

IT AIN'T EASY BEING GREEN: OPERATIONALIZING ENVIRONMENTAL SUSTAINABILITY

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ABSTRACT

As companies strive to add environmental sustainability into their business practices, they are often faced with two initial questions. Where to begin and will our initial efforts be accused by the general public as “greenwashing”? The following paper offers a hierarchy that can be used to initiate and grow sustainability within an organization in a logical and cost-effective way. The hierarchy can be used to develop a progressive sustainability implementation strategy to change acts that are well-meaning into meaningful acts.

Keywords: Sustainability, Environmental sustainability, greenwashing

INTRODUCTION

The triple bottom line states that businesses should have operational responsibility for generating profits, protecting the natural environment, and promoting social justice. It was first described by John Elkington in 1994. In 2011, the Sustainability Accounting Standards Board was formed which created ESG (Environmental, Social, and Governance) standards. These standards initially were discussed in 2005 at the International Finance Conference of the World Bank and focused upon accounting factors related to a company’s impact on the environment, society, and its governance. From 1994 to today companies continue to design operations and create metrics to measure their sustainability and environmental impact. As of 2018 it was estimated that 20 trillion dollars of investment utilize ESG standards in reporting.

Today, virtually every business has a sustainability initiative as part of their corporate strategy. Often the initiative addresses a particular aspect of the operation leaving other areas untouched. This creates charges of “greenwashing”, defined as conveying a false impression that a company or its products are more environmentally sound than they really are. In some instances, “greenwashing” could describe an intentional act to deceive. However, often times it is more a circumstance of the company looking at specific aspects of their operations while critics look at the operation holistically. The lack of a systematic approach to sustainability initiatives, especially those related to the environment, exacerbates the “greenwashing” charge as well as creates erratic and inconsistent operational processes.

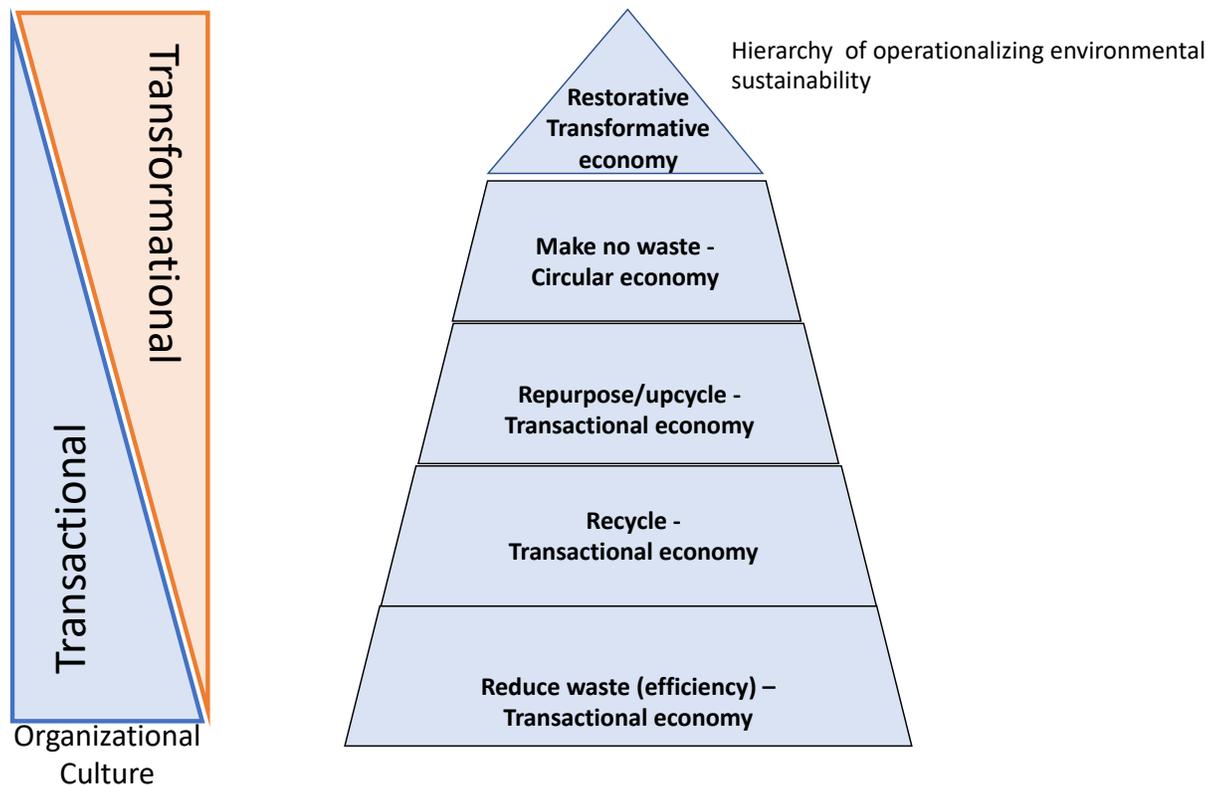
The following paper offers a systematic approach to operationalizing environmental sustainability initiatives. This approach uses a hierarchical approach addressing initiatives from

the easiest to initiate, to those that are the hardest.

A HIERARCHAL APPROACH TO OPERATIONALIZING ENVIRONMENTAL SUSTAINABILITY

In 1943 Abraham Maslow, in his paper *A Theory of Human Motivation*, created a hierarchy of physical and emotional needs that served to motivate human beings in their personal development. The use of hierarchies has been frequently used since then to describe an additive approach to achieving a higher order objective. For the purpose of this paper an equivalent hierarchy is provided as a way to establish operations that are environmentally sustainable and obtainable given the organizations current financial viability and the organizations cultural willingness (see table 1). At the base of the hierarchy are transactional strategies that allow a business to see more immediate benefits from their sustainability initiatives. Moving into the higher levels of the hierarchy, transformational strategies are described that can enhance the creation of an organizational culture that can promote environmental sustainability within a company both in terms of operations as well as in innovation. In total, the hierarchy allows a company that has not considered sustainability initiatives the ability to begin the process of “becoming green” while defending themselves against charges that they aren’t “green enough”. The hierarchy recognizes that the journey to achieve an environmentally sustainable operation is long and must be completed systematically.

TABLE 1 – HIERARCHY OF OPERATIONALIZING ENVIRONMENTAL SUSTAINABILITY



Level 1 – Developing a “Nega” Mindset (efficiency)

Operational efficiency is a goal in most organizations. Efficiency can be achieved by reviewing extant operations for waste and then find ways to reduce that waste. Another approach is to develop a “nega” mindset which considers operational waste from a global perspective. This “nega” mindset is drawn from theory initially proposed by Amory Lovins in 1985 for the energy industry. Lovins proposed that consumers are not interested in purchasing wattages of electrical power, they were interested in the benefits that those wattages provide, hot showers in the morning and light in the middle of the night. Therefore, the power company should focus on how best to provide those benefits rather than simply producing more and more electricity. This view, according to Lovins, will create positive benefits for the power company, the consumer and the environment. Or, from a consumption point of view, creating an operational philosophy that the most valuable wattage of energy is one that is not used, the “nega-watt”. A “nega” mindset challenges businesses to consider whether existing usage practices were due to habit or are generating the full benefit the company desired. From simple energy use practices, such as turning out the lights in an empty room, to more complex practices such as closing a production facility that is not currently in operation. The foundational question is whether the existing practices generate maximum holistic benefit to the company, marginal benefit, or no benefit at all and then establish practices that create the full benefit the company seeks to achieve.

However, these “common-sense” solutions, even those related to obvious wasteful power consumption, are often not considered for two basic reasons. The first is a lack of interest by top management, because the perceived benefits are considered negligible, which then secondarily results in a lack of awareness on the part of employees on the floor to practice these basic efficiency procedures. Thus, the true benefit of having a “nega” awareness as the base of any environmental sustainability initiative is that it produces direct tangible benefits to the company while also reinforcing and rewarding awareness at the grassroots of the organization, where initiatives can become embedded in the organization’s culture.

Level 2 - Recycle

Level 2 in the hierarchy recognizes that the extant manufacturing and operational procedures in place for most companies will create waste that “nega” awareness will not prevent. For that waste there are two operational approaches that can be implemented to reduce the impact of that waste. The most commonly practiced is recycling programs. There are several critical benefits associated with recycling. The first is that some waste does get recycled. The second is that it reinforces the culture of sustainability. It also makes it easier to take the next step which looks at recycling less as a commodity and more as a material that can be used in new ways, new processes, or for new products. Recycling, if allowed to evolve, will add innovation to the environmental sustainability initiative and in doing so, set the stage for companies to advance to level 3 of the hierarchy.

Level 3 – Repurpose/Upcycling

Repurposing and/or upcycling have at their core the generation of value beyond what is created by simple recycling. Per the Cambridge Dictionary, “repurposing is the use of something for a

purpose other than its original intended use". While upcycling is the process of transforming by-products, waste materials, useless, or unwanted products into new materials or products. They are the natural extension of recycling, and more importantly, they add creativity and innovation into the environmental initiative.

While repurposing is probably as old as the creation of waste, upcycling is beginning to be recognized as a way to expand product lines without expanding supply chains. Most importantly, as a company implements repurposing and upcycling initiatives, they are also unleashing innovation throughout the organization. Some of the initiatives will prove unsuccessful, which will require management to determine whether operationalizing an upcycling waste strategy should be a critical element in the organizational culture of the firm. If management elects to absorb the lessons of failed ideas, then they are positioning the company to become a knowledge-based company and the culture itself will become more transformational in its operations and thinking. This sets the stage for companies to move to level 4 on the hierarchy which considers how products are created.

Level 4 – Make No Waste – The Circular Economy

The circular economy is based upon biomimetics that are driven by the natural environment where no waste is produced in any part of the life cycle. Waste caused by one species becomes material for another or is biodegraded into basic elements and returned to the biosphere. The circular economy in nature is holistic and has occurred over billions of years of evolution. For a business or industry to become circular, trial and error and evolution must be replaced by innovation and commitment. Companies that wish to be circular must also expand that viewpoint to include their supply chain and all direct and indirect stakeholders impacted by its effort. For this reason, being circular is easier to conceptualize than put into practice. It is difficult to put into practice for an established business without great disruption and therefore requires a strong commitment from management and the organization. For this reason, the transactional benefits of the lower levels of the hierarchy must be in place and recognized by management.

The sharing economy is an example of a market response to a circular economy. Products are shared amongst many users, so the maximization of value requires that these products are able to survive multiple consumers. Profitability is therefore enhanced when multiple consumers are able to access the benefit from the same product, which in turn reduces waste. This shift will also create a corresponding shift in attitudes towards waste and consumerism. Waste will not be correlated with growth and increased profitability but rather with lost opportunity and lower profit potential.

However, a circular economy is based on the concept of zero waste. It does not address the waste that has been produced and accumulated in the 500 years of industrialization. This will require business to consider the final level of environmental sustainability. Creating value with the existing waste in landfills, in the oceans, and in the air. The transformation of a company will be complete when it commits to finding ways to develop a restorative economy.

Level 5 – The Restorative Economy

Restorative manufacturing extends the philosophy of recycling and upcycling. A shift away from the notion of repurposing waste to a process that recognizes waste as a primary, cost-effective resource in the manufacturing process. Often this requires a multi-disciplinary approach to innovation and product development. The collaboration between engineering and biomimetics is creating new approaches to product design and manufacturing. Many of these new manufacturing processes are in prototype design or pilot operations. The critical difference in these processes is that they benefit the environment with each unit produced rather than lessen the damage to the environment.

Finally, as these new restorative processes are being conceptualized and developed it cannot be ignored that the disruptive nature of a restorative manufacturing process likely will generate resistance from existing manufacturers and therefore, will require substantial justification as both a restorative and economic solution. As companies move towards more inclusive accounting of production costs, the justification becomes easier. Most importantly is the heightened expectations of consumers, especially millennials, will drive the need for more active sustainability practices including restorative manufacturing processes.

CONCLUSION – APPLYING THE HIERARCHY

The described hierarchy attempts to address the many ways that companies can implement environmental sustainability initiatives. The hierarchy describes a process that is both orderly and additive which will increase the potential of more immediate positive financial benefits and the development of a culture that inspires and supports innovation and broader sustainability initiatives. A paper by Barnett and Salomon, quantitatively showed that the implementation of sustainability initiatives will initially cause a reduction in the return on assets (ROA) of the firm, especially when compared to those firms that do not implement sustainability initiatives. However, as these initiatives become embedded into the culture of the firm will ultimately see an increase in ROA that exceeds those firms who do not include these initiatives in their strategy and operations. The authors posit that the benefit to ROA is not transactional but rather a transformational enhancing of an organizations cultures as well as an increase in innovation.

The question is whether there is a way to build on these incremental successes in a systematic and cost-effective manner. The hierarchy attempts to describe such a process. A process that will allow a company that is committed to being more environmentally sustainable to implement a program that is attainable, organic, and evolutionary. The levels represent steps in a process, some of which can be taken concurrently, that move from common sense transactional thinking (“do this and you will save that”) to transformative thinking in how a company operates. The hierarchy also allows companies to message their “green” initiatives in a controlled manner thus lessening the risk of being accused of greenwashing and increasing the potential of inspiring all in the company to do more. While “being green” may forever be an unattainable goal for most companies, being “greener” is well within every companies reach. It simply takes a map and a commitment.

References available upon request