

Competitive intelligence a strategic tool in Higher Education.

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Abstract

Nowadays, the importance of information and its correct use is widely accepted. The ability to aggregate information and put it on use for the right person at the right time becomes a critical issue for any organisation.

Taking is own experience, the author seek to demonstrate how the implementation of a competitive intelligence process based in information networks can be a competitive advantage for a higher education institution.

Following a brief literature review, is presented an implementation model of an information network that contributes to improve the institutional performance, increasing knowledge sharing practices and organizational innovation potential.

The proposed information network takes insights from competitive intelligence and knowledge management ideas and proposes the use of working groups that will work focused in strategic areas, and will produce information in order to enhance better decision making processes enabling a more competitive corporate performance.

Keywords: Competitive intelligence; Information; information networks; knowledge management; decision making.

1. Introduction

As stated by McGee and Prusak (1994) that many leaders and decision makers delineate their strategies based on the information's they access, the author strongly believes that within knowledge society the organisations that make a correct use of information have the best conditions for success. Information when correctly used will allow a more informed decision taking, the creation of new knowledge and will increase the involvement of human resources in the organisation performance

Information gathered is among one of the more important organisation resources, than organisations need to strategically organise themselves to be able to gather, process and disseminate crucial information for decision making within all their sectors. The ones that are capable to organise and take advantage of their own strategic information's are more able to create competitive advantages.

An information system must fulfil the organisational information needs providing efficacy and efficient information use. The competitive intelligence work can offer important insights for all the system supplying new information and recovering existing information that reside in the organisation, to support decision making. Doing so, system will provide a growing awareness of the actions that promote better results and help the organisation to choose best strategies and innovative processes.

2. Strategic positioning for the XXI Higher Education Institutions (HEI's)

Fincher (1998) defends that at this time HEI's are in front of a enormous pressure to better respond in a number of dimensions that constitute each one, great challenges, considerable financial investment, and possess change potential:

- increase both efficacy and efficiency;
- become excellent in their areas;
- support a balance between gender, minorities rights and the same opportunities for everyone;
- operate under the principle of shared authority;
- support centralised decision policies that are effective.

We can notice that with the liberalization of knowledge (with internet being the best example) HEIs dramatically need to demonstrate the importance of their daily work to civil society. As Debackere et al. (1996) state "*...universities are demanded not only to play an active role in science and technology development, but also in turning those developments into useful innovations whenever possible and desirable*".

We also must remember Morgan (2005) words when he defends that in "*.. the new «information economy» knowledge becomes the critical resource, and the educational sector the key to unlocking its full potential. By all accounts a vibrant educational system should prove to be one of the main growth sectors of the future.*"

In order to promote its own sustainable and competitive role, the higher education structure needs to create and maintain academic and administrative systems that track the technologic transformations and help institutions to respect their mission and accomplished their goals as summarised by Turner and Perry (2002).

3. Competitive Intelligence

We can define Competitive Intelligence (CI) as a systematic process of information gathering, processing, analysis and decomposition. The process is conducted within the context of the external environment of the organisation activities, with the major goal of supplying the right information, at the right moment, in the correct structure, to the right person, in order to support the best decision possible (Trigo et al, 2006).

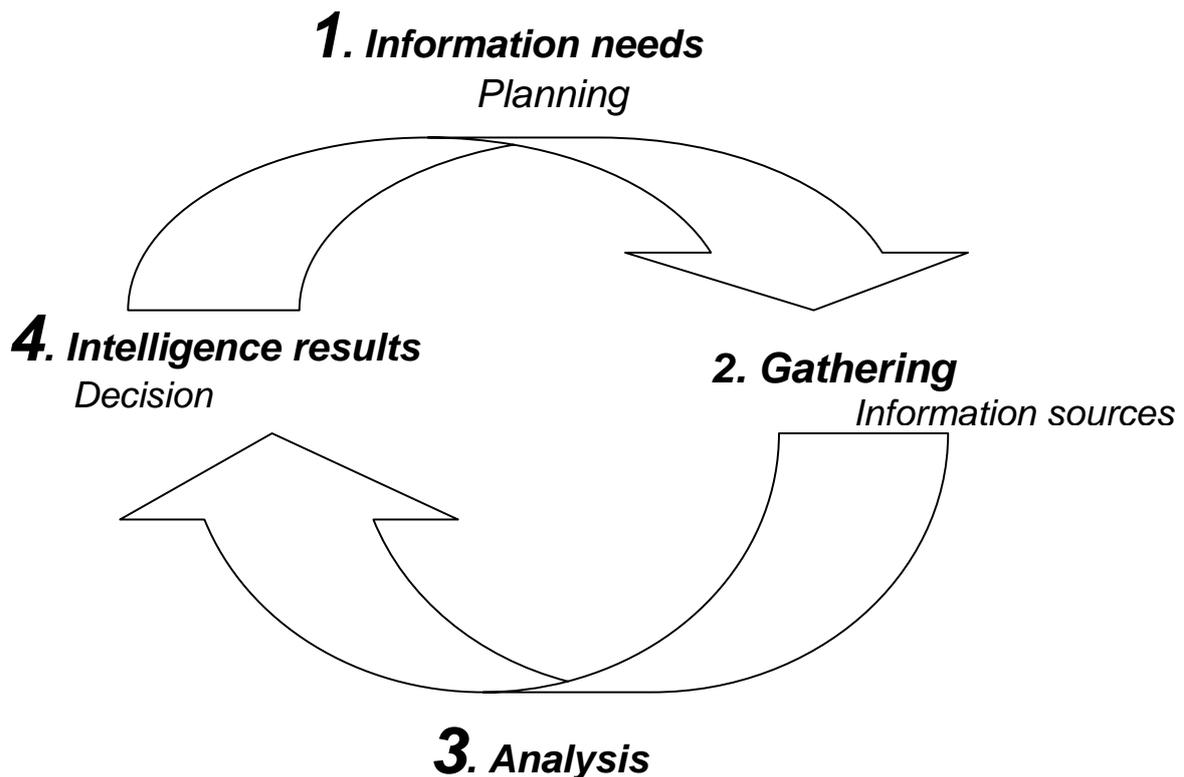


Figure 1. Competitive Intelligence Cycle (Taborda and Ferreira, 2002)

Competitive intelligence (CI) must be a short or medium period work, can be taught, and as we can see in Figure 1, has four stages.

1. In this first stage we must to make our CI strategic plan:
 - a. State our objectives;
 - b. Define what our information needs are in order to accomplish our objectives;
 - c. identify what our resources (human and financial) are;
 - d. Draw a map (system specification, functions and responsibilities).
2. In second stage we start the information gathering process:
 - a. Primary sources (personal contacts with experts, journalists, etc.)
 - b. Secondary sources (databases, publications, legislation, etc).
3. In phase three the information gathered is analysed in order to become intelligence:
 - a. Identification of patterns and trends;
 - b. Project scenarios.

4. Dissemination of intelligence results:
 - a. Results of CI are delivered to the decision-maker:
 - b. No time for extensive reports, define how and where knowledge will be shared.

As Fuld (2006) suggests business is pure competition. An organisation can't compete without strategic information as well without the competitive knowledge generated by them. Competitive intelligence must be a task of all the organisation staff, from the porter until its chairman, and the organisation need to learn how to incorporate the major results from CI in daily business, as a way to increase the organisational performance and results.

The competitive intelligence theory allows us to advance a working proposal to develop a networked system to engineering strategic information in an higher education institution in order to improve the organisational performance "*Managing a modern organization depends increasingly on managing the information and knowledge of and about that organization*" (Bernbom, 2001).

4. A Competitive Intelligence proposal for a Higher Education Institution

HEI's represent a very specific type of organization. In this section we discuss the basic components that we state are important for providing a competitive intelligence proposal for Higher Education Institution.

4.1. Choice of strategic areas

As we've seen before, a competitive intelligence system has its roots from the information needs felt by an organisation. Thus, the first step to be followed is the definition of the areas considered as having more strategic value, and select them as priority ones. The choice must consider the challenges, opportunities, strengths, weaknesses and threats faced by the HEI. For each strategic area an efficient process of information gathering, analysis, processing and diffusion must be created. We suggest that their choice follow these aspects:

1. areas that can provide more potential growth for the institution;
2. areas more sensitive to the daily operation of the institution;
3. areas that can improve the institution strengths.

4.2. Operacional model

The next step is the operational model that allows the support of the CI system implementation. Such competitive intelligence system needs to include people, technology and processes.

It's important to clarify that there is no such thing as a minimal size to have a CI system or some special staff requirements. For the proposed model it was decided to involve several people in part time. The team is composed by teachers, administrative staff and alumni, covering all the strategic areas and taking into consideration the high level of human capital that exists

"...in order to make effective use of knowledge, a network must be built up in which the knowledge and experience of employees are available." (Seufert et al, 1999).

4.3. Governance

Even though that the team will work in part time, considering the strategic advantages for the institution that such a system will provide, it figures to us that is important (whenever is possible) to have a Chief Intelligence Officer (CIO) that provides the required human leadership to the system.

As defended by Queyras and Quoniam (2006) *“The implementation of a CI system (...) is just possible of being conducted from a top-down perspective.”* The CIO must be appointed by the university board and must have a place in the governing body. This position will allow him/her to develop his/her work according the strategic goals established for the organisation. The CIO will be responsible for: goal definition, group coordination, and for the results presentation and assessment.

4.4. The creation of strategic groups (SG's)

“Action teams have helped move organizations ahead and will help even more in the future. They focus on priority initiatives and harness the best talent in the organization to do the job.” Lauer (2006)

We defend the creation of strategic groups (SG), named this way because they are responsible to deal with the areas of the HEI strategic development chosen. The SG's have their activity based on the following tasks:

- the accomplish of their work on competitive intelligence and knowledge management in their specific area;
- the promotion of interaction between the different services and areas that exist in the organisation;
- the involvement of human resources highly qualified that develop research work as part of their professional activity. The research is related with knowledge areas considered strategic for the institution.

The creation of an SG is based on the following requirements:

- group work: the groups must be composed by people with skills to work in the group and have a motivation for sharing knowledge as well to perform their activity within a cooperative and collaborative framework;
- information and knowledge networks: strategic group members must promote networking with the highest number possible of people and institutions witch allow them to gather information in diversity and quality to its own group and for the institution;
- multidisciplinary: by its participation, people with different background and qualifications (even know that certain profiles must be mandatory to support the group activity),experiences, interests, and cultures provide the multidisciplinary needed to turn the group richer and increase its *know-how*;
- articulate institution needs with personal subject interests as a main strategy to motivate people;
- foster the importance of advancing knowledge, gather intelligence and the willing of being competitive.

We suggest the formation of two different types of strategic groups: internal ones (only with people belonging to the institution), and blended (where some of the group members are externals to the institution).

The internal strategic groups are composed by teachers, specialists/researchers in the areas where the group has its activity, administrative staff that within the context of its own daily activity can be influenced by the group work. The blended groups are composed by teaching staff, administrative staff, alumni and

current students of the institution, by institution external members from different society sectors (that may contribute with relevant information in the areas of training, research and development).

“...innovation is not something that is happening «inside» firms but rather at the interfaces of firms with markets, structures of competition, and the regulatory and institutional environments within which firms operate. Open-source networks of cooperation are composed of teams of company employees and entrepreneurs outside the official structures of companies as well as within such structures.”
Damaskopoulos (2002)

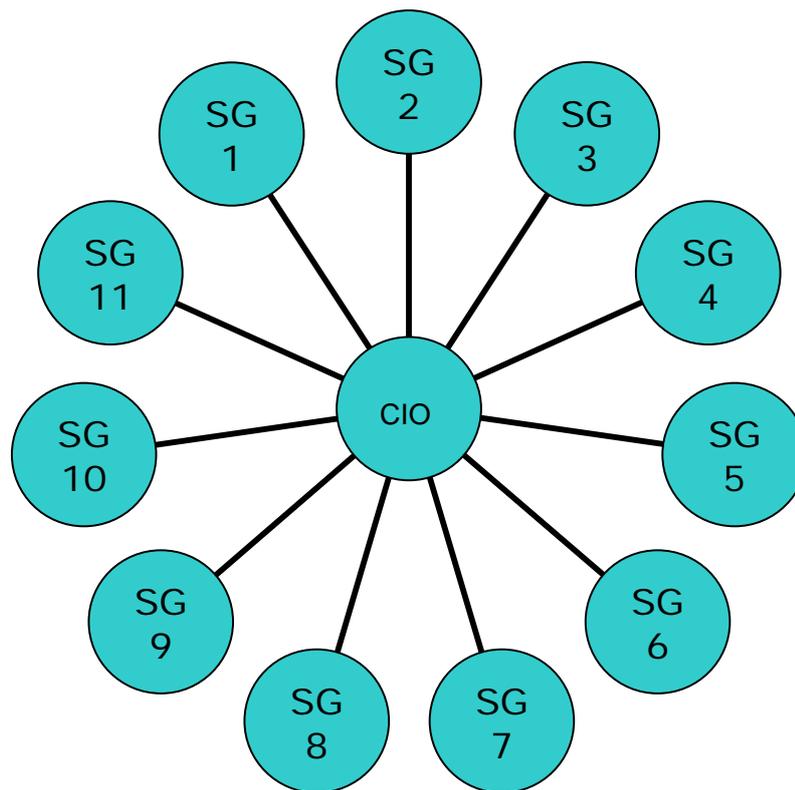


Figure 2. Organisational diagram for the proposed CI system

4.5 People

One critical issue to this model success is the correct selection of the people and their placement. Regarding the placement, human resources must perform their work where they can add more value for the community, promoting efficacy in the competence management as defended by Tarapanoff and Aguiar (2006) and Carneiro (2004) that is one of the pillars of being competitive and what make the institution what really is and is capable to react to.

“Defining the competitive strategy, an enterprise identifies the business core competences and the competences needed for each individual function.” (Tarapanoff and Aguiar, 2006)

“the secret of the competitive advantage is in the capacity of making a competitive advantage of both people intelligence and its competencies...” (Carneiro, 2004)

To approach the perfect model the organisation should match human resource available skills with the organisation needs.

4.6 Technology

We defend, like Gilliland-Swetland (2001), that when you're deciding which technology to use to support the CI system, a workgroup with representatives from each area must be assembled to develop the storage and data management issues. This group has a mission of establishing the software development requirements to the data gathering and its storage. Additionally, the group members must promote good practices for dealing with the data lifecycles.

As proposed in "*UC 2010: a New Business Architecture for the University of California*" is defended the need for academia to follow the trends existing in the business world: investing in technologic platforms that allows the development of Internet based systems, designed to support self-service facilities, with administrators and administrative staff having at their will, a group of tools that allow them to perform their job in an autonomous and informed way.

Lyman (2001) point out three main strategic landmarks for the use of technologies in a HEI context: efficiency; productivity; and innovation. Once again it is stressed the importance of networked links as described by the author as the infrastructure key master, as they are crucial to provide organisational flexibility.

Gilliland-Swetland (2001) declare that information management systems must have the following characteristics: being large scale databases, having index and cataloguing system that help identifying existing resources recover, and are structured as networked based, develop activities relations with data collections, a network based structure, and the sharing of open activities in the institutional context.

When considering decision making support and knowledge management perspective, Wallace and Riley (2001) defend that analytical online highly complex processes, are fundamental and allow a fast and flexible access to storage data.

This way, the design of information systems to support decision making and knowledge management must be considered a priority in a higher education institution that wants to take advantage of CI work.

4.7. Processes

As an operational rule, we support the creation of a networked based organisation with people sharing information and knowledge. Those people develop their daily activity taking proper attention to the gathering, processing and offering of strategic information in order to provide a better academic community performance in strategic areas, and as consequence, fostering the quality and performance of the university itself as an institution.

"A network is defined by their nodes and its links... although the nodes number in a network grows arithmetically, the value of the net grows exponentially... A structure networked based allows that the information can be distributed at the same time for every nodes, which allows in turn instantaneous information for those who are linked with the covered nodes..." (Pacheco, 2001)

"What is of prime importance is that creation and sharing processes are encouraged, not just the accumulation of data as in a data-warehouse...The openness and richness of networks are believed to foster a fertile environment for the creation of entirely new knowledge, while also accelerating the innovation rate" (Seufert et al, 1999).

We this kind of model we can achieve an organisation that supports the wisdom sharing, which in turn can facilitate individual work. This can be started by creating a network to distribute information and knowledge (both explicit and tacit).

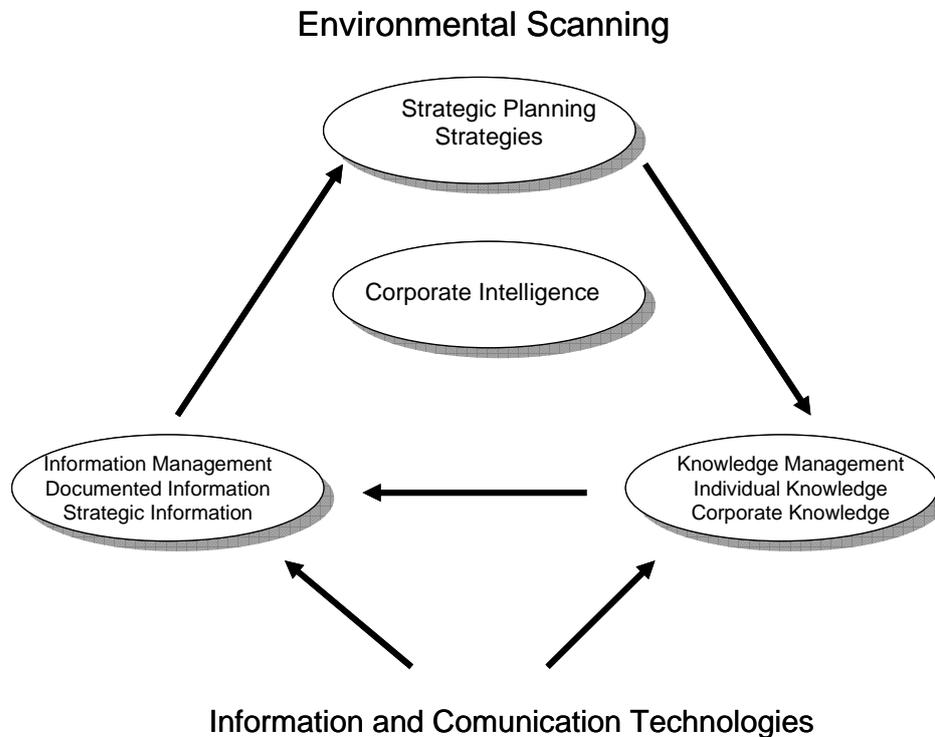


Figure 3. Integration of information management and knowledge management in the strategic planning, source: Tarapanoff (2006)

5. Conclusion: critical success factors and corresponding goals

The author believe that this system can only have success if a number of critical success factors are met:

- Involving people: university staff, students, alumni and other stakeholders;
- A special care in the human resources activity assuring that each member must have knowledge qualifications and become part of a strategic group;
- Provide training in competitive intelligence and knowledge management to group members. In order to turn the work more efficient;
- The work of several strategic groups must occur in a systematic and orderly way: the existence of different groups will allow the information gathering by the organisation from different areas. Additionally, it possibly to gather know-how (seen here as knowledge resulting from all the members of a group). These activities can have some impact in the organisation economy as they provide new ideas, innovations and simple improvements in the organisation work activities. It is also one of the CI system goals, increase the distribution of the generate knowledge, by the strategic sectors of the institution;

- Existence of excellent leadership, considering the management level of the group of strategic groups and at the group level. As a result we need have a valid and optimal process to prepare a nominate leaders;
- Benefit the group work and the network: the strategic group members must felt as part of all, beyond their own concerns. All the members from each interest group must contribute to the success of the other group whit information sharing among them. Take into consideration such values it is possible to fulfil the proposed goals, faster and easier.

As a conclusion, we may say that the higher education institution that can put into practice a CI system in its organisation can get a more informed, closed and friendly community. Decision makers will have more information permitting decision processes to be less uncertain. They also benefit from a higher number of people that have information about the institutional strategic goals and thus, a higher number of workers that are focus on accomplished those goals.

“The future belongs to organizations that learned to truly unleash the creative powers of self-organizing project communities, knowledge networks, open source teams, and other new ways of work and learning...The challenging task of leadership is to encourage a fundamental re-organization of work so that it can be truly inspiring to people to invest their attention in it.” (Pór e van Bekkum, 2003)

The university that will be able to organise itself to innovate, has the opportunity to gain competitive advantages when compared with other HEI's.

“enterprises can obtain some competitive advantage through innovative actions, including the use of technology as providers for news models to accomplish goals.” (Porter, 1998)

“the organisation innovation potential is actually considered as one of the most important features of the competitive organisations.” (Canongia et al, 2004)

We are strongly convinced that the adoption of competitive intelligence practices in higher education institutions will help them to become more prepared for dealing with its activity within higher quality standards for customer service. In that sense, it urges to use such ideas on the higher education institutional strategic plan.

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