

The Sustainable University

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Abstract

The paper attempts to leverage theoretical constructs and practical ideas into conceptualizing the “sustainable university”. We propose an academic management approach that could improve the prospects for sustainability of a university’s evolution.

Based on a literature review and documentary research, we researched modern trends, patterns and practices of academic management, supportive of sustainability.

Like any organization, a university is a structure subjected to the pressures of change and affected by its consequences. Due to its mission and social function, a university should follow an ascending road to high performance and demonstrate staying power and lasting success. It is in this view that we investigated concepts and practices of corporate management applicable to academic management. Our paper is a first attempt to define the concept of sustainability in the academic world.

Keywords: *sustainable academic performance; sustainable university; academic management; university branding; university organizational culture; academic leadership*

JEL classification: I23; L32; D83

Introduction

The current era has brought a series of challenges in all fields, from all perspectives and in all geographical areas. From political and economic changes to changes related to resources - informational, technological, natural, material or financial, and to phenomena such as internationalization and globalization, everything is subject to transformations under the pressure or influence of external or internal factors [Barbu and Nastase, 2010]. Mobility, dynamics, change, challenges – which accompany crises or transformations – are the defining

elements of contemporaneity, from the individual to the community level, including the global one, and the other way round.

In this context, organizational structures are also subject to the factors of change, either because they have to or because they wish to continue to exist. Obviously, the reactions triggered by these challenges differ depending of several factors. Likewise, the solutions applied or their results. However, the primordial element which makes the difference is the managerial one. Depending on the skills of the management of an organizational structure, such structure may successfully turn out to remain valid or not, for an unlimited period or not.

Against this background, we are concerned with the university as an organizational structure of public interest, which, subjected and exposed to circumstantial changes, must continue to exist successfully and perform with excellence, according to its assumed mission and to its role in society.

Furthermore, since both the theory and practice of organizational management provide a series of instruments and solutions for its reform or transformation, to cause it to adopt a path which may lead to sustainability, we have deemed it useful to examine to what extent such elements may apply to an approach of the “sustainable university”.

Moreover, the current crisis calls upon universities to adopt advances made by theory and practice of organizational management in handling development for sustainability.

Consequently, in this paper we will conduct a brief overview of several references on managerial practice that, applied to academic management, may turn useful to enabling universities to reach the position of leader in and for the benefit of society.

1. The Organization and Its Management – Brief Overview

An organization is a social arrangement that pursues collective goals by means of a group of people [Tompkins, 2005]. The concept of organization is a generic one and may designate an enterprise, a company, a university, an association or a public institution.

Companies are organizations whose final objective is to obtain profit, an aspect that differentiates them from public institutions or non-profit organizations [Brătianu and Mândrăleanu, 2006].

Management is the science and the “art of achieving things through others” – as defined by Mary Parker Follett, since 1928 [Barrett, 2003]. The idea of management as the action of making use of the strong points and working on the weaknesses of an individual or of a collectivity for the purpose of reaching one’s goals appears as early as the VI-th century B.C. [Sun Tzu/ Giles, 2007].

Strategic institutional management is the approach taken by the management of an organization for preparing, implementing and assessing operational decisions so as to ensure a long-term achievement of its goals [David, 1989], while the *strategy* (of an organization) is that course of action that illustrates

its future orientation. The strategy prepares the organization for future opportunities or challenges [Ansoff, 1965].

On the basis of strategy and by means of strategic management, one ensures the forecast of, reaction to or earlier implementation of changes in an organization, triggered by the change in and under the influence of new challenges posed by (internal or external) environmental factors. Those factors may refer to new technologies, a new social, financial, economic or political context [Lamb, 1984], or new requirements of the customers and of the market [Arieu, 2007].

Thus, the management of an organization must achieve a permanent harmonization and balance between the internal and the external forces [Selznik, 1957]. In this respect, the potential and weaknesses of an organization must be used with reference to the threats and opportunities in the external environment [Learned, Christensen, Andrews and Guth, 1969].

Therefore, *active strategic management* [Puiu, 2003] requires a steady concern to gather and process information and a continuous involvement on the part of the managers in solving problems. *Reactive management* means lack of planning and vision, lack of involvement in the real world, weak chances of success, which leads the organization to work at the limit of survival under the threat of failure [Nirupama, 2001]. *Adaptive* management is just a momentary solution to an unexpected situation, in an uncertain environment [Byron, Szaro, Shapiro, 2007]. Such an approach can only represent an experience from which information may be extracted for future planning. Managing for performance is a *proactive* approach, which anticipates problems and is able to lead to avoiding and preventing difficult situations and to the early handling of crises [Martin, 1983]. It is focused on change and even initiates it [Drucker, 2004], taking and thus having control over the situation.

In 1985, Michael Porter promoted the idea of the *competitive advantage*. According to this concept, the organization must be able to be different from its competitors as a basis for building an advantageous position in the long term [Porter, 1985]. Porter also introduced the concept of *value chain*. An organization that uses its resources and abilities efficiently for obtaining a competitive advantage will finally produce superior value. In this respect, the organization needs to have one or more value-generating activities, superior to those of its competitors. In this line of thought, with respect to obtaining the competitive advantage, Porter stated that a company might produce superior value either by having lower costs or by offering unique benefits to the consumers. Thus, the management of an organization should regard all it does from the consumer's viewpoint, which is *customer-oriented management*. In an organization, each operation should be considered in terms of the added value that can be perceived by the final beneficiary of the products or services.

The value chain concept can be extended to analyzing the impact of an organization's activities on the social and natural environments. This can assist the organization with undertaking effective and efficient social responsibility

initiatives that can bring lasting support from stakeholders [Porter and Kramer, 2006].

Visionary management is the endless road towards the sustainable competitive advantage [Rampersad, 2001]. Thus, the term *sustainability* was born, i.e. the target that each organization wishing to prosper indefinitely should contemplate [Cândeia, 2007]. Taking such a road and developing prospects for sustainability imply several aspects. According to some authors, the efficient management of an organization's internal resources represents the key solution in defining its uniqueness, which brings an advantage in terms of sustainability [Barney, 1991]. Kaizen philosophy and practice, defining continuous improvement, uphold the continuous efforts to do better along the client service chain and to the benefit of the community [Masaaki, 1986]. The improvement is in all functions, at the level of all of the organization's members and activities, as well as at the level of all processes, starting with the management and continuing with the execution level, along the entire operations chain. Effects happen to both in the inner and the outside environment of an organization.

According to Black [2003], the strength of an organization stands in its culture. In the context of the national culture [Hofstede, 1980] an *organizational culture* is influenced by the management [Schein, 1985]. It is our belief, though, that an organization can also influence the mentality and attitudes of its stakeholders, potentially influencing a community's culture. That is particularly true of universities.

In 1969 Peter Drucker drew attention to several factors affecting organizational continuity, namely modern technologies, globalization, cultural pluralism and the know-how or the information [Drucker, 1969] – all engaged in fierce dynamics and in defiance of the tendencies of the past. Along these lines, in 1983, Noel Tichy called attention to the importance of *creativity* as a competitiveness factor, emphasizing the role of organizational culture [Tichy, 1983]. However, in 1990, Peter Senge highlighted the concept of *learning organization*, as the defining element of an organization that remains strongly involved in the real world and in permanent contact with it, evolving in accordance therewith [Senge, 1990]. We note that even the perspective proposed by Senge can be traced to the organizational culture characteristics: self-improvement, individual improvement of the members of an organization, shared vision, individual initiatives in support of the common goals, a holistic approach to problems, team work. It is to be noted that all those aspects are reflected, in one way or another, by what is known as knowledge capital, or *intellectual capital* [Stewart, 1997] and, last but not least, in the human resources – from managers to the members of an organization.

The educational system, with a special note for universities, is the vehicle by which knowledge is created, applications of knowledge are developed, and all these along with values are transmitted from one generation to the next. The need for sustainable universities is that much more obvious.

2. The Sustainable Organization – Defining Elements

If *sustainable development* [Brundtland, 1987] means achieving a balanced development, which takes into consideration economic goals, societal needs and preserving natural resources [Adams, 2006], for an indefinite time, an organization's sustainability should observe the same requirements. If for a company sustainability generically means long-term prosperity without a predictable time limit [Cândeia, 2007], the same concept may be applicable to a non-profit organization.

Although companies and non-profit organizations differ in the general purpose, we can notice some convergence in the approaches to achieving their goals. The modern days businesses must change the way they make profit by taking into account the expectations and demands of the stakeholders, i.e., exerting corporate social responsibility [Wood, 1991]. At the same time, non-profit organizations may carry out economic activities, i.e., they can have customers to serve in an efficient way and can benefit from adopting management approaches from the corporate world. Therefore, higher education institutions should also take notice of these trends.

Sustainability in business may be ensured through investing for societal results linked to the company's business interests [Cândeia, 2007]. By extension, we believe that the same principle should be observed in the case of universities.

Evaluating the sustainability of companies is just at the beginnings. Various rankings available [Dow Jones Sustainability Indexes; FTSE4Good Indexes] are attempts of capturing past and current performance and combine it with factors that are thought to provide prospects for good future prosperity. By far no uniformity has been achieved in terms of methodology and it is hilarious that the rankings of the "top sustainable" corporations change from one year to the next.

Universities are also ranked [World Top 500 Universities, Top 10/100 Universities] although with no direct reference to sustainability.

In principle, a university is sustainable if it can respond satisfactorily to the many stakeholders [Clark, 2000] that are essential for its wellbeing: taxpayers, tuition payers, contributors and supporters. A university has to think about its students and their families, the professors and the administrative staff, the communities to which it sends its graduates and from where it recruits its students, and the users of the research it conducts. These means carrying out successfully and for an indefinite time its role and mission, at an increasingly high level of performance. Therefore, a higher education institution is at a benefit when adopting the management principles of excellence and those relating to the concept of sustainable organization.

Universities, as well as other entities, have lately been faced with a very turbulent external environment, with fierce competition in the market, with an internal environment subject to increasing pressures, and with requirements of increasingly superior results of its educational services.

In this context, it is increasingly clear that a university must have in place a visionary and proactive strategic management, a solid organizational culture, and an independence of action that enables it to be flexible. Building a reputable brand, and gaining access to solid resources needed to support its operations will add to its prospects for sustainability.

We believe that university management should use approaches and tools, and implement managerial concepts coming from the corporate world. In fact, the idea of university management in agreement with corporate principles has previously been mentioned in western academic papers [Mayer, 2009]. In Romania some authors [Păunescu, 2007; Păun and Stanciu, 2008] advanced the concept of “entrepreneurial university”, emphasizing the need to create a dynamic organizational culture and to implement a strategic university management [Stoenoiu, 2009]. Moreover, these ideas promoting entrepreneurial university initiatives and concerns with the university management and strategy may also be found in legislative acts [MIC, 2002] and academic evaluation specifications [ARACIS, 2006].

In this era of globalization, we consider it necessary to learn and apply the global experience and not to do away with any of the complex economic, social, political, financial, cultural and even religious aspects. In our opinion, it is extremely beneficial to any organization to develop its openness and adaptability. This is true particularly in the case of a university [Brătianu, 2004]. Beyond acquiring knowledge and professional skills, universities have to promote a certain attitude and mentality, i.e., keeping an eye on the future and shaping the progressive values of society [Bochniarz, 2006].

3. The Sustainable University – a Driver of Sustainable Communities

Since the university is an institution providing services dedicated to the community, any forces of change affecting its external environment will equally influence its internal environment and will ultimately lead to the university being exposed and subjected to certain effects. From this standpoint, a university is rather vulnerable, especially if it depends on the wellbeing of the society, as reflected in its income level, degree of awareness and mentality [Kotler and Lee, 2008]. In our opinion, universities should distance themselves from this relationship of dependence. A university, the more financially independent, the more it can adopt a higher institutional standard in providing a superior quality of its services. This is, for instance, the case of Harvard University <www.hbs.edu>. With an annual budget of approximately USD 32 billion, it has the means to attract and keep leading experts, to get equipped at the cutting edge of knowledge and technology and to carry out educational and research programs of excellence, that place it at the top of the worldwide rankings of universities. However, it is worth noting that financial comfort is not the only element that brings this competitive position, but also the manner of managing the resources from a strategically - visionary standpoint. The high quality standards for the acquired services, the ethics and

probity, image and reputation, community integration and community concerns, innovation and creativity, developing global relations, are all elements that place and maintain it on the top position. In other words, the resources the university commands provide the opportunity to serve society well and, thus, ensure community support. The community's willingness to invest in a university is generated and motivated by the community believing that such an investment is useful and necessary for serving its prosperity expectations. This is the only way universities can inspire and give communities a sense of pride, of being represented in their endeavors to learn and develop. When that happens, communities turn into supporters of universities.

The educational system nurtures, transfers and maintains values in society. A university greatly influences the community's self-awareness and social conduct, which underlines the mission and the role of academia in society. Higher education should truthfully assume a leadership position in transforming society. Social growth and productivity are conditioned by improved education and worker skills, and by knowledge and innovation, which come from the educational system, specifically from universities.

Romanian law states that education is a national priority [Legea Învățământului, 1995]. In order to be able to fulfill and carry out their mission and role universities must be autonomous organizations, particularly because higher education is not mandatory. They must also be sustainable because society needs a sustainable partner in its evolution on a sustainable development pathway.

If we liken universities to corporations, a "sustainable university" should be prosperous indefinitely and capable of providing its "investors", i.e., society, with the knowledge and skills required for the development towards a higher standard of living. New knowledge and skills, progressive mentality, attitudes and capabilities are the "dividends" society obtains from its "investment" in education.

The investment in education comes in various forms of capital: financial (national budget allocations for education, donations and sponsorships, and tuition and other kinds of fees), social (relations, moral assistance and information-related support), and emotional (hopes and expectations for a better future through the young members of the society sent to study). The stake of that investment is becoming a prosperous society.

Community prosperity is defined by the Legatum Prosperity Index <www.li.com> as "both material wealth and well-being and includes factors such as liberty, opportunity, security and overall human flourishing". It is important to note that the Index finds that the most prosperous nations in the world are not necessarily those that have just a high GDP, but also have happy, healthy, and free citizens. The Index lists at <www.prosperity.com> a nation's prosperity indicators: economic fundamentals, entrepreneurship & innovation, democratic institutions, education, health, safety and security, governance, personal freedom, social capital. Those indicators cannot be raised to a high enough level without the contribution of higher education. Universities educate and develop professionals who create an

environment of opportunities, stimulate innovation, maintain the integrity and health of the social and natural environments, build strong communities.

A sustainable society is founded on sustainable organizations [Cândea and Cândea, 2008] and universities should make no exception, particularly because universities are a special kind of organizations. A university is a symbol of a community's spiritual state and the "mother" of its learning (alma mater). Theories of human resource management show that no organization can be better than its members. By extension, no society can be better than the individuals of whom it consists. The need and importance of communities investing in the development of their human resources follow as prerequisites of social development to prosperity. Universities are at the forefront of growing the human resources. Eventually, the quality of universities can be measured by the prosperity of the communities they serve.

The university and society have a mutual relationship. The university is a provider of professionals and knowledge. Society is the "investor" in education. The university "teaches" society, thus contributing to society's growth and improvement, and society "teaches" the university how to be a good societal member by providing for society's needs. The two partners should join efforts for an honest partnership.

Leading universities understand and seriously consider that kind of partnerships. For example, in 2009 at Kyoto University <www.kyoto-u.ac.jp> three types of programs were set up to integrate educational services with: a) the business sector and the industrial field – as an Innovation Center, b) the community – as a Collaboration Center, c) the international environment – as the Overseas Partner Relations Center <http://www.saci.kyoto-u.ac.jp/?page_id=260>.

From the above perspectives, the "sustainable university" is the higher education institution that successfully accomplishes its mission and role, which invests continuously in such accomplishment and achieves continuity of its educational and research excellence, for an indefinite period. It is the university that continues in its existence, providing value and quality to the community and is supported by the community, the two evolving together in a synergic way. The sustainable university is the academic institution that is a leader of sustainable development, thus giving society a chance to become sustainably prosperous.

Conclusions

The points we made in this paper are shared by the managers of the biggest and most prosperous companies worldwide [UN Global Compact, 2010], who place education at the top of the priorities for ensuring the good course of humanity.

In concluding, several characteristics of the sustainable university are summarized below. The sustainable university is an organization that:

- has a sustainability strategy that is flexible enough to account for the dynamics of both its internal and external environments;

- has a visionary proactive management;
- has a well defined, strong organizational culture;
- has a solid, widely recognized prestige;
- enjoys community support.

Equally, a sustainable university:

- ✓ learns permanently by getting involved in the real world and integrating in it in order to serve it better;
- ✓ efficiently manages and creatively capitalizes on all its resources and competencies, especially the human resources (internal and external, past and future);
- ✓ operates in respect of the natural and social environments;
- ✓ caters to the needs and expectations of its stakeholders;
- ✓ develops collaboration and partnership relations with society's constituents;
- ✓ is responsible, in that its operations are guided by ethics and standards conducive to the highest level of learned performance [Acar, 2009];
- ✓ creates tradition and makes history, being a standard of moral conduct and elitism and promoting enduring values and excellence.

For sustainability, a university should develop:

- financial sufficiency and stability supported by continuous fund raising; the financial adequacy is important to a university's freedom in pursuing its social mission;
- a relational capital, which supplies information and openings for cooperation;
- a social capital through involvement in the community life and benefiting from its support [Marga, 2003];
- an increasingly solid reputation.

The higher education institution should enjoy the acceptance, involvement and support of the community, to which, in return, delivers expected benefits, i.e., trust building and providing inspiration. A sustainable university should become a brand that speaks by itself. It does not beg for support, rather proves itself important to society and invites support. The sustainable university is the higher education institution that, by responsibly and honestly assuming the duty to perform its mission as efficiently as possible, for an indefinite period, is a contributor to society's sustainable development.

References

1. Acar, M. 2009. *Accountability of Higher Education*, NISPAcee 17th Annual Conference Proceedings, Budva, Montenegro; www.nispa.sk
2. Adams, W.M. 2006. *The Future of Sustainability: Re-thinking Environment and Development in the Twenty-first Century*, Report of the IUCN Renowned Thinkers Meeting, 29–31 January, 2006

3. Ansoff, I. 1965. *Corporate Strategy*, McGraw Hill, New York
4. ARACIS – Asociația Română de Asigurare a Calității în Învățământul Superior. 2006. *Ghidul de Evaluare a calității activităților și programelor de studii universitare și a instituțiilor de învățământ superior*
5. Arieu, A. 2007. *The Art of Strategic Management to Reach Success*, Business & Finance
6. Barbu, M. and Năstase, M. 2010. “Change Leadership and the Worldwide Crisis”, *Review of International Comparative Management*, Vol. II, Issue 1, March 2010
7. Barney, J. 1991. “Firm Resources and Sustainable Competitive Advantage”, *Journal of Management*, Vol. 17, no. 1
8. Barrett, R. 2003. *Vocational Business: Training, Developing and Motivating People*, Business & Economics
9. Black, J. R. 2003. *Organizational Culture: Creating the Influence Needed for Strategic Success*, London, UK
10. Bochniarz, Z. 2006. “Building Human Capital for Sustainable Transformation: Lessons Learned and Challenges Ahead”, *Întreprinderea Sustenabilă – Studii și cercetări*, vol. 1, Editura UTPRESS, Cluj-Napoca
11. Brătianu, C. 2004. “The Learning Paradox and the University”, *Journal of Applied Methods*
12. Brătianu, C. and Mândruleanu, A. 2006. *Managementul organizational*, Note de curs, Academia de Studii Economice din București
13. Brundtland, H.G. 1987. *Our Common Future*, Report of the World Commission on Environment and Development, UN
14. Byron, W.K., Szaro R.C. and Shapiro, C.D. 2007. *Adaptive Management: The U.S. Department of the Interior Technical Guide*, US Department of the Interior
15. Căndea, D. 2007. *Conjectures about the Relationship among Business Sustainability, Learning Organization, and Management Systems Integration*, key-note speaker address to the International Conference on Business Excellence ICBE-2007, Brasov, Romania
16. Căndea, D. 2007. “From Sustainable Development to the Sustainable Corporation”, *Întreprinderea Sustenabilă – Studii și cercetări*, Vol. 1, Editura UTPRESS, Cluj-Napoca
17. Căndea, D. 2007. *Business Sustainability – Strategic Stake of the Management Systems Integration*, paper presented at the Romanian Academic Seminar of Management, West University of Timisoara, Romania (April 13th, 2007)
18. Căndea, R. and Căndea, D. 2008. “Emotional Dimensions for Enhancing the Prospects for Organizational Sustainability”, *Inovare și bună guvernare pentru sustenabilitate. Întreprinderea Sustenabilă*, cartea a 3-a, Editura UTPRESS, Cluj-Napoca
19. Clark, B.R. 2000, *Towards an Entrepreneurial University – Organizational Transformation Directions*, Editura Paideia, București

20. David, F. 1989. *Strategic Management*, Columbus: Merrill Publishing Company
21. Drucker, P. 1969. *The Age of Discontinuity*, Heinemann, London
22. Drucker, P. 2004. *Managementul Viitorului*, Editura ASAB, București
23. Giles, L. 2007. *The Art of War by Sun Tzu*. Special Edition, El Paso Norte Press
24. Hofstede, G. 1980. *Culture's Consequences: International Differences in Work Related Values*, Beverly Hills, CA, Sage Publications
25. Kotler, Ph. and Lee, N. 2008. *Marketing in Sectorul Public*, Editura Meteor Press, București
26. Lamb, R.B. 1984. *Competitive Strategic Management*, Englewood Cliffs, NJ: Prentice-Hall
27. Learned, E.P., Christensen, C.R., Andrews, K.K.R. and Guth, W.D. 1969. *Business Policy, Text and Cases*, McGraw Hill
28. Legea nr. 84, 1995. *Legea Învățământului*, M. Of. nr. 606/ 10 decembrie, 1999
29. Marga, A. 2003. *University Reform Today*, Cluj University Press, Cluj-Napoca, Romania
30. Martin, A. P. 1983. *Think Proactive: New Insights into Decision-Making*, The Professional Development Institute
31. Masaaki, I. 1986. *Kaizen: The Key to Japan's Competitive Success*, New York, NY, USA: Random House
32. Mayer, C. 2009. "Said and Done", Said Business School at Oxford University, *The Economist*, feb. 9, 2009
33. MIC-Ministerul Învățământului și Cercetării, 2002. *Strategia dezvoltării învățământului, superior în perioada 2002-2010*; www.edu.ro
34. Nirupama, A. 2001, *The CTDP Management Guide Version 0.6.0*, The Computer Technology Documents Page, <http://www.comptechdoc.org/man/begin/mantechpro.html>, May 28th, 2001
35. Păun, M. and Stanciu, M., 2008. "Interactions among Components of a University System", *Management & Marketing Magazine*, Vol. 3, no. 4
36. Păunescu, C., 2007. "Dezvoltarea și consolidarea modelului universității antreprenoriale, în România", *Revista Amfiteatrul Economic*
37. Porter, M. E., 1985. *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, New York
38. Porter, E. M. and Kramer, R. M. 2006. "Strategy and Society. The Link between Competitive Advantage and Corporate Social Responsibility", *Harvard Business Review*, December, 2006
39. Puiu, A. 2003. *Management. Analize și studii comparative*, Editura Independența Economică
40. Rampersad, K. H., 2001. "A Visionary Management Model", *The TQM Magazine*, Vol. 13, Issue 4
41. Selznick, Ph. 1957. *Leadership in Administration: A Sociological Interpretation*, Row, Peterson, Evanston IL

42. Senge, P. 1990. *The Fifth Discipline*, Doubleday, New York
43. Schein, E. H., 1985-2005. *Organizational Culture and Leadership*, 3rd Ed., Jossey-Bass
44. Stewart, T. 1997. *Intellectual Capital*, Nicholas Brealey, London
45. Stoenoiu, C.E. 2009. *Studii și cercetări privind managementul strategic al instituțiilor de învățământ, superior de stat din România*, Teză de Doctorat, UTC-N, nepublicată
46. Tichy, N. 1983. *Managing Strategic Change: Technical, Political, and Cultural Dynamics*, John Wiley, New York
47. Tompkins, J. R. 2005. *Organization Theory and Public Management*, Thompson Wadsworth
48. UN Global Compact. 2010. *A New Era of Sustainability*, Accenture CEO Study
49. Wood, D. 1991. "Corporate Social Performance Revisited", *The Academy of Management Review*, Vol. 16, No. 4 (Oct., 1991)
50. <http://www.jstor.org/stable/258977>
51. Dow Jones Sustainability Index: <http://www.sustainability-index.com/>, visited on June 28th, 2010
52. FTSE4 Good Indexes: http://www.ftse.com/Indices/FTSE4Good_Index_Series/index.jsp, visited on June 28th, 2010
53. World Top Universities: <http://www.topuniversities.com/university-rankings/world-university-rankings/>, visited on January 26th, 2010
54. Top 10/ 100 Universities, by country: <http://www.topuniversities.com>, visited on October 29th, 2009
55. <http://www.provenmodels.com/37>