Managing Wicked Problems in Agribusiness: The Role of Multi-Stakeholder Engagements in Value Creation

EDITOR’S INTRODUCTION

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Abstract

Environmental degradation and biodiversity loss, persisting poverty, a mounting obesity epidemic, food insecurity and the use of biotechnology are all examples of wicked problems faced by agricultural and food organizations. Yet, managers and policy-makers often do not recognize that these problems are “wicked”. Wicked problems have cause-effect relationships that are difficult or impossible to define, cannot be framed and solved without creating controversies among stakeholders and require collective action among societal groups with strongly held, conflicting beliefs and values. In contrast to past research, this Special Issue takes an organizational perspective by tackling three key managerial questions: what is the value of managing wicked problems and engaging with multiple stakeholders? What are the human and organizational resources and the strategic conditions needed to engage with multiple stakeholders effectively? How can multi-stakeholder engagements be undertaken? A world collection of empirical case studies conducted by business, NGO and university leaders tackle these questions. For managers, the Issue offers recent and thought-provoking insights on how to recognize and deal with wicked problems. For academics, it proposes an agenda for addressing the topic and promises to fuel a research and education debate for years to come.

Keywords: wicked problems, sustainability; agriculture; Stakeholder Theory; multi-stakeholder initiatives

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Introduction

“Wicked problems” refer to issues which are highly complex, have innumerable and undefined causes, and are difficult to understand and frame. They result in outcomes that are either uncertain or unknowable, and often affect multiple stakeholders throughout the agri-food system and beyond. Thus, wicked problems cannot be resolved through finding “right answers” or “solutions”, but rather, they must be managed. Agri-food sustainability, natural resource constraints and biodiversity loss, persisting poverty in peripheral areas, the growing obesity epidemic, the use of biotech in food and agriculture and how we will feed current and future generations with fewer resources—are a few examples of wicked problems.

This Special Issue stems from two burning tensions in the intensifying debate on the sustainability of the global agricultural and food system. First, managers increasingly recognize the relevance and urgency of addressing sustainability problems such as the increasing scarcity of natural resources, dramatic climate change, and socio-economic turbulence. Agribusiness managers do not always recognize that these are wicked problems that require not only the adoption of technological innovations but also or primarily organizational change (Freeman 2010). In particular, addressing wicked problems requires firms to engage in a strategic dialogue and to take action with a diverse set of stakeholders both inside and outside the supply chain at levels that have been uncommon in the agri-food sector (Batie 2008; Peterson 2010; Brown et al. 2012). These multi-stakeholder engagements may include civil society organizations, non-governmental organizations (NGOs), policy-makers, and universities with trans-disciplinary knowledge. However, a recent study reveals that a few agribusiness firms actually undertake such organizational change (Dentoni and Peterson 2011). Instead, the approach of the majority of agribusiness firms has been to essentially replicate traditional forms of limited stakeholder interactions. Common approaches that firms have used to address sustainability have been to collaborate with industry competitors to set harmonized industry standards or to engage in bilateral agreements with one third-party organization, such as an NGO, to obtain certifications or endorsements of sustainable practices (Ross et al. 2012). These initiatives have typically not included wide engagement of multiple stakeholders outside their supply chain or major organizational changes (Dentoni et al. 2012a).

Second, academics have also been concerned with sustainability issues. In fact, they characterize such problems as “wicked problems” to highlight their complex, multi-dimensional, and system dynamic nature. Their wickedness is further exacerbated by the collective action strategies that are often prescribed to address such problems. These collective strategies typically involve engagement with multiple societal groups that possess strongly held and conflicting beliefs and values (Rittel and Webber 1973; Conklin 2006).

Although the literature on wicked problems continues growing rapidly, the main approach thus far has been to examine wicked problems from a systemic and governance perspective. This has led to the identification of various types of wicked problems and to recommendations for policy planning (Weber and Khademian 2008). With regards to providing implications for managers, the literature on wicked problems is limited. A notable absence has been for organizational research that might contribute to enhance a managers’ strategic decision-making ability (Camillus 2008). In particular, the following questions remain unaddressed with regards to
engaging multi-stakeholders to address wicked problems: 1) What is the value proposition for managers to engage with a large and diverse set of stakeholders, some of whom have conflicting beliefs, values and goals? 2) Which types of multi-stakeholder engagement processes are available to managers, and how can these be initiated and developed over time? And 3) what are the necessary human and organizational resources and strategic conditions that managers need to undertake such processes effectively?

This Special Issue hopes to contribute to these organizational questions while: 1) presenting empirical research and thought pieces from leaders in business, NGOs, academia and policy-making organizations from around the world; 2) proposing a decision framework that links a managers’ choice of engaging (or not engaging) with multiple stakeholders on wicked problems with organizational and strategic factors; and 3) providing an agenda for immediate “community action research” on managing wicked problems in agribusiness. The rest of this essay is organized around these three objectives.

Methods and Content of the Special Issue

The content for this Issue has been collected and organized using an inductive research approach (Eisenhardt 1989). The inductive process involved comparing and contrasting cases from multiple authors (which includes synthesizing/interpreting ideas and harmonizing languages from different scientific backgrounds), then interlinking novel practices to existing theory. Based on the empirical cases presented by the authors, the Editors develop a conceptual framework (see section 3) to initiate a dialogue on future managerial and policy actions and questions for future research related to wicked problems in agribusiness. The selection of papers was based on their likely contribution to the academy in helping members understand the causes, processes and effects of engaging with multiple stakeholders to manage wicked problems and further articulate the complexity of the emerging framework.

The ten empirical papers selected for the Issue include: four invited essays from industry experts, an executive interview, and five peer-reviewed research articles. Four articles focus on managing multi-stakeholder engagement through partnerships. Based on the case of the global coffee, cotton, and cocoa chains, Bitzer (2012) describes partnerships among agribusinesses, NGOs and governments as a form of multi-stakeholder engagement and highlights that the effects of partnerships on value creation for agricultural producers upstream in these chains are so far ambiguous. With evidence from a case study of soybean production and marketing in Brazil, Hospes et al. (2012) discusses the importance of harmonizing interactions across multiple partnerships within the same sector in order to mitigate the wicked problem and avoid the risk of exacerbating it. Building on the evidence from the Roundtable on Sustainable Palm Oil and the Roundtable on Responsible Soy, Schouten and Glasbergen (2012) analyze which practices within multi-stakeholder engagements increase the legitimacy of the partnership and its members. Finally, van Latesteijn and Rabbinge (2012) reflect on their experience of a government-business-university partnership that facilitated the startup of thirty new businesses founded on sustainable development principles.

Three articles analyze the organizational resources and the strategic conditions necessary to effectively engage with multiple stakeholders. An executive interview with three managers at
Unilever (Dentoni and Veldhuizen 2012) highlights how fostering organizational culture and structure is essential for effective participation in multi-stakeholder engagements. Finally, Pieters et al. (2012) describes the challenge of implementing harmonized sustainability strategies in the Dutch transportation and logistics sector since competition is mainly based on cost reduction rather than on providing value-added benefits to customers.

The final section of the Special offers grand and strategic views from the world of academia, civil society and business on managing multi-stakeholder engagement and wicked problems. Based upon her experience as an academic leader participating in the sustainability debate in the US, Waddock (2012) discusses the behavioral characteristics needed to help individuals engage with stakeholders and reflects on the importance of developing solutions based upon the welfare of the common good. Pesqueira and Verburg (2012) describe Oxfam Novib’s role as a NGO and their use of combining an insider-outsider approach within global multi-stakeholder partnerships to collaborate with companies while maintaining an independent perspective. Connolly (2012) concludes the Special Issue by describing the complexity of the global debate on feeding an increasing world population with reduced natural resources and analyzes the human and systemic leadership role that agribusinesses should take to face this wicked problem.

**Conceptual Framework**

Based on a synthesis of the empirical evidence collected and discussed by the authors, the Editors propose a conceptual framework for analyzing wicked problems in agribusiness that also provides links to the existing management literature (Figure 1). The goal is to provide researchers and practitioners with the opportunity to further refine and test this proposed framework through theory and practice advancement. Moreover, the ultimate goal for this Special Issue is that managers will find value in these synthesized insights for their strategic decision-making. The following four key concepts play a key role within the emerging framework.

**Multi-Stakeholder Engagements**

The terms multi-stakeholder and engagement have become “buzzwords” in the sustainability business and policy arena. Stakeholders are groups and individuals that are influential and/or are influenced by an organization (Freeman 2010). Stakeholders are often classified in types such as stockholders, employees, supply chain partners and consumers, competitors, governments and communities (Donaldson and Preston 1995) and by their salience (Mitchell et al. 1997). Multi-stakeholder actions are processes “in which actors from civil society, business and governmental institutions come together in order to find a common approach to an issue that affects them all” (Roloff 2008). Evidence from this Special Issue adds that the multi-stakeholder attribute is a scalar rather than a yes/no characteristic, which ultimately depends on the representativeness (Bäckstrand 2006) and diversity of societal values, voices and beliefs on a topic brought by stakeholders involved in the process (Pesqueira and Verburg 2012; Waddock 2012).
Figure 1. Managing Wicked Problems in Agribusiness: A Framework on Resources, Processes and Effects of Multi-Stakeholder Engagements.

Note. The arrows between circles indicate the relationships among concepts which could be either positive or negative. The squares are dimensions of a concept. Multi-stakeholder engagements vary within the degree of formality and inclusiveness; value creation varies within the creation of resources and capabilities and within the reduction of transaction costs.

As widely described in recent literature, multi-stakeholder engagements come in multiple forms and sizes, including both formal (such as multi-stakeholder alliances, partnerships, platforms and initiatives) as well as informal (such as networks, interactions, relationships) (Russo and Tencati 2009). This Special Issue provides evidence that formal and informal elements of engagements are interlinked both within and across different multi-stakeholder processes (Schouten and Glasbergen 2012; Hospes 2012). The main question that remains open for future research is: what combination of formal and informal engagement within and across multi-stakeholder processes can help to cope with wicked problems and contribute to value creation for both society and organizations?
Strategic Factors & Problem Wickedness

By definition, wicked problems can only be tackled by involving multiple stakeholders (Rittel and Weber 1973). They represent strategic issues for organizations, which have to assess opportunities and threats that turbulent external environments may cause and to identify their own internal strengths and weaknesses to tackle them (Freeman 2010; Arevalo et al. 2011). The literature has dissected the definition of problem wickedness (Norton 2012) and established that some problems are more wicked than others (“super wicked problems”), such as climate change, because of their urgency, uncontrollability, confusion on which stakeholders are creating or tackling the problem and stakeholders’ myopia (Levin et al. 2007). Overall evidence from this Special Issue adds that a number of strategic factors exacerbate problem wickedness and affect multi-stakeholder engagements. Intense price-based sector rivalry can make business stakeholders myopic (Pieters et al. 2012); cognitive distance among goals, values and beliefs (Pesqueira and Verburg 2012), the number of stakeholders involved and the geographical scope of the problem (Dentoni and Veldhuizen 2012; Hospes 2012) all increase the complexity of framing the issues at hand. The question that is still open for future research and practice is: how can a manager design strategies for multi-stakeholder engagement in such a way that this is neither exacerbating problem wickedness nor is putting too much pressure on limited organizational resources?

Organizational and Human Resources

To engage with a diverse set of stakeholders at such unprecedented levels, organizations need appropriate tangible and intangible resources. Management scholars have identified dynamic capabilities (Teece 2007), stakeholder integration, higher-order learning, continuous innovation (Sharma and Vredenburg 1998), and stakeholder orientation (Farrell et al. 2010; Maignan et al. 2011) as key factors in determining an organization’s level of proactiveness and responsiveness when engaging with stakeholders. Similarly, policy scholars have identified governance capabilities that allow policy actors to achieve “small wins” when dealing with wicked problems as key success factors for multi-stakeholder engagements (Termeer et al. Forthcoming). Evidence from this Special Issue provides insights on structural and cultural elements within large organizations that lead to these appropriate capabilities (Dentoni and Veldhuizen 2012). Moreover, the organizational experience of participating in multi-stakeholder engagements can only develop new capabilities if at least some of the involved stakeholders (such as universities and NGOs) make the experiential learning purposive (Pesqueira and Verburg 2012; van Latesteijn and Rabbinge 2012).

The development of new organizational capabilities requires teams of human resources that allow managers to initiate, lead or join multi-stakeholder engagements (Alban-Metcalfe and Alimo-Metcalfe 2010; Dentoni et al. 2012b). Within this Special Issue, Waddock (2012) takes a different approach and discusses behavioral attributes that could make people and organizations thrive in the long run, rather than survive in the short run, in a world of wicked problems. These include the ability of leaving “one’s power hat at the door” and the capacity of reframing issues and problems at a higher level of abstraction by “shifting minds through conversations and experiences” (Waddock 2012). The question still open for future investigation is: how organizations can develop such human resources and deliberative capacities of stakeholders to shift minds and learn from each other to address wicked problems?
Value Creation for Society and for the Organization

How to assess the effectiveness of multi-stakeholder engagements at managing wicked problems also remains an open question (Austin and Seitanidi 2012). Given the complex nature of wicked problems, disentangling the cause-effect relationships of multi-stakeholder engagements on value creation for society from other factors is a challenging, if not impossible task (Hospes 2008). On the other hand, a consensus has development among management scholars that effective multi-stakeholder engagements often leads to value creation for the organization (Margolis and Walsh 2003; Porter and Kramer, 2011, PrC 2011). The literature in this area has mainly focused on value creation in terms of building new resources and capabilities. These new resources and capabilities may be associational (i.e. legitimacy or credibility), transferred (i.e. subsidies and market intelligence), interactive (i.e. access to networks and improved relationships) and synergistic (i.e. learning and innovation) (Austin and Seitanidi 2012). As you will see in this Special Issue, scholars have also observed that multi-stakeholder engagements create value by reducing transaction costs for organizations (Williamson 1979). For example, Unilever engages with multiple stakeholders to secure country stability and prevent supply negotiations (Dentoni and Veldhuizen 2012).

Conversely, transaction costs—in the form of continuous renegotiations, coordination costs and distrust—may increase if formal multi-stakeholder engagements do not develop open and inclusive interaction processes within (Schouten and Glasbergen 2012) and across (Hospes 2012) platforms appropriately. The key question is what kind of leadership, management and governance is needed to create value through multi-stakeholder engagement, instead of reproducing fixed positions and “dialogue of the deaf”?

A Call for Immediate and Inclusive “Community Action Research”

This Special Issue collects and synthesizes the experience of agribusiness, NGO and university leaders on how to engage (or not engage) with multiple stakeholders to manage wicked problems. An inductive process allows building upon existing literature in four directions: 1) multi-stakeholder engagements vary in terms of social representativeness, process inclusiveness, and in their mix of formal versus informal engagement processes; 2) several strategic, organizational and human factors influence managers’ choice of undertaking multi-stakeholder engagements and the type of engagement process; 3) the type of multi-stakeholder engagement process influences the value creation for the organization, while the effects on value creation for society seem still impossible to establish in the context of wicked problems; 4) the impact of multi-stakeholder engagements on value creation for organizations can also take the form of reduced transaction costs.

Finally, this Special Issue demonstrates that working collectively as a (small) “community of practice” of agribusiness managers and researchers facilitates the process of generating new theory from empirical evidence (Eisenhardt 1989). Yet further action, research and a wide spectrum of “action research” is necessary to fully develop, test, use and reframe a theory on managing wicked problems as described in Figure 2. In particular, “action researchers” (Kemmis and McTaggart 2005) will play a key role in refining and testing theory by applying a research-action iteration process (Peterson 2011). Along this action/research continuum, several communities of scholars and practitioners are currently collaborating to generate and use theory
to explain how to manage wicked problems in food and agriculture (GOLDEN 2012; PrC 2012, Seas of Change 2012; Sustainable Food Lab 2012) although with differences in themes, methods and roles along the action-research continuum. Given the enormity of the challenge, as Editors we believe that the only way to advance theory and practice in this field is to encourage wider participation in “community action research” programs (Senge and Scharmer 2006) that focus on managing wicked problems in agribusiness. With this goal in mind, our job as Editors of this Special Issue will be to strive to create new opportunities for researchers, practitioners and managers to engage in such a community.

<table>
<thead>
<tr>
<th>Action</th>
<th>Action Research</th>
<th>Research</th>
</tr>
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<tbody>
<tr>
<td>Who</td>
<td>Managers &amp; Supervisors</td>
<td>Consultants, Trainers and Managers supported by Researchers, “Action Researchers”, “Engaged Scholars” and Trainers</td>
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| Role   | • Developing multi-stakeholder engagements, strategies and organizations based on instinct, past experience, imitation and theory.  
• Assess the process of value creation for society and the organization in real time.  
• Supervising and incentivizing human capital to undertake or facilitate multi-stakeholder engagements. | • Refining the existing categories of multi-stakeholder engagements based on their attributes:  
  o Degree of formality/informality of engagements  
  o Inclusiveness  
  o Representativeness  
  o Others?  
• Exploring cause-effect patterns on:  
  o Relationships between strategic, organizational and human factors and categories of multi-stakeholder engagements  
  o Relationships between categories of multi-stakeholder engagements and value creation for the engaging organizations  
  o To the extent that is possible, the relationships between categories of multi-stakeholder engagements, value creation for society and value creation for the organization.  
• Developing individual competencies on engaging with multiple stakeholders and managing wicked problems through learning-by-doing, past experience and theory. | • Conducting systematic reviews and meta-analyses from different strands of the multi-stakeholder engagements literature  
• Crafting or applying measures of attributes and categories of multi-stakeholder engagements  
• Testing cause-effect patterns on relationships between strategic, organizational, human factors, categories of multi-stakeholder engagements and value creation.  
• Teaching students on theory and current practices of multi-stakeholder engagements and management of wicked problems. |
| Aspects of Knowledge | Practical Knowledge (Peterson 2011), therefore with trial and error learning. | Grounded Theory Knowledge (Peterson 2011), therefore with emphasis on induction processes. | Positivistic Knowledge (Peterson 2011), therefore with emphasis on deduction processes. |

Figure 2. A “Community Action Research” Agenda on Managing Wicked Problems in Agribusiness: An Action-Research Continuum.
References


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**Cited from this Issue**


