THE INTERNATIONALIZATION OF UNIVERSITIES THROUGH THE MANAGEMENT OF THEIR INTELLECTUAL CAPITAL

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Abstract
Knowledge is increasingly regarded as an essential growth factor and this is also true for institutions of higher education. Intellectual Capital can be seen as the assets related to the employee’s knowledge and expertise, the customer confidence in the company and its products, and the organizational assets. Aspects such as Human Capital; Structural Capital and Customer Capital are important variables of the whole Intellectual Capital Management Program. Skills and expertise plays an important role the internationalization of research and teaching. Third stream income can be obtained through innovation and intellectual property rights, and the commercialization of research and cooperation between universities, government and research institutions become more important. Business Intelligence is contributing to the Customer Capital of the university and the knowledge of international trends regarding other stakeholders.

Keywords: knowledge management, intellectual capital management, higher education, internationalization.

1 Introduction

Universities are often funded by national governments and higher education policy is normally a national affair. Currently universities are not only influenced by the nation state but also by changes in the nation state and its position in the international order. Decisions and discussions on global and international level also influence the universities and their actions. Recent examples are the signing of the Bologna declaration or the discussions on GATS (General Agreement on Trade and Services). Higher education should realize that they operate and function in a knowledge-driven global environment in which both domestic and foreign students demand access to the best quality education at the best reputable institutions of higher education in the world (Steynberg 2005).

Europeanization, internationalisation and globalisation are trends that identify the increasingly supranational context in which higher education institutions are operating. This new context represents a range of challenges that cannot be seen separately from the ones related to the developments towards a knowledge economy, the role of new
technologies and developments towards lifelong learning. These three processes play an important role in the current knowledge society. All three are widely debated in many academic disciplines and it plays an important role in the current discourse on higher education (Kwiek 2001: 27). Furthermore, these three processes do not stand on their own and McBurnie (2001) mentions also other important issues: transnational education, international quality assurance, entrepreneurial approaches, regional and interregional co-operation, information and communication technologies and virtual universities, the rise of new providers and issues of equity and access (Lub 2002).

The process of globalisation (taking into account the knowledge society, ICT, economy, international trade, etc) and global restructuring pose challenges to the need for internationalisation in Higher Education Institutions (IEASA 2005). As with many other products and production processes Higher Education can be seen as facing the challenges of internationalisation and responding to the attractive imperative of “going global”. Academic research and education are central in the globalization discourse not only because they provide a large extent of its cultural justification but also because they can be seen as a commodity offered on a fast growing market. New opportunities for the expansion of western academic education and research are emerging with the establishment of the “new world order.” Significant economic and political events are among the major determinant of insisting calls for globalization. In many of these cases not only institutional and economic infrastructures but also academic systems are said to be in need for reform or re-invention to keep up with global trends (Panozzo 1997).

A study in 1997 by the Swedish National Agency for Higher Education indicate that there is a shift from the educational, cultural and political rationale to that of the economic as dominant rationale for internationalisation (de Wit 2005). The economic rationale is expressed in several ways, such as:

- The emphasis on internationalisation because of the requirements of the modern, more global labour force needed;
- Joint international Research and Development projects to compete internationally in new technology;
- More attention to marketing of higher education on the international market;
- Higher education as an export commodity.

It is clear that there will be a need to develop policies that enable the internationalisation of higher education. This is especially where incentives and conditions, like institutional autonomy, stimulate institutions sufficiently in their internationalisation agenda or when they are in danger of closing down unless they can gain other sources of revenue. At institutions where there is a urge to manage their Intellectual Assets (which will culminate in Human, Structural and Customer Capital) more formalised processes will be in place in order to enable the internationalisation of their education programmes, according to the abovementioned economic rationale.
2 Research Problem

Can institutions of higher education improve their internationalization by implementing an Intellectual Capital Management strategy?

The sub-problems derived from this are:
- What does internationalization entails?
- What is Intellectual Capital?
- How is Intellectual Capital managed?
- How can Intellectual Capital be used in the improvement of internationalization?

3 What Does Internationalization Entails?

To a certain extent internationalization is a response to the impact of globalisation. Internationalisation recognises national boundaries and the uniqueness of individual societies and cultures and in the face of the forces of globalisation, urges international understanding and cooperation (Chan 2004). In higher education, interpretations of the term have shifted “according to the varying rationales and incentives for internationalisation, the varying activities encompassed therein, and the varying political and economic circumstances in which the process is situated” (Callan 2000:16). Knight (as cited in Knight & de Wit 1995:15) defined it as “the process of integrating an international dimension into the teaching, research and service functions of an institution of higher education.” It is the complex processes whose combined effect, whether planned or not, is to enhance the international dimension of the experience of higher education institutions. The international dimension is explained as “a perspective, activity or programme which introduces or integrates an international/intercultural/global outlook into the major functions of a university or college” (as cited in Knight & de Wit 1995:15).

Internationalisation is a process that prepares the community for successful participation in an increasingly interdependent world … The process infuse all facets of the post-secondary education system, fostering global understanding and developing skills for effective living and working in a diverse world” (Francis 1993 in Patrick 1997).

4 What Is Intellectual Capital?

The conversion of knowledge into something valuable has come to be known as an intellectual asset or intellectual capital. Intellectual capital can be defined operationally as intellectual material that has been formalized, captured and leveraged to produce a higher valued asset and intellectual assets and have been characterized as hidden assets because they are sometimes difficult to identify and to assign an economic value.

4.1 Definitions Of Intellectual Capital

Intellectual assets have been referred to as “the new wealth of organisations,” but the term that appears to have gained the greatest acceptance is Intellectual Capital. According to Edvinsson (2002) Intellectual Capital is the ability to transform knowledge and intangible
assets into wealth creating resources. He is also of the meaning that intellectual capital takes two distinct forms. These can be summarised as follows:

- **Human capital** – the combined knowledge, skill, innovativeness, and the ability of the organisation’s individual employees to meet the task at hand. It also includes the organisation’s values, culture and philosophy. The organisation cannot own human capital.

- **Structural capital** – the hardware, software, databases, organisational structure, patents, and trademarks, everything else of organisational capability that supports these employees’ productivity – everything left at the office when the employees go home. Structural capital also includes customer capital, the relationships developed with key customers. Unlike human capital, structural capital can be owned by the organisation and thereby traded.”

Stewart (1997:67) defines intellectual capital as the packaging of useful information and it represents the intellectual material that has been formalised, captured, and leveraged to create wealth by producing an asset of higher value. St Onge (in Edvinsson 2002) describes intellectual capital as the output of accelerated learning at organisational level and Bontis (1998, 1999) elaborates on this viewpoint by describing it as the total stock of knowledge in an organisation.

For an organisation to exploit its intellectual materials and manage its intellectual capital it needs to locate it in one of three places: employees, structures or customers. In this taxonomy intellectual capital is comprised of human capital, structural capital and customer capital.

### 4.2 Components Of Intellectual Capital

Authors such as Sveiby (1997) and Bontis (1998) suggest that Intellectual Capital consists of three elements, namely Human capital, Structural capital (or organizational capital) and Relational (customer) capital.

#### 4.2.1 Human Capital

Roos, et.al. (1997) describes human capital as the soul of the organisation. According to Bontis (1998) it is the individual tacit knowledge which exists in the organisation. Bontis, et.al. (1999) goes further and identifies three types of resources:

- Competencies based on skills and knowledge
- Attitudes as reflected in the motivational level within the enterprise and the management’s quality of leadership
- Intellectual agility as the ability of people in the firm to innovate, adapt and to cross-fertilise.
Bontis (1998:65) also sees human capital as a source of innovation and strategic renewal and says that the essence of human capital lies in the sheer intelligence and ingenuity of staff members.

Human capital may be considered as the brainpower of employees that is useful to the enterprise, or the capabilities that provide solutions to customers. Human capital is the source of innovation through the individual capabilities, knowledge, know-how, skills, experience, institutional memory and problem-solving abilities of the people in an enterprise (Sullivan 2000). It is also the capability to develop solutions for customer problems and creates value for the organisation through the application of available knowledge and skills in order to create products and services for them.

4.2.2 Structural Capital

Structural capital consists of systems and work processes that leverage competitiveness (Allee 1998b). These include information technology, communication systems, concepts and models of business operations, databases and documents. It also includes trademarks, patents and copyrights and other 'packaged' knowledge that enjoys legal protection. According to Bontis (1998:66) structural capital contains the mechanisms and structures of the organisation that assists employees in contributing to business performance. Therefore Stevenson (1995) sees structural capital as "those things that turn individual know-how into the property of the group". The purpose of managing this accumulated knowledge of employees is then to increase the sharing of it and to transform it into a corporate asset. Stewart (1997:108) calls this "the knowledge that doesn't go home at night".

According to Bontis, et.al. (1999) structural capital includes organisational elements such as infrastructure assets related to technologies, methodologies, and processes that enable the organisation to function, which in turn enables the organisation to create value in the commercialisation process. Secondly it also includes renewal and development activities with a focus on research and development, business processes and intellectual property rights, where it all contributes to the launching of new products and services.

Innovation capital must also be seen as a subset of structural capital and is a prerequisite for innovation, creativity and inventiveness and which are of relevance to innovation policies:

- Learning: - the degree of freedom individuals have to pursue learning agendas of their own choosing and direction.
- Knowledge processing: - policies that determine the extent to which employees create, share, and apply new knowledge, and the extent to who and how they share the benefits of their knowledge with fellow employees.
- Connectedness: - determination of the extend to which employees connect to one another with ease, through technological infrastructures and social networks.
- Ethodiversity: - policies that determines the diversity of the ethos of the organisation. It includes the values and worldviews in an attempt to learn, innovate and adapt.
4.2.3 Customer Capital

According to Allee (1998a), customer capital is made up of business relationships with customers, suppliers and strategic partners. It also includes brand recognition and goodwill. For this reason the term relationship capital is most often preferred. Bontis (1998:67) says the essence of customer capital consists of the knowledge imbedded in the relationships external to the firm. It also consists of available marketing channels and the relationship with external stakeholders such as suppliers, customers, alliances, local communities, industry associates, shareholders, and others. Customer capital therefore contributes to the market and customer orientation of the organisation.

5 How Is Intellectual Capital Managed?

According to Edvinsson (2002:7) Intellectual Capital management is not a management technique but rather a fundamental approach to the management of resources and assets in the organisation. There are two very different approaches taken to managing the intellectual assets of a knowledge organisation. One approach is based on the premise that by increasing the knowledge resident in the organisation, you can increase its ability to generate profits over the long term. This approach is focused on the organisation’s employees concerned with knowledge creation, learning, communicating, and sharing. The second approach view intellectual capital as an economic asset of the organisation. According to this approach intellectual capital is a valuable asset to be maintained over time and from which profits can be extracted. In this view there are two basic approaches:

- Innovation as business strategy. This focuses on managing intellectual assets, including the commercialisation of innovation, the use of technology for competitive advantage, and the identification, protection, and commercialisation of intellectual property. This often stresses the importance of understanding market needs in helping direct R&D, but treats the management of creative innovative processes as a black box.
- Management as learning and knowledge creation. This focuses on the organization and management of creative organizations, making them more effective and flexible. Often this does not focus on the business consequences of innovation except by implication. Strategies emerge from political processes within the firm.

Organisations which manage their Intellectual Capital effectively are therefore strategically focused on managing the following aspects of it:

- Human capital management and measurement
- Intellectual Capital asset systems and competitive technology assessments
- Intellectual property systems.
6 How Can Intellectual Capital Be Used In The Improvement Of Internationalization?

In order to determine how Intellectual Capital can contribute to the improvement of internationalisation the three main components of Intellectual Capital can be used as basis to work from.

6.1 Human Capital

The human capital relates to the individual competencies of researchers and lecturing staff. Mobility of students and researchers is the fastest growing aspect of internationalisation and this brain drain can be harnessed through international cooperation and collaboration in the form of communities of practice and virtual teams where they are enabled to work together on research projects and where students can get access to the skills and competencies of the best lecturing staff globally. Lecturing staff can also make their expertise available through the use of technology and international dimensions can be built into curricula. Joint academic programs between different staff members must also be investigated.

6.2 Structural Capital

The latest developments in internationalisation are in the field of Information and Communication Technology and the use of e-learning. By making use of these aids expertise and skills of staff members of the most prestigious institutions can be made available to students all over the world. Another important aspect of Structural Capital is Innovation Capital and the worldwide commercialisation of applied research at Universities forms an important part of this aspect of Intellectual Capital. International cooperation and the globalisation of these commercialised products can contribute to the financial sustainability of Universities. Special attention need to be paid to third stream income where cooperation between government, universities and private sector are stimulated. The commercialisation of education programmes is also of importance here.

6.3 Customer Capital

It is important that Universities look outside their traditional spheres of operation. Intra-regional and international cooperation must become a priority for universities. As Europe is the most favourite region for collaboration Universities must use this to their advantage. Consideration must also be given to branch campuses. Business Intelligence as an important aspect Knowledge Management is contributing to the Customer Capital of the university and the knowledge of international trends regarding other stakeholders in the field of tertiary education will lead to international cooperation.

7 Conclusion

It can be concluded that if institutions of higher education oversee the successful implementation of a proper Intellectual Capital Management programme at their
institutions they will be able to succeed in their internationalisation plans. A thorough appraisal of the competencies and skills of their staff members, the use of technology and the commercialisation of research and teaching, with the proper protection of their intellectual property, and to the right market can lead to a sustainable internationalisation process.

References


