BUILDING AN ORGANIZATIONAL INFRASTRUCTURE THAT FOSTERS A CULTURE OF SUSTAINABILITY

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ABSTRACT

Building an organizational infrastructure that fosters a culture of sustainability results in positive employee-level and organizational-level sustainability performance. However, a gap exists in both the empirical and practitioner literature regarding the development and assessment of the organizational factors that foster a culture of sustainability. Moreover, no clear model exists with the expressed purpose of helping leaders create such a culture, while providing a framework to guide research into the relationship between organizational culture and sustainability. The prevailing empirical and practitioner literature regarding sustainability is typically single-stage (sustainability strategy formulation, sustainability process design, or sustainability measurement), single-discipline (strategy, human resources, operations, marketing, or finance), and single-level (senior management, middle management, or front-line employees). Therefore, a narrative synthesis approach was used to integrate extant empirical and practitioner literature spanning various disciplines in order to build a comprehensive multi-stage multi-level model, including key propositions, to assist both practitioners and researchers alike. Case examples illustrating each component of the model in practice and implications for future research based on the key tenets of the model are also provided.

INTRODUCTION

Sustainability has become *the* strategic imperative of the new millennium. The phrases Sustainability, Corporate Social Responsibility (CSR), Corporate Social Performance (CSP), Going Green, and the “Triple Bottom Line” (Elkington, 1998) all refer to organizations enhancing their long-term economic, social, and environmental performance. There is an ever-expanding volume of literature underscoring the importance of sustainability to organizations and its positive impact on performance. For example, the companies listed in the Dow Jones Sustainability Index and the FTSE4 Good Indexes demonstrated share price performance superior to that of firms listed in broader indexes, and companies belonging to the World Business Counsel for Sustainable Development outperformed their respective stock exchanges by 15 to 25 percent over a three year period (Savitz and Weber, 2006).

Both industry leaders and academics have recognized that sustainability is important to the long-term success of both firms and the communities in which they operate. In fact, a recent survey of business leaders by The Economist found that less than four percent of managers surveyed considered socially and environmentally responsible to be a “waste of time and money” (The Economist, 2008). However, in our review of the prevailing literature on the topic we find that innovative water, energy, and waste solutions which produce win-win outcomes for the environment and for firms appears to depend upon leaders being purposeful in fostering an organizational culture of sustainability within their organizations. Accomplishing this depends upon management addressing both the explicit and implicit organizational factors that shape a firm’s culture. Indeed, research has shown that an organization’s culture operates at multiple levels (Schein, 2010). The first level consists of visible artifacts and behaviors. These elements are tangible and overt elements of the organization that can be recognized by those who are not part of the organization. The second level of culture includes the espoused values of the organization. These are the explicitly stated values and rules of behavior. As such, espoused values reflect how the organization seeks to present itself both internally and externally. The final level of organizational culture consists of the shared basic assumptions that guide the behavior of the organization's members. These assumptions are often implicit and operate at a sub-conscious level. They are deeply embedded and well-integrated into the life of the firm. They form the essence of the culture, yet the implicit nature of these assumptions makes them difficult to observe directly.

The explicit and implicit nature of organizational culture creates unique challenges for managers attempting to encourage awareness among employees that sustainability not only reduces the firm's impact on the natural environment, but also can significantly impact the long-term viability of the organization. Studies have shown that changing a culture is a large-scale undertaking and that managers need to employ multiple tools to change the behaviors of management and employees (Denning, 2011). Given the complexity and time required, cultures can be changed through the diligent and intentional effort of the organization's leadership team (Schein, 2010). Because an organization's culture is a montage of interrelated formal and informal elements, each component contributes to forming an organization's culture, and each of these key ingredients must be leveraged in order to create an organizational culture of sustainability. Changing a culture begins with the top management team, but it must permeate the entire organization (Atkinson, 2012). Successful culture change efforts flow from the organization's mission, values, goals and strategy, to the criteria used for hiring and promotion, to the content of and how communications are delivered, to workforce training, and the performance management process used.

Due the complexity of the undertaking, an interdisciplinary model was developed providing a blueprint for leaders attempting to create a culture of sustainability within their organizations as well as for use as a framework to guide research into the relationship between organizational culture and sustainability (see Figure 1). The components of the model presented in Figure 1 are interrelated and iterative. However, our discussion follows a linear flow through the model including case examples illustrating each component of the model in practice, along with implications for future research based on the key tenets of the framework.

INSERT FIGURE 1 ABOUT HERE

METHOD OF MODEL DEVELOPMENT

The prevailing empirical and practitioner literature regarding sustainability is typically single-stage (e.g. sustainability strategy formulation, sustainability process design, or sustainability measurement), single-discipline (e.g. strategy, human resources, operations, marketing, or finance), and single-level (e.g. senior management, middle management, or front-line employees). Therefore, the framework presented in Figure 1 was developed by performing and interdisciplinary synthesis of literature from typically disparate fields, including: sustainability, strategy, leadership, organizational culture, human resources, and organizational behavior. The multidisciplinary evidence drawn upon encompasses both qualitative and quantitative information.

Because the model is meant to be used by both academicians and practicing managers alike, a systematic, statistical, meta-analysis traditionally used by researchers was determined not to be appropriate for its development. Moreover, meta-analysis has been contested as a means of understanding multi-faceted management endeavors such as sustainability efforts. First, meta-analysis rejects qualitative and anecdotal information, which is often important in the development of complex knowledge (Denyer and Tranfield, 2006). Second, meta-analysis lacks an ability to cope with variation in study designs, populations, contexts, and types of analyses (Cook et al, 1997), which are found in a fragmented field such as management. Third, combining studies to derive an average removes critical contextual information (Hammersley, 2001).

In view of these limitations, the contribution of qualitative information has recently been recognized and has become progressively more valued as an evidence-based approach to building actionable knowledge in the field of management (Denyer and Tranfield, 2006). Therefore, due to the cross-functional and complex nature of the undertaking from which our model is derived (i.e. corporate sustainability efforts), the method used to develop it was a *narrative synthesis* of both practitioner and academic literature from various disciplines. Narrative synthesis has become an increasingly accepted technique across different disciplines, including management, of summarizing and combining both qualitative and empirical information addressing various aspects of the same phenomenon in order to provide a larger picture of that phenomenon (Denyer and Tranfield, 2006). Rumrill and Fitzgerald (2001) identify four key objectives for a narrative synthesis:

1. To develop or advance theoretical models;

2. To identify, explain, and provide perspectives on complicated or controversial issues;
3. To present new perspectives on important and emerging issues; and
4. To provide information that can assist practitioners in advancing "best" practice.

Unlike meta-analyses, where there must be a fit between the nature and quality of information sources, narrative synthesis accommodates differences in the questions and designs of various studies, as well as differences in the context of information. Narrative synthesis is especially valuable when information includes both quantitative and qualitative sources (Cassell and Symon, 1994). Moreover, narrative synthesis provides deep and rich information (Light and Pillmer, 1984) that is unavailable from other methods.

SETTING THE ORGANIZATION'S SUSTAINABILITY DIRECTION

The process of fostering sustainability decisions and behaviors at all levels of the organization begins with incorporating sustainability into the organization's strategic management process. Along with performance benefits (Andersen, 2000), strategic management enables firms to have a clearer direction, a sharper focus on what is important, and an improved understanding of a rapidly changing environment. Below we discuss how the clear articulation of sustainability as part of the firm's mission, values, goals, and strategy, are key factors in fostering sustainability-focused culture.

Sustainability in Mission Statements

In general, a mission identifies how a firm defines itself and establishes the priorities of the organization (Jacopin and Fontrodona, 2009). Mission statements answers the question – *What do we do as an organization?* An organization's mission communicates what the firm provides. A well designed mission statement defines the company's primary, distinctive purpose, setting the firm apart from other similar organizations.

In terms of its role in sustainability, a mission identifies the self-assigned role of the organization in relation to society (Castello and Lozano, 2009). Examples of company mission statements that incorporate sustainability include:

- Patagonia (apparel) – *Build the best product, cause no unnecessary harm, use business to inspire and implement solutions to the environmental crisis.*
- Whole Foods (grocery retail) – *Whole People, Whole Planet.*
- Ameren (electrical generation and transmission) – *To meet our customers' energy needs in a safe, reliable, efficient and environmentally responsible manner by increasing diverse supplier participation in Ameren procurement opportunities.*

We purposefully drew upon these examples, not simply because they are unique examples in their own industries, but because these examples from different industries have a striking similarity. Indeed, each firm's mission rejects the notion of mutual exclusivity that some consider existing in firms attempting to be successful both in financial and environmental terms. Rather, each of these examples strikes a balance between financial and environmental performance and sets their respective organizations on a trajectory in which they seek to achieve high performance in both arenas. Firms will likely find that the intangible benefits greatly outweigh the tangible costs when refocusing their missions towards sustainability. However, firms that stop at changing their mission statements run the risk of being accused of 'greenwashing' by environmental groups, and only seeing efforts to embed sustainability in their mission statements as simply a marketing tactic. Indeed, to derive a sustainability culture, firms should start with their missions, and then proceed with instilling sustainability in their formal and informal value systems. We explore how firms can do this in the next section.

Sustainability Embedded in Organizational Values

Organizational values refer to beliefs about the types of goals firm members should pursue, as well as ideas regarding standards of behavior organizational members should use to achieve these goals (Schein, 2010). Values are the basis for the development of organizational norms and expectations that define appropriate behavior by employees in particular situations. Shared values can also provide a source of motivation, commitment, and loyalty among organizational members (Morsing and Oswald, 2009). Values influence the decisions individuals make, the people they trust, the appeals they respond to, and the way their time and energy are invested (Posner, 2010). Clearly articulated organizational values can be a basis for determining the “fit” between employees and the firm. Numerous studies have found that when an employee’s values fit the organization’s values, the employee will stay longer and be more productive (Kristof-Brown et al., 2005).

A firm’s values answer the question – *Who are we as an organization?* Shared values have been found to be a key component of aligning decision-making and behaviors with a firm’s sustainability efforts (Hargett and Williams, 2009). In their study of management control systems pertaining to sustainability, Morsing and Oswald (2009) found that company values are the only way to insure managers do the right thing in all situations around the world. They state that, “If all employees share a common understanding of the organization’s values and are well trained in what it means to apply those values, they will not have to look to formal policies nor will they be engaging in guesswork to decide how to respond to novel and/or ’sticky’ problems” (Morsing and Oswald, 2009: 85).

Leaders of firms today are increasingly recognizing sustainability to be an important part of their organizational values and priorities and are taking steps to ensure their employees are aware of their efforts. Below are some examples of companies who are explicit in their sustainability value statements:

- Proctor & Gamble (consumer products) – *We are accountable for all of our own actions: these include safety, protecting the environment, and supporting our communities.*
- Henkel (laundry & home care, cosmetics/toiletries, and adhesive technologies) – *We are committed to leadership in sustainability: We provide products, technologies and processes that meet the highest standards. We are committed to the safety and health of our employees, the protection of the environment and the quality of life in the communities in which we operate.*
- Green Mountain Energy (retail electricity) – *Sustainability: We are dedicated to the environment and maintaining lasting, mutually beneficial relationships in all aspects of our business.*

Each of these examples illustrates how leading firms have recognized the importance of aligning employees with the organization’s sustainability agenda to embed sustainability into the firm’s core values (Hargett and Williams, 2009). Studies have shown that a firm’s values are a vital component in determining the sustainability motivation held by each employee (Rok, 2009). A recent survey of the current state of sustainability found that 59% of respondents agreed or strongly agreed with the statement “Sustainability is included in my company’s values…” (Galpin et al., 2012). We explore additional steps necessary to create this employee awareness in the next section.

Sustainability and Organizational Goal Setting

Organizational goal setting is also a crucial component in the effort to foster a sustainability culture across a firm. A firm’s goals answer the question – *What will the organization achieve?* Goals communicate to all stakeholders the direction the company is headed, the priorities of the firm, and the organization’s intended future domains of activity (Etzioni, 1960; Thompson, 1967). Goal setting provides the foundation for developing a roadmap of organizational activity (i.e. the company’s strategy). This also provides the basis for establishing the metrics which will be used to measure progress (Ransom and Lober, 1999).

Firm’s that have embraced sustainability in their mission and values should also incorporate sustainability in the goals they are pursuing. Several firms’ have set sustainability goals, including Dow Chemical Company (Dow Chemical Company, 2012), P&G (Proctor & Gamble, 2012), Walmart (Walmart Stores, Inc., 2012), and Seventh Generation (Seventh Generation, 2011). Figure 2 lists the sustainability goals of Seventh Generation, a manufacturer of household and personal care products, whose mission is “to inspire a more conscious and sustainable world by being an authentic force for positive change.”

INSERT TABLE 1 ABOUT HERE

As important as organizational level goals are, they are not adequate in themselves to create a comprehensive approach to sustainability. In order to insure that the firm's commitment to sustainability permeates the entire organization, the goal-setting process must be extended into the development of functional strategies. Furthermore, sustainability goals should also cascade throughout the organization so that they are included in individual employee performance plans.

Sustainability and Strategy

A firm's strategy answers the question – *How do we achieve the organization's mission and goals?* Hence, an organization's sustainability strategy should identify the actions that the firm will take to achieve its sustainability mission and goals. A recent global survey of more than 1,500 corporate executives found that a majority of respondents believe sustainability is becoming increasingly important to business strategy, and that the risks of failing to act on sustainability are growing (Berns et al., 2009). Unfortunately however, this growing awareness in the importance of sustainability too often translates into a jumble of uncoordinated sustainability centered activities that are disconnected from the firm's strategy and "neither make any meaningful social impact nor strengthen the firm's long-term competitiveness" (Porter and Kramer, 2006: 4). Others confine sustainability initiatives to marketing professionals or to "corporate responsibility" departments, neither of which are well-positioned to coordinate their efforts with the firm's strategies (Jacopin and Fontrodona, 2009).

If a firm's sustainability efforts are to provide long-term value to both the company and society, sustainability must be integrated into the firm's strategy. In that regard, Porter and Kramer (2006) advocate that each firm identify the distinct set of societal issues that it is best equipped to help solve, and from which it can gain the greatest competitive benefit. Embedding sustainability in organizational strategy may have multiple benefits. Many firms are pursuing a differentiation strategy based on sustainability. By doing this they are seeking to reap a duel benefit of providing value to society as well as distinguishing the firm from competitors (Castello and Lozano, 2009; Siegel 2009).

Many firms' leaders have begun to view sustainability as being an important part of their company's business model, including Ford (Winston 2011), Yale University (Yale University Strategic Task Force, 2010), the London Olympics (Olympic Development Authority, 2007), and Unilever (Unilever, 2011). Figure 3 identifies the sustainability strategy at Unilever, a global consumer products company.

INSERT TABLE 2 ABOUT HERE

The good news for firm's looking to build sustainability into their strategy is the recent proliferation of resources to assist management in this undertaking. For example, Amazon lists hundreds of books designed to help managers understand the implications of adopting sustainability into their organizations. Surveys have found that companies are increasingly taking sustainability into consider when developing their strategies (Hoffmann, 2008) and those efforts have translated into growing awareness among employees (Galpin et al., 2012).

Proposition 1 (P1): The mission, values, goals and strategy of an organization establish the direction and and provide the context for the organization's sustainability culture.

REINFORCING SUSTAINABLILITY AFTER THE DIRECTION IS SET

Once a sustainability direction is set, it should be reinforced with the inclusion of sustainability as part of the firm's "Human Resource Value Chain" (see Figure 1). The HR Value Chain supports the firm's sustainability aims with organization-wide systems and processes to attract, retain, engage, and develop managers and employees. The goal at this stage is to align the values and talents of managers and employees with the firm's sustainability mission, values, goals, and strategy.

As a firm's sustainability efforts are initiated and evolve, so too must management's approach to human capital. Successful organizations establish human resource management practices which support their core values and desired strategy (Dessler, 1999; Chow and Liu, 2009). The organization's values and strategy provide a foundation from which to build human resource practices that support a firm's strategic intent and core values. A firm's chosen strategy also provides a foundation for management to work from when making day-to-day management decisions such as hiring and firing, job design, training, promotions, communicating, and coaching.

Three Major Components of the HR Value Chain

The HR Value Chain consists of three major stages. These are: (1) employee recruitment, selection, orientation, and socialization; (2) continuous reinforcement, and (3) employee separation. As a firm examines its HR value chain, each of these components must be given attention in order to effectively drive the firm's commitment to sustainability. Each of these stages is discussed below.

Recruitment, Selection, and Orientation

After the company's sustainability mission, values, goals, and strategy are clearly articulated, the first function of the HR Value Chain involves finding and hiring people that fit the desired strategy and stated values. Companies often use value-based hiring practices to screen potential new hires for a commitment to a set of chosen values. Research has shown that "In many firms the process of linking employees to ideology begins before the worker is even hired" (Dessler, 1999: 23). It is also wise to find employees who "fit" the organization's values as these employees often turn to be the most committed to the firm.

Substantial research has shown that a firm's sustainability practices influences its attractiveness as an employer (Albinger and Freeman, 2000; Backhaus et al., 2002; Bhattacharya, Sen and Korschun, 2008; Greening and Turban, 2000; Turban and Greening, 1996). This attractiveness has been explained by the fact that a firm's sustainability practices enhances its reputation and increases the perceived trustworthiness of an organization for a job seeker who lacks any previous interaction with the organization (Viswesvaran et al., 1998). This appeal may also be because a firm's sustainability orientation sends positive signals that may prompt prospective job applicants to identify with and want to work for the company (Greening and Turban, 2000).

Continuous Reinforcement

As new-hires are brought on-board that fit the organization's sustainability strategy and values, a process of continuous reinforcement should begin. Following the HR Value Chain provides multiple approaches to reinforce the link between the firm's sustainability strategy and its employees. These approaches include incentive pay, information sharing, empowerment, and skill development (Pfeffer, 2005). Similarly, Dessler (1999) identifies training linked to strategy and values, tradition-building symbols and ceremonies, extensive two-way communications, and promoting the right leaders – those who demonstrate a commitment to the firm's strategy and values - as essential elements of employee engagement.

Companies can engage employees in their sustainability strategy and values by consistently emphasizing the sustainability strategy and values of the firm. This can be done by creating community volunteer programs (Bank of America, 2012; Chevron, 2012; GE, 2012) and providing training in sustainability processes (Coca Cola, 2012; Weyerhaeuser, 2012). Beyond community volunteer programs and training, implementing performance management systems that link the achievement of sustainability goals with compensation provides powerful reinforcement of a firm's sustainability values, goals, and strategy (Lacy et al., 2009; Morsing and Oswald, 2009; Porter and Kramer, 2006; Rok, 2009).

Employee Separation

The final dimension of the HR Value Chain involves the way organizations handle employee separations. Employee separations as a result of layoffs or underperformance are an often overlooked aspect of employee engagement. Yet, how the process of employee separation is handled demonstrates a firm's commitment to being socially responsible through the use of procedures that demonstrate respect for the affected individuals. Every effort should be made to ensure that employee separations are ethical and just. When employee separations take place, more than just the exiting employees are attentive to how the process of separation is being handled. The people remaining in the organization also view the way separations are addressed as a clear indicator of the value a firm places on its workforce. In this regard, Dessler (1999) stresses the need for management to demonstrate "organizational justice." When employee separations are conducted in a manner that demonstrates both respect for the individual and the integrity of the organization, people leave with a sense of fairness. This also helps foster a sense of engagement and commitment to the firm among those employees who remain in the organization because they view the separation process as being fair.

Proposition 2 (P2): The establishment of a sustainability culture is positively related to the presence of an integrated HR value chain designed to reinforce the firm's sustainability mission, values, goals and strategy.

ASSESSING THE IMPACT

There are a number of ways in which creating a culture of sustainability benefits organizations. Perhaps most importantly, a culture of sustainability can improve firm performance. The results of a recent National Environmental Education Foundation (NEEF) study found that sustainability can increase organizational profits by as much as 38% (NEEF, 2009). While firms can take a number of steps to help ensure positive financial outcomes can be realized, a growing body of research has been devoted to the importance of a firm's social and environmental responsiveness.

Macro / Firm-Level Sustainability Performance

Sustainability: Leads to competitive advantages

Along with traditional market factors such as brand image, price, and value and the environmental and social credentials of firms are helping to establish niches and new markets and toppling traditional competitive logic. For example, a study by Information Resources Inc. found that as many as 20 percent of U.S. consumers are "sustainability-driven" while 50 percent of U.S. consumer consider at least one sustainability factor when making brand and store selection (Hespenheide et al., 2010).

Some firms have capitalized upon this in their product development activities. For example, Clorox has taken several steps to help decrease their environmental impact (Clorox Corporate Social Responsibility, 2010). The company's Green Works product line helped begin a profitable partnership with the Sierra Club. With this partnership the company's sales doubled and $1.1 million was donated to the Sierra Club (Clorox Corporate Social Responsibility, 2010). Clorox has also focused the efforts of one branch of R&D to discovering the innovative use of natural ingredients and recycled materials. The firm's Eco-Office brand includes compostable plastic bags and a pine cleaner made using the by-products of the paper and pulp industry. In addition, Clorox's goals have had cascading effects upon internal stakeholders by helping foster a culture that embraces sustainability. Employees now conduct "dumpster dives" to identify cost-saving waste elimination opportunities and reduced organizational waste by 50 percent over one year (Clorox Corporate Social Responsibility, 2010). Clorox's sustainable goals helped propel them to be the first major household products maker to list detailed descriptions of all of its products" ingredients on its corporate website and be recognized by the U.S. Environmental Protection Agency (EPA) as a Safer Detergent Stewardship Partner. Clorox was also named one of the top 100 green companies in *Newsweek*'s rankings of S&P 500 companies (Clorox Corporate Social Responsibility, 2010).

Sustainability: Reduces costs

One of the most important benefits firms can reap when pursuing a strategy of sustainability is in the area of cost savings that accrue through efficiency gains. Whether a firm focuses its efforts on energy, water, waste or raw materials, the metrics used to identify and reward savings can help identify new opportunities for savings.

Several companies have recognized how the environmental and social impact of their products can present new opportunities. Shell's conflict with the citizens of Nigeria and allegations of Nike's labor practices demonstrate that sustainable operations can provide firms the opportunity to avoid or reduce future costs. Others, such as Hewlett-Packard (HP), focus on eliminating waste both its own operations and throughout the life cycle of its products. The firm helped one of their clients save over $3 million on managed print services over two years through a combination of recycling print cartridges, default duplex settings and energy efficiency (Hewlett Packard, 2010). HP also helped a European grocery chain save power consumption by 10-15 percent (Hewlett Packard, 2009). HP's organizational approach appears to prioritize savings wherever they arise and at any scale. For instance, in-house reuse and recycling policies helped to save the company $1.75 million in 2008. On the other hand, the design of a data center in Wynyard, UK that uses winds off the North Sea for building cooling is expected to save $15 million annually by using 40 percent less power than comparable facilities (HP Enterprises Services, 2010). Each of these examples from HP show the benefits that can come when firms dig deep into the full range of its operations for potential energy savings or carbon reduction possibilities.

Sustainability: Sparks innovation

Compliance with environmental demands and social welfare expenditures were viewed by organizations as costs of doing business that very often correlated negatively with profit. Yet, the strategic decision to engage in sustainability can enable firms to derive long-term competitive advantages over rivals. Environmental regulations, and the threat of pending regulations, can provide firms the impetus and motivation to derive innovative decisions to reduce energy costs and water use in their supply chains as well as introduce innovative environmentally friendly products or services.

Proposition 3 (P3): The establishment of a sustainability culture is positively related to macro/firm-level performance.

Micro / Employee-Level Sustainability Performance

Sustainability as in-role behaviors

In order for a firm's sustainability efforts to take hold at all levels of the organization, it is imperative that managers expect and assist employees to formulate and implement sustainability-based decisions into their day to day jobs – the employees' *in-role* job behaviors. This requires that sustainability objectives be developed as part of the performance planning process. Optimally, employers should strive to help their workforce embrace the sustainability initiatives of their firms to such an extent that employees do not consider sustainability efforts to be outside the scope of their normal job roles. In doing so, employees will clearly demonstrate in-role sustainability behaviors such as building water, energy, and resource savings into their day-to-day activities.

Most importantly, it is essential that managers regularly meet with their direct reports, both formally and informally, and solicit input on the ways each employee is implementing sustainability in their particular jobs. In addition, sponsoring educational events from environmental professionals and government agencies can help underscore the decisions that employees can make to reduce their own environmental footprint while averting unnecessary energy or materials use. Moreover, building an internal dialogue among employees and managers about sustainability in each job across the firm gives employees a sense that the decisions of the entire workforce regarding sustainability are worthwhile and are supported by all areas and levels of the firm.

In order to underscore the importance to employees that the firm is placing on sustainability, regular manager to employee dialogue about sustainability should also be reinforced by a firm's performance review process. Embedding sustainability into performance evaluations signals to employees that they are recognized for the day to day decisions they make which help the firm improve its social and environmental performance. This provides a strong link between the sustainability objectives developed in the performance planning process.

Sustainability as extra-role behaviors

Embedding sustainability into the firm's infrastructure establishes a climate where managers and employees seek out ways to improve the firm's environmental and social performance *beyond* their day-to-day job role – *extra-role* behaviors. Indeed, research has shown that successful sustainable operations depend upon the voluntary organizational citizenship behaviors (OCB) of management and employees (Borial, 2009).

These extra-role behaviors, or activities outside of employees' codified job duties, provide firms with the much needed energy and momentum needed to build commitment within teams and organizational units around the organization's sustainability efforts. There are several ways a firm can encourage extra-role sustainability behaviors among its workforce. First, management can ask employees to volunteer in the shaping of the firm's sustainability efforts, by providing opportunities for employees to offer input regarding the design of the firm's sustainability goals and strategy. Second, management can solicit employee input about suggested sustainability actions for departments outside of their own. Third, employees can be offered opportunities to become ambassadors for the firm's sustainability efforts with other employees in sustainability training and communication sessions. Stonyfield Farms, Burts Bees and IKEA are just some of the examples of firms that encourage employees to engage in sustainability related activities outside of their normal job duties (Galpin et al., 2012).

Employee engagement in their firm's sustainability efforts can also lead to an aspect of extra-role behaviors that we term *community citizenship behaviors* (CCB). Examples include Hershey, who offers its employees support for volunteering in their local community. At Solo over 300 employees participated in more than 45 recycling, education and beautification events in the United States and Canada. This was a 110% increase over 2009 when Solo first launched its Sustainability Action Network. Through the network volunteers identify local or companywide projects and lead the way in executing them. Likewise, Alcoa employees volunteer in their local communities through the Alcoa Green Works initiative to support environmental projects and celebrate eco-holidays like Earth Day, World Environment Day and Arbor Day (Galpin et al., 2012). Finally, according to a General Mills survey, 82 percent of the company's U.S. employees choose to volunteer either through company programs or independently and nearly 60 percent of employees spend up to five hours a month serving in their communities (General Mills, 2011).

Proposition 4 (P4): The establishment of a sustainability culture is positively related to micro/employee-level performance.

IMPLICATIONS FOR FUTURE RESEARCH

The model presented can be used a framework to guide research into the relationship between organizational culture and sustainability. Implications for future research based on key tenets of the framework include:

- Exploring the relationship between a firm's mission, values, goals, and strategy (either separately or in total) and the existence of a sustainability-focused culture.
- Assessing the relationship between an organization's HR value chain and the presence of a sustainability-focused culture.
- Assessing the relationship between the presence of a sustainability-focused culture and various aspects of macro/firm-level performance.
- Assessing the relationship between the presence of a sustainability-focused culture and various aspects of micro/employee-level performance.

CONCLUSION

Building an organizational infrastructure that fosters a culture of sustainability results in positive employee-level and organizational-level sustainability performance. But, to achieve the desired results from a firm's sustainability efforts, leaders must foster a sustainability-focused culture. The multidisciplinary model presented can be used as both a road map for practicing managers to create a sustainability-focused culture within their own organizations, and as a guide for future research into the relationship between organizational culture and sustainability.

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Figure 1 – Building a Culture of Sustainability Model

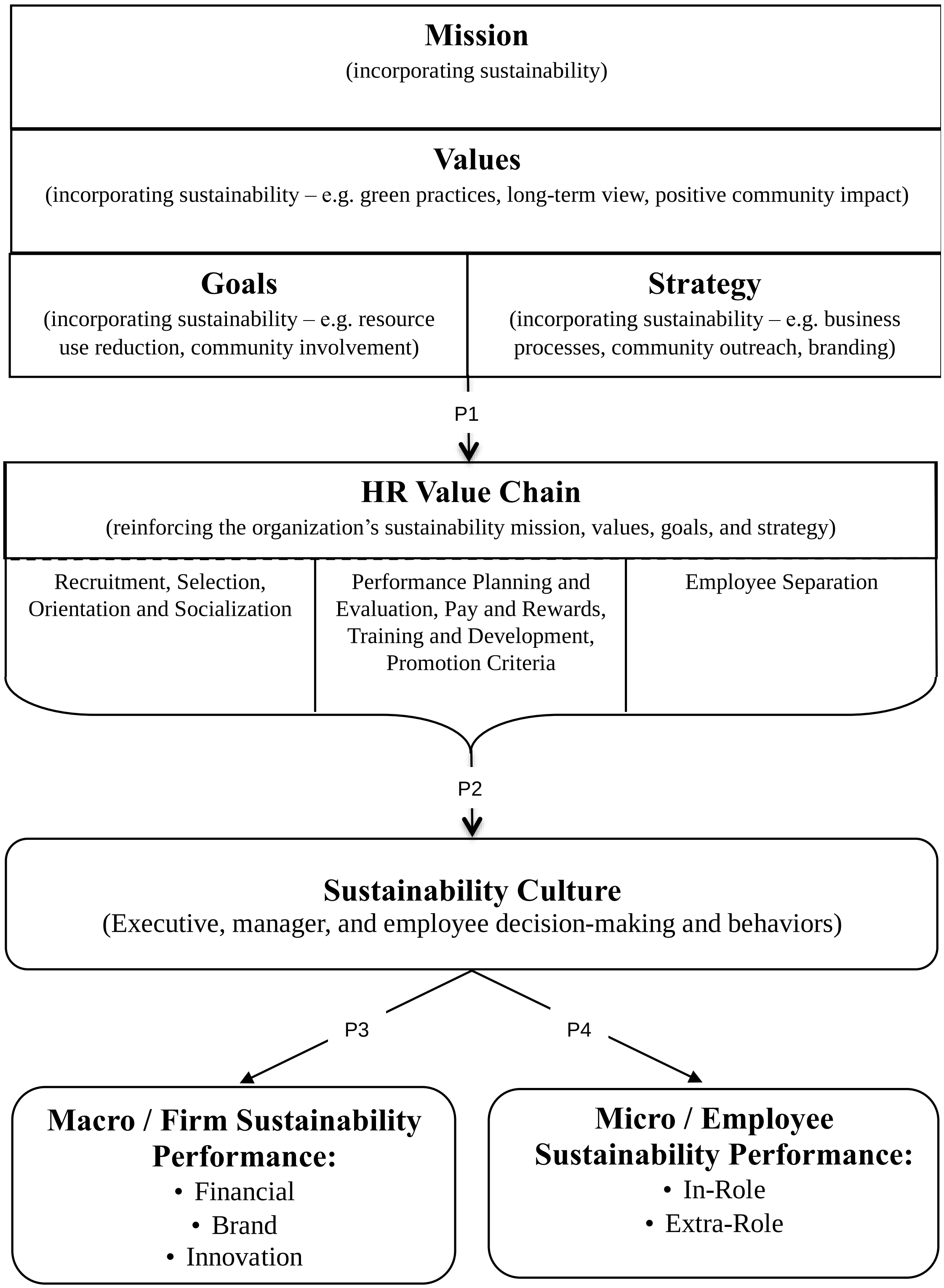

Table 1 – Sustainability goals at Seventh Generation (source: company website)

Seventh Generation Sustainability goals
- Helping our employees reduce their average personal energy use 20% by 2010. (Data totals for 2010 are not yet available, though the company knows it has reached a 14% reduction at the end of Q1 in 2010.)
-Directly sourcing a supply of 100% sustainable palm oil by 2012.
-Identifying and eliminating all persistent and/or chronically toxic chemicals used in the manufacture of our products or found in their ingredients by 2012.
-Reducing our virgin plastic use by 80% by 2014.
-Full Forest Stewardship Council certification of all our virgin pulp by 2015. (The wood for almost all of our virgin pulp is currently FSC certified but we have not certified the chain of custody.)
-Making all of our products from 100% renewable plant and mineral sources and ensuring that they are backyard-compostable and/or biodegradable in the marine environment by 2015.
-Reducing our overall Greenhouse Gas Emissions (GHG) 80% by 2050 from a 2005 baseline.
-Reducing our products' life cycle GHG 15% by 2015 from a 2007 baseline. (In 2009, we engineered a 32% drop in GHG emissions per case of product.)
-Obtaining a 100% renewable energy supply for our headquarters, which we hope to achieve via roof-top solar panels.
-Reducing solid wastes from our products and their packaging 25% by 2015.
-Assuring that 100% of our value chain water use is sustainable by 2020.

Table 2 – Unilever's sustainability strategy (source: company website)

Strategy	Description
Brand Imprint Process	-Social and environmental considerations are now integrated into the innovation and development plans of major brands.
Engaging Consumers	Incorporating consumer research showing that consumers not only want to be reassured that the products they buy are ethically and sustainably produced; they also want to choose brands that are good for them and good for others.
Assessing impacts across the value chain	Commitment to reduced environmental across the value chain – i.e., from the sourcing of raw materials through production and distribution to consumer use and eventual disposal of residual packaging.
Partnerships	Partners bring expertise on specific issues as well as the networks to deliver practical initiatives on the ground – e.g. UN World Food Programme; World Heart Federation; Global Alliance for Improved Nutrition; FDI World Dental Federation; Global Public-Private Partnership for Handwashing.
UN Global Compact	Signatories to the United Nations" Global Compact; committed to living out the Compact's ten principles on human rights, labour, environment and anti-corruption in everyday business operations.