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Dealing with Cultural Differences in Public-Private R&D Projects: The Experience of the Australian Seafood Sector

Global Networks, Global Perspectives and Global Talent
Discussions on the Development of Human Capital in Agribusiness[1]

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Abstract

This essay 1) discusses the current agribusiness managers' human capital problem of dealing with cultural differences in public-private Research & Development (R&D) projects involving firms, government agencies and universities and 2) proposes a "learning by doing" process for managers to recognize and deal with cultural differences during project implementation.

Keywords: culture, human capital issues, *Learning by Doing*, Australia, seafood.

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Introduction

Although R&D institutional contexts, market structures and levels of education vary significantly across countries and agribusiness subsectors, managers face similar problems worldwide when dealing with cultural differences in public-private R&D projects. Therefore, this essay focuses on one "typical" case (Yin 2009) as a representative example of how managerial competence of dealing with cultural differences influence the outcomes of public-private R&D projects globally. The case is based on 35 marketing and supply chain R&D projects funded by the Australian Seafood Cooperative Research Centre (CRC) between 2007 and 2011.

The proposed "learning by doing" process for managers is based on the Australian Seafood CRC experience. Consistently with a "process study" approach of engaged scholarship (Van de Ven 2007), this proposition aims to develop opportunities for future research and practice to tackle the broad question: how should this 'learning by doing' process be tailored to local conditions to effectively deal with cultural differences during project implementation and stimulate innovation from public-private partnerships?

The Human Capital Problem

Managers of agribusiness organizations often have different cultures. That is, they have different systems of values, beliefs and norms (Schein 1990). Cultural differences are not only present across regions and countries, but also within them (Lenartowics and Roth 2001). They become problematic when the outcomes of R&D projects are more uncertain, longer term and dependent on the future behavior of many actors (Rogers 2003, Spielman and von Grebmer 2006). For this reason, problems stemming from cultural differences are more acute in marketing and supply chain R&D rather than in technology R&D projects. Ultimately, they affect the process of innovation and industry competitiveness and jeopardize returns on R&D investments (Kandler and Laland 2009, Roach 2009).

The managerial difficulty of dealing with cultural differences in public-private R&D projects is a human capital problem, as it requires the development of specific competencies – complex sets of knowledge, skills and attitudes (Rausser 1999, Nijhof et al. 2006). Overall, the human capital problem of dealing with cultural differences is characterized by the difficulty in: recognizing and disentangling the nature of the cultural difference (difference in values, beliefs and/or norms); distinguishing between managerial assumptions and hypotheses and integrating knowledge from diverse disciplines and backgrounds (Dutta 2008, Massa and Testa 2008, Klerkx et al. 2009, Anandajayasekeram 2011, Peterson and Magen 2011).

Generally, human capital problems can be solved by hiring or training managers with a specific set of competencies (Nijhof et al. 2006). Yet, to learn to deal with cultural differences during the implementation of a project, a "learning by doing" approach is necessarily required. That is, competences can be fully developed, refined and tested only through deliberate and thoughtful action (Maurer et al. 2003, Wals et al. 2011). Accordingly, this study tackles a question of "what to do to learn" rather than "what to learn." Therefore, it focuses on proposing a process to deal with cultural differences among managers in public-private R&D projects and to learn from it rather than on identifying a set of necessary learning objectives.

The Case of Seafood CRC Marketing R&D Projects

The Seafood CRC is based on an investment equal to 137 USD million between 2007 and 2013 shared between private and public actors. Its marketing and supply chain projects aim to provide knowledge and expertise to the industry to seize market opportunities and innovation concepts in post-harvest technology to optimize operations. A significant group of these projects implemented between 2007 and 2010 were affected by cultural differences across stakeholders. Specifically, industry representatives, firm managers, Seafood CRC managers and academics:

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1. Had a different idea of what constitutes "value created by an innovation" and "what is valuable when." That is, some stakeholders wanted to create value earlier in time and others later. Therefore, project stakeholders had differences in *values*.
2. had different expectations of how and when a proposed R&D innovation will create value in terms of benefits, costs and risks involved. In other words, they had differences in *beliefs*.
3. had different ways of communicating and exchanging knowledge, which sometimes created misunderstandings among project participants. Thus, they had differences in *norms*.

These cultural differences were acknowledged by agribusiness leaders only when some of their negative effects became tangible. Between 2007 and 2009, discussions among project stakeholders revealed that in a significant number of cases.

Industry leaders had a feeling of distrust towards academics' and project managers' ability to understand current industry problems:

- Researchers and project managers doubted firm managers' open-mindedness and ability of understanding "big pictures";
- Project managers could not find initial consensus on expectations and values with stakeholders only because of inconsistent or infrequent communication;
- Industry leaders and firm managers did not realize that project managers had not different values, but only different perceptions and expectations from them.

Once the negative effects of these cultural differences became evident, Seafood CRC managers and researchers progressively and purposively undertook a process to deal with them. After analyzing its positive effects on the relationships among project stakeholders and industry intentions of adopting project innovations and on the related managerial competences, the authors of this essay (who participated in a number of mentioned projects) adapted this process into a procedure for future Seafood CRC projects and proposed it as a widely applicable process.

The *Learning by Doing* Process

Based on the Seafood CRC experience between 2009 and 2011, the process of learning to deal with cultural differences among stakeholders during project implementation is formalized in Table 1. It contains elements of participatory project design (Schuler and Namioka 1993) in the context of public-private R&D marketing and supply chain projects.

It is proposed that this sequence of steps – integrated with traditional project implementation steps – has a positive impact on the managerial competence of dealing with cultural differences and ultimately on innovation and returns on R&D investments. Specifically, each step of the process facilitates the development of a set of skills and attitudes that overall reflect the needed competence.

The proposed process is grounded on only one case tackling a human capital problem that is typical across public-private R&D projects worldwide. By comparing this process with other cases, researchers and practitioners can build on and test this process. Interesting points of discussion include: to deal effectively with cultural differences, under which conditions should this process be made explicit versus implicit to stakeholders? For example, how does this process vary in geographical regions – such as East Asia and Africa – where having an "upfront attitude" with stakeholders is not part of traditionally accepted social norms? Does the order of these steps matter? And to what extent do time and resources invested have to vary across regions and industries to make the process equally effective?

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Table 1. Steps for Managing Cultural Differences in Public-Private R&D Projects

	Steps	R&D Project Phase	Description	Skills and Attitudes "Learned by Doing"
1	**Mapping Cultural Differences of Project Stakeholders**	Consultation process, before R&D project starts	Project stakeholders discuss if initial contrasting perspectives on the value proposition of the R&D project are due to cultural differences. -Differences in values, beliefs and norms are evaluated and disentangled.	Disentangling the nature of the cultural difference: is the difference based on diverging values, beliefs or norms?
2	**Seeking Consensus through Hypotheses-Testing**	Before data collection	The methods of data collection and analysis to test hypotheses are discussed and agreed. -Stakeholders receive information on trade-off between research costs and likelihood that hypotheses are tested with appropriate methods.	Translating and relating concepts and frameworks from own discipline and field of expertise into others, and vice versa.
3	**Hypotheses-Testing**	Data collection and analysis	Core activity of the researchers. -If changes in methods are necessary during data collection, these are discussed according to jointly established norms of communication. -Except from urgency situations, late results are preferred to results based on methods not validated by stakeholders.	
4	**Discussing Hypotheses Tested**	After data analysis	Based on results of hypotheses-testing, stakeholders discuss updated beliefs on how innovation creates value.	Challenging own and others' beliefs based on data collected and analyzed with agreed methods.
5	**Narrowing Focus of Hypotheses-Testing**	Further rounds of data collection and analysis	More focused and realistic methods of hypotheses testing are iteratively conducted to fill remaining gaps in beliefs among project stakeholders. -End of hypotheses-testing process with go/no-go point for upon the question: it is worthwhile doing another round of hypotheses-testing given project costs and expected value of innovation?	Linking information search through focused data collection to jointly agreed project design and implementation.
6	**Deciding on Innovation Adoption**	End of R&D project	Core activity of the industry end-users. -If innovation is not adopted, project manager investigates if the cause is still divergence in beliefs on innovation value. - If innovation is not adopted and no divergences in beliefs exist, then no negative evaluation of project performance as firm managers gained market resources, capabilities and competencies. -If divergences in beliefs still exist, evaluation of project performance as negative. The project manager tackles follow up question: what are the factors that prevented hypotheses-testing to eliminate gaps in perceived value of innovation among stakeholders?	Disentangling causes and consequences and identifying conditions of joint project implementation success.
7	**Discussing Outcome of Innovation**	After end of R&D project	Firms launch competitive innovations in marketing & supply chain. -If innovation is successful, merit is recognized to project managers, innovator and adopters who build curriculum of past positive performance. -If innovation is unsuccessful, project manager and stakeholders pose questions: were methods or content of hypotheses inadequate to test innovation in marketplace? If so, which elements or conditions were underestimated or ignored in the hypotheses-testing process? Were some of these elements or conditions underestimated or ignored because of differences in communication norms during project implementation?	Disentangling causes and consequences and identifying necessary and/or sufficient conditions joint R&D innovation process success.

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