

The Intellectual Capital and the value creation on the Brazilian Higher Education Institutions: Perspectives of the coordinators of undergraduate Business Administration Courses

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Abstract

This study has investigated the role of the Intellectual Capital Management on the value creation for the stakeholders of the Higher Education Institutions, based on the perspectives of the coordinators of undergraduate business administration courses located at the city of Rio de Janeiro – Brazil. Based on a semi structured interview script, questions were asked considering the theoretical dimensions of Intellectual Capital management and on the implications of the adoption of the Balanced Scorecard (BSC) multidimensional performance management model. From the four assumptions analyzed, we found a indicinary evidences relating to the adoption of social quota systems, the dual character of the Relational Capital and the improvement of the coverage of results for stakeholders when adopting the BSC.

Key words: Value creation; Intellectual capital management (IC); Balanced Scorecard (BSC); Higher Education Institutions (HEI)

1. INTRODUCTION

The 1990s saw an expansion process in the Brazilian higher education industry. A cycle of economic growth provided by the stabilization of the economy and internationalization of the market led to a fresh demand for management undergraduates. Given such a need, in the second half of the 1990s the federal government encouraged the set-up of new entrants on Higher Education Institutions (HEI) competitive environment and the spread of the incumbent ones to the most diverse regions of the country.

This governmental policy increased the number of registrations in the private HEI from 3.030 million in 2001 to 4.966 million in 2011 — an annual average growth of 5.1% (INEP, 2011). The HEI that knew how to benefit from this growth soon succeeded in becoming truly large educational corporations.

This fast growth required professionalization in strategy and operations and the emergence of new players in the education industry. Traditional management, based on the maverick entrepreneurial spirit of the family businesses pioneers that established private HEI, now coexists with the portfolio management techniques practiced by large business corporations, mainly the ones nowadays controlled by investment funds.

For a large number of the private HEI focusing on economic scale and operational efficiency, it is found that the management strategies are anchored on increasing conversion of the prospects on students and their respective lock-in. One of the approaches to do this was the increasing spending on information and communications technologies, libraries, management systems, and so on.

Schwartzman and Schwartzman (2002) back in the 1990s indicated that the strategic unplanned growth of various HEI would lead to predatory competition because of the low tuition fees price fixing procedures. These authors accurately predicted the rise of HEI mergers and acquisitions, as verified some years later.

Even in government universities, the pressure on efficiency performance (based, mainly, on academic scientific production) became a question of survival. The structuring of the faculty career plan based on scientific productivity and the requirements of economic safe and soundness plans when creating new programs are examples of initiatives to professionalize HEI management and governance.

To understand the transformation process in HEI management, it is necessary to identify to what extent this change interferes specifically in academic issues management. To do so, it is fundamental to map and interpret the expectations and “wisdom” of the course coordinators regarding professionalized management based more widely on the Intellectual Capital management as a value creation artifact. The course coordinator is the professional who intermediates the objectives of the HEI’s board with the academic objectives of the course. In other words, the coordinator is the link between the administrative, financial and faculty areas.

“The Course Coordinator serves as the liaison between the faculty members and lecturers in the course, and between the teaching team for the course and the... Central Office Staff. The purpose of the position is to ensure smooth and efficient communications and operations for all courses. Course Coordinators also represent their courses as members on the ... Committee which, according to the ... Faculty Senate legislation, is charged with ensuring course and section equity... Course Coordinators have responsibility for managing the tasks... “Management” is expected to involve delegation of tasks to other members of the team as necessary for completion in a timely and efficient manner”. (STANFORD, 2016)

When analyzed the speech of the coordinators, we looked to identify the importance of the Intellectual Capital (IC) management and of the Balanced Scorecard (BSC) framework in the business model that the HEI adopts or seeks to optimize. This research will identify differences/similarities in the speech of each coordinator and thus verify how IC and BSC become relevant for the academic community on each profile of HEI.

Using the content analysis on the study of the business administration course coordinators’ speech, we sought to systematize the HEI profiles: interviews were carried out at seven different programs profiles.

The purpose of the study was to discuss four assumptions:

- (I) Human Capital is the most relevant dimension for coordinators of courses positioned to educate high-income students;
- (II) Structural Capital is the most relevant dimension for coordinators of courses positioned to educate students with a lower income;
- (III) Relational Capital is a relevant dimension for coordinators of any market position, but with different purposes, attending HEI profiles;
- (IV) The use of tools to monitor the organizational performance, such as the BSC, as a suitable instrument for coordinators of the courses of private HEI.

The research was delimited by the localization of the coordinators of undergraduate business administration courses in the city of Rio de Janeiro.

2. BRAZILIAN HIGHER EDUCATION INSTITUTIONS

Higher Education Institutions (HEI) was initially offered in Brazil by vocational organizations and staff training purposes for the Catholic church.. Only with the arrival of the Portuguese Court in Brazil, the non-religious education starts on the HEI, in a way to meet the requirements of the State bureaucracy. Private owner HEI only emerged after the proclamation of the Brazilian Republic, under the 1891 Constitution, which decentralized higher education, previously a prerogative of the State (MELLO, 1999).

This specific permission enable further development of higher education, narrowing the gap in relation to the rest of Latin America and, according to Barreyro (2008), gradually increased the number of students from 2,300 in 1880 to over 7,8 millions in 2014 (INEP, 2014). The HEI that knew how to seize this opportunity soon became truly large education quasi-conglomerates.

It is necessary to keep in mind that for organizational consolidation, the “incorporated” HEI need a solid mix of resources, whether their own (by issuing shares and retained earnings) or from third parties (by issuing bonds and loans), involving a decision-support process considered as one of the most important and complex in a business organization, and requires governance and professionalization in the HEI strategy and operations.

To study the professionalization of HEI, it is necessary to identify the application of the business models that should be in line with the educational quality standards. All possible care must be taken so as not to mistake professional management choices with a series of decisions for cost cutting. Although most publications on HEI strategy adopt Michael Porter's view, we have found that it is restricted in its understanding of Intellectual Capital value creation. Quandt (2009) points the sharp

rise in the number of publications on the Intellectual Capital questions and reasoning since the year 2000.

Mainardes (2007) considers it feasible to apply Porter's concepts to the educational industry. Nevertheless, the strict regulations existing in the educational field can restrict the strategic options available for the HEI. Secca and Leal (2009) identify the presence of Porter's competing forces in the education industry strategic thinking. According to these authors, there is little possibility to substitute products in this industry, since the undergraduate diploma is still a differential in the students wage increases compared to other training certificates.

There is strong rivalry among competitors, according to Schwartzman and Schwartzman (2002), when noting an increased number of HEI throughout Brazil. It is found that the market is concentrated in some regions of the country. Scholars consider that competitive forces are moderate in relation to suppliers, buyers and newcomers.

The market segmentation and positioning strategy is adopted by institutions with a target audience of students from the rich and high middle economic classes. Ramos (2010) calls these HEI profile of "institutions of excellence", since they invest heavily in their faculty and infrastructure. The quality of education processes is achieved by charging high tuition fees.

The differentiation strategy is identified in HEI that have ancient reputation in the market or a strong brand, developed based on faculty's achievements. Therefore, they can charge expensive tuition fees without worrying about losing students.

However, if the brand name HEI does not invest expressive percentage of these exceptional gains in educational quality outputs, it faces the risk of losing its market share.

Operational costs efficiency approaches are used as ordinary strategic tools in the Brazilian educational industry. The low price attracts more students and therefore creates a gain in efficiency. Scale economy is fundamental within this model. This strategy is practiced, or at least attempted, in both large and small institutions, but emphasized on HEI devoted to low middle and poor economic classes.

3. INTELLECTUAL CAPITAL MANAGEMENT

The adoption of Intellectual Capital (IC) as a main reference of this study is due to the fact that it does not only play a unique role in the value creation for the educational industry but has also attracted, according to Reina et al (2010), the attention of professionals, stock market, businesses and several scholars.

This interest can also be intrinsic to the characteristics of this topic, such as multidisciplinary approach, source of knowledge that creates competitive advantage and value to businesses and professionals, and the potential of exceptional returns for investors, as the literature points out.

From a strategic perspective, the IC is the main source of competitive advantage, as Boulton, Libert and Samek (2000), Lev (2001), Low (2000) demonstrate, and the creation of wealth as stated by Edvinsson and Malone (1997) and Stewart (1997). IC is conceptualized, in a general way, as the intellectual material — knowledge; information; intellectual property; expertise — that can be used to create value or generate wealth (STEWART, 1997).

García-Meca and Martínez (2005, p. 308) claim that this creation of value can be obtained through "knowledge, information, intellectual property and expertise, which can be used to create value".

Very often the concept of value is mistakenly related to the accounting view in which it lists, albeit incompletely, tangible transactional assets. However, as Amir and Lev (1996) and Gelb (2002) comment, non-financial issues seems to be much more relevant, measured by its impact on share prices, than traditional accounting disclosures. Likewise, Tasker (1998) provides evidence that the companies with more intangible assets such as, for example, mobile telephony, are more likely to have complementary disclosures, such as voluntary publications and on investor relations, indicating that the classic accounting disclosures are

inadequate for such knowledge intensive and innovative companies.

Bearing in mind these pressures for supplementary information and the rise of emphasis on the intangible nature of knowledge since the 1990s, the need to identify and measure intangibles is now relevant and also attracts attention in the academic community.

With the rise of this emphasis on the intangible nature of knowledge, there was also a perception, evidenced by a larger body of literature, of the limitations of traditional accounting statements that only measure tangible physical assets (LEV, 1996; MAVRINAC & BOYLE, 1996; SMITH & PARR, 2000; BONTIS, 2003).

Mavrinac and Boyle (1996) identify the inability of current financial artifacts to capture and communicate the value of the strategy, processes and intangible assets such as knowledge, innovation and customer loyalty. For this reason, of course, investors and managers want more than traditional financial data when taking economic decisions about the organizations. The reason for this is that, in a highly competitive global environment, success depends on investment in IC to fill the gaps in knowledge that may anticipate future corporate competitiveness.

Accordingly, Ross et al (1997) consider that identification, measuring and management of IC are determinants to be able to understand the factors contributing to generating revenue and creating value for the organizations.

Although the names for the IC sources and drivers differ slightly between researchers (KAUFMANN & SCHNEIDER, 2004), the IC is generally characterized by a three dimensions framework: Human Capital, Relational Capital and Structural Capital (EDVINSSON & MALONE, 1997; STEWART, 1997).

Human Capital (HC) is related to innovation, knowledge, skills and general competence of the employees (EDVINSSON & MALONE, 1997; MCGREGOR, TWEED & PECH, 2004). This dimension or "capital" represents the stock of knowledge within an organization, embodied in property, and not just in the minds of the individual employees (BONTIS, CROSSAN & HULLAND, 2002). It is worth remembering that HC interacts with the other IC dimensions.

Relational capital (RC) refers to clients (BUKH, 2002; JOHANSON, MARTENSSON & SKOOG 2001; SANCHEZ, CHAMINADE & OLEA, 2000; STEWART, 1997), Social Capital (BUENO, SALMADOR & RODRIGUEZ, 2004) and stakeholders (ORDÓEZ DE PABLOS, 2003). It represents an IC dimension consisting of associations with other socioeconomic actors that lead to organizational wealth (BONTIS, 1999).

Structural Capital (SC) includes databases, communication and technical systems, policies and other support mechanisms (BOISOT, 2002; EDVINSSON & MALONE, 1997; KAUFMANN & SCHNEIDER, 2004; ORDÓEZ DE PABLOS, 2003). It represents the support systems and technologies that help the employees do their job and, lastly, to create revenues for the organization resulting in business wealth and value.

To allow these three IC dimensions to flourish and prosper, the management systems must accommodate the special needs of the intangibles. However, the managers must acknowledge that the organizational objectives relating to intangibles can only be achieved with due justification.

Thus, in order to support the workers of knowledge, organizations require flexibility found in networks and organic systems and not inflexibility found in hierarchical structures. Management systems must further the creativity and innovative practices instead of ensuring compliance with policies and procedures. For this to happen, the managers must provide opportunities for participatory decision-making in a confident and respectful context (ISAAC, HERREMANS & KLINE, 2009).

4. THE BALANCED SCORECARD (BSC)

One of the answers to the criticism about traditional forms of accounting reports on knowledge based organizations has been to develop a Balanced Scorecard. The BSC approach originated from a bundle of multi-business studies in the early 1990s, sponsored by David P. Norton, CEO of the Nolan Norton Institute, with the support of Dr. Robert S. Kaplan, the Arthur Lowes Dickinson professor of accounting at Harvard Business School. Essentially, by establishing metrics on customer processes and on employee performance, companies are more likely to successfully implement corporate strategies (BOSE & THOMAS, 2007).

Accordingly, Kaplan and Norton (1996) developed the concept of the BSC based on the need to create management tools for intangible assets and Intellectual Capital, considering an organization's traditional performance artifacts limited, since they are focused on accounting and financial plus operational principles and do not cover the intangible nature of knowledge assets.

The use of the BSC in HEI can facilitate management activities, mainly in a strongly bureaucratized field such as the educational industry. The BSC framework and methodology of measuring strategic performance are centered on developing and monitoring the organization strategy through a set of performance measurements and initiatives. Therefore, the purpose of the BSC is to help translate the corporate strategy to a set of targets and objectives, with the implementation monitored by various performance measurements (BOSE & THOMAS, 2007).

The ordinary BSC approach measures the corporate performance from four perspectives (learning and growth, the internal processes, clients and financial) that, together, encourage the managers to look beyond the traditional or classic financial calculations such as, for example, return on investment (ROI) or return on assets (ROA). This approach, therefore, also helps to communicate and encourage a more insightful broader strategic thinking and planning process.

Thus, the perspectives described by Kaplan and Norton (1996) can contribute to the strategic management system of HEI, not only for the administrative procedures but also for coordinating the management processes among their administrative, financial and education departments.

5. RESEARCH DESIGN

This study is as descriptive research (GIL, 2002; CERVO & BERVIAN, 1996; LEITE, 2004), since its aim is to transcribe, describe, interpret and explain the result of the research in the assessment of the importance of Intellectual Capital and the Balanced Scorecard in the coordinators' perception, in view of the business model that the HEI adopts or seeks to maximize.

Qualitative research (CHIZZOTTI, 2000; LEITE, 2004) to tackle the investigation question was addressed together with coordinators of undergraduate business administration (UBA) courses in government and private HEI situated in the city of Rio de Janeiro with different positioning marketing approaches toward the attended customers and prospects.

Qualitative data were collected between July and September 2013 using a semi structured interview script, with an intentional non-probability sample (convenience) (KIDDER et al, 1987; GIL, 2002), having as subjects the coordinators of UBA course. Each interview lasted around twenty minutes and was fully recorded.

Content analysis was used to process these collected data. According to Franco (1994), content analysis allows information collected in interviews to be systematized and categorized.

The profile of the interviewees is homogenous: they all hold a graduate degree and have years of experience in the academic and professional areas. The decision of the coordinators as is due to the fact that they are considered the gatekeeper between the academic and administrative environments of an HEI.

Seven HEI in the city of Rio de Janeiro were chosen, with different characteristics both in the legal nature and the attributes of their target-customers:

- (i) "HEI A": private university, controlled by a business corporation, in which the management is professionalized based on the use of control artifacts as a strategic tools; the majority of students in the UBA course come from lower middle class and low income class, and around one third enjoying scholarships, they work and study and are in the age group of over 26 years old;
- (ii) "HEI B": Rio de Janeiro state government university, with the supervision team elected by the peers; heterogeneous social class of students in the UBA course as a result of the affirmative policy social quota system; most of them work and study, age varies (26 years and under in the morning classes and over 26 years in the night classes);
- (iii) "HEI C": private college, controlled by a business corporation, with most students in the UBA course in higher income and upper middle income classes, less than one third enjoying scholarships, age group under 26 years old;
- (iv) "HEI D": federal government university, with the supervision team elected by the academic community, social class of the UBA course students is heterogeneous and the majority work and study, with an age group of 26 years old or under;
- (v) "HEI E": family-run private university, with most UBA course students from lower middle class and low

income class, around one third enjoying scholarships (Prouni and FIES), working and studying, age group above 26 years old;

- (vi) "HEI F" – private university run by a religious entity, most of its UBA course students from higher income and upper middle income classes, with age group under 26 years old; and
- (vii) "HEI G" – private not for profit institution, most students in the UBA course from higher income and upper middle income classes, age group under 26 years old.

In order to categorize the topics of each dimension of Intellectual Capital, we used Maurer (2008) and Awad (2010), based on Stewart's model (1997). Since it is a study on identifying IC, we adapted some items for HEI purposes (Figure 1).

Maurer (2008) & Awad (2010) Issues	New Issues	Authors' Review	Dimensions	Construct
Employees' involvement and commitment	Operational Duties		Human Capital	INTELLECTUAL CAPITAL MANAGEMENT
Capacity to supply new products & services	Faculty Training			
	Faculty Practice			
Professional qualification	Technical Know how			
	Scientific Research			
	Managerial Philosophy		Structural Capital	
	Management Processes			
Structure & quality of decision-making information system	Information Systems			
Sustainability capacity	Economic Sustainability			
Quality of infrastructure				
Soundness & repercussion of the brand	Social Responsibility		Relational Capital	
	Institutional Image			
	Strategic Alliances			
	Place			
Level of client satisfaction regarding service	Customers			
Dropout rate				

Figure 1 – Issues and dimensions of Intellectual Capital management of an HEI

Source: Prepared by the authors

In the Human Capital dimension we can identify the following topics: (i) Duties – activities performed by the technical-administrative staff to devise a value for the UBA course; (ii) Faculty Training – training and capacity building of the faculty by means of courses and incentive for specializing in lato senso or stricto senso graduate programs; (iii) Faculty Practice – classroom performance of the faculty in undergraduate, graduate and distance learning courses; (iv) Technical Knowhow – knowledge related to the skills and abilities to accomplish something, consisting of faculty training, professional experience and involvement in giving extension courses, helping a junior company and coordinating offers of internships/jobs in function of their knowledge network; (v) Scientific Research – faculty involvement with research, meaning participation in congresses, seminars, preparing academic papers and projects of scientific initiation.

To analyze the Structural Capital, issues considered were: (i) Managerial Philosophy – comprises the business mental model of the HEI or of the UBA course supervision, and may be presented through the mission, vision and values or even by the guidelines fixed on the institutional development project (IDP), institutional pedagogy project (IPP) or even by the course pedagogy project (CPP); (ii) Management Processes – they correspond to the administrative procedures at all levels and instances; including administrative meetings, goals and operational objectives to be achieved, process mapping and monitoring of performance indicators (the use of the BSC is identified in this component); (iii) Information Systems – importance of the information systems to the HEI value creation and to the course as operational tools to achieve objectives, such as the academic registration system (on line transaction procedures) or decision-support systems (on line analytical procedures); (iv) Economic Sustainability – characterized by the course's economic feasibility, demarcated by the supply conditions required for its operation, including measures to increase HEI revenue or even costs cutting considered offenders of the economic balance / value creation.

In the formulation of Relational Capital, we adopted: (i) Social Responsibility –initiatives with beneficial effects for society, without monetary counterpart, as scholarships for low-income students or even environmental sustainability actions; (ii) Institutional Image – comprises the efforts to build a positive image of the course within the labor market and society as a whole, and identified through institutional marketing programs, or activities that generate a positive externality for the course, such as the junior company; (iii) Strategic Alliances – covering cooperation agreements with other HEI or research institutions, mostly abroad, agreements with private companies in order to insert students in the labor market and bring representative class entities closer.; (iv) Place – Neighborhood situation and potential under social and economic assessment criteria; (v) Customers – corresponds to identifying who will benefit from the products and services generated by the UBA course, as an ideological question, since there is the dichotomy of discourse on who the HEI client would be: student or society.

Accordingly, we can identify Intellectual Capital of an HEI by understanding its topics and respective dimensions.

The Atlas.ti software was used as the data processing and analysis tool, in order to identify words, items and even phrases that characterize signs in the speech of topics akin to Intellectual Capital (IC) and the use of performance management instruments such as, for example, the BSC.

6. FINDINGS ON VALUE CREATION THROUGH IC DIMENSIONS

When systematizing the interviews, we organized the responses in the three theoretical dimensions of the IC management: Human Capital (HC), Structural Capital (SC) and Relational Capital (RC). The results cannot lead to a conclusion that an HEI is more intensive than another merely by the number of responses, but that the speech of the coordinators of the UBA course prioritized a certain dimension of value creation.

As observed in Table 1, while in “HEI A” the number of citations is predominantly focused on Structural Capital, in the government HEI (C and D) and two private HEI (F and G), the focus is Human Capital. In “HEI C” the balance is found between citations on Human Capital and Relational Capital (this, concentrated on the institution’s image). Lastly, in “HEI E” we found a predominance of Relational Capital.

Table 1 – Total citations for IC issues per HEI

IC Issues		HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	Total
Operational Duties	HC	2	1	0	0	1	1	2	7
Faculty Training	HC	2	1	1	1	1	1	1	8
Faculty Practice	HC	4	2	2	0	0	0	0	8
Technical Knowhow	HC	1	9	6	2	1	7	4	30
Scientific Research	HC	0	6	0	3	0	1	2	12
<i>Human Capital</i>	HC	9	19	9	6	3	10	9	65
Managerial Philosophy	SC	2	1	0	3	3	2	2	13
Management Processes	SC	7	1	2	0	0	1	0	11
Information Systems	SC	5	1	0	0	1	0	3	10
Economic Sustainability	SC	1	0	0	0	0	0	0	1
<i>Structural Capital</i>	SC	15	3	2	3	4	3	5	35
Social Responsibility	RC	2	0	0	0	2	0	0	4
Institutional Image	RC	1	0	6	3	3	4	5	22
Strategic Alliances	RC	2	3	1	3	1	1	2	13
Place	RC	2	0	0	0	0	1	0	3
Customers	RC	1	1	1	1	1	0	1	6
<i>Relational Capital</i>	RC	8	4	8	7	7	6	8	48
<i>Intellectual Capital</i>	IC	32	26	19	16	14	19	22	148

Source: Content Analysis (2013), the authors

7. FINDINGS ON THE HEI'S NATURE OF CONTROL, POSITIONING AND IC DIMENSIONS

When analyzing the Human Capital of the HEI we found that there must be a focus on the faculty. Only this group can meet the requirements indicated by the principles of core competence, by being mainly linked to the design and implementation of the end product — education.

According to Francis (2011, p.88), “knowhow, skills and attitudes of lecturers consolidate the heuristic systematics linked to building knowledge”. The faculty’s role is not restricted to be merely an instructor, but a key agent in preparing political-pedagogic projects, creating curricula content and teaching plans and sharing the best learning practices.

All the HEI appreciate the importance of HC, but from different viewpoints. In “HEI A”, the role of the teaching practice is greatly valued (“We used assessments regularly in which the students rate the lecturer’s performance”), and this is the only way to assess quality mentioned by the UBA course coordinator. Moreover, it was the only HEI to submit a lecturer-training program through online media (“We have the Qualification Incentive Program through distance learning procedures”), which shows the competitive edge of its information systems and business mental model compared to the other HEI.

The HC found in the government (HEI C and D) and private (HEI F and G) adds values to the technical knowhow and dedication of their faculty (“I emphasize the theoretical-practical quality of the lecturers”). This expertise is in both the academic education (where most professors have PhD with expressive scientific production), and also professional experience (many have already occupied senior positions managing companies).

It is worth mentioning that in “HEI F” the lecturer HC contribution is so important that the professors predominantly occupy the managerial positions (“All management positions are occupied fulltime by professors”). Furthermore, within the UBA course structure, the role of the coordinator is shared with district coordinators, reinforcing the concern with the actual teaching of the course.

In “HEI D”, the quality of the faculty is identified by the amount of graduated professors with PhD and by fulltime employment, a form of internalizing and retaining the HC. (“A large part of our faculty works 40 hours of full dedication”). The career plan that encourages the scientific production contributes to ranking the “HEI D”’s UBA course as benchmarked as “the best class in the country”.

Although the government’s HEI do not have a strategy for connecting students to the labor market, a large part of the faculty fills this gap through their own good networking.

In “HEI C” and “HEI G”, on the other hand, the faculty is instructed to maintain the label of educational quality. To do so, in addition to solid academic and professional training, “lecturers are required to put pressure on student performance throughout the course”. This can be confirmed in the report of the two coordinators who mentioned the strictness of the course as one of the main causes of student dropout.

Quality of the course in “HEI C” is monitored by the coordinator, who has the autonomy to implement his style of supervision on the UBA course. However, this autonomy must be linked with maintaining the quality brand of educating.

Another point to be emphasized in “HEI C” is the fact that the faculty is acting in developing the junior company (“I’d like to mention our Center of Entrepreneurialism and the Junior Company with involvement of the faculty”), whose role reinforces the name of the institution in the job market. The administrative-technical staff also has its share in Human Capital (“they are like Ferrari tires. A car with no tires won’t move”). However, in the view of the coordinators, this is a small share, since their duties are quite restricted to do operational tasks whose success is directly related to a proper information system.

When analyzing the lecturers training, we find that in addition to the capacity-building courses mentioned above by the coordinator from “HEI A”, every institution encourages lecturer qualifications through master’s and doctorate programs. In the government HEI this incentive entails granting a license with remuneration, while in the private HEI aid is given by granting scholarships.

Only the coordinators of the government HEI and “HEI F” and “HEI G” emphasized in their discourse the scientific research capacity of their faculty. This covers the potential scientific production (“Our faculty has support in their publication”), participation in scientific initiation projects (“share in fellowships development supported projects”) and their involvement with research.

The need to train a large number of registered students in a short time shows the greater relevance of the operational processes. In the dimension of Structural Capital, we should consider the contribution of technology as a determinant in the academic and administrative processes. In the administrative processes, technology's role is to enhance information systems able to serve the process management of an educational institution. With regard to the academic sector, technology can facilitate the creation of new educational products and services.

Tachizawa (2006) works with the concept that operational processes of an HEI are accomplished by transforming knowledge inputs into academic products. According to the author, the inputs correspond to the faculty, pedagogy project and financial, material and technological resources. Now the production process consists of teaching-learning and of student support in the information systems. Lastly, the end to end product would be the institution's degrees.

In "HEI A", the coordinator says that there is a link between the administrative and academic procedures with the organization's goals. Periodic meetings are held between the administrative managers and course coordinators to address weaknesses and possible forms of troubleshooting ("we have meetings on planning where suggestions are discussed to improve the administrative processes and goal seeking."). This was the only one to mention the importance of economic sustainability as strength of the respective HEI.

The information systems help the coordinator to take decision on matters referring to the course with the institutional assessment of its faculty (fulfilled by students, coordinators and administrative managers), or even a profile of its student body, so that it can therefore outline strategies for attracting new students.

On the other hand, in HEI B, C, D and F, the coordinators mentioned several criticisms against the operation of their information systems. Many responses to the student profile data, requested during the research interview, were blurring, and the coordinator has a lack of information on it. The absence of alignment among different information systems of the HEI was the main point mentioned.

It is relevant mentioning the responses of the "HEI B" and "HEI F". The first states that "the HEI information systems are not good enough", in which "they are not connected and are configured in a non-professional way", and the "decision-support systems do not exist". The coordinator of "HEI F", in fact, questions the relevance of information systems for management of an HEI.

The Managerial Philosophy was identified in almost all institutions, but with different approaches. While in "HEI A" and "HEI E", the philosophy was presented with the UBA course alignment with practices and guidelines of its administrative staff ("We use the intranet to share goals, processes and projects"), in the remaining HEI the focus was on the UBA course pedagogy project, which acts as a guideline for actions to improve the quality ("The teacher should abide by the pedagogy project"). Although it has not been directly identified in its speech, it is found that in "HEI C" the coordinator has some degree of autonomy in running the course, provided that he meets the requirements of maintaining/improving its present good institutional image.

Relational Capital consists of the liaisons between an organization and its customers. A large number of authors consider the customer as someone who performs a role for exchange or even transaction of a product/service with a certain organization. However, the research expects the customer decision not to be consensual between the UBA course coordinators.

It should be stressed that the coordinators of "HEI A" and "HEI F" were the only ones to mention the place as a benchmark in their relationship with the market — but on contradicting grounds. According to the "HEI A" coordinator, "the campus location facilitates accessibility of the students, especially on the campi that are close to the students' work. So they can go home later when there is less traffic". On the other hand, the "HEI F" coordinator says that the fact that all the HEI courses are on only one campus reinforces the possibility of interdisciplinarity, an edge in education quality of the HEI.

Social responsibility was also mentioned only by the coordinators of "HEI A" and "HEI E". According to them, "there is a policy of granting HEI scholarships for students in financial difficulties" and "environmental sustainability is also adopted in the HEI through courses, conferences, selective garbage collection, and so on".

In item Institutional Image, we stress the importance that the issue has for "HEI C". According to the coordinator of this HEI "the market has a strong perception of the name of the institution". It therefore reinforces "the employability of its students because of the brand of its course". It is also worth mentioning in this HEI the role of the junior companies that "contribute to improving the institutional image of the HEI".

8. DISCUSSION

Assumption I discusses the importance of HC in the HEI, and its possible link to higher-income students. This specific emphasis on HC refers to the appreciation of the teaching-learning link as a way to student's professional capacity building. In order to ensure academic quality, the course supervision is focused on appreciation of the teaching. The HC of an HEI is pointed by Francisco (2011), based on the concept of "core competence". This definition is associated with the competence that an organization will develop, which will become a competitive advantage. According to Hamel and Prahalad (1990), this competence must be available to the various attended markets, be relevant for the end product and give it a competitive sustainable advantage, at least on economic performance.

On analyzing the speeches from the coordinators of private HEI positioned on the higher-income students, we find that Assumption I is acceptable. In these HEI, the HC is mentioned comprehensively, from valorizing the expertise of the faculty to the incentive to scientific production.

The comments from the coordinators of the government universities also share the valorization of lecturers Human Capital. However, this action is facilitated by the application process, in which government HEI can capture the most prepared students from the high schools. It should be mentioned that the quota system adopted by government "HEI B", more than ten years ago, allowed access of students coming mainly from class C, even D

In accordance with field speeches, we also identified a possible sustaining of Assumption II. Structural Capital is the most significant dimension for UBA course coordinators in a position to educate lower-income students. The justification is based on the need to create supply conditions so that this student profile — most often with a learning deficit — can complete their studies.

We highlight in this analysis of the "HEI A" coordinator as being the only one to express importance in every component of SC. He understands perfectly the institution's Managerial Philosophy, and mentioned with a deepness of details a series of projects adopted by the HEI with regard to improving the supply conditions of the HEI (place, library, learning materials).

Assumption III — on different client views as part of the Relational Capital — is not only sustained but can also be expanded. In the concept of someone who is the customer, the UBA course coordinators of "HEI D" and "HEI G" believe that society and the market ("general public and private job market – banks, telephony, petroleum, mines and energy in general") would characterize it. On the other hand, for coordinators of HEI A, B, C and E, the definition of customer is the student. The "HEI C" coordinator makes an exception hat the student on the course "know that they will be strongly urged on by their professors", and the major cause of dropout from this course is failure. The "HEI F" coordinator made a point of emphasizing that "here in the HEI they are students rather than customers".

Assumption III can also be validated by analyzing the strategic alliances, when we found a difference among the speeches of UBA course coordinators with students from different income groups. While coordinators from "HEI A" and "HEI B" stressed the need for partnerships with companies and a professional class associations ("we look for approximation with professional entities"), those who have a higher-income student body give value to a partnership with international education institutions ("We have agreements with 120 foreign HEI"). The "HEI D" UBA coordinator stated that the advantage of his student body is that "the larger majority already has experience in international exchange".

In order to be able to equate the need for economic sustainability with teaching quality, the UBA course coordinators of one private HEI may identify in the Balanced Scorecard an important support tool for running the course. Héris (2010) presents the case study of a Brazilian private HEI that uses the principles of the BSC as a management control tool for administrative and teaching processes. The HEI has structured its targets with reference to the dimensions: financial, customers, internal processes and learning & growth.

However, the use of management tools makes difficult the segregation of the administrative and academic processes. Nevertheless, it is believed that, in the opinion of the UBA coordinators, this fact can be settled since emphasis on process mapping provided by the BSC facilitates the demand both for the HEI student body and the HEI senior administration.

In this study, we found that the Assumption IV is not only plausible but also relevant for the management of all studied HEI. Although only "HEI A" has a management model based on the BSC, all the interviewed persons stated the need for a proper decision-support system.

Table 2 shows that "HEI A", since it already has implemented the BSC, increases its coordinator's control spectrum, covering more items of Intellectual Capital than the other HEI: thirteen from the fourteen IC issues

stressed during the interviews received comments from study subjects. Therefore, it is reasonable to say that the BSC facilitates the visualization of the researched issues comprising Intellectual Capital: five on Human Capital, four on Structural Capital and five on Relational Capital.

Table 2 – Citations of the Intellectual Capital dimensions

	HC [5]	SC [4]	RC [5]	TOTAL
HEI A	4	4	5	13
HEI B	5	2	2	9
HEI C	3	1	3	7
HEI D	4	1	3	8
HEI E	3	2	4	9
HEI F	4	2	4	10
HEI G	4	2	4	10

Source: author's research data (2013)

It is still more than necessary to point out that even with the implementation of the BSC, the amount of issues reported by “HEI A” — Table 1 — indicates that it still has a very strong focus on aspects of Structural Capital, that is, there is room for more balance.

The knowledge of the “HEI A” strategy and actions disseminated by information systems (for example, intranet and meetings) has enabled the UBA coordinator to detail a series of measures taken by the superior and administrative management and that is very often not disclosed to the academic community. For example, we can illustrate the fact that the coordinators of HEI B, C, D and G did not mention socio-environmental actions, but this does not mean that such actions do not exist institutionally, but were probably not disclosed.

Although government HEI are successful with regard to the teaching quality, it does not mean that the Structural Capital is neglected. Instead, the strengthening of institutional management can create opportunities for the UBA courses, to reinforce the monitoring of the extension, research and teaching activities.

9. FINAL REMARKS

The collected data provided information on the Intellectual Capital of the HEI, which is considered plausible in face of the theory. Although configured differently from the studies of Maurer (2008) and Awad (2010), the categorization of this research has enabled us to check the importance of the faculty, Managerial Philosophy and institutional image for studying IC in the HEI. Once again, since they are placed hierarchically in the between of administrative management and classroom environment, the course coordinators are able to portray more reliably the impact of the use of Intellectual Capital to improve the organizational performance and value in the HEI.

From the assumptions presented for the study, it is worth stressing the importance of the affirmative social quota policy of “HEI B”. This allowed students from class C to be able to access the HEI with intensive capabilities of the professor's human capital.

Regarding the importance of the BSC, although having discussed how important management by objectives is, we do not yet have robust data on the improvement of the educational quality outputs. Therefore, although improvement in the operational processes generates value for the HEI as a whole, a study has not yet been done yet on the impact of the management tools on the academic performance of the students — external measure —, such as in the National Exam for Assessment of Student Performance (Enade).

Concerning the limitations of this research, we have: (i) the work is restricted geographically to the Rio de Janeiro city, whereas HEI in other cities in Brazil with a strong impact of the HEI on generating positive externalities for the local population were not interviewed, and new forms of IC dimensions/categories could have been identified; and (ii) although the UBA course coordinators play an important role in an HEI, they are not the only reference to be consulted — their role alternates depending on the HEI, from full responsibility for implementing and running a pedagogy policy project or, on the other side, the restricted action to attend students to settle administrative problems (therefore, the less important the role of coordinator in an HEI, the more limited will his contribution be to identify IC).

Finally but not last, the mere identification of Intellectual Capital in an HEI does not ensure its good performance on strategic or operational basis. Hence, this study opens the doors to an extended version that can also include interviews with deans of an HEI, rectors and teaching staff, to then verify the alignment of ideas with the course coordinators, and ratify the dimensions and issues of IC they consider relevant.

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