

INTELLECTUAL CAPITAL STATEMENT (ICS) AS A METHOD OF A MEASUREMENT AND MANAGEMENT OF KNOWLEDGE ASSETS

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Abstract: The article describes empirical verification of an interesting model – IC Statement (ICS). ICS is an example of a method which emphasizes the European contribution into the developing trend of intellectual capital (IC) measure and evaluation, with particular attention paid to the SME sector (a strong presence of Scandinavian countries and the USA is noticeable here). ICS is presented here as a tool enabling us to manage and evaluate IC of a company and to demonstrate the dynamics of its changes. The article contains a case study of a company operating in the construction sector in Poland. It also provides a critical analysis of strengths and weaknesses of the model. Therefore it is worth considering whether the ICS model stands a chance of becoming a commonly accepted method of evaluating and measuring IC in small and medium enterprises (Polish experiences in this scope). The survey is practical, but it also offers the presentation of theoretical foundations concerning the concept of IC. Important part of this analysis is the definition of IC elements and their evaluation within the QQS approach (quality, quantity and systematic management) included in this article. The analysis of IC finishes with the presentation of the fields of intervention (IC management portfolio), a tool which is particularly useful for company managers. The presented results may be of interest to other companies, internal and external stakeholders seeking information on what IC is, what its elements are, how to identify particular categories of IC, how to measure it, how to present IC inside the company, how to manage it to increase company value, how to identify IC elements and competitive position in a particular company, where to seek information on size and quality of IC, how much the company depends on a particular element of IC.

Keywords: intellectual capital, measurement, intellectual capital statement, ICS, construction company, case study, Poland

1. IC – theoretical background

The concept of IC emerged on the basis of the resource based view of a firm, which had been developed in the 1980s thanks to Wenernefelt (Wernerfert, 1984: 171-180). Specific resources associated with a given enterprise were described also by Chamberlin (Chamberlin, 1933; Clulow, Gerstman, Barry, 2003: 220-232). The authors of this work studied the impact of the diversity of owned resources on the competition and profit acquisition. Significant contribution to this theory is also attributed to Penrose (Penrose, 1959). The author focused in her work on the means of development of a given enterprise and to what extent it is established through employment of possessed resources. Significant contribution should also be attributed to the following authors: Barney (Barney, 1991: 99-120), Amit, and Schoemaker (Amit, Schoemaker, 1993: 33-45), or Peteraf (Peteraf, 1993: 179-191). Additionally this particular approach had been employed in terms of researching the enterprise strategy. In this particular case it involved focusing on accumulation of skills and resources, which enable the creation of economic profit on the market (Barney, 1986: 1231-1241).

According to Barney (Barney, 1991) a given enterprise may achieve competitive advantage only then, when it implements a strategy, which generates a value. This is conditioned by the fact, that this advantage will not be implemented and acquired by any other competitor on the market. The

accomplishment of a permanent competitive advantage is possible thanks to the possession of key resources as well as its effective development. This development may be achieved, for example by applying a unique component synthesis (contribution of skills and resources). Permanent competitive advantage has also been presented in the works of Rumelt (Rumelt, 1984; Lockett, 2005). The author of this elaboration presents an analysis of internal differences in terms of economic results obtained by a given enterprise, and subsequently strive to find out why certain enterprises function better than others.

1.1 Problems concerning the definition of IC and with components that are associated with IC

Intangible source of value is generated thanks to innovation, unique organizational project, or as management of human resources (Lev, 2001: 7). In theory, as well as human resource practice, a man is perceived as a priority, and simultaneously is the most important source of enterprise success. However, when we consider the concept of IC the intangible and tangible resources complement each other. It is this complementarity, which provides us with the sources of added value or competitive advantage. Having said that Ulrich proposal (Ulrich, 1998: 15-26), which is based exclusively on the human capital seems rather incomplete. In his promising formula, Ulrich did not present situational and structural conditions, that have an ultimate impact on the shape of IC.

Meanwhile in Edvinsson and Malone approach (Edvinsson, Malone, 1997a, 1997b, 2001) the IC is defined as knowledge, practical experience, various technologies, good relations with clients as well as broad skills, which enable the company to achieve competitive advantage. Similar definition of IC has been elaborated by Wiig (Wigg, 1997: 18). The author states that IC comprises assets that have been generated due to intellectual activity, which encompass the acquisition of new knowledge (learning), creativity, as well as, establishing valuable relations with other people. Each of the definitions mentioned above, clearly emphasizes the significance of knowledge, which is inseparably linked with people. This also includes good relations, which can be considered as source of loyalty towards clients. Meanwhile Stewart (Stewart, 2003) treats IC as broadly comprehended knowledge, information, intellectual property, experience, which may be utilized in the establishment of the enterprise value. This does not mean, in any way, that IC should be identified with knowledge. In that sense knowledge is a "raw material", that is used to create IC.

Perception of IC as a sum of knowledge possessed by participants seems to be ambiguous (Bratnicki, 2000: 101). If we take into account the fact, that on one hand knowledge is devaluated through time (aging), and on the other hand, as a result of learning, there is a considerable increase in knowledge, than the sum of knowledge may be referred to only such knowledge, which has been revealed (explicit knowledge). In the second situation tacit knowledge (for example passed on experience, advice given, or remark) will not constitute the sum of knowledge of participants, which belong to a certain group. We should also consider the synergy effect. Similar to other systems, the results of activity of "collective mind" exceed the sum of results of individual components of that system, in this particular case the sum of knowledge of individual members of the enterprise community (Nęcka, 2005: 23,152).

It may appear that both theories: IC concept, and resourced based view of a firm clearly present common ideas. The main issue involves the interpretational difficulty of IC, as well as intangible resources (assets). In business practice, both terms function interchangeably. Enterprise resources are defined in a broad context, and include tangible and intangible means. Subsequently, intangible resources comprise of staff (employees knowledge), their qualifications and success motivation, as well as organizational culture, which is favorable for development, enterprise reputation, achievements that include ideas, inventions, innovations, as well as the efficiency of structures and procedures (Gierszewska, Romanowska, 2002: 140). The aforementioned components of intangible resources are also analyzed in terms of the components of IC. In addition, we are able to distinguish of a significant role of IC and intangible resources which are analyzed in similar fashion. The resource based view mentions the efficiency of organizational processes within the enterprise, but does not indicate the fact, that this theory also employs the existing IC.

1.2 Classification of IC and its components

Initially the IC comprised two components: information with knowledge capital, and structural capital. Information and knowledge capital possessed both formal and informal character (without structure). Consequently, structural capital served as a sort of acquisition mechanism, which goals were to

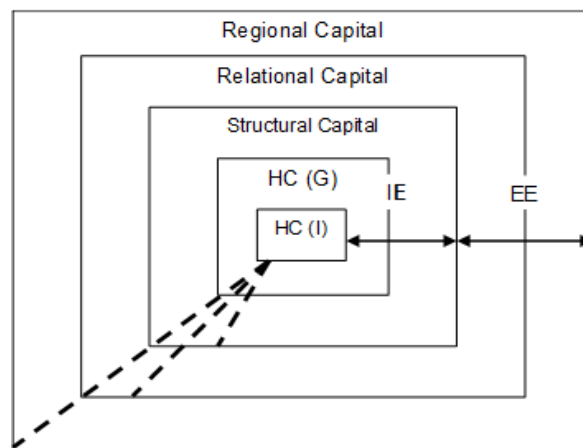
assemble, store and reacquire information in order to communicate this information in the form of processed data: knowledge. Subsequently, an idea was elaborated, which suggested to intensify and rationalize the transfer of information within an organization via network technology.

Organization intangible resources were identified with IC. This has been confirmed in a classification system devised under the supervision of Sveiby (Sveiby, 1997). Sveiby lists three components: employee competence (education, experience, skills, vitality and attitude towards organization), internal organization structure (patents, license, know-how, trademarks, culture, processes, administrative systems, information technology), and external organizational structure (image, trademark, relation with recipients). The aforementioned components are subsequently analyzed according to their growth, development, risk and efficiency.

On the basis of Sveiby principle, Edvinsson divided IC into two primary components – human capital and structural capital. This classification has been redeveloped and extended to customer capital in the value model, which was devised by Petrash and others (Petrash, 1997; Bukowitz, Williams, 2000: 222-223). Other concepts of IC constitute more or less the developed and refined versions of the value model. It appears that there is an emerging consensus in this field; particularly the classification of IC components into three categories: people, internal enterprise structure, and the external factors.

Quite different concept is proposed by Brooking (Brooking, 1996: 13). The author lists four categories: market assets – which comprise trademarks, services and the organization itself, clients and the level of their loyalty, contracts, distribution channels; intellectual property – includes knowledge and experience gained during the production process (know-how), trade secret, patents, copyrights, and trademarks. It should be noted, that intellectual property enables legal protection of the aforementioned components; human assets – focused on a group and team learning, creativity, problem solving skills, leadership, and entrepreneurship. Organizational assets – constitute technology and its various means of activity, which enable the functioning of organization. Compared with other authors, Brooking and Sullivan classifications (Sullivan, 2000: 18) differ due to the fact, that it distinguishes intellectual property. It should be pointed out, that according to Bontis (Bontis, 2002) intellectual property is not a part of IC. They are merely common, legally protected intangible assets.

The above mentioned differences are limited to terminology. Contemporary knowledge is identified with innovation, which was established as a result of interactive learning. Innovations are devised in teams or groups and not in isolation. Therefore it is noteworthy to present a division of human capital into individual capital and team capital (cf. Figure 1).



Legend:

HC (I) – human capital of an individual

HC (G) – human capital of a group

IE – internal environment

EE – external environment

--- knowledge flow

Figure 1: The components of IC

It appears, that human capital of a group is, to a greater extent, a platform of modern knowledge, ideas and problem solving skills, compared with individual capital. One of the main conditions, which diversifies the group and individual work efficiency, is the methodology of actions (i.e based on determined heuristics, and not on trial and error method), as well as consciousness and restriction of the negative impact, which impede full utilization of the team potential. It is quite obvious, that activities of a properly functioning team, cannot be simplified to a sum of behaviors of individual person. The following factors will enhance the synergy of a group: ludic attitude (good humor, games), acceptance, figurative speech (metaphors and analogies) or intellectual community, where knowledge, proposals are enhanced and may be developed.

Subsequently the internal structural capital is perceived herein as a certain type of infrastructure, which enables to efficiently utilize either individual or group potential. Meanwhile relational capital constitutes relations with clients, partners, cooperative associations (alliances, mutual undertakings), network ties as well as complementary assets such as: distribution channels, marketing, supplemental technologies, products, and functional production capabilities. One of the first scholars, who has presented and discussed both structural and relational capital, is Kay (Kay, 1993: 99-125), who utilized the term architecture. The author perceives architecture as a sort of distinguishable enterprise capability, which principal lies within the contractors' network. Consequently this principal includes: internal ties (between employees and company), external relations (between suppliers and clients) as well as within groups of enterprises that share mutual activity, and therefore establish network ties. A specific architecture for a given enterprise enables to obtain knowledge and ensures casual flow of information.

An additional supplement to the original classification distinguishes a new component of IC, namely the region capital (Ujwary-Gil, 2009: 40). This new component may be comprehended as intangible resource of a region, which enables development of environment, that in turn is favorable for establishing new knowledge (innovation) and its absorption. The region capital is composed of economic climate (level of region industrialization), access to qualified staff (their mobility), access to scientific and technical knowledge, entrepreneurship culture (dynamism), geographical proximity (localization), local authorities, technical infrastructure (communication systems and media information technology). Having said, that region capital is created as a result of establishment of networks targeted at learning, and the development of links between new partners on the market.

2. IC Statement of a Polish construction company

2.1 The main assumption of an InCaS project and ICS model

The ICS model has been established within the auspices of the ICS project during The European Union's 6th Framework Programme for Research and Technology Development in the years 2002-2006 (European ICS G., 2006). The following countries have been involved in the works of this project: France, Germany, Slovenia, Spain and Poland. Among the institutions, that had a leading role in this project, was the European Confederation of Associations of Small and Medium Sized Enterprises. Poland was represented by the Polish Confederation of Private Employers Lewiatan. Among the research institutions that have been involved in the project leading role was assigned to the Institute for Production Systems and Design Technology (Berlin). Two other institutions that should be mentioned here are the London School of Economics and Political Science (United Kingdom) as well as University of Catalonia (Spain). A total number of 25 enterprises from the 5 aforementioned countries have participated in this project.

Principle phases of ICS model operation are listed below (however it is not possible to present all of them in this manuscript):

- Definition of enterprise ICS model (defining a business company model).
- Definition of components of enterprise IC by grouping the components into three primary categories: human capital (HC), structural capital (SC), and relational capital (RC).
- QQS assessment (quantity, quality, and systematic management).
- Analysis of strengths, and weaknesses of enterprise IC components.
- Determining the weights of individual components of IC.
- IC Management Portfolio (fields of intervention).
- Identification of indicators of the IC factors.
- Elaboration of ICS final document

2.2. ICS of a company selected for the study

2.2.1 Defining the enterprise IC

HC usually pertains to competence, skills and employees' motivations. This definition combines all of the particular features, as well as professional skills, which an employee introduces to the organization, when he or she is hired by the company. It should be stressed, that the aforementioned skills belong to the employee, and when he leaves or is fired the company loses these skills. SC determines the structures that function within the enterprise as well as mechanisms, which are utilized by the employees when implementing business processes. SC remains the property of the company, whilst employee rotation has no effect on the resources of the SC. RC determines all types of company relations with external environment, such as: clients, suppliers, other business partners, and even the local community (cf. Table 1):

Table 1: Definition of IC for analyzed company

| | ID | IC Factors | Definition |
|--------------------|------|---------------------------------------|---|
| Human Capital | HC-1 | Professional competences | Experience and professional skills acquired during employee's career in the company or other job |
| | HC-2 | Sales competences | Competence, client service competence |
| | HC-3 | Management skills | The ability to manage and motivate employees, decision making skills, credibility, responsibility, delegation of authority |
| | HC-4 | Motivation | Clear salary system, identification of employees as part of the organization, conscious of company value construction, access to information, recognition by supervisors |
| | HC-5 | Loyalty | Employee conscious as to why they work in the company, affiliation with company, sacrifice |
| | HC-6 | Social competences | The ability to cooperate within a team or group, communication skills, trust, constructive discussions |
| Structural Capital | SC-1 | IT (software & hardware) | Company management systems, production programs, multi-language website, mailing systems, communication with clients, information about new products |
| | SC-2 | Management instruments | Clear salary system, clear organization structure, precise range of competence, rules and regulations, communication procedures |
| | SC-3 | Cooperation and transfer of knowledge | Mutual project preparation, transfer of information between departments, external/internal trainings, knowledge transfer among employees |
| | SC-4 | Product and processes innovation | Significant innovations for the company, product advisor, market analysis pertaining to competitiveness, procedures required in announcing of new products, solutions and markets |
| | SC-5 | Organizational structure | Hierarchy and structure of organizational units |
| Relational Capital | RC-1 | CRM | Individual clients, permanent clients (construction companies, developers), public clients (auctions) export |
| | RC-2 | Suppliers | Relations with decent suppliers which possess a confident trademark and position on the market |
| | RC-3 | Labour market | Acquiring of qualified employees (technical), access to labor market, competent employees |
| | RC-4 | Banks / investors | Relations with banks and investors |

2.2.2 QQS assessment

Previously defined components of IC have been initially assessed in terms of quantity, quality and systematic management employing a percentage scale, where 0 means "not sufficient", 30 "partially sufficient", 60 "usually sufficient" and 90 "always/absolutely sufficient". The members of the project committee assessed each of the factors in every category. Extremely divergent grades have been discussed in detail (cf. Table 2):

Table 2: Review of QQS

| IC | ID | IC Factors | Quantity (%) | Quality (%) | Systematic (%) | Mean value (%) | Improvement potential (%) |
|--------------------|------|---------------------------------------|--------------|-------------|----------------|----------------|---------------------------|
| Human Capital | HC-1 | Professional competences | 15 | 60 | 25 | 33 | 67 |
| | HC-2 | Sales competences | 30 | 40 | 15 | 28 | 72 |
| | HC-3 | Management skills | 60 | 60 | 20 | 47 | 53 |
| | HC-4 | Motivation | 50 | 30 | 30 | 37 | 63 |
| | HC-5 | Loyalty | 55 | 60 | 35 | 50 | 50 |
| | HC-6 | Social competences | | 75 | 60 | 68 | 33 |
| Structural Capital | SC-1 | IT (software & hardware) | 70 | 70 | 90 | 77 | 23 |
| | SC-2 | Management instruments | | 20 | 20 | 20 | 80 |
| | SC-3 | Cooperation and transfer of knowledge | 60 | 40 | 50 | 50 | 50 |
| | SC-4 | Product and processes innovation | 70 | 70 | 20 | 53 | 47 |
| | SC-5 | Organizational structure | | 70 | 80 | 75 | 25 |
| Relational Capital | RC-1 | CRM | 30 | 60 | 70 | 53 | 47 |
| | RC-2 | Suppliers | 90 | 90 | 90 | 90 | 10 |
| | RC-3 | Labour market | 30 | 60 | 25 | 38 | 62 |
| | RC-4 | Banks / investors | 90 | 90 | 90 | 90 | 10 |

The highest assessment in terms of quality were attributed to the following factors: social competence, loyalty, leadership, and employees' qualifications. It has been acknowledged that the quality of the aforementioned factors is sufficient for the accomplishing company's strategic goals. During the assessment it turned out, that the peculiar nature of social competence does not allow its assessment in terms of quantity measure. It should be emphasized at this point, that quality assessment has reached low levels only in case of the employee motivation. Based on the quantitative criterion best marks have been assigned to leadership. In this case higher quantitative assessment corresponds to qualitative assessment.

All factors received much lower marks in case of the systematic management criterion. Lowest assessment marks have been attributed to employee motivation and sales skills. We can therefore assume, that there is a number of IC factors that are not adequately utilized within the company. The company's potential is not systematically developed and supported. During the assessment members of the project committee have emphasized only the immediate concern for IC factors. It has been determined, that among the weaknesses of the company is the lack of regular activities in this matter; consequently they would lead to the establishment of processes or strict set of rules.

In case of SC the highest mark was assigned to software/computer hardware - this mark pertains to each of these three criteria. Both the quality and quantity have been assessed in the same degree. The members of the project committee stressed the fact, that accomplishment of a company strategy will require increased quantity of owned computer work stations and program licenses. This particular factor received the highest mark in terms of systematic improvement. Organizational structure of the company has also received high marks. According to the presented assessment organizational structure is well developed and clear, and reflects good relations within the company. It may be assumed, however, that organizational structure in few cases has been assessed through the prism of management tools. Low assessment of this particular factor was affected by the lack of management tools.

Systematic management has also received low marks, similar to product and innovation processes. The members of the project committee have claimed, that innovative products are not implemented systematically and there exists a lack of analysis in terms of competitiveness and trainings, which would support the implementation of new product. In regard to internal organization cooperation and knowledge transfer sufficient marks have been assigned to quality. It should be noted, that company employees quite frequently cooperate with each other (i.e. preparing projects for clients). However there is a clear lack of internal trainings, which would enable transfer of gained knowledge.

The RC has received highest assessment among three distinguished types of capital. Among one of the best perceived factors are relations between suppliers and banks. In the first case the company possesses permanent and experienced suppliers. In most cases they constitute large, stable and efficiently operating enterprises. Meanwhile in regard to relations with banks it should be pointed out, that the company mainly cooperates with a single bank, which treats the company as a credible partner. Slightly lower marks have been assigned to factors: qualified employees/labor market. The project team claimed, that the company has not enough qualified employees. It has also been emphasized, that due to the difficult situation on the labor market, the company should undertake more decisive actions targeted at employees' acquisition.

2.2.3 Impact assessment

The next step in the procedure of assessment and management of IC is the determination of weights for given components of IC. The project committee has designated the following ranks for individual components of IC (cf. Table 3):

Table 3: Impact assessment

| IC | □ | IC Factors | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Sum | Weight |
|--------------------|------|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|
| Human Capital | HC-1 | Professional competence | 15 | 9 | 6 | 7 | 3 | 12 | 12 | 14 | 13 | 15 | 14 | 11 | 131 | 9% |
| | HC-2 | Sales competences | 11 | 8 | 7 | 6 | 9 | 9 | 9 | 13 | 3 | 13 | 13 | 12 | 113 | 8% |
| | HC-3 | Management skills | 5 | 11 | 11 | 9 | 15 | 13 | 15 | 15 | 4 | 4 | 5 | 15 | 122 | 8% |
| | HC-4 | Motivation | 14 | 15 | 14 | 15 | 14 | 14 | 14 | 11 | 14 | 14 | 12 | 13 | 164 | 11% |
| | HC-5 | Loyalty | 10 | 12 | 2 | 5 | 10 | 7 | 2 | 4 | 7 | 3 | 3 | 7 | 72 | 5% |
| | HC-6 | Social competences | 9 | 10 | 10 | 11 | 11 | 8 | 7 | 3 | 5 | 12 | 4 | 8 | 98 | 7% |
| Structural Capital | SC-1 | IT (software & hardware) | 4 | 4 | 9 | 4 | 8 | 3 | 1 | 2 | 8 | 5 | 2 | 5 | 55 | 4% |
| | SC-2 | Management instruments | 13 | 14 | 15 | 13 | 12 | 15 | 13 | 12 | 15 | 8 | 15 | 14 | 159 | 11% |
| | SC-3 | Cooperation and transfer of knowledge | 8 | 7 | 13 | 14 | 4 | 10 | 10 | 8 | 10 | 7 | 11 | 6 | 108 | 8% |
| | SC-4 | Product and processes innovation | 6 | 3 | 8 | 8 | 13 | 6 | 4 | 10 | 6 | 6 | 10 | 4 | 84 | 6% |
| | SC-5 | Organizational structure | 7 | 13 | 12 | 12 | 5 | 11 | 11 | 9 | 11 | 9 | 9 | 9 | 118 | 8% |
| Relational Capital | RC-1 | CRM | 12 | 6 | 4 | 10 | 6 | 5 | 8 | 6 | 12 | 10 | 8 | 10 | 97 | 7% |
| | RC-2 | Suppliers | 3 | 2 | 3 | 3 | 2 | 4 | 6 | 5 | 2 | 2 | 7 | 2 | 41 | 3% |
| | RC-3 | Labour market | 2 | 5 | 5 | 2 | 7 | 2 | 5 | 7 | 9 | 11 | 6 | 3 | 64 | 4% |
| | RC-4 | Banks / investors | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 12 | 1% |
| | | | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 1438 | 100% |

This part of the analysis includes ranking of previously defined components of IC. The ranking procedure is performed by a special project committee. In the beginning it is decided which of the aforementioned IC factors possesses significant role, and to a large extent, contributes in accomplishment of outlined strategic goals. The highest rank is assigned to HC (48%), followed by SC (37%). According to the project committee the aforementioned types of capital possess greatest significance in terms of proper realization of business processes and therefore require greater work expenditure. RC was selected as one of the best functioning capital, and its weight was evaluated at 15%. RC factors received the lowest weight due to the fact, that they are already most appropriate. Based on the opinion of project committee maintaining these factors at established, and permanent levels, will guarantee the accomplishment of the company strategic goals. The highest rank was assigned to HC factor (employee motivation) and SC factor (management tools). It turns out, that RC factors were less important because, as has been indicated a number of times, they are one of the strengths of the enterprise. High rank measures were assigned to factors, which are associated with the internal organization of the company, and pertain to flow of information. According to the project committee the company lacks coordination of internal processes,

which prevent achieving business success.

2.2.4 IC Management Portfolio

One of the more interesting components of the ICS is the determination of the IC management portfolio, which indicates four fields of intervention: analysis, development, stabilization and no need for actions. In this case the mean QQS assessment attains the highest level and weighed measure attains relatively lowest level. Figure 2 shows, that the following factors require development: HC - employee motivation, employees qualifications, sale skills/soft skills, leadership; SC – management tools, inter-organizational cooperation, transfer of knowledge; RC – relations with clients/firms. In fact HC factors include the ones, which are in the smallest extent systematically developed and supported. HC has been assigned the lowest ranking but nevertheless it indicates the highest potential for improvement. In the figure above we can see that areas, which are attributed to HC lie mostly within the development area. It is necessary to undertake actions in this matter, in order to be concordant with strategic goals, and consequently acquire a new group of clients as well as to establish a solid trademark. The project committee acknowledged, that in this particular case the aforementioned factors have to be more decisively developed. Leadership is also another factor which should be developed. When we take into account the method by which this factor was defined (management skills, employees' motivations, group of powers), we can observe a clear link with other HC factors that lie within the development area. Despite the fact, that this factor has been assessed correctly in terms of quality and quantity, the regularity assessment turned out to be significantly lower.

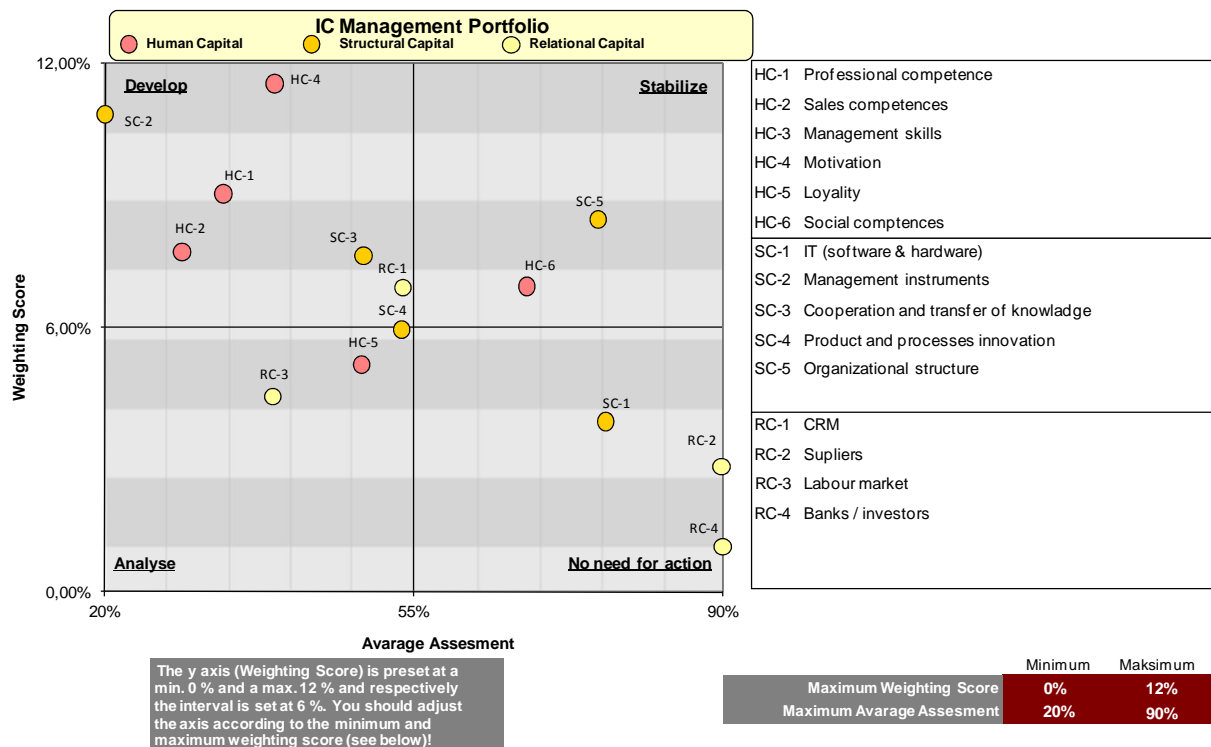


Figure 2: IC Management Portfolio of a construction company

The project committee acknowledged that it is necessary to undertake actions in order to develop both inter-organizational cooperation, and transfer of knowledge. Company employees cooperate in terms of preparing offers for clients, however the transfer of information is rather weak and needs improvement.

This particularly applies to acquired knowledge between two persons. Despite this fact RC is inevitably the strongest link in the company. Among SC factors placed in the development area are the ones, which are closely associated with HC factors. The factor management tools possessed some degree of bias, which was caused by the fact, that among the members of the project committee there were managers of individual branches of the enterprise. From their standpoint, this particular factor is essential in accomplishing enterprise strategic goals. Factors inter-organizational cooperation and transfer of knowledge are comprehended as “flow of information between branches, passing of knowledge between employees”. It should be noted that above-mentioned factors require immediate intervention. In figure 2 in the field No need for action we can find most of RC factors and software/computer hardware (SC). The above-mentioned statement reflects the company activities performed thus far. For many years the company policy was to invest primarily in infrastructure, furnishing and construction of positive relations with the suppliers.

Intensified investment process required maintaining correct relations with banks. These are definitely the strong sides of the company. Two factors: organizational structure and social competence are placed in the field Stabilization. We can therefore assume that the company owns a specific foundation/base (in regards to HC and SC), which enables intervening in these areas. The project committee highly assessed social competence, which may be defines as “cooperation skills in team work, communication, showing trust, and constructive discussions”. Social competence therefore should guarantee a positive staff attitude in terms of proposed changes. We should also analyze the factor: qualified employees/labor market (relational capital). The realization of company’s strategic goals will require increased employment. Having said that the company needs to reanalyze previous means of acquiring employees, especially in terms of the present situation on the labor market. As shown in figure “loyalty” should also be analyzed. Nevertheless, this factor is strongly linked with employee motivation, and any action undertaken in this matter, should inevitably shift the location of this factor to the right side of the graph. It is interesting to note the position of the factor product innovation/process innovation on the graph. It is situated on the borders of the field Analysis and Development. The peculiar nature of the products means, that innovations are frequently the response to the market needs. It should be noted that the project committee positively assessed both quantity and quality of products and processes innovations. On the other hand it was acknowledged, that their usage and means of informing of clients and employees remains highly inadequate.

3. Assessment of ICS method including results

The strategic goals of the analyzed company pertain to improvement of activities in terms of quality, domestic sales, advertisement, export, employee training and production. The company’s goal was to implement by the end of 2007 quality control procedure within every department as well as to establish a special quality control department by the end of 2008. The company has acquired a specific group of clients (anticipate strategy), and this was associated with creation of trademark, and promotion of individual line of products. Within the next 5 years the company expects to increase sales network. There are plans to open another department by the end of 2007, and to establish much larger client service offices, which will be more prestigious and respectively situated. This will enable to exhibit nearly all of the company’s products.

In terms of advertisement the company plans to maintain previous forms of press commercials, which does not exclude the possibility of expanding activities in direction of application of multi-format advertisement. The company also wants to reorganize its marketing department, which is currently very small and strives to undertake appropriate actions in terms of public relations. The principles linked with high service and product quality depend on well qualified personnel. The company plans to implement internal trainings, which will be mandatory for employees. Each quarter the company will schedule trainings for persons employed in the clients service office. The topics of these trainings will include company’s products, changes in software etc. At least, once a year, the company will organize marketing workshops for salesmen, during which the employees will transfer among themselves information, that they acquired during external trainings. In terms of production the company also plans to introduce a new position: advisor in charge of products and activities. As far as export is concerned, the company will attempt to acquire new international markets, expand the export department and implement comprehensive recognition of individual foreign markets.

As a result of project committee works, it has been decided, that the following actions will be undertaken that will enable development of IC factors:

1. Aimed at employee motivation:
 - a) management commenced works to establish a clear salary system,
 - b) periodical meetings have been planned with production department employees, during which the management will summarize their activity, and indicate company new development trends.
2. Aimed at development of management tools:
 - a) creation of precise, and updated scope of regulations for managers of individual departments, which will take into account awarding tools in order to motivate employees,
 - b) periodical meetings with department managers, during which current issues will be discussed.
3. In order to develop employee qualifications and sale skills/soft skills the management proposes to:
 - a) introduce the function of training manager – a person who will be responsible for transfer of information, that pertain to external training programs as well as the organization of internal workshops,
 - b) implementation of trainings in terms of sale techniques for persons employed in the sales department. These trainings will be periodical and will be performed by outsourcing companies.
4. Aimed at development and improvement of process/product innovation:
 - a) introduction of the product advisor function – a person who is responsible for implementing a new product selection,
 - b) establishing a marketing department - targeted at market analysis, and acquisition of information that pertain to selection of new products and employees.
5. Aimed at improvement of client relations:
 - a) elaborating standard procedures, that pertain to client service - creating a specific procedure for client servicing by indicating the deadlines for accomplishment of individual tasks (ie. offers, invoices),
 - b) elaboration of post sale service procedure - this pertains to a set of behaviors towards the client, which has purchased products above a certain price threshold.

The table 4 below presents defined measure indicators and IC control indicators in two perspectives: current and planned value in terms of the company strategic goals:

Table 4: IC indicators

| | IC Factor | Indicator | Definition | Unit | Actual value | Targeted value |
|----------------------|--------------------------|---|---|------|--------------|----------------|
| Human Capital | Professional competence | Introduction of training manager function | This person is responsible for transfer of information which pertain to external trainings for employees, which organize internal trainings | 0/1 | 0 | 1 |
| | Sales competences | Number of employees with higher education | Employees which are employed in the company during the calendar year | # | 19 | 23 |
| | Management skills | Implementation of trainings in terms of technical sale issues | Periodical trainings in terms of sale techniques, which are conducted by employees of clients service office, and are organized by external companies, which cooperate with the company | # | 0 | 2 |
| | Motivation | Highest level management staff meetings | Their purpose is to discuss the current issues in the company during the year | # | 52 | 52 |
| | | Establishing a clear salary system | In this case each employee will know the principles that pertain to calculation individual salary | # | 0 | 1 |
| | | Management meetings with production employees | During these meetings persons will discuss and summarize phases of work, which indicate development trends during the year | # | 0 | 2 |
| Structural | IT (software & hardware) | CRM | Creation of database, archiving of every contact with client that has been achieved by every employee in the company | 0/1 | 0 | 1 |
| | | Number of computers in the company | For instance, number of work stands that are utilized in the company | # | 47 | 60 |

| | | | | | | | |
|--------------------|---------------------------------------|---|---|---|-----|----|----|
| | Management instruments | Scope of rules and regulations outlined for managers of given branch departments | This will take into account the establishment of very precise and updated scope of rules and regulations for individual branch depts., which take into account admission of tools that motivate employees | 0/1 | 0 | 1 | |
| | Cooperation and transfer of knowledge | Obligatory trainings that pertain to new products offered by the company | Introduction of mandatory trainings for sale employees, technicians, fitters, that pertain to new products released by the company | 0/1 | 0 | 1 | |
| | | Mutual projects prepared by employees from different depts. | Projects – offers for clients, projects for institutions of business buffer sector; these are accomplished mutually by various employees | 0/1 | 0 | 1 | |
| | | Procedure that pertains to transfer of knowledge acquired by an employee during external training | Implementation of the procedure of transferring knowledge which has been acquired during external trainings | 0/1 | 0 | 1 | |
| | | Periodical management meetings with the lower level staff | During these meetings current issues are discussed as well as tasks that should be accomplished during the upcoming month | # | 1 | 4 | |
| | Product and processes innovation | Introduction of the product advisor function | This person is responsible for implementation of new brand into production | 0/1 | 0 | 1 | |
| | | Creation of marketing department | This department will analyze markets, gather information concerning the need for new products | 0/1 | 0 | 1 | |
| | Organizational structure | Organizational structure scheme | This particular scheme will emphasize hierarchy | 0/1 | 0 | 1 | |
| | Relational Capital | CRM | Number of clients | Increasing the number of clients which ensure accomplishment of company's strategic goals | % | 20 | 30 |
| | | | Client service standard | Creation of procedure of client service by indicating the deadlines for realization of individual tasks (from offer to invoice: pipeline) | 0/1 | 0 | 1 |
| Post sale standard | | | Establishing a behavior model towards client, which has purchased merchandise above a certain price threshold | 0/1 | 0 | 1 | |
| Suppliers | | Service quality ensured by suppliers | Service quality and commodity quality | Q | 70 | 90 | |
| Labour market | | Number of students | Number of students admitted by the company for professional trainings | # | 2 | 6 | |
| | | Number of trainees | This pertains to the number of persons which undergo practice in the company | # | 5 | 12 | |
| Banks / investors | | Service quality ensured by the bank | Service quality ensured by the bank which manages enterprise bills | Q | 70 | 90 | |

The development and commercialization phase of this method is observed especially in Germany, where a number of advanced trainings are conducted both for advisors and experts. Unfortunately this method has not received much attention in Poland. The author of this article tried to contact the Polish Confederation of Private Employers Lewiatan but did not receive much information in this matter. A majority of Polish enterprises also have dismissed this method, except the obligatory 5 that have participated in the INCaS project. It is interesting to discuss the procedure, that enables systematic analysis of company IC. First, we need to correctly define IC and its key components. This method possesses qualitative character, as a result the assessment will be subjective in most parts of the analysis. This pertains especially to defining IC factors, their assessment and ranking. The number of members in the project committee has been positively acknowledged. It is clear that the more people in the committee the greater chance for consensus and objectivity in the assessment process. On the other hand one of the weaknesses is the selected ranking scale of individual IC components, which in this case is expressed in percent (major problem with expressing qualitative values as percent). Another thing is, that the scale is from 0 to 90 so there is always margin for improvement (100%). It is clear, that the practical tool of this method is the IC management portfolio, which becomes very useful specially for managers. The presented results may turn out valuable for other companies as well as stakeholders. This method comprises a general overview of IC factors, which are subsequently interpreted in terms of a given enterprise.

The final component of the procedure is the elaboration of standardized report pertaining to IC, which

comprises of the above-mentioned components. This elaboration is targeted at two primary groups: internal stakeholders and external stakeholders. In the former case it serves a control function, which enables analysis of dynamic changes within the IC components. In the latter case the report should comprise of all of the above mentioned components (business model description, definition and assessment of IC, development of IC, weaknesses and strengths analysis, weights and intervention areas). The report closes with a chapter that includes an in-depth presentation of individual IC components.

Usually the indicators are presented in different measure scales: quantitative, qualitative, descriptive and relative. On one hand the primary benefit is maintaining individual approach to IC assessment, which is based on standardized procedure, on the other hand a significant setback pertains to rather random selection of indicators, which prevents an objective comparison of two enterprises. It is recommended to assemble results from other enterprises, by selecting the most representative for each branch. It should also be considered, using advanced statistical analysis, how the different components of IC affect business success (eg. revenues,) and the achievement of strategic objectives. Despite the above-mentioned limitations and setbacks of this approach both external and internal stakeholders will find valuable information about IC potential and its utilization in enterprise.

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