Economic Survey on Knowledge Based Management in Romanian Companies

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Abstract

This paper presents some results obtained through field research on knowledge management in our country. The objective of the research aimed to identify characteristics of knowledge based management in Romanian companies. Starting from this objective, the paper seeks to support the implementation of knowledge based management in local companies as a way to succeed in the growing competition. We believe that documenting the theoretical and practical research can successfully complete the literature and provide essential information in a field that is in relatively early development stage.

The statistical universe is form of local companies – grouped by age, industry, development region, ownership status or size - which implements some or all elements of knowledge based management. Have been used various methods and techniques of analysis: analytical method, comparison, dissociation results, statistical groups, questionnaires, statistical analysis etc.

Keywords*: knowledge based management, KM system, Romanian companies*

JEL classification*:* **D83, O32**

1. Literature review

Although learning and therefore knowledge were used in the management of human activities since ancient times, knowledge based management has become part of scientific literature in the last part of last century. H.G. Wells, in 1938, although didn't use the term knowledge based management, referred to the so-called "global brain" (World Brain), capable to synthesize and represent the

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amount of collective knowledge of individuals and organizations (World Brain:The Idea of a Permanent World Encyclopaedia).

Turning to the more structured approach, we found out that a number of management theorists have contributed to the evolution of knowledge based management, such as Peter Drucker, Paul Strassmann, and Peter Senge. Drucker and Strassmann have stressed the growing importance of information and explicit knowledge as organizational resources, Senge has focused on "learning organization", a cultural dimension of knowledge management. Chris Argyris, Christoper Bartlett and Dorothy Leonard-Barton from Harvard Business School examined the various facets of knowledge management processes.

Everett Rogers's studies at Stanford University regarding diffusion of innovation and research of Thomas Allen from MIT on information and technology transfer, both dating from the late 70s, have also contributed to understanding how knowledge is produced, used and disseminated within organizations.

In the mid 1980s, the importance of knowledge as a source of competitive advantage has been recognized, even if classical economic theory ignores knowledge as an asset and most organizations lack the strategies and methods to manage it. The growing importance and significance of knowledge has been accompanied by increasing concern about how the organizations will face exponential growth of knowledge and increasingly complex products and processes encompassing knowledge. Informatics, who contributed so much to over-abundance of information and knowledge, began to become part of the solution in a variety of areas. AUGUMENT, a creation of Doug Engelbart introduced in 1978 - one of the first applications hypertext / groupware - has enabled an interface with other applications and systems. Knowledge Management System (KMS), developed by Rob Acksyn and Don McCracken, a freely distributed hypermedia tool, which preceded the World Wide Web a decade is another notable example in this respect.

To provide a basis for managing technological knowledge, a consortium of American companies started The Initiative for Knowledge Asset Management in 1989. Articles dealing with knowledge based management appeared in Sloan Management Review, Organizational Science, Harvard Business Review, etc.., and the first books focused on organizational learning and knowledge based management are published (e.g. Senge The Fifth Discipline and The Knowledge Value Revolution of Sakaiya).

The '80s saw the development also of knowledge management systems that relied on the work in artificial intelligence and expert systems, giving us such concepts as "knowledge acquisition", "knowledge engineering", "systems based on knowledge "etc.

In this period the concept of "knowledge management" entered the usual lexicon, ceasing to be a privilege of a few specialists.

In the '90s, a series of management consulting firms have started in-house knowledge based management programs, and some of the best known companies in the U.S., Europe and Japan have established programs focused on knowledge

based management. The concept was widely popularized in 1991 when Tom Stewart published "Brainpower" in Fortune magazine. Also in this period (1995) appeared one of the most important book in the field, Ikujiro Nonaka and Hirotaka Takeuchi Japanese: The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation.

In the mid-1990s, knowledge management initiatives are becoming more numerous due in part to the explosive growth of the Internet. International Network of Knowledge Management (IKMN), launched in Europe in 1989 is soon followed by the establishment of the Knowledge Management Forum in the U.S. and other groups dedicated to the phenomenon. In 1994 IKMN published the results of the first investigation regarding status of KM in European companies and European Community started to provide funding for projects related to knowledge management through the ESPRIT program in 1995.

Today, knowledge management has become both a science, a branch of management with its own body of concepts, theories, models and best practices and a business (for major international consulting firms like Ernst & Young, Arthur Andersen and Booz-Allen & Hamilton). In addition, a number of professional organizations interested in areas such as benchmarking, risk management, change management etc. explores the relationship between knowledge management and those areas (for instance, APQC - American Productivity and Quality Council and ASIS - American Society of Information).

2. Survey

2.1 Sample

Analysis of knowledge-based management in Romania was performed on a sample of 107 firms that use – totally or partially - knowledge management systems.

Considering the age of firms analyzed, most of the companies under investigation have been under 5 years old (39.25%), followed by firms aged 5-10 years (28.97%), the 10-15 years (17.75%) and companies more than 15 years old (14.03%).

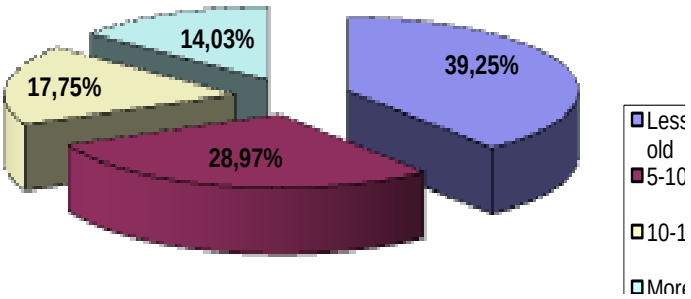

Figure 1. Sample structure by age
Source: own research

Distribution of companies by development regions is as follows: South West - 12.14%, Bucharest - 28.98%, North East - 4.67%, North West - 12.14%, South East - 5.60%, Western region - 14.96%, Central Region - 13.10% and South - 8.41%.

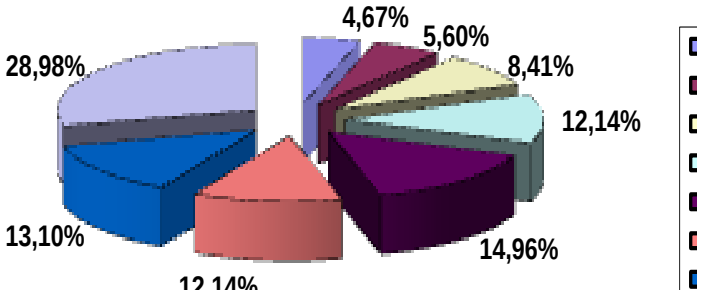

Figure 2. Sample structure by development regions
Source: own research

By size class, micro companies formed 21.5% of all companies surveyed, the small ones share of 34.58%, medium-sized companies have a rate of 33.64% and 10.28% are large companies.

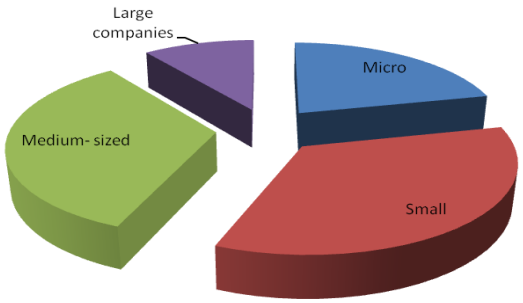

Figure 3 Sample structure by size of surveyed companies
Source: own research

Regarding legal form, 47.66% of companies are limited liability companies, 49.53% are joint stock companies and only 2.81% have other legal forms.

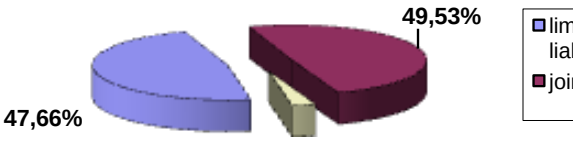

Figure 4 Sample structure by legal form
Source: own research

By industry, sample structure is the following: 19.63% of companies operates in trade, 21.98% are from services, 28.04% are manufacturing companies, active in construction 1.86%, 2 , 81% are 5.61% in transport and tourism operates.

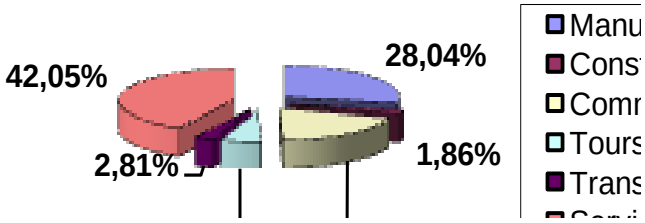

Figure 5 Sample structure by industry
Source: own research

By ownership, all companies using elements of knowledge based management are private.

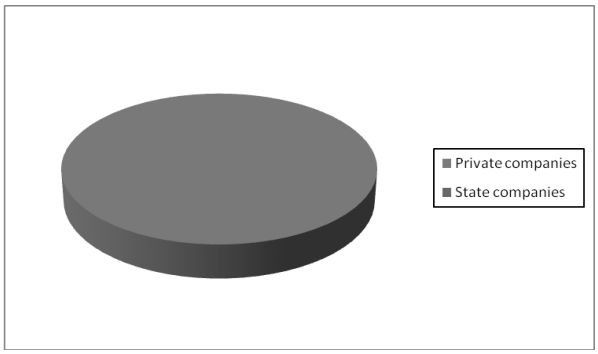

Figure 6 Sample structure by ownership
Source: own research

2.2 Survey results

This area of research aimed at identifying the attitudes, problems and benefits arising from using knowledge based management in companies.

Thus, among the main incentives for introducing knowledge based management practices in companies the surveyed managers put into focus the desire to increase efficiency and effectiveness of the company (39.25%), consulting firms requirements (32.71%), transfer of managerial know-how from partners (15.89%) or that all other management systems failed to deliver expected results (12.15%).

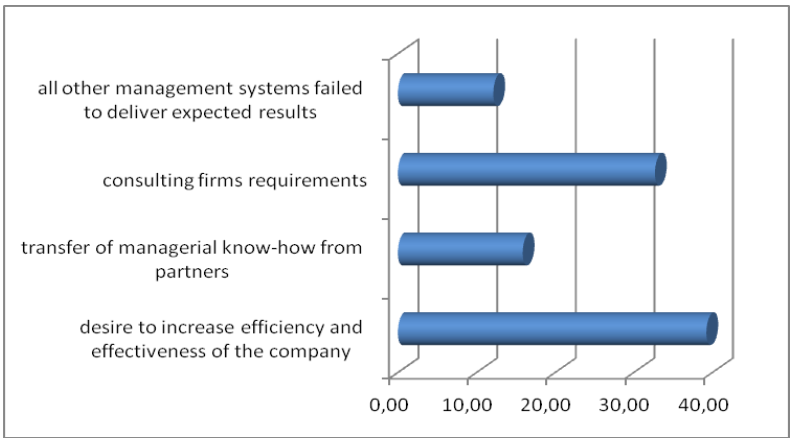

Figure 7 Incentives for KM implementation
Source: own research

In terms of senior management's attitude towards knowledge based management, respondents in 36.45% of the cases said that they consider important and provides full support, for 28.04% is considered important but hardly supports its use, 24 , 30% supported it initially but lost interest, while for 11.21% is regarded as unimportant.

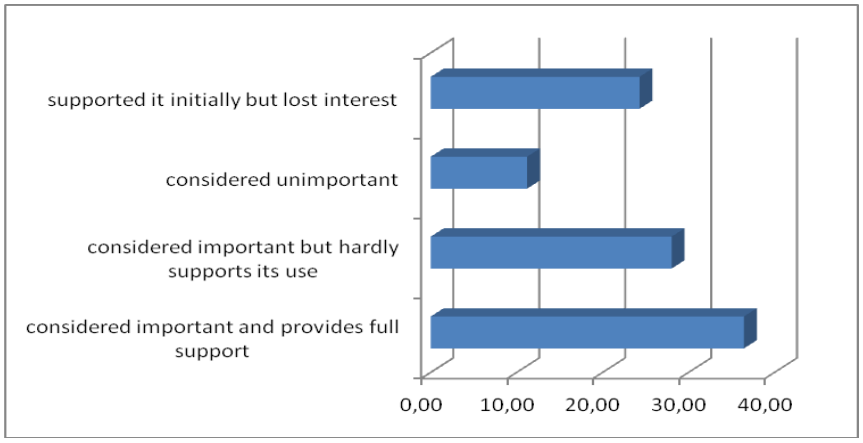

Figure 8 Managers' attitude toward KM
Source: own research

For employees, the same question received opposite responses meaning that only 22.43% of them consider KM important and provides full support. For 28.97% is considered important but difficult to engage, 27.1% consider it important while 21.5% do not consider important.

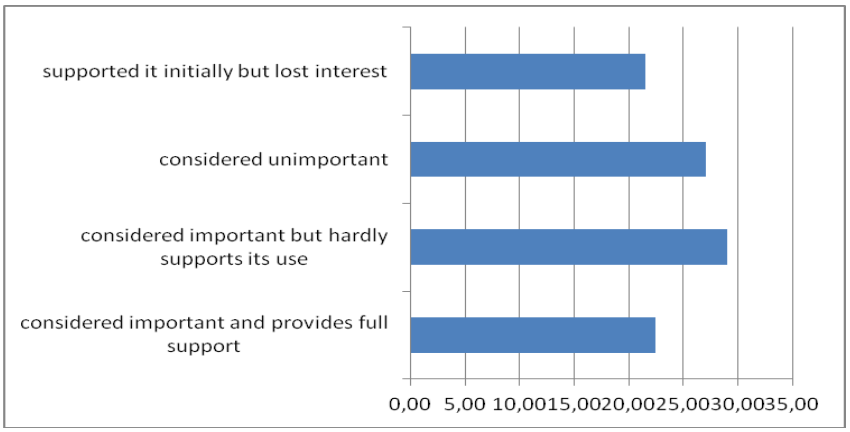

Figure 9 Employees' attitude toward KM
Source: own research

Another area of analysis addressed the problems and advantages of implementing knowledge management in the surveyed companies.

Among category of problems, the most acute was attracting specialists (18.69%) and limited resources to justify the owners (15.89%), while the least important was the lack of top management commitment (4.67%).

Table 1 Problems of KM implementation

No.	Problems of KM implementation	Percentage (%)
1	Lack of KM understanding and its implementation benefits by employees	10,28
2	Difficulty in attracting specialists	18,69
3	High operating costs, especially the IT component	14,02
4	The loss of critical knowledge when key employees leave organization	10,28
5	Scarce transfer of knowledge within the organization	12,15
6	Unfavorable organizational culture	8,41
7	Justification for use of scarce resources	15,89
8	Lack of senior management commitment	4,67
9	Attracting and retaining talented people	5,61

Source: own research

As advantages, managers stated that implementation of knowledge based management has improved the competitive advantage of the company (18.69%) or that increased revenue (14.02%), while the less obvious advantage was improvement of intellectual property rights management.

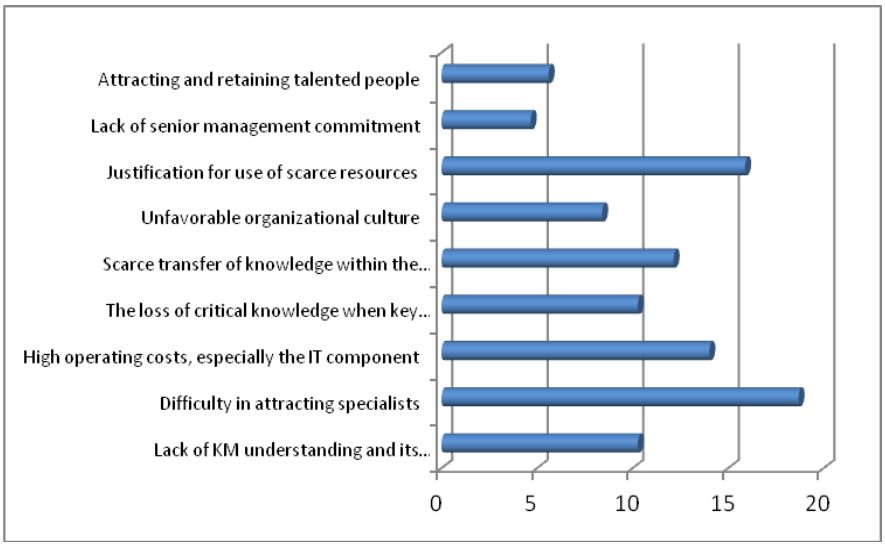

Figure 10 Problems in KM implementation
Source: own research

Table 2 Main advantages of KM use

No.	Main advantages of KM use	Percentage (%)
1	Improvement of competitive advantage	18,69
2	Customer loyalty	8,41
3	Enhancing innovation	16,82
4	Employees' development	3,74
5	Costs reduction	9,35
6	Revenue growth	14,02
7	Better decision making	4,67
8	Improvement of Intellectual Property Rights management	1,87
9	Faster response to key business issues	11,21
10	Improving the quality of products / services	9,35
11	Improved management of documents	1,87

Source: own research

As for the future activities, managers said they will focus on developing networking with suppliers and generators of knowledge (24.30%), to develop networking with customers and users of company products or services (21.50%), while innovational side - introducing new processes or developing new products or knowledge-based services are among the least concerned future activities.

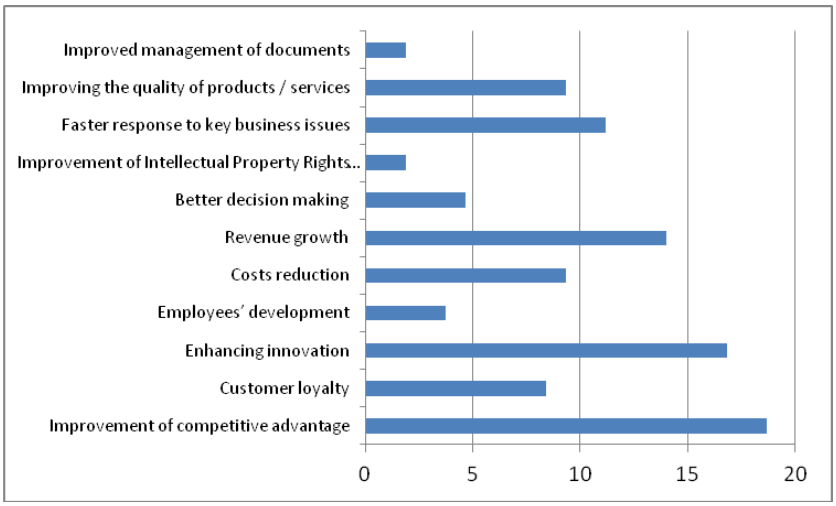

Figure 11 Main advantages of KM use
Source: own research

Table 3 Future activities focus

No.	Future activities focus	Percentage (%)
1	Developing knowledge based strategies and policies	10,28
2	Developing networking with suppliers / generators of knowledge	24,30
3	Development of networking with customers and users	21,50
4	New knowledge based products / services	5,61
5	Introducing new technological processes	4,67
6	Staff training	19,63
7	Implementation of knowledge based methods and techniques	12,15
8	Others	1,87

Source: own research

Another issue analyzed was the perception of knowledge based management use in Romanian companies. Interviewed in the assessment or, conversely, regret to implement elements of knowledge based management in their companies, most respondents said they appreciate it(90.65%), while only 4.67% said they regret their choice.

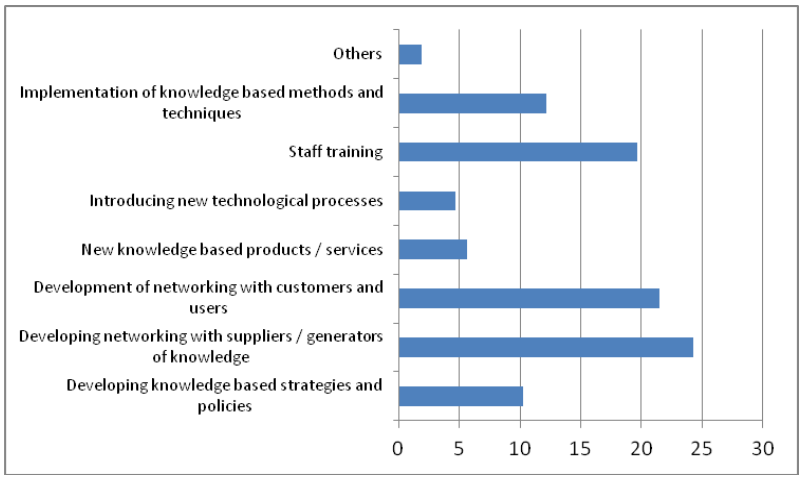

Figure 12 Focus on future activities
Source: own research

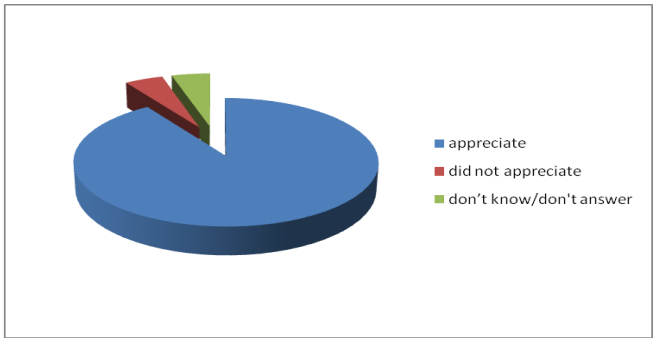

Figure 13 Perception of KM use in surveyed companies
Source: own research

Conclusions

- Among the main incentives for introducing knowledge based management practices in companies the surveyed managers put into focus the desire to increase efficiency and effectiveness of the company (39.25%), consulting firms requirements (32.71%), transfer of managerial know-how from partners (15.89%) or that all other management systems failed to deliver expected results (12.15%).
- In terms of senior management's attitude towards knowledge based management, respondents in 36.45% of the cases said that they consider important and provides full support, for 28.04% is considered important but hardly supports its use, 24, 30% supported it initially but lost interest, while for 11.21% is regarded as unimportant.

- For employees, the same question received opposite responses meaning that only 22.43% of them consider KM important and provides full support. For 28.97% is considered important but difficult to engage, 27.1% consider it important while 21.5% do not consider important.
- Among category of KM implementation' problems, the most acute was attracting specialists (18.69%) and limited resources to justify the owners (15.89%), while the least important was the lack of top management commitment (4.67%).
- As advantages of KM implementation, managers stated that implementation of knowledge based management has improved the competitive advantage of the company (18.69%) or that increased revenue (14.02%), while the less obvious advantage was improvement of intellectual property rights management.
- Regarding future activities focus, managers said they will focus on developing networking with suppliers and generators of knowledge (24.30%), to develop networking with customers and users of company products or services (21.50%), while innovational side - introducing new processes or developing new products or knowledge-based services are among the least concerned future activities.
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