Sustainable management model: Innovating through Permaculture

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Sub-theme 21: Challenging Unreflective Organizational Life: Innovating towards Sustainable Enterprise Models

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Introduction

It emerges that “we are still missing today a significant investment in research and knowledge development on questions related to the processes through which firms actually navigate the multiple change requirements to identify, experiment with, and eventually realize more sustainable models of the enterprise” (Zollo et al. 2013, p.243). This article would like to point to some of the key unanswered questions. In particular, this study advances on “how” a management model (Birkinshaw 2010) can contribute toward a sustainable enterprise model, which better integrates the social, ecological and economic spheres.

Management innovations (Birkinshaw et al. 2008) capable of establishing a balance between nature and mankind are required to overcome the impasse highlighted by the social, ecological and economic crises. Innovation is the application of better solutions that meet new requirements, unarticulated needs, or existing market needs. This is accomplished through more effective products, processes, services, technologies, or ideas that are readily available to markets, governments and society (Moustaghfir & Schiuma 2013). Innovations can radically change the ways individuals, organizations and societies do things and their relationships. Innovations are a fundamental issue for our societies facing globalization, complex interdependencies, worldwide risks, natural resource depletions, biodiversity collapses, climate change, world population aging, or urban inhabitant evolutions (Motesharrei et al. 2014; Pueyo 2014; Barnosky et al. 2012; Dearing et al. 2014).

It is strategically important to find new concepts, models, methods and practices that will lead society to be ecologically sustainable and socially responsible, besides being economically efficient. These socio-cultural and economic challenges are central to the design and to the construction of a society in which all individuals feel integrated and responsible. This article contributes to this challenge by exploring an innovative management model that could help in

pursuing sustainability by aligning business enterprises with socio-ecological realities. The management model coming from Permaculture concepts will be the object of analysis for this study.

Permaculture is the portmanteau of “permanent agriculture” and was first defined by their founding authors, Mollison and Holmgren, as “an integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man” (Mollison & Holmgren 1978, p.1). The pioneering and inspiring role of agriculture (Altieri 1989) justifies the focus on it in this search for management models facilitating sustainable enterprise models. In fact, in the history of man and societies agriculture has played and still plays a pioneering role balancing production activity with social and environmental values. It has been a crucial inspirer in the fundamental transformations of mankind from the birth of sedentism (Altieri 1989). The pioneering and inspiring role of agriculture will allow promising management innovations worth spreading over organizations and societies to be identified. The ethical basis of Permaculture can be summarized in three broad maxims: care of the earth, care of people and setting limits to population and consumption. In order to help to put in practice these ethical bases, several design principles have been distilled for use in Permaculture (Holmgren 2002; Mollison 1988).

Among agricultural innovations, Permaculture (Smith & Wendell 1929) is making a significant breakthrough and seems a promising and sustainable one, economically (Guégan et al. 2013; Shepard 2013) ecologically (Rhodes 2012; Shepard 2013) and socially speaking (Shepard 2013). From the very beginning Permaculture directed its attention mainly toward proposing and developing agricultural practices. Nonetheless, the founding authors wondered, unfortunately without the same breadth, whether Permaculture should not be applied to building/housing human settlements and communities, pledging for villages, self-employment, land access, ethical investments, cooperatives, trusts, and small sizes of working groups and societies. These authors suggested that the concept of Permaculture has the potential to be deployed throughout every business domain. It is only in the practice of Permaculture that the effort has been concentrated on the field of agriculture.

Throughout time, the domains of Permaculture application extended to cover any physical and energetic resource use and organization from the local to the international level (Holmgren 2002): tools, technologies, culture, education, health and spiritual wellbeing, finance, economics, land tenure, community governance, land and nature stewardship, infrastructures, children playgrounds, peace building, earthquake relief, schools and education, finance, urban

planning.

To make this amplitude in the scope of permaculture explicit, some authors suggested reinterpreting the meaning of the term Permaculture. For several authors, the 'Permaculture' portmanteau has lost its link to the cultivated fields of agriculture (from Latin *agricultura, ager* field + *cultura* cultivation) to refer more largely to permanent culture (Permanent Culture Now 2014; Pezrès 2010).

At present Permaculture refers also to a movement, a best practice, a philosophy, a framework, or a world-view (Ferguson & Lovell 2013). This extension in the scope of Permaculture makes room for a potential Permaculture management model, for sustainable enterprise model innovation (Zollo et al. 2013) and sustainability in general. Unfortunately, Permaculture is still largely unexplored by academics (Lockyer & Veteto 2013). “There has been little hard, rigorous scientific research and few peer-reviewed papers published on the subject” (Rhodes 2012, p.426). The scientific understanding of the innovations coming from Permaculture, as management principles, methods and models is missing. To achieve this objective, a literature review is performed and this article answers the following research question: How is the Permaculture management model?

The answer is given in detail in this article by providing, firstly, a presentation of the theoretical framework. The following section describes the research method employed. Next, the results of the literature review are presented. Subsequently, the results are discussed, and finally the conclusions are put forward.

Theoretical framework

The analysis is grounded on the general framework of sustainable enterprise model innovation (Zollo et al. 2013). An enterprise model includes business model elements with organizational dimensions like shared purpose, shared values, and culture (Zollo et al. 2013). The framework links the sources of change (why?) and the objects of change (what?) to the engines of change (How?).

The attention of the research is directed to the engines of change and in particular to the management model (Birkinshaw 2010). A management model involves choices at the most fundamental level about how the organization will be run (Birkinshaw 2010). Choices cover how four core sets of activities are delivered (Birkinshaw & Goddard 2009):

1. Choices about the nature of the objectives the organization pursues;

2. Choices about how individuals are motivated to pursue these objectives;
3. Choices about how activities are coordinated in the organization;
4. Choices about how decisions are made in the organization.

Each core sets has a spectrum of choices available stretching between two polar principles (Table 1) (Birkinshaw 2010). Concerning the choices about the objectives, managers could have clear sets of short-term goals (Goal setting/alignment) or they could pursue oblique paths through the definition of higher-level and longer-term sets of objectives (Obliquity). About the choices concerning individual motivation, managers could attempt to hire and retain good people by making extrinsic rewards, like salary, benefits, or bonuses, attractive (Extrinsic) or they could focus on intrinsic rewards, by for examples looking at peer recognition, sentiment of personal achievement, feeling of contribution to society at large (Intrinsic). As concerns the choices about coordination, managers could exploit formal and well-structured management processes (Bureaucracy), or they could encourage informal and spontaneous coordination processes (Emergence). Finally, concerning decision making managers could take their hierarchical responsibility and lever their own knowledge and experience (Hierarchy), or they could lever the disparate and collective knowledge of the personnel (Collective wisdom).

Table 1 The management model framework (Birkinshaw & Goddard 2009)

Sets of activities		"Traditional" management pole	← →	"Alternative" management pole
Ends	Managing objectives	Goal setting/alignment	← →	Obliquity
	Enabling/managing individual motivation	Extrinsic	← →	Intrinsic
Means	Coordinating/managing across activities	Bureaucracy	← →	Emergence
	Making/managing down decisions	Hierarchy	← →	Collective wisdom

The choice of the management model framework is based on the proximity of three fundamental statements of Birkinshaw with those of the Permaculture founders, Mollison and

Holmgren, about: the failure of mainstream management, the de-evaluation of leaders, and the importance of information.

Finally, Birkinshaw concludes stating that the “traditional” management model of Western economies is turned towards the alignment of short-term goals, extrinsic motivations, bureaucratic coordination, and hierarchical decision making (Birkinshaw 2010). Birkinshaw foresees the evolution of management models in the future and he also suggests the kind of management model that would be useful based on contextual conditions (Birkinshaw & Goddard 2009). The so called “discovery model” is indicated as the most suitable in case of highly uncertain, ambiguous, fast-changing environment, and for organizations that are looking for new ways forward. This discovery model is an “alternative” management model as, for the 4 axes of the management model framework, the discovery model is positioned toward the obliquity, intrinsic, emergence, and collective wisdom poles. Birkinshaw suggests that this alternative management model could be found out in sports teams, social communities, aid organizations, or families (Birkinshaw 2010).

This research hypothesizes that a kind of alternative management model can be found out in Permaculture too. If this is the case, the Permaculture management model could be a suitable management model for organizations that are looking for sustainable enterprise model innovation and sustainability, in general.

Methodology

The research question is answered by a review of the literature on Permaculture for the scope, and on Birkinshaw's management model framework (Birkinshaw 2010) for the theoretical framework for this study.

The review covers in particular the books and the journal articles on Permaculture. Google Scholars has been employed to identify the basket of publications to review. The Google Scholars query, launched on November 2013, retrieved 155 documents with 'Permaculture' in their titles; the search was confined to documents with the search term appearing in the title field. While this criterion excludes some works that could substantively pertain to Permaculture, the restriction on the title avoids including works for which the relationship with Permaculture could be ambiguous or trivial.

In practice, only 84 different publications were effectively identified: 22 journal articles, 11 books, 8 book chapters, 11 conference papers, 5 magazine articles, 13 reports and 14 theses.

The remaining 71 results were double entries, self-published and exclusively electronic texts (like blog entries) missing documents, pages no more on-line, misspelling returns, and other irrelevant results.

Among the journal articles, one was a literature review on Permaculture written by Ferguson & Lovell (2013). Ferguson reviewed the literature searching, in addition to Google Scholar, on Web of Knowledge, International Information System for the Agricultural Sciences and Technology, and Education Resource Information Centre. For these three knowledge bases, Ferguson's search looked at publications with permaculture appearing in any field. The final list of publications reviewed in this study integrates the 11 books and the one scientific article cited in this recent literature review, having “Permaculture” in the title that were absent from the Google Scholars query.

Results

The results of the literature review detail the orientation of Permaculture toward one of the two polar principles, for each core choice: managing objectives, enabling/managing individual motivation, coordinating/managing across activities, making/managing down decisions.

Obliquity in managing objectives: The authors favor obliquity in managing objectives, levering a policy of personal responsibility (Mollison 1988). The authors are nevertheless aware of the limits of the personal responsibility policy given the limits and contingencies of our liberty of action. This obliquity can be set by considering themselves not only as beneficiaries, or even as managers, but as members of the biotic community (Hannis 2011).

Intrinsic motivation: individual motivation is intrinsically empowered by a personal responsibility policy and self-reliance. Intrinsic motivation would dismantle addictive and dysfunctional behaviors and the authors suggest self-reliance as a possible leverage to attain it. Permaculture is “not a self-imposed penance but a process of liberation” (Falk, 2013), entailing a review of personal values to emphasize the affordable as well as the post-materialist rewards of living closer to nature.

Emergence in coordination across activities: For the authors, “Permaculture emphasises bottom-up redesign processes” (Holmgren 2002, p.XVI), and “change” (Holmgren 2002, p.83). Bureaucracy is mistrusted, suggesting to “remain skeptical of official authority and formal qualification in any field” (Holmgren 2002, p.47). The authors are aware that

development of this style of management brought by Permaculture could have a transformative impact on the society we live in.

Collective wisdom in decision-making: for the authors, hierarchy is considered to be a consequence of the energy-intensive society. Taking a humble posture the authors estimate that “we simply do not have the wisdom to occupy the higher levels (of the social hierarchy)” (Holmgren 2002, p.79). Hence, they conclude on the development of a flatter social structure, based on million self-organize and self-sufficient villages. The “community will only work if it is designed BY all these different people, rather than FOR them” (Bell et al. 2005, p.102).

Discussions and conclusions

These results principally indicate the extent of the scope of Permaculture, its management model and the alignment of the Permaculture management model with current and future management needs.

Firstly, the evidence highlights the extent to which the Permaculture scope is largely beyond the agricultural practices. This is in line with the previous declarations of Permaculture, not only as the permanent agriculture portmanteau, but as a concept, movement, best practice, philosophy, framework, and a world-view (Ferguson & Lovell 2013) broadening into human settlements and communities, working groups and societies, toward a permanent culture (Permanent Culture Now 2014; Pezrès 2010). This extension in scope of Permaculture confirms the room for a potential Permaculture management model, for sustainable enterprise model innovation.

Secondly, the Permaculture authors propose a clear cut management model, which is substantially stable throughout all their publications, from the seminal publication (Mollison & Holmgren 1978) to the most recent one (Suh 2014). Throughout all the publications no evolution or misalignment appears on the choices covering how the four core sets of activities are delivered. Permaculture is undoubtedly classed with the alternative management poles (Birkinshaw & Goddard 2009). Indeed, the Permaculture management model means:

1. the obliquity of the objectives the organization pursues,
2. the intrinsic motivation of the individuals to pursue these objectives,
3. the emergence of the coordination of the activities in the organization,
4. the collective wisdom in the decision making in the organization.

Thirdly, the permaculture management model is in line with the foreseen evolution of the management models in the future (Birkinshaw 2010) towards the alternative management poles of the management models. Permaculture appears as a lever to rethink management and to go beyond industrial management's short-sighted practices (Birkinshaw 2010) and including, at the same time, the understanding of the limited resources of the planet. Hence, alternative management models can be found out in sport teams, social communities, aid organizations, or families (Birkinshaw 2010), and in Permaculture. An alternative, indeed, potentially useful management innovation emerged from agriculture. This innovation coming from agriculture confirms, once more, the pioneering and inspiring role of agriculture in the evolution of our society (Altieri 1989).

Hence, the research hypothesis is supported: Permaculture can be considered a kind of alternative management model. As a consequence, the Permaculture management model is a suitable management model for organizations that are looking for new ways forward, in our uncertain, ambiguous, and fast-changing environment, toward sustainable enterprise model innovation and sustainability, in general. Permaculture is, hence, a good candidate for social innovation to create better and more integrated social, environmental and economic business enterprises.

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