



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



International Food and Agribusiness Management Review
Volume 15 Special Issue A

Developing Human Capital for Agri-Food Firms' Multi-Stakeholder Interactions

*Global Networks, Global Perspectives and Global Talent
Discussions on the Development of Human Capital in Agribusiness¹*

Domenico Dentoni[Ⓐ], Vincent Blok^ᵇ, Thomas Lans^ᶜ, Renate Wesselink^ᵈ

^{ᵃ,ᵇ}Assistant Professor, Management Studies Group, School of Social Sciences, Wageningen University
Hollandseweg 1, 607 7KN, Wageningen, The Netherlands

^{ᶜ,ᵈ}Assistant Professor, Education and Competence Studies, School of Social Sciences, Wageningen University
Hollandseweg 1, 607 7KN, Wageningen, The Netherlands

Abstract

This essay discusses 1) the current agri-food firms' need of interacting with multiple stakeholders to undertake sustainable strategies effectively, 2) the relationship between human capital and firm capabilities to effectively interact with multiple stakeholders and 3) a list of competencies characterizing the human capital that would meet the need of agri-food firms and which can be learned – at least to some extent – through higher education and on-the-job training.

Keywords: sustainability, human capital, stakeholder management, competencies, capabilities.

[Ⓐ]Corresponding author: Tel: + 31 (0)317 483623
Email: D. Dentoni: domenico.dentoni@wur.nl

¹ This Special Issue was made possible through the generous support of Alltech and Kincannon & Reed. The essay collection was distributed during a special session on human capital development presented during the IFAMA 2012 Forum in Shanghai, China on June 14, 2012.

Multi-Stakeholder Interactions for Sustainability Strategies

To create value, compete and survive in current global agri-food systems, firms are pressured to effectively interact with multiple stakeholders that are both within and outside their supply chain. (Lazzarini et al. 2001, Freeman et al. 2010). Through purposive interactions with actors outside the supply chain – governments, knowledge institutions and societal organizations – firms seek a balance between their short-term financial performance goals and longer-term social and environmental objectives (GOLDEN 2011). Through these stakeholders, firms gain access to information, develop knowledge and establish reputation (Selsky and Parker 2005).

Evidence of the importance of multi-stakeholder interactions on sustainability undertaken by agri-food firms of different size and regions is synthesized as follows:

- Between 2001 and 2011, 21 out of the 50 largest agribusiness firms have joined or created 47 multi-stakeholder sustainability partnerships with NGOs, governments, international organizations, and other representatives of the civil society (Dentoni and Peterson 2011). These partnerships provide firms with formal structures to interact and learn from stakeholders, as well as to negotiate and set standards, actions and the future agenda (Glasbergen 2007). Most of these partnerships influence the core business activities of agri-food firms, such as their supply of raw material and the process of product transformation.
- In the same period, a growing number of firms worldwide voluntarily disclosed information about their sustainability strategies in multi-stakeholder settings. In 2000, only 200 firms signed the UN Global Compact, while 2,000 in 2005 and 6,000 in 2010 (UNGC 2010). Firms reporting to the Global Reporting Initiative (GRI) grew with an average of 35%/year since 2005 up to 1,800 companies in 2010 (GRI 2011). Out of the 1,800 signing firms, 300 are active in the agri-food sector, 64% are based in OECD countries (mainly from Europe, accounting 45% of the total) and 200 are small and medium enterprises.
- In the latest three to five years, applied researchers and consultants with firms both in the food and non-food sector recommended to manage multi-stakeholder interactions as part of their core strategy (De Wit and Meyer 2009). This role of multi-stakeholder interactions was also recently highlighted by managers of large agri-food firms and representatives of global NGOs (IFAMA 2011).

Firm Capabilities for Multi-Stakeholder Interactions

Results from meetings with managers of 15 out of the fifty largest agri-food corporations worldwide in 2011 and a collection of related press releases and sustainability reports are synthesized as follows. In order to interact effectively with multiple stakeholders, firms need the capability of 1) identifying and sensing their stakeholders, 2) dialoguing with them, 3) learning from them and 4) making organizational changes as a result of this process (Ferrell et al. 2010). Identifying stakeholders allows understanding which actors are legitimate representatives of social and environmental concerns, which actors have power vis-à-vis the firm, and how they exercise this power (Mitchell et al. 1997). Sensing stakeholders allows understanding their system of values, beliefs, attitudes and behaviour to attempt to turn their actions in favour of the firm (Dentoni and Peterson 2011). Dialoguing with stakeholders and integrating their knowledge within the firm boundaries allows preparing effective strategic responses (Ayuso et al. 2006, Hult 2011). Organizational change based on multi-stakeholder interaction allows following words with committed actions (Zollo and Verona 2011).

Some of the largest agri-food firms have developed these capabilities in the latest decade given their initial financial resources and early start in interacting with multiple stakeholders. The remaining firms still have

not set the acquisition of these capabilities as learning objectives for their organization. Human capital – especially, but not exclusively, at managerial level – is a key driver of firm capability development and effective multi-stakeholder interactions.

Individual Competencies Leading to Firm Capabilities

In order to answer the question of firm capability development from the perspective of individual managerial competence development, a process of logical competence modeling (Rothwell and Lindholm 1999) was conducted. It involved: 1) a literature review on competencies for sustainable development and innovation and 2) four focus group discussions with lecturers from ‘green’ higher education institutes (HEI’s) in the Netherlands. HEI’s include universities of applied sciences in the agri-food domain (Wals et al. 2011). Besides traditional programs like agronomy and animal husbandry, HEI’s education also includes rural innovation, food technology and environmental management. Individual managerial competences are complex sets of knowledge, skills and attitudes (Nijhof et al. 2006). The result of this process was a list of seven key competencies linked to three challenges faced by agri-food firms when attempting to develop the mentioned firm capabilities:

Challenge 1: Dealing with Wickedness

Employees at all levels in the organization may not sense the “wickedness” of sustainability. Sustainability is a wicked problem as it cannot be structured and solved in any traditional way as it does not have a closed-form definition; it deals with complex systems in which cause and effect relationships are either unknown or highly uncertain and has multiple stakeholders with strongly-held, diverse, and conflicting values related to the problem (Batie 2008, Peterson 2011). When they do not sense wickedness, employees may have weak motivations and scarce incentives to interact with multiple stakeholders. To understand the wickedness of sustainability, firm managers need to disentangle a complex net of interdependencies among stakeholders and of cause-effect relationships based on their sustainability policies (Arndt 2006). This requires systems-thinking and foresighted thinking competencies. Moreover, as a wicked problem sustainability is a normative concept, it does not describe the world as it is, but the way it should be based on the convergence of different stakeholders’ perspectives. Therefore, tackling this challenge requires *systems-thinking*, *foresighted thinking* (de Haan 2006, Wiek 2011) and *normative competence* (Grundwald 2004, Gibson 2006).

Challenge 2: Dealing with Heterogeneity

Classical boundaries between disciplines, jobs or functions within organizations become permeable or even dissolve in multi-stakeholder settings (Peterson and Mager 2011). New knowledge is co-created with employees and teams who traditionally were not part of the classical R&D system (Wals et al. 2011). At present, individuals within agri-food firms are educated in a disciplinary way (Wesselink et al. 2007, Peterson 2011) and therefore not used to deal with individuals and groups with heterogeneous disciplinary backgrounds, cultures and values (Latesteijn and Andeweg 2011). Therefore, tackling this challenge requires the competence of *embracing diversity and interdisciplinarity* (Wilson et al. 2006, Ellis 2008) and *interpersonal competence* (de Haan 2006, Wiek 2011).

Challenge 3: Dealing with Value Creation without Capturing

In the end, sustainability initiatives aim to create value for a wide diversity of stakeholders embedded in new business models, concrete products, processes or services. The value created for stakeholders is by definition not captured by managers in terms of financial, tangible outcomes (Latesteijn and Andeweg 2011). This requires *action competence* (Ellis 2008, Mogensen et al. 2010) and *strategic management* (de Haan 2006; Wiek 2011).

The seven competencies identified to deal with these challenges are synthesized in Table 1. Proposed links between challenges and competencies are not meant to be mutually exclusive. That is, overlap does exist. It is recommended that the agri-food firms have a combination of these employees' competencies, but not necessarily all employees need to have the entire set of competencies (Fernandez-Araoz et al. 2011).

Individual Competencies: How to Develop Them

Once the competencies necessary to manage multi-stakeholder interactions are identified, the managerial question that follows is: could these employees' competencies be developed by training or procured by hiring? Some of these competencies are perceived by both employees and students as more "learnable" than others (Table 1). Perceptions of learnability are crucial, since it is established that they actually drive the outcome of competence development (Maurer et al. 2003). Overall, the development of competencies has to take place in authentic situations. For students, this means working on and managing problems from practice and receiving guidance from professionals in solving these problems. For employees, it is important to receive feedback and reflect on experiences they have had in practice in order to learn together from solving and dealing with these problems.

Various interventions are available for managers to organize feedback and reflection on multi-stakeholder interactions within firms and supply chains (Bertels et al. 2010). These include: scanning external information (Doppelt 2008), benchmarking (Blackburn 2007), learning from failure (Hagen 2008), implementation of formal feedback and reflection systems (Dunphy et al. 2003), development of metrics which enable monitoring and evaluation of sustainability performance (Holton et al. 2010), internal knowledge sharing across functional areas and business units (Reverdy 2006), external knowledge sharing and collaboration with competitors and stakeholders (Clarke and Roome 1999, Buysse and Verbeke 2003). By implementing these kinds of interventions, managers are able to organize moments of reflection and collective learning within the company in general, as well as to develop the individual competencies.

Overall, evidence from this study and past literature poses an interesting final proposition. The process of development of competencies for managing interactions with multiple stakeholders starts *within* the organization. That is, the more managers recognize the importance and are able of organizing moments of feedback within the boundary of the firm, the more employees' competencies and firm's capabilities for multi-stakeholder interactions develop. Future scholarship engaged with agri-food firms would bring a substantial contribution by testing this hypothesis.

Table 1. Challenges and Competencies for Multi-Stakeholder Interaction

Challenges	Competencies	Description	Perceived Learnability
Dealing with Wickedness	Systems-Thinking	Identifying and analyzing all relevant (sub) systems across different domains (people, planet, profit), including their boundaries. Understand and reflect upon the interdependency of these (sub) systems.	Most learnable, as based on knowledge and skills: models and theories supporting this competence exist
	Foresighted Thinking	Collectively analyzing, evaluating, and crafting 'pictures' of the future where impact of local or short term decisions on environmental, social and economic issues is appreciated on global scale and on the longer term.	Most learnable
	Normative	Assessing and improving the (un-) sustainability of social-ecological systems based on values and principles.	Learnable to some extent, as based on self-concept of employees and individuals
Dealing with Heterogeneity	Embracing Diversity and Interdisciplinary	Structuring relations, spotting issues and recognizing legitimacy of other viewpoints in business decision making processes about environmental, social and economic issues. Involve all stakeholders, maximizing exchange of ideas and learning across different groups inside and outside the organization and across different disciplines.	
	Interpersonal		Learnable to some extent
Dealing with Value Creation without Capturing	Action	Actively involving in responsible actions to improve the sustainability of social-ecological systems.	Learnable to some extent
	Strategic Management	Collectively designing projects and implementing interventions, transitions, and strategies towards sustainable development practices	Most learnable

References

- Arndt, H. 2006. Enhancing System Thinking in Education Using System Dynamics. *Simulation* 82 (11):795–806.
- Ayuso, S., M.A. Rodriguez, and J.E. Ricart 2006. Using stakeholder dialogue as a source for new ideas: A dynamic capability underlying sustainable innovation. *Corporate Governance* 6 (4): 475 – 490.
- Batie, S. 2008. Wicked Problems and Applied Economics. *American Journal of Agricultural Economics* 90 (5): 1176–1191.
- Bertels, S, L. Papania and D. Papania. 2010. *Embedding Sustainability in Organizational Culture. A Systematic Review of the Body of Knowledge* (Network for Business Sustainability).
- Blackburn, R., and B. Rosen. 1993. Total quality and human resources management: Lessons learned from Baldrige Award-winning companies. *Academy of Management Executive* 7(3): 49-66.
- Buyse, K. and A. Verbeke. 2003. Proactive environmental strategies: A stakeholder management perspective. *Strategic Management Journal* 24(5): 453-470.
- Clarke, S., and N. Roome. 1999. Sustainable Business: Learning-action networks as organizational assets. *Business Strategy and the Environment* 8: 296-310.
- De Haan, G. 2006. The BLK ‘ 21’ Programme in Germany: a ‘ Gestaltungskompetenz’ based model for education for sustainable development. *Environmental Education Research* 12 (1):19-32.
- Dentoni, D. and H.C. Peterson. 2011. Multi-Stakeholder Sustainability Alliances: A Signaling Theory Approach. *International Food and Agribusiness Management Review* 14 (5):83-108.
- Doppelt, B. 2008. *The Power of Sustainable Thinking* (London: Earthscan Publications Ltd).
- Dunphy, D., A. Griffiths and S. Benn. 2003. *Organizational Change for Corporate Sustainability* (London: Routledge).
- Ellis, G. and Weekes, T. (2008). Making sustainability ‘real’: using group-enquiry to promote education for sustainable development. *Environmental Education Research* 14 (4): 482-500.
- Fernandez-Araoz, C., B. Groysberg, and N. Nohria. 2011. How to Hang On to Your High Potentials: Emerging Best Practices in Managing Your Company’s Future Leaders. *Harvard Business Review*, October:76-83.
- Ferrell, O.C., T.L. Gonzalez-Padron, G.M.T. Hult and I. Maignan. 2010. From Market Orientation to Stakeholder Orientation. *Journal of Public Policy & Marketing* 29 (1): 93-96.
- Freeman, R.E. 2010. *Strategic Management: A Stakeholder Approach*. Pitman, Boston, MA.
- Gibson, C.B. and J. Birkenshaw. 2004. The Antecedents, Consequences, and Mediating Role of Organisational Ambidexterity. *Academy of Management Journal* 47 (2): 209-226.

- Glasbergen, P. 2007. Setting the Scene: The Partnership Paradigm in the Making. In *Partnerships, Governance and Sustainable Development*, edited by A.P.J. Mol, 288–299. Cheltenham, UK: Edward Elgar.
- Global Reporting Initiative. 2010. GRI Sustainability Reporting Statistics. <http://www.globalreporting.org/ReportServices/GRIReportsList/> (Accessed December 1st, 2011).
- GOLDEN for Sustainability. 2011. The GOLDEN Program for Sustainability. www.goldenforsustainability.org (Accessed December 1st, 2011).
- Grunwald, A. 2004. Strategic knowledge for sustainable development: the need for reflexivity and learning at the interface between science and society. *International Journal Foresight Innovation Policy* 1(1–2): 150–167.
- Hagen, O. 2008. Seduced by their proactive image? On using auto communication to enhance CSR. *Corporate Reputation Review* 11(2):130-144.
- Holton, I., J. Glass and A.D.F. Price. 2010. Managing for sustainability: Findings from four company case studies in the UK precast concrete industry. *Journal of Cleaner Production* 18(2): 152-160.
- Hult, G.T.M. 2011. Market-focused sustainability: market orientation plus! *Journal of the Academy of Marketing Science* 39 (1): 1-6.
- IFAMA. 2011. Public and private discussion with agribusiness managers and non-governmental representatives. *International Food and Agribusiness Management Association* meetings in Frankfurt, Germany, 23rd-25th June 2011.
- Lazzarini, S.C., F.R. Chaddad, and M. Cook. 2001. Integrating Supply Chain and Network Analysis: The Study of Netchains. *Journal on Chain and Network Science* 1 (1): 7-22.
- Maurer, T.J., K.A. Wrenn, H.R. Pierce, S.A. Tross and W.C. Collins. 2003. Beliefs about ‘improvability’ of career-relevant skills: relevance to job/task analysis, competency modeling, and learning orientation. *Journal of Organizational Behavior* 24 (1): 107-131.
- Mogensen, F. and K. Schnack. 2010. The action competence approach and the ‘ new’ discourses of education for sustainable development, competence and quality criteria. *Environmental education research* 16 (1): 59-74.
- Nijhof, A., T. de Bruijn, O. Fisscher, J. Jonker, E. Karssing and M. Schoemaker. 2006. Learning to be responsible: developing competencies for organization-wide CSR. In *The Challenge of Organizing and Implementing CSR*, edited by J. Jonker and M. de Witte, 148-172. London, UK: Palgrave Publishers.
- Peterson, H.C. and S.E. Magen. 2011. From motivating assumptions to a practical innovation model. In *The TransForum Model: Transforming agro innovation toward sustainable development*, edited by H. Van Latesteijn and K. Andeweg, 97-129. Dordrecht, NL: Springer.
- Reverdy, T. 2006. Translation process and organizational change: ISO 14001 implementation. *International Studies of Management and Organization* 36(2): 9-30.

- Rothwell, W.J. and J.E. Lindholm. 1999. Competency identification, modeling and assessment in the USA. *International Journal of Training and Development* 3: 90–105.
- Selsky, J.W. and B. Parker. 2005. Cross-Sector Partnerships to Address Social Issues: Challenges to Theory and Practice. *Journal of Management* 31: 849-873.
- Swanson, R.A. and E.F. Holton. 2001. *Foundations of human resource development*. San Francisco, CA: Berrett-Koehler Publishers.
- UN Global Compact 2010. *UNGC Annual Review*. New York, NY: United Nations Global Compact Office.
- Van Latesteijn, H. C. and K. Andeweg. 2011. The need for a new agro innovation system. In *The TransForum Model: Transforming agro innovation toward sustainable development*, edited by H. Van Latesteijn and K. Andeweg, 1-19. Dordrecht, NL: Springer.
- Wals, A.E.J., T. Lans, and H. Kupper. 2011. Blurring the boundaries between vocational education, business and research in the agri-food domain. *Journal of Vocational Education and Training* 64 (1): 3-23.
- Wesselink, R., H.J.A. Biemans, M. Mulder and E.R. van der Elsen. 2007. Competence-based VET as seen by Dutch researchers. *European Journal of Vocational Training* 40 (1): 38-51.
- Wiek, A., L. Withycombe and C.L. Redman. 2011. Key competencies in sustainability: a refer-