Why Intellectual Capital Management Accreditation is a Tool for Organizational Development?

Florinda Matos¹,², Albino Lopes¹, Susana Rodrigues² and Nuno Matos³
¹ISCTE - Lisbon University Institute, Portugal
²ESTG - Polytechnic Institute of Leiria, Portugal
³PMEConsult, Portugal
Fiorinda.Matos@iscte.pt
Albino.Lopes@iscte.pt
suzana@ipleiria.pt
Nuno.Matos@pmeconsult.pt

Abstract: In March 2000, the European Council held an extraordinary meeting to agree a new strategic goal for the European Union in order to strengthen a knowledge-based economy. The Council has a strategy - the Lisbon Strategy - aiming in the next 10 years to make the EU the most competitive and dynamic knowledge-based economy in the world. Intellectual capital has become a key element of the knowledge economy. Its management is therefore a factor influencing the competitive advantage of companies, regions and even countries. The purpose of this paper is to discuss the importance of intellectual capital management accreditation as a factor in the organizational development of companies, especially small and medium-sized enterprises (SMEs). The methodology ICMA - Intellectual Capital Management Accreditation (Matos and Lopes, 2009) will be discussed here, as well as the effect of this methodology on SMEs' innovation processes. It is considered that intellectual capital management accreditation may be a relevant process in the consolidation of an innovative dynamic, which will contribute to the continuous creation of competitive advantages. There are various intellectual capital valuation methodologies, but the research about the effect of the certification and accreditation is still very limited so it is necessary to get more results. However, the methodological research that supported the ICMA system points to the fact of accreditation procedures favouring better management of intellectual capital, thus contributing significantly to improving the organizational performance of accredited companies. This paper also aims to contribute to the international recognition of the importance of the audit of intellectual capital.

Keywords: intellectual capital management, ICMA, accreditation

1. Introduction

The environment in which businesses operate has changed substantially. The most valuable and productive assets do not appear on the Balance sheet and the traditional tools do not allow us to know what influence they have on business performance. The financial indicators appear not to be sufficient because they do not tell us whether we are increasing our competitive advantages.

Empirical studies, conducted by Matos and Lopes (Matos and Lopes, 2008) showed that the real competitive advantage results in, increasingly, the management of intangible assets. ICMA Methodology - Intellectual Capital Management Accreditation (Matos and Lopes, 2009) is designed precisely to fill this gap in assessing the management of intangible assets.

The various investigations carried out in Portuguese SMEs demonstrate that the high innovative potential of some SMEs may be recognized and enhanced through ICMA, which is thus a tool capable of enhancing the SMEs' competitiveness. In fact, business innovation is essentially incremental and routines are very important in supporting this type of innovation. The accreditation function is to monitor and to guide these routines. Intellectual capital management accreditation can, therefore, be very important in reducing the variance and in consolidating the innovation process.

The purpose of this paper is to make a critical exploration of intellectual capital management accreditation as a factor inducing dynamic innovation in SMEs. Over the next few sections of this paper we will discuss accreditation and demonstrate its importance for the consolidation of intellectual capital management as an organizational driver.

2. Literature review: Intellectual capital

Since we will analyze the process of accreditation of intellectual capital management, it is important to understand the concepts of intellectual capital, through the interpretation of some academics who...
have studied the issue. There are various definitions of intellectual capital and the concept continues to have a degree of subjectivity.

Different words have been used to describe the concept of intellectual capital: intangibles, knowledge-based, and non-financial assets are some examples.

Sveiby, (1997), developed a measurement methodology, “The Intangible Asset Monitor”, by dividing the intangible assets into three groups: individual skills, internal structure and external structure.

This author considers that the skills of the employees of a company are an intangible asset which, together with the other intangible assets, is added to the tangible assets, becoming the full assets of the organization.

Edvinson and Malone (1997), proposed a model, "Skandia Navigator" which divides intellectual capital into two categories: human capital and structural capital. Human capital is, according to these authors, the capital of the human resources in the company, consisting of its skills, the accumulated value of its practices, its creativity, its relationship capacity, its values, etc.. Part of this capital is also the culture and the organizational values of the company. In the opinion of the authors, it is this capital which is the source of innovation and renovation.

Structural capital, on the other hand, is understood as the value left in the company by the human resources when they go home, for instance, the database, the manuals, the list of clients, etc.. This capital can still be divided into organizational capital and client capital. And, in turn, organizational capital is divided into process capital, innovation capital and client capital.

Thus, according to this vision, intellectual capital is the sum of structural capital and human capital, this being the basic capacity for the creation of high quality value.

To Brooking (1996), the concept of intellectual capital arises from the association of different intangible assets, split into four categories: market assets, human assets, ownership of intellectual assets and assets of substructures.

Roos (1997) has a similar concept of intellectual capital to that of Edvisson and Malone (1997), but he considers intellectual capital as a result of the interaction between human capital, infrastructure capital and relationship capital.

Andriessen (2005) defines intellectual capital as "all intangible resources that are available to an organization, that give a relative advantage, and which in combination are able to produce future benefits."

We define intellectual capital as "an intangible element, resulting from the sum of knowledge of each individual in an organization arising from the wealth of people in the organization, their level of education, their experience, their information and their willingness to develop the acquisition of knowledge - i.e. individual talent"

Intellectual capital is divided into individual capital, team capital, processes capital and clients capital (See Intellectual Capital Model – ICM, Matos and Lopes, 2009)

Despite these differences in the classification of intellectual capital, it appears that these authors present unanimously the following points:

- Intellectual capital is an intangible asset that needs to be managed.
- Management of intellectual capital can create value in the organization.
- Management of intellectual capital can generate competitive advantages.
- Human capital, Clients capital and Processes capital are the main components of intellectual capital.

It is assumed as unquestionable the importance of intellectual capital as a factor inducing business development. By creating systems of certification and accreditation, we are looking for tools to help entrepreneurs in managing this valuable resource.
3. What is accreditation?

The concept of accreditation is not unique and often we find some confusion between certification and accreditation. In Portugal, Law No. 125/2004 of 2004-05-31, defines accreditation as "the procedure by which the national accreditation body recognizes formally that an entity is technically competent to perform a specific function specifically, in accordance with international standards, European or national based, in addition, the guidelines issued by international accreditation bodies to which Portugal is party."

However, we find differences between the accreditation of intellectual capital management and accreditation systems of higher education (see Matos, 2008). In Portugal, Law No. 1 / 2003-01-6, defines the concept of academic accreditation as a "verification of the fulfillment of the requirements for the establishment and registration of courses"

Academic accreditation corresponds therefore to an official recognition of an institution or course, assuming an assessment based on pre-established standards, which serve as reference levels and for determining if the institution falls within those parameters, facilitating the recognition of diplomas, or degrees, by the legislator.

The significance of accreditation is therefore usually associated with official recognition and quality assurance, that is, to general acceptance. We can thus say that the purpose of accreditation is to ensure certain standards of quality. Based on previous concepts, the accreditation of intellectual capital management is a public statement that the company meets a set of established criteria for accreditation by the Accrediting Body.

The significance of accreditation is, therefore, usually associated with an operation of technical validation and recognition of the overall capacity of the entity, making it a member of a sort of "club" where they create the conditions for the dominance of best practices that make the accredited entity continuously seek alignment with the best performance.

4. What is ICMA methodology?

ICMA Methodology - Intellectual Capital Management Accreditation (Matos and Lopes, 2009) presents itself as a tool for the development of the accreditation process. This methodology has been developed progressively from a variety of research studies and aims to become the highest standard of recognition of intellectual capital management.

Companies with this accreditation have a commitment to quality and continuous improvement of the management of their intellectual capital. ICMA is a process that looks at the overall performance of the company and is designed to promote the skills of intellectual capital management with a view to innovation and sustainable competitiveness.

The methodology that supports ICMA is the result of theoretical research and several empirical research studies conducted over the past four years (see Lopes and Matos, 2005; Lopes and Matos, 2006; Matos and Lopes, 2008; Matos, 2008; Matos and Lopes, 2009).

The accreditation is based on the evaluation of a set of parameters - ICMA indicators. These indicators, allow us to evaluate the management of intellectual capital of companies, checking that there is evidence of the presence of indicators related to the dimensions of intellectual capital, and whether they are valued and managed.

The ICMA criteria are based on the ICM - Intellectual Capital Model which consists of 4 Quadrants specified by twenty five parameters (Matos and Lopes, 2009). To achieve ICMA, companies have to demonstrate that they meet the ICMA parameters in 4 areas: Individual Capital, Team Capital; Processes Capital and Clients Capital.

The Quadrant Individual Capital, Team Capital and Processes Capital are related to the company's internal environment, the Quadrant Clients Capital is related to the external environment.

In ICM, Individual Capital is called the Tacit Knowledge / Human Capital Quadrant. It is the knowledge inherent to the individual himself, and containing the real source of value, talents and the skills to
generate innovation. Here, one has included the theoretical and practical knowledge of the individuals and the capacities of different types, such as artistic, sporting or technical.

**Figure 1**: ICM - intellectual capital model

Team Capital is the Human Capital / Explicit Knowledge Quadrant. The team shares the explicit knowledge. In this area, knowledge applies to the individual in the form of facts, concepts or tools.

When Explicit Knowledge is associated with Structural Capital, we are in the presence of applied experience, as the whole organization is the holder of formalized knowledge, able to be passed on, this is the Processes Capital. This Quadrant represents the ensemble of shared knowledge, summed up by experts (scientific community), recognized as the most advanced form of knowledge. This type of knowledge covers, among other dimensions, the organizational routines or the organizational memory. Organizational memory represents the register of an organization, represented by a set of documents and artefacts. Its goal is to expand and amplify knowledge through its acquisition, organization, dissemination, usage and refinement. Organizational memory can be a way of registering tacit knowledge, making it explicit, so that through business processes it becomes part of the patrimony of the company, to be shared and recreated.

Clients Capital is the result of the interaction Structural Capital / Tacit Knowledge. This typology represents the organizational knowledge in its practical form and is already incorporated into the tacit experiences formalized in the team. This knowledge, although hidden, becomes accessible through interaction, and it is the principal characteristic of the performance of highly specialized teams.

In the Model presented, the Network and NTIC are essential in the relationship between the 4 Quadrants.
Thus, the companies that put the NTIC at the service of human resources have a great advantage, because they can reduce the administrative difficulties in solving simple problems, increase the quality of services and promote continuous improvement and personal growth.

The approach to the concept of Network is not a new concept. The network, as a social concept, is the genesis of the social constructs of individuals. More recent is the approach to the concept of network system as a factor in the acquisition of knowledge and innovative action. In conclusion, the NTIC are crucial to be effective Networks.

It should be noted that the ICM is a dynamic model and therefore is not a completely stabilized model. Thus, as it is applied to more companies, there may be further adjustments. Indeed, this is one of the advantages of the model: its interactive dynamism, which has proved very good in turbulent business contexts.

ICM parameters are:

**Individual Capital Quadrant**
- Use of NTIC: New technologies are an essential tool for company's organizational development. The purpose of this parameter is to demonstrate your domain for all employees.
- Networks: The networks, supported by new technology, are essential for the development of a networking culture. The purpose of this parameter is to prove the existence of an internal network with knowledge and talents that the company can use.
- Training / Qualification: Training / qualification are seen as the empowerment of individual employees. The purpose of this parameter is to examine how the company encourages the acquisition of knowledge and develop the talents of each of its employees.
- Valuation of Know – How: All employees of an organization have an inexhaustible stock of knowledge. However, often companies do not value and do not encourage these skills. Thus, the purpose of this parameter is to see how the company rewards and encourages the development and availability of knowledge and individual skills of their employees.
- Investment in Innovation and Development (ID): Innovation is a source of competitive advantage of companies. The purpose of this parameter is to check whether the investment in ID, conducted by the company, aims to simplify processes or innovation.

**Team Capital Quadrant**
- Use of NTIC: New technologies should be used as a management tool, integrated in a networking culture. The objective of this parameter is to see, how the new technologies are used in building a team culture.
- Networks: The networks are forums for sharing knowledge and enable the dissemination of good practices. The purpose of this parameter is to demonstrate that the company promotes the existence of a network culture, where the teams interactive control, discuss and improve the procedures quality in order to satisfy the clients.
- Training / Qualification: Training / qualification should be understood as an instrument that enables the exchange of synergies between the organization employees. The company must have a policy of training and qualification perfectly synchronized with the team culture. The aim of this policy is to transform the group into cohesive, highly motivated and productive teams. The purpose of this parameter is verifying the existence of this policy of training and qualification.
- Team Work: The work must be organized into teams whose size will be most appropriate to the needs of the company. This parameter must show a teamwork culture.

**Processes Capital Quadrant**
- Use of NTIC: The company should use the new technologies as an administration tool, maximizing the use of these technologies in their organizational performance. New technologies are very important in the register of organizational knowledge and the operationalization of the whole process. The purpose of this parameter is to demonstrate how new technologies promote the improvement of procedures.
2. Networks: This parameter enables us to evaluate how the company uses the "networks", articulated with the NTIC, to improve the processes and create interactivity between different stakeholders.

3. Processes Systematization: The purpose of this parameter is to confirm process systematization and if it allows the formalization and transfer of knowledge among stakeholders.

4. Existence of Certification: Companies should be granted certification, including the ISO 9001 certification. This parameter should confirm the existence of certification.

5. Registration of Organizational Knowledge: Organizational knowledge must be registered. These records should be computerized in order to be protected and easily be shared. This parameter must verify the operability of the record of organizational knowledge.

6. Partnerships: This parameter must verify the existence of a network of partnerships with various stakeholders.

7. Investment in Innovation and Development (ID): The company must demonstrate how innovation and development enable connection and simplification of procedures. The parameter should demonstrate such evidence.

8. The Brands Creation and Management: The purpose of this parameter is to demonstrate how the company's strategy relies on a process of creating and managing brands, which enables improved reliability of products or services and organizational differentiation.

9. Complaints System: The company should have a formal system for registering complaints that serves its relationship with customers. The purpose of this parameter is to demonstrate the proper functioning of this complaints system.

10. The existence of Awards: The awards are understood as the recognition of the process / customer relationship, resulting from the interaction of explicit knowledge with the structural capital. The purpose of this parameter is to check whether the company was awarded as a result of this recognition.

Clients Capital Quadrant

1. Use of NTIC: This parameter must verify the functionality of the use of NTIC in improving the quality of service and interaction with customers.

2. Networks: The networks should be part of an "act of collective intelligence" in which the expertise of each employee of the company is put at the service of customer satisfaction. The parameter must verify the existence of these networks, as part of the company's culture.

3. Market Audits: Systematic market audits should enable the company to view the market where it will identify opportunities and threats. The purpose of the parameter is to check if the company performs these audits as part of their strategy.

4. Management of the Clients’ Satisfaction: The analysis of clients’ satisfaction should be part of the company's organizational routines. Reports should be obtained, allowing the management of the company's relationship with clients. This parameter should check how the company manages its relationship with clients.

5. Complaints System: This parameter must demonstrate that the complaints system, in addition to being part of a process, is an intrinsic element in the company culture.

6. New Markets: The purpose of this parameter is to check if the company has a market strategy, in which the internationalization is one of the goals. The strategies of the market must be accompanied by strategies for innovation of products and services for new markets.

The various studies that have been made allow us to conclude that the ICMA process empowers intellectual capital, converting it into an innovation mechanism.

5. Is accreditation a tool for organizational development?

We live in a knowledge society which has seen the transition from a product economy to a service economy. Not only are we concerned with the process of creating valued products but also how the customer uses those products. This requires a broad collection of data across the value chain. This data is valuable because it can become information, which is transformed into knowledge that can produce innovation.
This innovation can be created from two types of resources: talented individuals that create disruptive innovation at the level of process, product or market, and incremental innovation that is supported by all workers, in the value chain, that are knowledge workers.

However, these knowledge workers are able to introduce micro-innovations that could continuously improve the value chain. So, if business innovation is essentially incremental, depending on system management, accreditation based on the audit of the management of intellectual capital gains importance.

Accreditation has the ability to put in the value chain of organizations, a surveillance system for each of its elements. Accreditation facilitates the monitoring of organizational routines. These routines, when based on the intellectual capital management of the whole team, generate creativity.

Accreditation, by imposing rules on intellectual capital management, requires organization and discipline that can generate dynamic innovation.

The university is the support of this new paradigm of the knowledge economy since this institution has the task of transforming knowledge into innovative and marketable products. Thus, we find the model of the university the inspiration for a model for the company that is complemented by the principles of quality assurance.

In a context of economic globalization, the institutions of higher education are required to review their development strategies and integrate their activities on an international plane.

The policies for developing and even funding higher education are currently based on models of development that are based on accreditation systems. It is believed that these models are a source of innovation, quality and competitiveness.

There is evidence that, in some higher education institutions, the academic quality of products is currently limited by several aspects, including: the growing number of institutions of higher education, internationalization of higher education systems, competition between educational institutions at the national and international level, the Bologna Process and the attempt to harmonize programs. The adoption of accreditation systems has become an essential instrument to promote and guarantee quality.

At a time, when the labor market has become global and companies recruit their employees in various countries, institutions of higher education live in a dynamic environment, accompanied by increased mobility of teachers, and students who require a quick adjustment and anticipation of emerging trends. Particularly affected by this phenomenon, management schools and universities are placed in competition at both the national and international level, where they have to compete with the best foreign institutions.

In the field of management sciences, several international tables are used to measure the performance of education institutions, among the most representative include the following: AACSB (Association to Advance Collegiate Schools of Business), AMBA (Association for Masters of Business Administration) and EQUIS (European Quality Improvement System). Among these accreditation systems, EQUIS is the most international with more than 100 accredited schools, throughout the world.

EQUIS accreditation is an international system of quality evaluation, implementation and accreditation for Higher Education Institutions that have courses in the area of management and business administration. EQUIS is based on a group of principles which facilitate benchmarking, mutual learning and the dissemination of good practices. It is a multicultural and global system but of European inspiration.

Considering the analogy that we have been making between the accreditation systems of higher education and accreditation of intellectual capital management, we wanted to know the effect of accreditation in the innovative performance of higher education institutions. Thus, we analyzed the effect of this accreditation system in the performance of two Portuguese universities.
6. EQUIS empirical research

6.1 Methodology

This empirical research consists of 2 interviews with the managers responsible for the accreditation system EQUIS in two Portuguese Universities - Catholic University and New University of Lisbon, both of which have the accreditation system. The first is a private higher education institution and the second a public higher education institution.

The semi-structured interviews are each about 1.5 hours and were recorded. The interviews were transcribed and their contents were analysed.

The processing and analyses of the information had the following stages:

- Creation of a content analysis matrix;
- Processing of statistical information;
- Application of the Support Model;
- Summary of the results obtained;
- Conclusions

6.2 Interview script

The script for the interview had the following questions:

- What are the reasons why the University decided to join EQUIS?
- Who were the actors involved in the EQUIS process? (directors, teachers, students, staff, alumni, business recruiters, other clients).
- Did the actors participate readily? Where was there most resistance?
- What is the role of each of these actors in the implementation of EQUIS?
- With EQUIS, was there improvement in terms of teams?
- With EQUIS, were there changes to the University management?
- What are the areas in which the Faculty has most difficulty in implementing the EQUIS criteria?
- In terms of EQUIS, can one say that there is a set of best practices which are transmitted by people?
- With EQUIS, have there been changes in the sharing of knowledge in the team?
- Is there an Intranet where the processes are managed?
- What kind of innovations have emerged with EQUIS?
- Does the entire University staff have training?
- How is the know-how of employees transmitted? Orally? Written? Have there been changes with EQUIS?
- Does each process (e.g. the creation of a new course) follow a methodology which is described within EQUIS?
- Is the University well aware of its customers? How evident is it? How does the University try to meet the needs of its customers?
- Does the University deal with complaints? When there is some kind of complaint, how is it treated? Is it written down?
- Are there partnerships with various organizations? Are they the same as those that existed before EQUIS or improvements were made? What kind of partnerships are these?
- Does the University share knowledge in the network of EQUIS organizations? What are the advantages?
- Do you consider that EQUIS has made processes simpler or more bureaucratic?
- Do students recognize the added value of EQUIS Accreditation?
Is the leadership of EQUIS Accreditation process important? Should this leadership be collective or individual?

6.3 Summary of conclusions

In this paper we only summarized the findings from empirical research. Detailed results of this research were presented in a previous paper (see Matos, 2008).

Using the Intellectual Capital Model (Matos and Lopes, 2009) as a starting point, we analyzed the content of the interviews carried out in the two universities. The findings are presented below.

From this analysis, we can conclude that EQUIS accreditation, as a brand, has become the base for the creation of value for the education institutions analyzed. It strengthened innovation capacity. This cannot be disassociated from the improvement of processes and giving greater value to the relationship with the client.

It was clear that, in each of the cases, EQUIS accreditation did not require significant additional financial efforts besides those inherent to adherence to the accreditation system itself.

We conclude that by following this route to accreditation, there was innovation. We also know the intellectual capital of the education institutions analyzed was energized. This shows that managing and energizing intellectual capital allows for the stimulation of sustainable innovation. In reality, the analysis of EQUIS accreditation, based on bibliographical research and on the interviews that have taken place, has shown evidence that to reach an accreditation process it is necessary to have very well systematized processes, which will be enhanced through a permanent search for excellence. One other piece of evidence is the partnerships, together with a culture of the network, where new information and communication technologies have been introduced.

Another notion reflected in the accredited institutions is the notion of “good practices” also applied to the processes of continuous improvement. It is also verifiable that there is a prestige and attractiveness effect, in which the benefits of the “brand” give the Institution indirect publicity, exempting it from an equivalent financial effort.

We can further state that, even if one does not bring into practice any other modification, the analysis of the practices that have taken place in similar contexts produces previously unexploited potential. This innovation is a result of this analysis, and one can label it as “innovation arising from the process”, supported by a “network culture” and by new technologies.

On the other hand, it was the implementation of the accreditation process that led to the increase in performance, which concurs also with our theory about the effect of these processes on the capacity of organizational innovation, meaning that the creation of the accreditation process empowers intellectual capital converting it into an innovation mechanism.

The findings of this research indicate the need to promote and enhance the intellectual capital of organizations and particularly the institutions of higher education, which is one of the ways to generate innovation and competitiveness. The accreditation processes seem to favour this task because they compel a better fixation on the management of intellectual capital.

7. Final conclusion

In various surveys conducted in SMEs (see Matos and Lopes 2008, Matos e Lopes 2009) it is concluded that companies need systems to standardize routines, instill discipline and reduce dispersion.

Thus, the accreditation of intellectual capital management, developed through a simple non-bureaucratic process can be very important, allowing us to create an environment of teamwork and networking, encouraging the sharing of knowledge which is essential to creating a dynamic innovative.

Like the accreditation of higher education, which currently is a benchmark of quality for the courses and universities, accreditation can be an important competitive advantage for SMEs because it
guarantees to their partners that they have the capacity to generate relevant, shared knowledge and induce incremental innovation.

Just as the EQUIS system was designed to help prospective students and recruiting companies from one country to identify those institutions in other countries that deliver high quality education for international management, the ICMA system can also be the best guarantee of SMEs, which can be used in their promotion to key partners.

In research we conducted in Portuguese SMEs, we have found that the innovative capacity of some SMEs can be recognized. The use of an accreditation system could be seen as a guarantee of innovation capacity and therefore an important reference for their partners, so accreditation can be considered as a tool for organizational development.

References
AACSB (Association to Advance Collegiate Schools of Business), [Online], Available: http://www.aacsb.edu/accreditation/ [05 December 2009].
AMBA (Association for Masters of Business Administration) [Online], Available: http://www.mbaworld.com/ [05 December 2009].