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A foresight process as an institutional sensemaking tool

Introduction

A recent issue of *Training + Education* (4/5, 2013) was dedicated to the future of business schools. While the authors strongly argued for the need for business schools to change (Dameron and Durand, 2013; Gupta and Bharadwaj, 2013; Lorange, 2013), they did not offer an empirical examination of the transformation processes that would be required to create the changes needed. Transformational change in a higher education institution, as in any other organisation, affects the whole organisation, as it changes the institutional culture through shaping expectations for behaviours, processes, and products. It involves both top-down and bottom-up sensemaking and sensegiving efforts (Frølich and Stensaker, 2012; Gioia and Chittipeddi, 1991; Kezar, 2013; Kezar and Eckel, 2002). This paper focuses on future-oriented sensemaking processes in a project that was created to foster strategic change in a Finnish higher education institution in connection with its institutional positioning efforts. The question that directed the examination is: How to foster institutional transformation as an interplay of top-down and bottom-up sensemaking through a foresight process?

A special contribution of this paper is its connection to institutional positioning, which might be of interest to both practitioners and researchers of higher education. While governments are increasingly encouraging higher education institutions to engage in profiling and institutional positioning (Bonaccorsi and Dario, 2007; Kitagawa and Oba, 2010; van Vught *et al.*, 2010), the main interest of researchers to date has been on conceptual discussions and system-level examinations (Fumasoli and Huisman, 2013; Huisman *et al.*, 2007; Morphew, 2009; Teixeira *et al.*, 2012). Empirical studies on the effects of institutional positioning have so far been rare, with the exception of Fumasoli and Lepori's (2011) study on the strategies of three Swiss higher education institutions, which reflected three different patterns in how the institutions search for new positions within the higher education system.

Context

To strengthen the competitiveness of Finnish higher education institutions and to increase the institutional diversity of the country, the Ministry of Education has asked all higher education institutions to redraft their strategies and to provide descriptions of their profiles and focus areas

(Opetusministeriö, 2008). The success of these attempts has varied, as some institutions seem to have simply described their existing educational or research fields as their areas of focus. Haaga-Helia University of Applied Sciences, which is one of the largest higher education institutions in the Finnish professional higher education sector with 10,800 students, however, created a bold strategic plan with a sharp focus on sales and services. This focus has directed both the educational and the applied research activities of the institution since 2009. Haaga-Helia is a privately owned, state-funded multidisciplinary institution located in southern Finland and was established in 2007 through a merger of two institutions. In addition to providing bachelor- and master-level degree programmes, it conducts work-life-oriented research and offers vocational teacher training, non-degree programmes, Open University courses, and business development services. Business education is by far its largest educational field, business students account for 49% of its degree student population. Other fields of education are hotel management, restaurant and tourism, information technology, journalism, management assistant training, and sports and leisure.

Institutional positioning attempts in higher education are based on the presumption that—in a similar way to business organisations—higher education institutions would benefit from concentrating their efforts in areas that offer favourable opportunities for attracting resources and that are less crowded with competitors and less burdened with other environmental constraints (Fumasoli and Huisman, 2013; Fumasoli and Lepori, 2011; Hazelkorn, 2009; Martinez and Wolverton, 2009). Institutional positioning activities do not only depend on the existing strengths of the university or the strategic courage of its management to place a more explicit focus on some areas; they are also linked to the actions of competitors. In some areas, a university may compete fiercely with institutions with which it has built alliances in other areas. Institutional positioning options also depend on existing funding opportunities and governmental control. Fumasoli and Lepori (2011) suggest that the positioning choices of higher education institutions depend on the characteristics of the institutions and the local conditions. While consolidation strategies might be suitable for larger and well-established universities, the positioning options of smaller and newer institution might be more flexible and more critical to the future success of these institutions.

Instead of narrowing down the number of programmes in favour of those that most strongly manifest a sales and service orientation, Haaga-Helia stated in its strategy that all students should acquire solid sales and service skills. These skills are seen as vital for many reasons. Firstly, service companies are the key drivers of the economies of western countries—services account for 74% of the gross national product of nations in the European region (World Bank, 2011). Secondly, service

skills become more important at the higher education level as a “service-dominant logic” gains popularity outside the traditional service sectors. The service-dominant logic maintains that the customer’s role is changing because customers take a central position in the development of services as active cocreators of the service experience. Manufacturing and software companies adopt service-based business models and increasingly regard themselves as providers of customer value instead of producers of manufactured goods. These more complex service working environments create new opportunities for higher education graduates. The new demands do not concern only graduates with business and hospitality degrees, but also graduates with other degrees, such as in information technology and engineering (Ford and Bowen, 2008; Grönroos, 2006; Lusch and Vargo, 2006; Vargo and Lusch, 2004; Vuori and Kaski, 2012). Thirdly, sales skills are also growing in importance. Because of the growing strategic role of the sales function, companies need expert-level employees who, in addition to filling their expert role, are able to be efficient participants in the sales process. (Ingram, 2004; Moisio and Vuori, 2012). Therefore, interest in higher education level sales programmes is growing all around the world (Deeter-Schmelz and Kennedy, 2011).

Foresight processes as sensemaking tools

Sensemaking is a concept that describes the complex, social, and cyclical processes through which people create and maintain their cognitive orientations of the intersubjective world. Sensemaking starts when something unusual, unexpected, and important happens outside a person’s normal routine. Sensemaking is characterized by the ongoing interplay of interpretation and action and always takes place in a social context (Weick, 1995). As the organisational sensemaking process is shaped by the sensemaking efforts of the organisation’s members, strategic change is possible only if the stakeholders understand and accept—that is, make sense—of the new cognitive orientations of the organisation (Gioia *et al.*, 1994; Smircich and Stubbart, 1985).

Triggers for sensemaking come from various sources in both formal and informal ways. Both top managers and middle managers have important roles in promoting organisational sensemaking through their own sensegiving efforts (Balogun and Johnson, 2004; Gioia and Chittipeddi, 1991; Rouleau, 2005; Rouleau and Balogun, 2011). Maitlis (2005) has shown that if the organizational efforts to influence sensemaking are too hierarchical, then the effects may be detrimental.

Therefore, organisational sensemaking processes would benefit from iterative discussions that continue for a longer period of time and involve numerous stakeholders. Discussions are important

not only for finding out how other members of the organisation respond to emerging issues, but also because through articulating our own ideas, we gain clarity regarding what our thoughts are really about (Weick, 1995). It is also beneficial to have multiple iterative rounds of discussion to support the on-going sensemaking process.

A foresight process, if properly planned and introduced, may support the strategic management of a higher education institution (Eléna-Perez *et al.*, 2011). Social constructionists argue that there is not one shared and objective reality, but rather that people construct their own meanings of reality, and the subjectivist approach to future studies relates to the future in the same way. There is no single and objective future that can be studied, only different meaning constructions that people attach to it (Fuller and Loogma, 2009; Karlsen and Karlsen, 2013). A collective and iterative organizational foresight process may foster the sharing of individual constructions of the future. Moreover, people who participate in the process become aware of their own constructions and have a chance to evaluate them critically. An institutional foresight process could therefore be seen as a collective endeavour to construct the future together and, as such, is an important step in the strategy implementation process of the institution.

Defining future sales and service skills

The trigger for Haaga-Helia's foresight process was questioning what are higher education-level service and sales competences. Although the institution had recently updated its research and development strategy to reflect the sales and services orientation and there certainly were individual- and even degree programme-level working definitions on what is meant by higher education level sales and service competences, the ideas were fragmented and not shared by the whole community. With funding provided by the Ministry for strategic development, the top management team of the institution made a decision to launch a foresight project to define the higher education-level service and sales skills that would be required of every student of the institution. To involve the major stakeholder groups in the process and to support the cyclical nature of sensemaking, the process design involved multiple methods with the intention of emphasising the collective and iterative process of gathering future-oriented data (Figure 1).

Figure 1 here

This process involved two separate Delphi surveys, which is a process for making the best use of the collective wisdom of participants and should not be treated as a scientific method for creating new knowledge. As Bell (2003) argues, a Delphi process might be objective and systematic, but the results are based on the subjective beliefs, evaluation, and experiences of the participants. The literature distinguishes many variations of the Delphi method. While the classic Delphi stresses consensus among the Delphi panellists, the choice was on “policy” or “argumentative” variations of the Delphi technique which stress that the value of technique is in the ideas it generates. Some ideas might reflect consensus among the panel, but it might be equally valuable to determine where the experts strongly disagree (Kuusi, 1999; Landeta, 2006; Turoff, 1975).

The Delphi method is also widely used in higher education to define future competence needs (e.g., Eskandri *et al.*, 2007; Manley and Zinzer, 2012; Rossouw *et al.*, 2011). Haaga-Helia’s foresight project used an e-Delphi (Donohue *et al.*, 2012) application, which made it possible for the Delphi participants to see how the other panellists had replied in real time. In the first Delphi survey, there were 32 statements, half of which were related to the business-to-consumer market in 2025 and half of which were related to business-to-business market in 2025. For each statement, the panellists were asked to evaluate its probability on a 7-point scale ranging from -3 (“Very unlikely”) to +3 (“Very likely”). They were also asked to rate the desirability of the statement, ranging from -3 (“Very undesirable”) to +3 (“Very desirable”), and to explain in their own words the reasons behind their choices. The survey statements were designed based on a review of the existing Finnish foresight data (e.g., Elinkeinoelämän keskusliitto, 2006; Tekes, 2010) and discussions in internal workshops and were revised by a project supervisory group consisting of 20 members representing companies and associations in Haaga-Helia’s external environment. The formulation of the statements was provocative in order to stimulate the thinking processes of the participants and to achieve a bold start for the foresight process; e.g., “By 2025, the number of employees in front-line sales has doubled” and “In 2025, customer segmentation based on consumer behaviour is impossible”.

In this Delphi, the criteria for inviting an expert was the minimum of 5 to 10 years of working experience, and emotional or professional commitment to sales and services education. Moreover, in order to avoid a situation where only a few people would dominate the workshop discussions, special emphasis was put on selecting experts who were open towards other participants' comments and known to appreciate the exchange of ideas between business practitioners and academics. With these criteria in mind, the educational units of Haaga-Helia gave recommendations for inviting each internal and external expert to participate on the Delphi panel. The internal experts were senior and principal lecturers and members of the top and middle management of the institution. There were 470 internal experts in the potential pool. The external experts represented private companies and professional organisations cooperating with Haaga-Helia. The number of potential external experts could not be estimated due to the early stage of the institution's customer management system implementation. Theoretically, however, the network would have covered all major Finnish companies and trade organisations.

Altogether, 160 experts promised to take part in the foresight process. The response rate for first Delphi survey was 79%; 48 replies were received from the internal experts, and 78 replies were received from the external experts.

Both the quantitative and qualitative results of this survey were further discussed in various workshops that were organized for the panellists in groups that represented specific fields or sectors relevant to Haaga-Helia. Each workshop lasted for approximately 4 hours, and the total number of workshop participants was 132. The fields represented were (1) wellness and experience industries; (2) information and communication industries and related services; (3) creative industries; (4) retail and logistics; (5) human resource services; (6) tourism; (7) accounting and auditing; (8) banking and insurance; (9) marketing and communications; (10) hotel and restaurant (11) technical trade and manufacturing industries. The panellists in the first nine workshops (n=109) had been invited to e-Delphi survey 1 and had their survey answers fresh in mind when attending the workshops. The last two workshops, however, were arranged three months later. These participants (n=23) had not replied to e-Delphi survey 1 but were provided with a summary of the findings as background information. The addition of these two workshops resulted from requests of project supervisory group members. An invitation to e-Delphi survey 2 was then sent to all workshop participants. Thus all panellists had been consulted at least twice in the Delphi process (Landeta, 2006).

The workshop participants also worked in smaller groups to brainstorm on an imaginary case of a higher education profession in their field. They were asked to draw a sketch of an expert-level employee in the year 2025, provide him/her with a name, a company and a title and list or draw the required sales skills on one side of the paper and the service competences on the other. These 32 profiles were presented to other workshop participants at the end of the workshop, videotaped and later transcribed verbatim. The analysis of the data revealed a consistent theme of sales and service skills interconnectedness. Groups expressed consistently that they had had difficulties in separating sales competence from service competence as was instructed. They indicated this clearly either in their oral presentations or in their drawings.

While the students of the case institution did not fit the criteria for a Delphi expert because of the work experience requirement, a different approach emphasizing the narrative element of sensemaking was used to involve students in the process. Students were encouraged to write short future-oriented narratives in which they situated themselves in 2040 and reflected on their work in the sales and service environment in 2025. The collection of stories also involved a competition for the best narrative and yielded 109 student writings. Like the other social constructionist-oriented methods in this foresight project, these narratives were not taken as “evidence” or “fiction”, but as meaning constructions and sensemaking efforts of the future voiced by the members of the higher education community.

In the second Delphi survey, the panellists were asked to use a 7-point scale to evaluate whether the competences described in 18 statements would gain or lose significance by 2025; e.g., “The ability to control one’s own emotions and manage customers’ emotional reactions”. As the statements of the second Delphi were built basis on the data gathered in the previous stages, it was not surprising that the 67 replies received for this survey reflected strong consensus among the panellists regarding the required sales and service competences.

The competence statements of the second Delphi were complemented with a thematic analysis based on the qualitative data that were collected as open answers to both the Delphi surveys and workshops. According to Boyatzis (1998, p. 4), a theme “is a pattern found in the information that at minimum describes and organizes the possible observations and at maximum interprets aspects of the phenomenon”. The coding process involved several stages of iteration and recategorisation, as well as negotiations, within the project group. The data from students’ future narratives were used

as a comparison to determine whether the narratives contained themes that had not emerged from the expert data.

The theme of interconnectedness of sales and service competence that was found in the workshop data analysis served as a major key in the interpretation of study findings- “One cannot separate when the sales role ends and the service role begins”, one Delphi panellists remarked. In their future positions, all Haaga-Helia graduates need to master both selling and customer service. Moreover, the panellists emphasized that the mastery of the competences is taking place in a future environment that is increasingly global and digital and demands strong self-management and organisational skills. The outcomes of the competence analysis were presented as eight sales and service roles that each Haaga-Helia graduate should manage. These roles are 1) a market predictor, 2) a sales person, 3) a service designer, 4) a customer partner, 5) an orchestrator, 6) a digital applier, 7) a cosmopolite, and 8) a self-leader. Each role has been further delineated as a set of necessary competences (Moisio and Vuori, 2012; Vuori and Kaski, 2012).

The sensemaking continues

The eight sales and service roles were defined and accepted by the top management group at the end of 2011 to signal a shared understanding of the higher education-level skills in Haaga-Helia's focus areas. Since then, the eight roles have been discussed on various platforms to further intensify the sensemaking efforts of the organization and its future vision. Firstly, all degree programmes were asked to compare their current curriculum to these eight roles to determine whether the related competences were covered in the existing curriculum. If not, the programmes were asked to plan how to include them in the curriculum. These discussions have continued the institution-wide sensemaking process because they allow teaching staff that did not participate in the foresight process to take part in the discussion and reflect on what the competences mean for the future work of a lecturer in computer programming or German language, for example. Secondly, a part-time non-degree programme that focuses on sales and service competences was designed and launched. The students in this programme are working full-time. This creates an opportunity for Haaga-Helia to foster sales- and service-related sensemaking through these students in their work environments. Thirdly, a system for demonstrating sales and service competences leading to a certificate in sales and service skills has been planned and is currently in the pilot stage. Fourthly, as the organization states that all its students should acquire these skills, it is reasonable to expect that its teaching and administrative staff will also develop competences in these areas. Therefore, both intensive

workshops and long-term personnel training programs are being offered that focus on these eight sales and service roles.

Conclusions and discussion

Institutional positioning in higher education may require transformational change and the reorientation of staff behaviours, internal processes, and products of the institution. While Eléna-Perez *et al.* (2011) have demonstrated how the foresight process can be of use in strategy formulation, this paper has shown that it might also be a useful tool for strategy implementation. This case study has illustrated how with a careful choice of foresight methods, a higher education institution may not only create definitions of future competence needs, but may also accelerate its transformation towards change. The choice of foresight methods in this case has accentuated that there is no internal or external truth of the future and that the best route to the future can only to be found using the collective wisdom of the higher education community. Thus, not only are the outcomes of the competence definition process important, but the process itself may also be meaningful.

This paper contributed to the discussion on sensemaking in higher education organisations (Frølich and Stensaker, 2012; Gioia and Chittipeddi, 1991; Kezar, 2013; Kezar and Eckel, 2002), illustrating that a foresight process may combine both top-down and bottom-up sensemaking. Although the institutional positioning areas of sales and services were decided on by the top-level management of the organisation, the definitions were built collectively by both internal and external stakeholders of the higher education institution with the support of the management. Now that the necessary competences for eight future roles in sales and services have been developed, the cyclical process of top-down and bottom-up sensemaking will continue in the form of curriculum revisions, new programme development, and staff training.

However, as the research on the effects of institutional positioning is still scarce and this paper is limited to the examination of one institution, one must be careful in estimating which conditions in other higher education organisations would favour a similar type of support process. As Fumasoli and Lepori suggest (2011), the positioning choices of newer and smaller institutions might be more flexible than the choices of larger and more established ones. While Haaga-Helia is a medium-sized institution for Finland, it is still relatively new. Moreover, it is privately owned, which may greatly

add to the flexibility of its strategic management. In addition, it should be noted that in its attempts to promote a sales and service orientation, this institution chose to revise the curricula of its existing programmes and to not cut programmes that were not directly related to the core sales and service areas. The organisational members were thus able to contribute to the process because knew that there was a need to change, but that the change would not threaten their future employment or the prestige of the degree programmes.

With the growing interest in profiling and institutional positioning in higher education, research in the ways institutional positioning is conceptualized and implemented in the strategic actions of higher education institutions will continue to be an important field of study for higher education management, both at the system and institutional levels, in Finland and worldwide.

References

- Balogun, J. and Johnson, G. (2004), "Organizational restructuring and middle manager sensemaking", *Academy of Management Journal*, Vol. 47 No. 4, pp. 523–49.
- Bell, W. (2003), *Foundations of Future Studies*, Vol. 1, Transaction Publishers, New Brunswick, NJ.
- Bonaccorsi, A. and Dario, C. (2007), "Theoretical perspectives on university strategy" in Bonaccorsi, A. and Dario, C. *Universities and strategic knowledge creation. Specialization and performance in Europe*, Edward Elgar, Cheltenham, pp. 3-30.
- Boyatzis, R.E. (1998), *Transforming qualitative information: thematic analysis and code development*, Sage, Thousand Oaks, CA.
- Dameron, S. and Durand, T. (2013), "Strategies for business schools in a multi-polar world", *Education + Training*, Vol. 55 No. 4/5, pp. 323–35.
- Deeter-Schmelz, D.R. and Kennedy, K.N. (2011), "A global perspective on the current state of sales education in the college curriculum", *Journal of Personal Selling & Sales Management*, Vol. 21 No. 1, 55–75.
- Donohoe, H., Stellefson, M. and Tennant, B. (2012), "Advantages and limitations of the e-Delphi technique: implications for health education researchers", *American Journal of Health Education*, Vol. 43 No. 1, pp. 38–46.
- Elena-Pérez, S., Saritas, O., Pook, K. and Warden, C. (2011), "Ready for the future? Universities' capabilities to strategically manage their intellectual capital", *foresight*, Vol. 13 No. 2, pp. 31–48.

- Elinkeinoelämän keskusliitto (2006), "Palvelut 2020" [Services 2020], available at http://www.hpl.fi/ek_suomeksi/ajankohtaista/tutkimukset_ja_julkaisut/ek_julkaisuarkisto/2006/18_10_2006_Palvelut2020_loppuraportti.pdf (accessed 8 July, 2013)
- Eskandari, H., Sala-Diakanda, S., Furterer, S., Rabelo, L., Crumpton-Young, L. and Williams, K. (2007), "Enhancing the undergraduate industrial engineering curriculum: Defining desired characteristics and emerging topics", *Education + Training*, Vol. 49 No.:1, pp.45–55
- Ford, R.C. and Bowen, D.E. (2008), "A service-dominant logic for management education. It's time", *Academy of Management Learning & Education*, Vol. 7 No. 2, pp. 224–43.
- Frølich, N. & Stensaker, B. 2012, "University strategizing: the role of evaluation as a sensemaking tool" in Stensaker, B., Välimaa, J. and Sarrico, C.S. (Eds.), *Managing Reform in Universities. The Dynamics of Culture, Identity and Organizational Change*, Palgrave MacMillan, Basingstoke, pp. 63–80.
- Fuller, T. and Loogma, K. (2009), "Constructing futures: A social constructionist perspective on foresight methodology", *Futures*, Vol. 41 No. 2, pp. 71–9.
- Fumasoli, T. and Huisman, J. (2013), "Strategic agency and system diversity: Conceptualizing institutional positioning in higher education", *Minerva*, Vol. 51 No. 2, pp. 155–69.
- Fumasoli, T. and Lepori, B. (2011), "Patterns of strategies in Swiss higher education institutions", *Higher Education*, Vol. 61 No. 2, pp. 157–78.
- Gioia, D.A., Thomas, J.B., Clark, S.M. and Chittipeddi, K. (1994), "Symbolism and strategic change in academia: the dynamics of sensemaking and influence", *Organization Science*, Vol. 5 No. 10, pp. 363–83.
- Gioia, D.A. and Chittipeddi, K. (1991), "Sensemaking and sensegiving in strategic change initiation", *Strategic Management Journal*, Vol.12 No. 6, pp. 433–48.
- Grönroos, C. (2006), "Adapting a service logic for marketing", *Marketing Theory*, Vol. 6 No. 3, pp. 317–33.
- Gupta, N. and Bharadwaj, S.S. (2013), "Agility in business school education through richness and reach: a conceptual model", *Education + Training*, Vol. 55 No. 4/5, pp. 370–84.
- Hazelkorn, E. (2009), "Rankings and the battle of world-class excellence: Institutional strategies and policy choices", *Higher Education Management and Policy*, Vol. 21 No. 1, pp. 1–22.
- Huisman, J., Meek, L., and Wood, F. (2007), "Institutional diversity in higher education: A cross-national and longitudinal analysis", *Higher Education Quarterly*, Vol. 61 No. 4, 563–77.
- Ingram, T.N. (2004), "Future themes in sales and sales management: complexity, collaboration and accountability", *Journal of Marketing Theory and Practice*, Vol. 12. No. 4, pp. 18–28.
- Karlsen, J.E. and Karlsen, H. (2013), "Classification of tools and approaches applicable in foresight studies", in Giaoutzi, M. and Sapio, B. (Eds.) *Recent developments in foresight methodologies*, Springer, New York, pp. 27–52.

- Kezar, A. (2013), "Understanding sensemaking/sensegiving in transformational change processes from the bottom up", *Higher Education*, Vol. 65 No. 6, pp. 761–80.
- Kezar, A. and Eckel, P. (2002), "Examining the institutional transformation process: The importance of sensemaking, inter-related strategies and balance", *Research in Higher Education*, Vol. 43 No. 4, pp. 295–328.
- Kitagawa, F. and Oba, J. (2010), "Managing differentiation of higher education system in Japan: connecting excellence and diversity", *Higher Education*, Vol. 59 No. 4, pp. 507–24.
- Kuusi, O. (1999), *Expertise in the future use of generic technologies*, Government institute for Economic Research, Helsinki.
- Landeta, J. (2006), "Current validity of the Delphi method in social sciences", *Technological Forecasting & Social Change*, Vol. 73 No. 5, pp. 467–82.
- Lorange, P. (2013), "Business school culture: customer-focused, virtual and co-operative", *Education + Training*, Vol. 55 No. 4/5, pp. 336–47.
- Lusch, R.F. and Vargo, S.L. (2006), *The service-dominant logic of marketing: dialog, debate, and directions*, M. E. Sharpe, Armonk, NY.
- Maitlis, S. (2005), "The social processes of organizational sensemaking", *The Academy of Management Journal*, Vol. 48 No. 1, pp. 21–49.
- Manley, R.A. and Zinser, R. (2012), "A Delphi study to update CTE teacher competencies", *Education + Training*, Vol. 54 No.6, pp. 488–503.
- Martinez, M. and Wolverson, M. (2009), *Innovative strategy making in higher education*. Information Age Publishing, Charlotte, NC.
- Moisio, A. and Vuori, J. (2012). "Towards the sales competences of tomorrow" in Kaynak, E. and Harcar, T.D. (Eds.) *Global Competitiveness in a time of economic uncertainty and social change: Current Issues and future expectations*. International Management Development Association, Hummelstown, pp. 8-17.
- Morphew, C. (2009), "Conceptualizing change in the institutional diversity of U.S. colleges and universities", *The Journal of Higher Education*, Vol. 80 No. 3, pp. 243–69.
- Opetusministeriö (2008), *Korkeakoulujen rakenteellisen kehittämisen suuntaviivat vuosille 2008–2011* [Guidelines for the structural development of higher education institutions for the years 2008–2011], Ministry of Education, Helsinki, available at http://www.minedu.fi/OPM/Koulutus/artikkelit/Korkeakoulujen_rakenteellinen_kehittaminen/1iitteet/KK_rak_kehitt_suuntaviivat_muistio.pdf (accessed 9 July, 2013)
- Rossouw, A., Hacker, M. and de Vries, M.J. (2011), "Concepts and contexts in engineering and technology education: an international and interdisciplinary Delphi study", *International Journal of Technology and Design Education*, Vol. 21 No. 4, pp. 409–24

- Rouleau, L. (2005), 'Micro-practices of strategic sensemaking and sensegiving: how middle managers interpret and sell change every day', *Journal of Management Studies*, Vol. 42 No. 7, pp. 1413–43.
- Rouleau, L. and Balogun, J. (2011), "Middle managers, strategic sensemaking, and discursive competence", *Journal of Management Studies*, Vol. 48 No. 5, 953–83.
- Smircich, L. and Stubbart, C. (1985), "Strategic management in an enacted world", *Academy of Management Review*, Vol. 10 No. 4, pp. 724–36.
- Teixeira, P.N., Rocha, V., Biscaia, R. and Cardoso, M. (2012), "Competition and diversity in higher education: an empirical approach to specialization patterns of Portuguese institutions. *Higher Education*, Vol. 63 No 3, pp. 337–52.
- Tekes (2010), "The future of service innovation", *Tekes review*, 272/2010, available at www.tekes.fi/fi/document/45359/service_business_pdf (accessed 9 July, 2013)
- Turoff, M. (1975), "The policy Delphi", in Linstone, H.A. and Turoff, M. (Eds), *The Delphi method: techniques and applications*, Addison-Wesley Publishing, Reading, MA.
- van Vught, F., Kaiser, F., File, J., Gaethgens, C., Peter, R. and Westerheijden, D. (2010), "U-map. The European classification of higher education institutions", available at http://www.u-map.org/U-MAP_report.pdf (accessed 22 April, 2013)
- Vargo, S.L. and Lusch, R.F. (2004), "Evolving to a new dominant logic for marketing", *The Journal of Marketing*, Vol. 68 No. 1, pp. 1–17.
- Vuori, J. and Kaski, T. (2012). "Preparing higher education students for the service economy" in conference proceedings of 6th International technology, education and development conference. Valencia, 5 - 7.3.2012.
- Weick, K.E. (1995), *Sensemaking in organizations*, Sage, Thousand Oaks, CA.
- World Bank (2011), "World development indicators 2011", Part 2, available at http://issuu.com/world.bank.publications/docs/9780821387092_part2 (accessed 8 July, 2013)