

INFLUENCE OF CLIENT RELATIONS ON THE VALUE OF COMPANY INTELLECTUAL CAPITAL

NICOLETA RADNEANTU, CRISTIAN BANACU *

ABSTRACT: *Since the last decades of the twentieth century, we can see a major transformation of human society as a whole, manifested by both socially and economically changes, which practically led to the emergence of a new reality - knowledge-based society. We cannot talk about a "capitalisation model of intangible assets in the context of the knowledge society" as long as knowledge, intellectual capital, customer relations, relationships with suppliers, alliances, partnerships, etc., - elements that contribute most the market value of companies - are not properly recognized, measured, recorded and reported. Therefore, in this paper we have treated the issue of intangible assets in the context of the knowledge society, insisting on: managers' perceptions of knowledge-based organizations and companies in the Top 100 by market capitalization, listed on the Bucharest Stock Exchange (BVB) on customer relations.*

KEY WORDS: *intangible assets, knowledge based organizations, Top 100 organizations, human capital, Paired-Samples T Test.*

JEL CLASSIFICATION: *M21; M41.*

1. INTRODUCTION

The main idea this paper starts from is the one of change, human evolution, which led to reaching a necessary and sufficient level of knowledge for creating the premises of the transition from industrial society to a new economic and social reality – knowledge-based society.

In order to begin this research, we first asked ourselves if Romania can be considered a knowledge-based society. This premise can be proven with the help of KAM methodology (Knowledge Assessment Methodology), conceived by the World

* *Assist. Prof., Ph.D., Romanian-American University, Bucharest, Romania,*
nicoleta.radneantu@yahoo.com

Prof., Ph.D., Academy of Economic Studies, Bucharest, Romania,
cristian.banacu@gmail.com

Bank. Thus, in KAM 2009 [12] ranking, Romania was on 47th place and in 2012 on 44th place of 146 countries, being found in the first half of the ranking next to countries such as Sweden, Finland, Denmark, Germany, England, Latvia, Lithuania, etc. Therefore, there is a knowledge-based society in Romania, with a relatively low level of development. In order to become a knowledge-based society in the real sense, Romanian society must stimulate the knowledge-based fields of activity, to focus on innovation, to stimulate the use of new informational technologies, to encourage the growth of population's education level and lifelong learning, to support knowledge-based organizations through economic and social measures (Table no. 1).

Table 1. KAM 2012

Rank		Country	Missing Data	KEI	KI	Economic Incentive Regime	Innovation	Education	ICT
1	0	Sweden		9.43	9.38	9.58	9.74	8.92	9.49
2	+6	Finland		9.33	9.22	9.65	9.66	8.77	9.22
3	0	Denmark	X	9.16	9.00	9.63	9.49	8.63	8.88
4	-2	Netherlands		9.11	9.22	8.79	9.46	8.75	9.45
5	+2	Norway		9.11	8.99	9.47	9.01	9.43	8.53
6	+3	New Zealand		8.97	8.93	9.09	8.66	9.81	8.30
10	-5	Switzerland	X	8.87	8.65	9.54	9.86	6.90	9.20
44	+9	Romania		6.82	6.63	7.39	6.14	7.55	6.19
146	-16	Haiti	X	n/a	n/a	1.85	1.66	n/a	2.36

Source: http://info.worldbank.org/etools/kam2/KAM_page5.asp

Issues specific to knowledge-based society and afferent organizations (knowledge-based organizations) are topical and important under the conditions of leaving their impression on all fields of activity (economic, social, politic, etc.). Accounting is not left outside this phenomenon, the more as **knowledge** – central element of the new type of society / economy / organization – are intangible assets whose importance can no longer be ignored.

Over time, on international level numerous definitions, classifications and assessment methods have been given to intangible assets (e.g.: Brooking, 1998 [2], Reilly & Schweihs [9], 1998, Sveiby, 1997 [11,10], Mar, 2008 [5,6], etc.), but until present moment none of them have been adopted by the international accounting regulation entities, probably due to the differences between activity sectors where the trading companies activate, but also social, economic and cultural differences between the countries where the organizations perform activities, in one word due to the uniqueness of their characteristics, comparison difficulties and lack of an active market associated to them.

Synthesizing the opinions expressed in international economic literature, we identified a common core of elements that define the intangible assets highlighted on

international level, composed of: knowledge and skills of human capital, employees' professional skills, professional experience, employees' loyalty, employees' creativity, employees' satisfaction, employees' education, alliances, partnerships, trading marks, copyright, organization's reputation, company image, organizational culture, concessions, patents, licenses, relations with suppliers, relations with customers, customers' loyalty (Table no. 2).

Table 2. Examples of intangible assets (internationally research)

Researchers	Intangibles
Brooking (1991) [2]	Customers and their loyalty, distribution channels, know-how, commerce secrets, employees' experience, creativity, capacity of manage the problems, managerial and administrative abilities, management, organizational culture, etc.
Sveiby (1997) [10,11]	brand, reputation, seniority, employees' education, organizational culture, relations with suppliers, relations with customers, etc.
Reilly, Schweih (1998) [9]	Commercial agreements, lists of customers, distribution channels, employment contracts, management contracts, contracts with customers, supply agreements, skilled labour force, goodwill, copyrights, patents, patents, etc
Marr (2008) [5,6]	competence, qualifications and intellectual agility of employees, processes, systems, structures, trademarks, intellectual property, relationships / connections with brokers, customers, employees, suppliers, alliances, interest groups, lenders, investors, patents, goodwill, patents, software , etc.
Adams (2010) [1]	knowledge, skills, experience, attitude, age and skills of employees, relationships with customers, business partners (e.g. providers of support services), brands (such as customers see the products) and reputation (as stakeholders see company), culture and organizational knowledge, intellectual property, etc.

Note: there have been bolded the similar elements

Unfortunately, on national level there is no such emphasized preoccupation related to the definition and recognition of intangible assets. Current legislation in force includes: OMF no. 3055/2009, IAS 38 – Intangible Assets, IFRS 3 – Business combinations and GN 4 – Evaluation of intangible assets, however not solving the problem of these elements.

In this context, we proposed to determine which are the most important elements for the assessment of customers' relations with the help of a comparative study (with the help of the answers received as a result of sending a questionnaire) regarding the perceptions of managers of knowledge-based organizations and Top 100 companies, listed on the BVB (Bucharest Stock Exchange).

2. THE PURPOSE AND OBJECTIVES OF THE RESEARCH

The purpose of research is to highlight the importance of intangible assets for both knowledge-based organizations, as well as the Top 100 BSE. The research

objectives are: 1. to determine the stage of development of knowledge-based organizations in Romania 2. to make a comparison between knowledge-based companies and companies in the Top 100 on their characteristics (field, number of employees, type of capital, turnover, total assets, degree of innovation, information system); 3. to determine the influence of non-financial indicators (age, customer structure by turnover (CA), the percentage of new customers, the percentage of large customers) the relationship with customers

3. RESEARCH METHODOLOGY

3.1. Definition of the analyzed populations

To achieve our aims we used two samples: (1) Top 100 most active organizations listed on the Bucharest Stock Exchange - which we will call, in short, Top 100 organizations/organizations and (2) knowledge-based organizations listed on the Bucharest Stock Exchange – BSE (Table 3).

Table 3. Analyzed populations

Knowledge-based organizations	Top 100 Organizations
- Sveiby (1989): a knowledge-based company is a creative organization that sells know-how, with a non-standardized productivity, with a high ability to solve problems, dependent on personnel.[5]	- A list of the most active organizations listed on BSE [1]
- 26 knowledge-based organizations listed on BSE	- 68 organizations
- The populations are independent	

Source: made by authors

3.2. Processing received results

After receiving the answers I coded the data and constituted the individuals – variables tables for processing the data and performing subsequent analysis.

The data have been analyzed with the help of SPSS 17 (Statistical Package for the Social Sciences) program. SPSS is one of the most used software products in the world within market research, investigations, direct marketing, academic field, administrative research, in human resources analysis and their planning, in medical, scientific, clinical, social, prediction research, quality optimization, reporting and making decisions, developing analytical organizations on organizational level, etc.

The next stage was the introduction of the data in a SPSS file. Each question of the questionnaire with single choice was constituted in one variable in the file. In the case of multiple choice questions one variable for each version was built. Omissions and mistakes have been considered non-answers.

3.3. Used statistical – mathematical instrumentation

In this study, besides the calculation of averages, dispersions, representativeness errors, to increase the relevance and correctness of resulted conclusions, we used the T Test for dependent samples (Paired Samples Test).

In the case of this study representativeness of samples cannot be analyzed as populations have not been randomly chosen.

4. DATA ANALYSIS AND RESULTS INTERPRETATION

4.1. Activity fields of the analyzed organizations.

Knowledge based organizations managers had declared the following activity fields:

- 61.9% architectural and engineering activities, technical testing and analysis;
- 42.9% research and development activities;
- 9.5% production activities, video and television programs;
- 4.8% information technology service activities;
- 4.8% ITC.

Top 100 managers had declared the following activity fields::

- 59.6% manufacturing;
- 19.2% financial and insurance;
- 5.8% wholesale and retail trade;
- 3.8% mining and quarrying;
- 3.8% construction;
- 1.9% hotels and restaurants;
- 1.9% of professional scientific and technical activities,
- 4.8% other fields.

In Table 4 I synthesized the data regarding the classification of analyzed companies according to the Emergency Governmental Ordinance 27 / 2006 [7].

Table 4. Classification of analyzed companies according to 27/2006

ORGANIZATION TYPE	TOP 100 ORGANISATIONS		KNOWLEDGE BASED ORGANIZATIONS	
	Number	%	Number	%
microenterprises	0	0 %	3	14.29 %
Small enterprises	1	1.92 %	9	42.86 %
Medium enterprises	20	38.47 %	7	33.33 %
large enterprises	17	32.69 %	1	4.76 %
Very large enterprises	14	26.92 %	1	4.76 %
Total	52	100 %	21	100 %

Most companies in Top 100 are large (32.69%) and middle (38.47%) enterprises, while in the case of knowledge-based organizations small enterprises

predominate (42.86%). This demonstrates that the development level of knowledge-based organization in Romania is still incipient.

4.2. Determining the influence of certain non-financial indicators (seniority, customers structure according to turnover (CA), new customers percentage, large customers percentage) on customers relations

In order to set a hierarchy of the importance of criteria within each type of societies, I analyzed the significance of the difference between the average score obtained by each criteria. As regarding observations pairs the Student test is used for dependent samples – Paired-Samples T Test (Table 5).

Table 5. Paired Samples Test

			Paired Differences					t	df	Sig. (2-tailed)
						95% Confidence Interval of the Difference				
			Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
TOP 100 ORGANISATIONS	Pair 1	length of relationships with customers - customer structure after turnover	.543	2.492	.367	-.197	1.283	1.479	45	.146
	Pair 2	length of relationships with customers - percentage of large customers	-.196	2.177	.321	-.842	.451	-.610	45	.545
	Pair 3	length of relationships with customers - percentage of new customers	-.348	2.193	.323	-.999	.303	-1.076	45	.288
	Pair 4	customer structure - percentage of large customers	-1.043	1.563	.230	-1.508	-.579	-4.528	45	.000
	Pair 5	customer structure - percentage of new customers	-1.000	2.098	.309	-1.623	-.377	-3.233	45	.002
	Pair 6	percentage of large customers - percentage of new customers	-.042	1.738	.251	-.546	.463	-.166	47	.869
KNOWLEDGE BASED	Pair 1	length of relationships with customers - customer structure	.762	1.578	.344	.044	1.480	2.212	20	.039
	Pair 2	length of relationships	.800	1.704	.381	.002	1.598	2.099	19	.049

		with customers - - percentage of large customers								
	Pair 3	length of relationships with customers - percentage of new customers	1.000	1.414	.309	.356	1.644	3.240	20	.004
	Pair 4	customer structure - percentage of large customers	.100	1.944	.435	-.810	1.010	.230	19	.821
	Pair 5	customer structure - percentage of new customers	.238	1.998	.436	-.671	1.147	.546	20	.591
	Pair 6	percentage of large customers - percentage of new customers	.150	1.843	.412	-.713	1.013	.364	19	.720

a. Knowledge-based organizations

In order to compare the criteria seniority of customers relations – customers structure according to turnover, length of customers relations – large customers percentage, seniority of customers relations – new customers percentage, customers structure according to turnover – large customers percentage, customers structure according to turnover – new customers percentage, large customers percentage – new customers percentage the following hypothesis are obtained (Table no. 6):

- $H_0: X_{\text{length}} \leq X_{\text{structure}}$ and $H_1: X_{\text{length}} > X_{\text{structure}}$
- $H_0: X_{\text{length}} \leq X_{\text{large customers}}$ and $H_1: X_{\text{length}} > X_{\text{large customers}}$
- $H_0: X_{\text{seniority}} \leq X_{\text{new customers}}$ and $H_1: X_{\text{length}} > X_{\text{new customers}}$
- $H_0: X_{\text{structure}} \leq X_{\text{new customers}}$ and $H_1: X_{\text{structure}} > X_{\text{new customers}}$
- $H_0: X_{\text{structure}} \leq X_{\text{large customers}}$ and $H_1: X_{\text{structure}} > X_{\text{large customers}}$
- $H_0: X_{\text{large customers}} \leq X_{\text{new customers}}$ and $H_1: X_{\text{large customers}} > X_{\text{new customers}}$

Table 6. Descriptive statistics (Paired Samples Statistics)

Knowledge based organizations			Mean	N	Std. Deviation	Std. Error Mean
no	Pair 1	Importance in assessing the relationship with customers - length of the relationships with customers	8.11	46	1.829	.270
		Importance in assessing the relationship with customers - structure after turnover	7.57	46	1.455	.215
	Pair 2	Importance in assessing the relationship with customers - length relationships with customers	8.24	46	1.580	.233
		Importance in assessing the relationship with customers - percentage of large customers	8.43	46	1.344	.198
	Pair 3	Importance in assessing the relationship with customers - length of the relationships with	8.13	46	1.628	.240

		customers				
		Importance in assessing the relationship with customers - percentage of new customers	8.48	46	1.487	.219
	Pair 4	Importance in assessing the relationship with customers - structure after turnover	7.50	46	1.426	.210
		Importance in assessing the relationship with customers - percentage of large customers	8.54	46	1.260	.186
	Pair 5	Importance in assessing the relationship with customers - structure after turnover	7.52	46	1.441	.213
		Importance in assessing the relationship with customers - percentage of new customers	8.52	46	1.502	.221
	Pair 6	Importance in assessing the relationship with customers - percentage of large customers	8.40	48	1.425	.206
		Importance in assessing the relationship with customers - percentage of new customers	8.44	48	1.556	.225
yes	Pair 1	Importance in assessing the relationship with customers - length of the relationships with customers	9.38	21	.740	.161
		Importance in assessing the relationship with customers - structure after turnover	8.62	21	1.359	.297
	Pair 2	Importance in assessing the relationship with customers - length of the relationships with customers	9.35	20	.745	.167
		Importance in assessing the relationship with customers - percentage of large customers	8.55	20	1.468	.328
	Pair 3	Importance in assessing the relationship with customers - length of the relationships with customers	9.38	21	.740	.161
		Importance in assessing the relationship with customers - percentage of new customers	8.38	21	1.322	.288
	Pair 4	Importance in assessing the relationship with customers - structure after turnover	8.65	20	1.387	.310
		Importance in assessing the relationship with customers - percentage of large customers	8.55	20	1.468	.328
	Pair 5	Importance in assessing the relationship with customers - structure after turnover	8.62	21	1.359	.297
		Importance in assessing the relationship with customers - percentage of new customers	8.38	21	1.322	.288
	Pair 6	Importance in assessing the relationship with customers - percentage of large customers	8.55	20	1.468	.328
		Importance in assessing the relationship with customers - percentage of new customers	8.40	20	1.353	.303

Analyzing the pairs: seniority of customers relations – customers structure according to turnover, seniority of customers relations – large customers percentage, seniority of customers relations – new customers percentage, we can observe that the calculated value of T test ($t_c = 2,414$, $t_c = 2,243$, $t_c = 3,355$) is greater than the theoretical value $t_{df21-1, \alpha} = 1,71$, which leads us to accept the alternative hypothesis. And in the case of pairs the customers structure according to turnover – large customers percentage, customers structure according to turnover – new customers percentage, large customers percentage – new customers percentage the calculated

value ($t_c = 0,230$, $t_c = 0,546$, $t_c = 0,364$) is smaller than the theoretical value, therefore we can say that the null hypothesis is accepted.

As a conclusion we can say that the most important criteria in assessing clientele is the seniority of customers relations, and the relation between the four criteria is:

length	>	New customers percentage	>	Large customers percentage	>	Structure
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b. Top 100 organisations

The hypotheses are:

- $H_0: X_{\text{length}} \leq X_{\text{structure}}$ and $H_1: X_{\text{length}} > X_{\text{structure}}$
- $H_0: X_{\text{length}} \geq X_{\text{large customers}}$ and $H_1: X_{\text{length}} < X_{\text{large customers}}$
- $H_0: X_{\text{seniority}} \geq X_{\text{new customers}}$ and $H_1: X_{\text{length}} < X_{\text{new customers}}$
- $H_0: X_{\text{structure}} \geq X_{\text{new customers}}$ and $H_1: X_{\text{structure}} < X_{\text{new customers}}$
- $H_0: X_{\text{structure}} \geq X_{\text{large customers}}$ and $H_1: X_{\text{structure}} < X_{\text{large customers}}$
- $H_0: X_{\text{large customers}} \leq X_{\text{new customers}}$ and $H_1: X_{\text{large customers}} > X_{\text{new customers}}$

In the case of criteria pairs, seniority of customers relations – customers structure according to turnover, the calculated value ($t_c = 1,479$) is smaller than the theoretical value $t_{df82-1,\alpha} = 1,67$, in the case of seniority of customers relations – new customers percentage, large customers percentage – new customers percentage, the calculated value ($t_c = 1,076$, $t_c = 0,166$) is greater than the theoretical value $t_{df82-1,\alpha} = -1,67$, which leads us to accepting the null hypothesis. And in the case of pairs: seniority of customers relations – large customers percentage, customers structure according to turnover – large customers percentage, customers structure according to turnover – new customers percentage, the calculated value ($t_c = -0,612$, $t_c = -4,528$, $t_c = -3,233$) $< t_{df82-1,\alpha} = -1,67$, leads us to accepting the alternative hypothesis.

In the case of Top 100 companies the most important element for evaluating the clientele is the new customer’s percentage, and the relation between the four criteria is the following:

length	<	Structure	<	Large customers percentage	<	New customers percentage
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5. CONCLUSIONS

The repercussions of the economic crisis are topical given that they leave their mark on all fields of activity (economic, social, political, etc.). But we cannot speak of a stimulation of companies' activity, as long as the knowledge, intellectual capital, customers relations, suppliers relations, alliances, partnerships, etc., that is, intangible assets which contribute most to the company’s market value – are not properly accounting recognized, assessed, registered and reported. Thus, using statistical tests such as Paired-Samples T Test I could analyze the influence of quantifiable or unquantifiable variables (seniority, customers structure according to turnover (CA), new customers percentage) on an intangible element – customers relations.

As a result of the performed analysis we can say with a probability of 95% that the most important criteria for evaluating the customers relations is seniority within knowledge-based organizations, however, within Top 100 companies the most important criterion for evaluating the intellectual capital is the new customers percentage. The criterion which is given the smallest importance within knowledge-based organizations is customers' structure according to turnover, and within Top 100 companies is length.

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