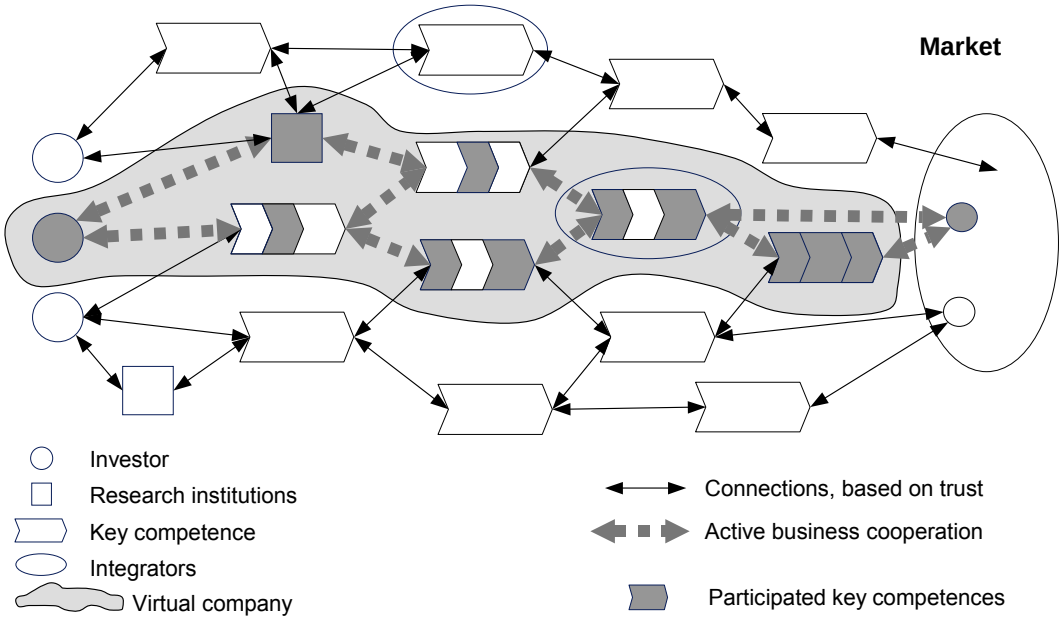

Figure 2: Virtual Company [9].

In this process, the customer is included in the creation process with the help of information and communication technology. The main aim of the connection of companies into networks is the creation of a proper level of flexibility and adaptability that must be higher than the dynamic of changes on the market.

Cooperation is to a great extent based on trust. By using proper information and communication technology there is no need for complex contractual relations and institutionalization of key functions of management for modelling, leading and creation of a virtual company. Virtual companies are generated in connection with actual tasks, where the inclusion of partners is based on their key competencies. Davidow and Malone state [10] as the key factors for success:

- trust among partners,
- the use of information and communication technology for effective development of companies and for establishment of relations with buyers,
- the use of knowledge in order to gain competitive advantages.

3. RESEARCH METHODOLOGY

In the field of production management we have, in addition to the case study [11], included also the most widespread survey research [12]. The main goal of the empirical survey research is the reduction of the gap between theory and the practice in management, in order to:

- expand the applicability of the research to make it useful for practicians as well,
- further increase the scientific recognition of this field [13, 14].

The research on the presence of management concepts, such as knowledge management, value management and virtual company, has been conducted in Slovenia for the very first time – therefore we have decided to carry out a so called “inquiring survey research”. This type of research is intended for ascertainment of notions, which we wish to

measure and for uncovering the new aspects of the problem discussed. Later on this research can also help us to acquire and to present evidence on the connection between concepts and to explore the field of the theory's applicability [12]. Survey research is a type of research with a questionnaire, where the people questioned can choose between several offered answers, based on the principle of Likert`s scale [15]. The results of the survey were later statistically processed and are presented later in this article.

When choosing the pattern of companies we were using the cipher of activity. Regarding to the cipher of activity we have then limited our scope to companies dealing with processing (according to the data from the Chamber of Economy, Slovenia). Because of the supposition that the concepts, which we have researched are more frequent or much easier to develop and follow in middle and large companies (according to the Slovenian Companies Act, Ur. L. RS nr. 30/1993, these are the companies with more than 50 employees), we excluded those companies with less than 50 employees when determining the pattern of companies.

The pattern of companies was still too large and therefore we had to choose only a few branches of companies: metallurgy, electronic industry and industry of machinery, chemical industry, the production of vessels and vehicles, wood-processing, textile industry, production of rubber and plastic mass. From the acquired list we then randomly chose 326 companies to which we sent our questionnaire by mail.

40 questionnaires were correctly filled in and mailed back to us, altogether, which represents a 12.27% response rate (Table I). If we compare the percent of the response rate with the results in the neighbouring Austria (8.8%), we find that Slovenia had a slightly higher response rate. However, we must also take into account the size of the pattern, since in our neighbouring country the questionnaire was sent to 1760 companies, from which 154 were returned. The acquired number of answers represents a proper pattern with which we can gain an insight into the happening in companies.

Table I: Research data.

	Returned	% share
Total number of questionnairs: 326	40	12,27%
Part one (General questions)	40	100%
Part two (Knowledge management)	14	35%
Part three (Value management/ value analysis)	12	30%
Part four (Virtual companies)	21	52,5%

4. RESEARCH RESULTS

4.1 General findings

Empirical research carried out in Austrian and Slovenian companies presents very interesting results regarding the presence of modern management concepts (knowledge management, value management/value analysis and virtual company). In both countries the forementioned management concepts are quite familiar to companies and are therefore also successfully applied by them. It is evident that the differences between Austria and Slovenia are visible only after more precise studies, however, the distinctions are generally negligible. In the follow-up some of the most interesting findings will be presented.

4.2 Comparison of results: Knowledge management

Regarding significance and availability of knowledge inside and among the chosen internal areas of the company (products/service, pros and cons, course/the working procedures), as well as external areas (buyers, market trends, competition and new technology), a similar impression can be gained: companies ascribe great importance to knowledge. However,

despite this fact, there is still a great lack of knowledge on the market, especially in the areas of cooperation with buyers, competitors and following the trends on the market.

A very interesting result is gained in the comparison regarding the importance of knowledge and the familiarity with the term knowledge management. Although the term itself is not so well known in Slovenia (Slovenian companies lag behind in this area, when it comes to actual experience), Slovenian companies still ascribe great importance to knowledge. Therefore we can conclude that knowledge management has a slightly higher potential in the future in Slovenia than in the neighbouring Austria, where knowledge management already has greater presence in companies (Fig. 3).

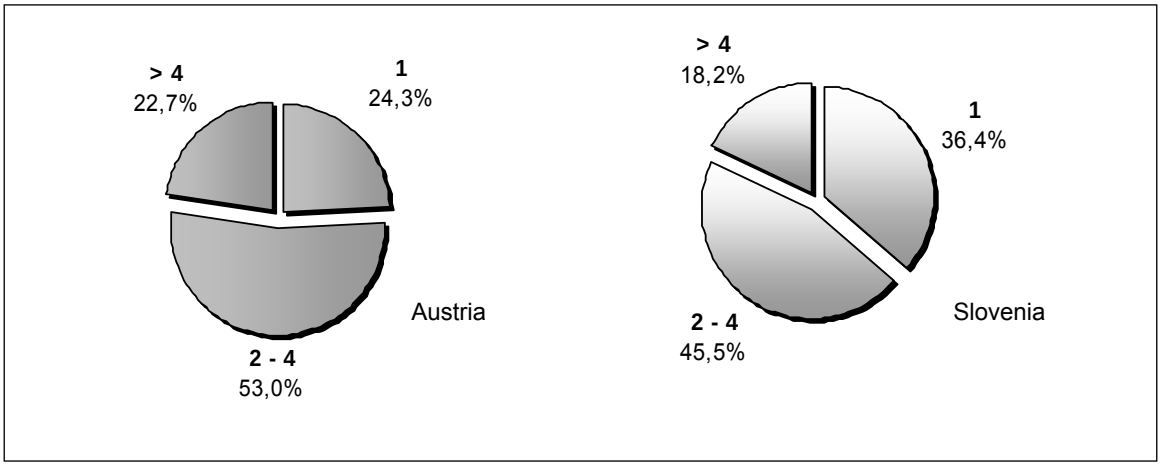

Figure 3: Number of Performed Knowledge Management Projects.

In Slovenia about 36% of the surveyed companies already have actual experience with knowledge management. Judging by the time of active application of knowledge management we can conclude that knowledge management is still a very young discipline of science. Only a few companies (A: 30.3%; SI: 25%) have been using knowledge management for more than 3 years. Among other things, it can also be observed that Slovenian companies have just begun to apply the forementioned field: 37.5% of companies have been using knowledge management for less than a year (A: 12.1%).

We could say that knowledge management is a topic for the future with great potential. The majority of companies (A: 44.4%; SI: 53%), which are currently not applying knowledge management, are planning these activities for the future. Also regarding other findings, such as:

- the duration,
- the number of projects,
- cooperation with advisers or research institutes,
- satisfaction with the course, transfer and results of the projects,

there were no significant differences between Slovenian companies and companies in the neighbouring Austria.

Interesting results are also acquired, when comparing the answers to the question about the motivation system. In Slovenian companies, 90% think that the motivation system is very important, while in Austrian companies only 59% of them are in favour of the system of awards (Fig. 4). Looking at these results from a different perspective gives us another proof that knowledge management has a briefer tradition in Slovenian companies than in Austrian companies. It is usual that with introduction of new concepts into the company, the greatest motivation is gained by giving awards to the employees, but later on, when those concepts become established, it turns out that awards themselves are not obligatory for successful work.

Fig. 5 depict the allocation of cognisance and responsibility in the field of knowledge management. In Slovenian companies it can be observed that those with leading positions also bear great responsibility, whereas in Austrian companies, this percentage is much

lower. Despite this, the fact that in all the companies some responsibility is given to lower positions as well (the responsibility of all employees and project teams) is welcome news. In Austrian companies you can also find managers whose sole responsibility is knowledge management.

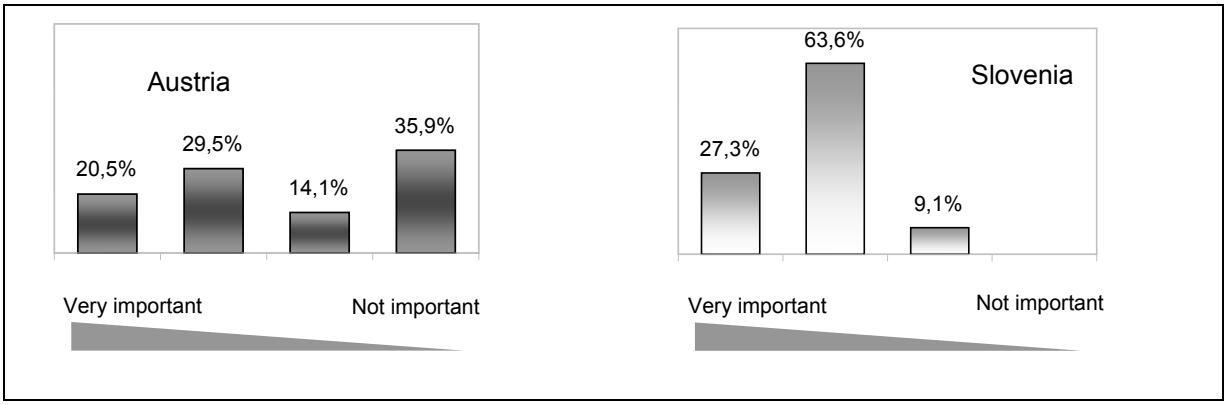

Figure 4: Importance of motification system by knowledge transfer.

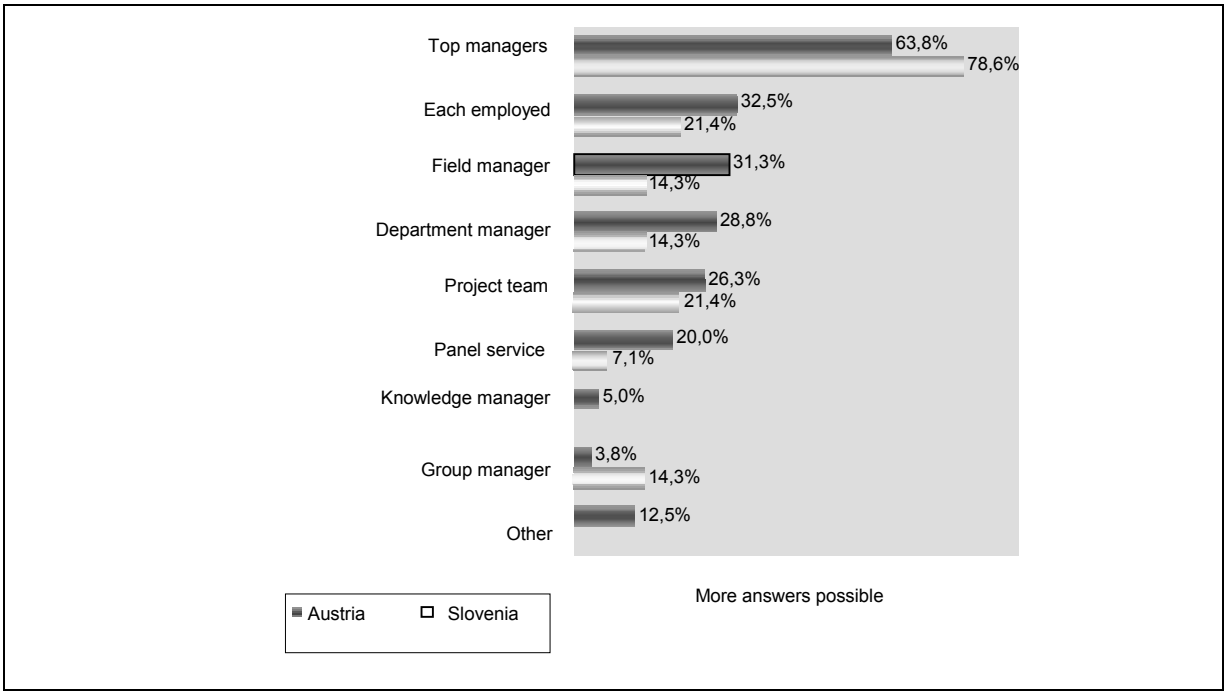

Figure 5: Responsibility for Knowledge Management.

4.3 Comparison of results: Value management

As it can be seen from the results shown in fig. 6, there is no uniform opinion or understanding of the term value management. The majority of the surveyed companies understand value management as a value and function based way of thinking that accompanies all organisation processes and decisions (A: 60.4%; SI: 70%). A slightly lower number of companies understand value management as a means for increasing the value of products and processes (A: 52.6%; SI: 32.5%). However, there are also quite a large number of companies, which understand value management as an increase of the whole company's value - shares (A: 40.3%; SI: 25%).

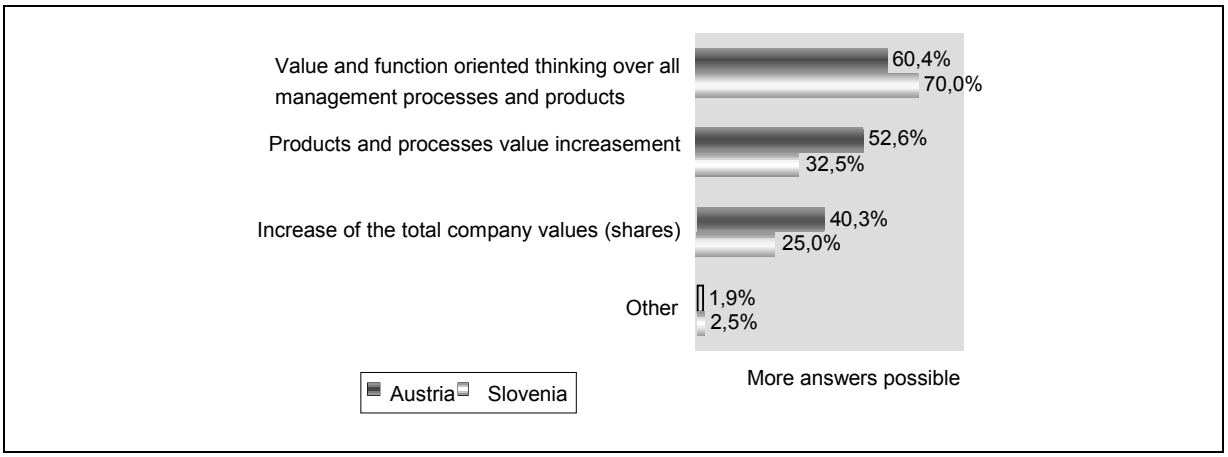

Figure 6: Understanding of the 'value management' notion.

According to research results, the majority of companies use value analysis in order to lower the costs. However, it is good to know that the companies also use value analysis to fulfil other demands (Fig. 7).

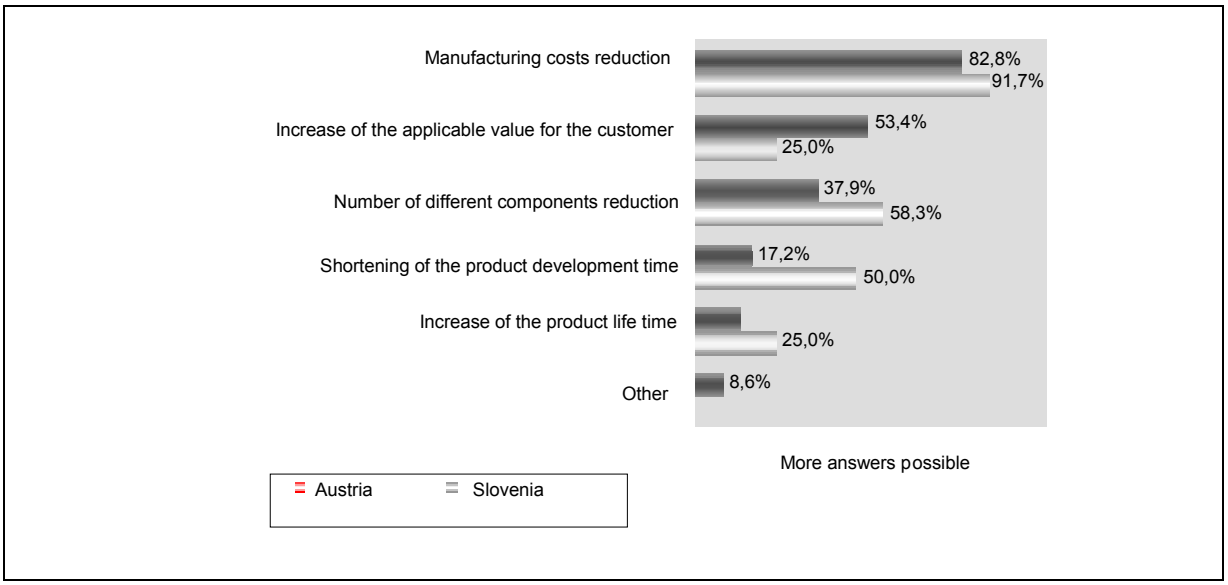

Figure 7: Concrete Use of the Value Analysis in Companies.

4.4 Comparison of results: Virtual companies

The basis of a virtual company is a network of companies and organizations that are familiar with each other and engage in mutual cooperation. More than a half of Slovenian and Austrian companies are part of such networks and as such, operate within them. Cooperation therefore exists to a very large extent (A: 81.1%; SI: 77.4%). Obviously, this area is terminologically much more familiar (like for instance value management). The essence of cooperation between companies is shown in greater flexibility and capacities, as well as easier representation on the market. In Austrian companies, unlike in Slovenia, we can see a mutual formation and development of competences among cooperating companies. What Austrian and Slovenian companies have in common, is that the division of costs and risk is less important than the factor of cooperation.

At figure 8, the most frequent problems appeared using Internet technologies, are presented.

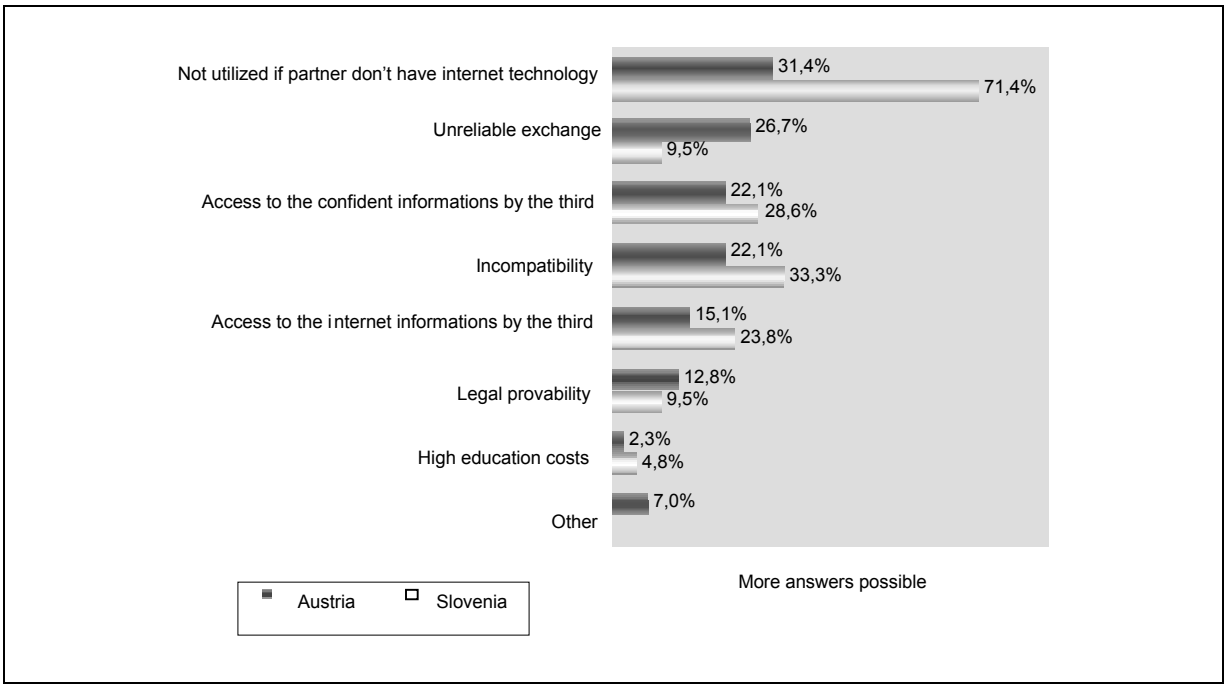

Figure 8: Problems Appeared Using Internet Technology.

5. DISCUSSION AND GUIDELINES FOR FUTURE WORK

According to the information of the research, management is a topic of the future with a great potential. The majority of the companies (A: 44.4%; SI: 53%), which are currently not applying knowledge management, are planning such activities in the future. Also regarding other findings, such as:

- the duration,
- the number of projects,
- cooperation with advisers or research institutes,
- satisfaction with the course, transfer and results of the projects,

there were no significant differences between Slovenian companies and companies in the neighbouring Austria.

Based on the comparison of the results in the field of value management/value analysis, we in Slovenia, together with Austria, have come to similar findings, which we have summarised in the following items:

- Currently there is no uniform opinion about the meaning of the term value management, neither in Slovenia nor in Austria.
- The starting-point for the selection of subjects for the performance of value analysis is mostly economic in nature; in Slovenia a great emphasis is given on the application of this method in the development of new products.
- The goal of these projects of value analysis is mainly cost-set (to lower the costs) and is as such in most cases also attained.
- The buyers and co-operators will in the long run be included in the projects of value analysis; currently there is some lasting cooperation and especially the inclusion into individual working sessions and workshops.
- Education in the field of value analysis in Austrian companies has been taking place especially under the guidance of experts inside the company. In Slovenia, the percentage of such experts in companies and the percentage of education programs carried out by research institutions is about the same.

The essence of cooperation among companies results in greater flexibility and capacities, as well as easier representation on the market. Unlike in Slovenian companies, in Austria,

mutual formation and development of competences among cooperating companies can be observed. What Slovenian and Austrian companies have in common is that the division of costs and risk is a less important factor of cooperation. As regards to other characteristics of partnership, such as:

- the duration and the frequency of co-work (long-term and often),
- the number of function areas included in the partnership (2 - 4),
- the intensity of connections (mainly on the basis of contract),
- the solving of problems in partnership cooperation (mostly informal),

we notice a great similarity between Slovenian and Austrian companies.

6. CONCLUSION

The main purpose of the presented research is to present the actual state of modern management concepts in Slovenian and Austrian companies. We can summarise that experience and application of modern management concepts (knowledge management, value management and virtual company) are very similar, when comparing Slovenian and Austrian companies. The differences can be seen in some details, which are probably based on the economic and political history of Slovenia. Because of such great resemblance of the results in Slovenian and Austrian companies we can expect a productive and successful cooperation in the future.

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