CSR, Sustainability, Ethics & Governance
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René Schmidpeter
Nicholas Capaldi
Samuel O. Idowu
Anika Stürenberg Herrera *Editors*

# International Dimensions of Sustainable Management

## Latest Perspectives from Corporate Governance, Responsible Finance and CSR

Springer

# CSR, Sustainability, Ethics & Governance

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Editors

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*Editors*
René Schmidpeter
Center for Advanced Sustainable Management
Cologne Business School
Cologne, Germany

Nicholas Capaldi
College of Business
Loyola University New Orleans
New Orleans, LA, USA

Samuel O. Idowu
Guildhall Faculty of Business and Law
London Metropolitan University
London, UK

Anika Stürenberg Herrera
Center for Advanced Sustainable Management
Cologne Business School
Cologne, Germany

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# Preface

The challenges of the twenty-first century are becoming increasingly complex and interdisciplinary in nature. The previous boundaries that existed between business, government, and society are becoming ever more blurred due to digitalization, globalization, and environmental challenges. Therefore, changes need to be made, in order to ensure that sustainable development is not just addressed by individual actors across a variety of sectors but is addressed by stakeholders in every corner of the globe. Local and global responsibility requires cooperation and interaction across all stakeholder levels. Hence, academics and progressive thinkers all around the world have begun to reexamine the way in which markets, government, NGOs, think tanks, and academia are interconnected and how an interdisciplinary approach represents the best way forward to solve the world's current and future challenges.

Even though CSR has existed as an academic and business concept since the middle of the twentieth century, it is only recently that scholars have truly begun to recognize the ability of global corporations to solve social challenges in a variety of innovative ways and methods. This fundamental shifts in the way that academics think about the role of business in society. This has led many corporate executives to start to reexamine and redefine the essential purpose of businesses—shifting from a mindset primarily concerned with short-term profit maximization to long-term maximization of shareholder value—and, thus, not only achieve excellent results for shareholders but also contribute to the solution of social and economic problems. This shift is certainly reflected in the rising prominence of business ethics in both business literature and the curricula of business schools.

*Global Perspectives on CSR*, edited by Prof. Dr. René Schmidpeter, Prof. Nicholas Capaldi, Prof. Samuel O Idowu, and Anika Stürenberg Herrera, is a remarkably rich compilation of essays that discusses the burgeoning sustainability movement around the world. The collection includes essays that address current world issues and explore the creation of the positive synergies that sit at the intersection of business, social, and environmental change. This compilation of global theories, practices, and cases will be an extremely valuable and insightful resource for practitioners and researchers, alike. It is certainly a herculean task to provide a

broad yet comprehensive overview of how CSR functions in different nations and regions. Yet the editors have put together a useful compendium that can hopefully act as a jumping-off point for understanding what might be happening in one country or another and who might be the key players.

We would first and foremost like to thank the authors who contributed to this collection! We were extremely fortunate to have such an outstanding and diverse group of contributors. Their insights present a fantastic opportunity for readers to dive into the complex and interdisciplinary world of CSR and not only be provided with a diverse set of perspectives but also gain an understanding of different applications of CSR across industries and the world. The articles provide us with a lot of food thought in this exciting area of research, and hopefully projects like this will allow us to better connect CSR scholars from all regions, so that we can create a global network of CSR scholars to further the field and foster the exchange of ideas around the world.

We are also very thankful for all of the work that Prof. Nicholas Capaldi and Prof. Samuel Idowu have done on this collection, and, of course, we would like to thank the Global Corporate Governance Institute and all of our team members at the Center for Advanced Sustainable Management at the Cologne Business School for their continued tremendous support.

We would also like to thank Christian Rauscher and the whole team from Springer Publishing Group for their continued support. They are an outstanding partner and a true supporter of CSR as an academic field, and we are extremely pleased to have the opportunity to have another work published by the group!

Cologne, Germany René Schmidpeter

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# Part I
# Conceptional Thoughts

# *Homo sapiens*' Relationship to Earth: Preservation Versus Plunder


**Paul McDonald**

**Abstract** This chapter explores the nature of *Homo sapiens* as a species in relation to our ecosystem, planet Earth. The focal question addresses the degree to which humans are capable of acting in a guardianship role. This question is approached from two related perspectives: evolutionary psychology and genetics. The first thesis from the perspective of evolutionary psychology is that we humans are animals who have successfully adapted to our environments over time, including key transition points that fundamentally changed our relationship to Earth. The second thesis from the perspective of genetics is that the human gene is "selfish." Humans are biologically greedy and self-indulgent such that welfare of the planet holds little influence on our day-to-day behavior. Given these perspectives, implications for managing in a sustainable manner are considered. Four scenarios for the future are advanced in order to promote debate and broaden discussion as to the challenges of sustainable management.

> An evolutionary perspective of our place in the history of the earth reminds us that Homo sapiens has occupied the planet for the tiniest fraction of that planet's four and a half thousand million years of existence. In many ways we are a biological accident, the product of countless propitious circumstances. As we peer back through the fossil record, through layer upon layer of long-extinct species, many of which thrived far longer than the human species is ever likely to do, we are reminded of our mortality as a species. There is no law that declares the human animal to be different, as seen in this broad biological perspective, from any other animal. There is no law that declares the human species to be immortal. (Leakey and Lewin 1977, p. 256)

P. McDonald (✉)
Victoria Business School, Victoria University of Wellington, Wellington, New Zealand
e-mail: paul.mcdonald@vuw.ac.nz



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## 1 Introduction

Planet Earth comprises nearly nine million species of which the human species (*Homo sapiens*) is but one. By virtue of intelligence and social cooperation, humans have become—for better or worse—the guardians of the planet. In terms of geological time, we are very much "newcomers." The degree to which our relationship with Earth is sustainable is the subject of escalating academic interest and debate (Ceballos et al. 2015; Steffen et al. 2011; Williams et al. 2015). The purpose of this chapter is to explore the nature of our relationship to Earth from evolutionary and genetic perspectives. The chapter is founded on the central proposition that humans are animals—sophisticated, web surfing, car driving—but nevertheless animals (Boero 2014). While the proposition is not new (Darwin 1859), its implications for our response to the challenges of managing sustainably have received little attention (Mills 2012; Rees 2010).

By way of introduction, the chapter starts with reflections on the dynamics and complexities of the relationship from a single personal viewpoint ($n = 1$)—that of the author. It is impossible to truly know the mind of another person, save for expensive neuroimaging technology, yet, we are aware of our own thoughts. In the case of the author, I have thoughts as to my relationship to Earth. On the one hand, Earth amazes me. Having had the opportunity to travel, its variety—in color, contrast, and complexity—surpasses comprehension. Its moods—from still to stormy—evoke emotion. And, its context—the night sky—speaks of endless possibility. On the other hand, I abuse the relationship. So far, it has worked to my benefit, but I am beginning to wonder if it is sustainable? I drive to and from work alone. I eat more than my body needs. I fly "business class" whenever circumstances permit. My closets have more clothing than they can hold, and my house has more bedrooms than are used. My true nature is most evident when I am eating out at a buffet-style restaurant. I have never approached the burgeoning serving tables without saying to myself: "take only what you need." And I have never left without taking more than I need (particularly the high value items) along with often leaving food on my plate at the end of the meal. All of this behavior is exonerated by my Sunday night ritual of sorting plastics, paper, and glass into our curbside recycling boxes.

What is the cause of this disconnect? I am respectful to the point of awe and grateful on a daily basis, yet I take advantage. The nature of my relationship would not be a problem, if it was only me, but it is not. Most people espouse values in support of behaving in a sustainable manner, but very few act on their espoused values (McKenzie-Mohr 2011). According to the World Business Council for Sustainable Development (2008), the problem is only going to get worse as a new "global middle class" emerges with common consumption patterns. It is proposed that we do not understand the real causes of our behavior. Our focus on "proximate" explanations has obscured the reality of "ultimate" explanations (Kenrick et al. 2010) which require a long-term horizon that integrates insights from evolution and genetics.

> Although most people want to preserve the natural environment, changing old habits can be a formidable challenge, especially when those habits have been adaptive for many millennia. (Griskevicius et al. 2012, p. 115)

## 2 Who Are We?: An Evolutionary Perspective

In terms of biological taxonomy, *Homo sapiens* (*sapien* is Latin for "wise") are only surviving members of the Hominina branch of the great apes. Our closest living relatives are chimpanzees (genus *Pan*), first, and gorillas (genus *Gorilla*), second, with whom we share about 98% of our genetic coding (DNA). Molecular biology indicates that genetic separation occurred 6–7 million years ago; however, the lineage of our species is only 200,000 years. Prior ancestors within the *Homo* genus were *Homo habilis*, the user of stone tools who evolved about 2.8 million years ago, and *Homo erectus*, who stood upright and evolved about 1.5 million years ago. *Homo erectus* was the first *Hominina* to spread from Africa into Europe and Asia. They made use of complex tools and fire. We, Homo sapiens, had several competing strands within the *Homo* genus, including *denisova*, *soloensis*, *neanderthalensis*, and *floresiensis*, the last of which (on the island of Flores, Indonesia) became extinct as little as 12,000 years ago.

Our history has five profound turning points, each with implications for a sustainable relationship with Earth. The first occurred around 800,000 years ago for our forebears, *Homo erectus*. It was the use of fire. At this time, our ancestors were in the middle of the food chain. They were hunted by predatory animals. They were third in line at a kill, after the primary predators, after the scavengers, left to crack open the remaining bones for marrow. The acquisition of fire didn't move *Homo erectus* to the top of the food chain, but it did offer greater protection. More importantly, it enabled foods to be heated, which in turn reduced disease, made proteins more accessible for brain development, and in the long-term allowed the intestinal tract to shorten. The brain and the intestines are big energy consumers in our species; shorter intestines left more energy for the brain. Today, humans gain the same energy input from cooked food within an hour that would require five hours for chimpanzees eating raw food. With respect to current sustainability challenges, it would not be uncommon for our ancestors to burn down an entire forest to make a meal from the animals within. When environmentalists today are shocked at indigenous farmers burning down native forests, they need to appreciate that the practice has a well-established evolutionary heritage.

The second point was the cognitive revolution which occurred about 70,000 years ago. Prior to this time, *Homo sapiens* along with other primates used nonverbal and verbal language: however, it was bound within the context of physical reality. For example, both chimpanzees and humans were able to warn members of the tribe that danger (e.g., a lion) was nearby. During the cognitive revolution, humans became able to mentally step outside physical reality into the realm of socially constructed reality. For example, "there is a lion nearby, and he is the spirit of our ancestors"

(Harari 2014). Mythologies quickly developed that led to normative behaviors that in turn allowed groups to function more effectively. In addition, fictive language facilitated gossip which today has negative connotations but then allowed humans to understand social landscapes, including who to trust, who to avoid, etc. Our ability to socially construct beyond the constraints of physical reality has implications for our current relationship with sustainability. For example, consumption (Paterson 2006) has become a dominant global mythology well beyond the reality of "need." Certain groups across the planet continue to kill each other on the grounds of ideological differences, but we all aspire to the same global icons whether in music, communication, timekeeping, transportation, clothing, or foodstuffs. Brands such as *Coca-Cola* have global meaning beyond that of a physical beverage. Malls have replaced our village squares, and "retail therapy" is commonly accepted practice. The cognitive revolution was the impetus of humankinds' ever-increasing journey to remove itself from the constraints of physical reality.

For two and half million years, members of the *Homo* genus lived on Earth without any attempt to manage their supply of resources. Food, fuel, and water were found. If unavailable, the tribe moved on. We foraged in relatively small groups. World population was in the order of five to eight million nomadic hunter-gatherers. Our ecological footprint was infinitesimal. The third pivotal point in our history was the agrarian revolution which changed the nature of our relationship to Earth from symbiosis to dominance. Harari (2014, p. 87) states: "All this changed about 10,000 years ago, when Sapiens began to devote almost all their time and effort to manipulating the lives of a few animal and plant species." Permanent settlements emerged, and we became static, bound for generations to one physical location, which we managed. Land was cleared and plowed. Canals were dug to move water for irrigation. Trees were planted in rows and nuisance plants were removed. Animals were domesticated, and large herds were shepherded. The human population expanded exponentially; by the first century CE, it had surpassed 250 million.

With respect to sustainability, the agrarian revolution changed our ecological footprint. Nature could no longer grow over, rain out, or wear away the residues of our presence. However, a more important subtle change happened—one which would have long-term implications for our relationship to Earth. No longer constrained to traveling light in small, highly interdependent, tribal bands, humans learned the concept of individual ownership. Huts were erected. Parcels of land were fenced off. Granaries and mills belonged to key individuals who bartered with farmers for their services. Social stratification became salient. A privileged elite collected taxes from farmers in order to live well and build armies to protect their interests. Humankind's first written form of communication, symbols scratched on to clay tablets, was not used for poetry or storytelling; our first documents recorded grain transactions.

The acknowledged concept of ownership changed our relationship to Earth. Collective notions of vulnerability, reverence, and dependence on nature were replaced with plans for dominance and control. Deities moved from animistic to human form. For example, King Hammurabi ruled what was once the world's largest city, Babylon. He applied a "code" that distinguished between the elite, commoners,

and slaves. His regal mandate, through appointment by the gods of Anu, Enlil, and Marduk, was founded within dominant Mesopotamian mythology. Once humans learned to own and to be owned, our collective sense of dependence, and ultimately responsibility, changed. Today, we cut our own lawns, but not our neighbors'. We sustain the viability of that which we own—we paint our homes, maintain our cars, and look after our possessions. We have become one-step removed from Earth and its resources. Companies own access to resources. City councils own roads, rivers, and waterways, and national governments are responsible for vast tracts of land, as well as the air above and the ground below. At an individual level, we have lost the visceral feeling of connection with Earth and the attendant sense of responsibility for its well-being.

The fourth pivotal point—the industrial revolution—has set us on course toward potential future Armageddon. In many ways, the industrial age is rightly proclaimed as the start of humankind's modern golden age. Even though one-fifth of the planet still lives in poverty, we all live in a material-abundant world, whether it be in terms of clothing, personal items, cellphones, etc. Lifespans have increased around the globe, and standards of living have improved universally. A significant portion of humankind live better today than the most powerful of feudal lords in agrarian times. The essence of the industrial revolution was a change in humans' relationship to energy, which previously had been limited to our physical strength, our beasts of burden, and the occasional use of wind power. This all changed in 1765, when James Watt, building on the ideas of Thomas Newcomen, envisioned the steam engine. The ramifications were quick and many. Villages became cities joined by railway lines. Farmers became factory workers. Mechanization gave humankind the scale of mass production with all of its costs and benefits. We moved from harnessing steam to the electron and onto the atom, and in doing so, our capacity to do damage to Earth grew exponentially. For example, in Medieval times, five humans digging with shovels might be able to dig a pit into the Earth of about 20–30 cubic meters in volume in a single day. Today, the same number of humans working with a Bagger 293 (bucket-wheel excavator) built by Takraf, a global German industrial company, could move 240,000 cubic meters of soil in a single day. The origin of the Grand Canyon dates back 17 million years. A small group of humans, using current technology (one machine), could dig out an equivalent structure on the face of the Earth within the span of their own adult lifetimes.

The fifth revolution or turning point is nascent. Its implications are yet to be fully experienced and understood. This revolution will be the most significant to date. It is proposed that it will either result in the extinction of *Homo sapiens* as a species or our evolution into a new species of human—*Homo digitalis.*

The impact of the emerging "knowledge" or "information" revolution, characterized by the explosion of a World Wide Web of communications and a new generation of savvy, digital natives, will be profound from an evolutionary point of view. It will be much more than a technological phenomenon. It will change the fundamental dynamics of the universe as we currently know them. It will change humankind from a "Newtonian" universe of causes and effects, focusing on physical

particles (e.g., molecules and atoms), to a "quantum" universe of probabilities, focusing on waveforms (e.g., frequencies and energies).

The human being as a physical entity (a clearly defined configuration of molecules) is under transition. Many humans presently have a virtual online presence which exists 24/7, not in a physical sense but in the form of energy. Our communication patterns are changing at a fundamental level, as is the nature of our social interaction, the very evolutionary advantage that enabled humankind to ascend millennia ago. The largest social communities exist not in physical space but in cyberspace (Facebook has surpassed 1.6 billion active users). If the cognitive revolution, 70,000 years ago, gave humankind a layer of reality beyond the physical world—a socially constructed reality of cultures, laws, norms, and hierarchies—then the knowledge revolution will give us a third layer of reality, known as "virtual" reality. As the name suggests, it will be one step further removed from physical reality. The advance of this reality will have profound implications for our relationship to Earth. We will be able to experience Earth more and more, including at a visceral level, without physical interaction. Earth and its preservation are at risk of becoming algorithmic abstractions presented to the minds of humans. What is motivation to sustain flora and fauna when humankind can recreate them in an authentic virtual world?

In summary, from the perspective of evolutionary psychology, this chapter has proposed that the imperatives of natural selection have made us who we are, which in turn has influenced our relationship as a species with Earth. However, current debate within the academic community suggests that evolution is obsolete as the dominant influence on our species. There are two competing theories. The first theory by Steve Jones (2015), emeritus professor of genetics, University College London, posits that the evolutionary imperative of natural selection no longer applies to *Homo sapiens*. Global reality is no longer a case of "survival of the fittest." The natural environment no longer "selects" based on genetic variation. First of all, genetic variation has declined in response to increased human mobility and cross-breeding. We are, in fact, becoming more alike as a species. Second, advances in modern science, transportation, and communication, including medicine, disaster relief, and humanitarian assistance, mean that the majority survive and reproduce. Less than 200 years ago, the child mortality rate, even in developed societies, was in the order of 50%. Today, the global average is under 5%. This theory predicts that we have stopped evolving and will remain static as a species.

The second theory (Miller 2001) puts forward the proposition that evolutionary change is accelerating. The fundamentals of human reproduction have changed dramatically with the introduction of birth control and fertility clinics, and further change is on the horizon in the form of genetic engineering. For *Homo sapiens*, engaging in sexual behavior as a biological urge has become separate from the decision to reproduce. Choice of mating partner is moving from the traditional localized contexts (gene pools) emphasizing physicality and health (now accepted as "givens") to broader contexts (including online) in which general intelligence (as a predictor of future social and economic success) becomes a key consideration.

In the future, evolution, in its current connotation, will be one of several influences that define the nature of the human species. Genetic engineering will enable explicit human intervention at the interface of "natural" selection. Medical science, in particular, organ printing and nanotechnology, has the potential to significantly extend human lifespan. Robotics will extend and enhance our physicality. Cloning and artificial intelligence could make us the first species on Earth to shake off our "mortal coil." Paradoxically, we have the potential to become the most infinitely, sustainable species in the entire 4-billion-year history of the Earth while creating the least finitely, sustainable physical ecosystem.

## 3 Who Are We? A Genetic Perspective

The focal question underlying this chapter is the degree to which humans are capable of behaving in a sustainable manner. Up to this point, the discussion has explored psychological perspectives with emphasis on humankind's key evolutionary turning points, which have changed the fundamentals of our relationship with Earth. Modern biological science would posit that the "human" is not the most appropriate unit of analysis in order to understand our relationship to Earth. Rather, it is the "genome"—the double-helix structure of long-strand nucleotides (DNA) which serve as the basic assembly and operating blueprint (information) for all species, including humankind. There are about 37 trillion cells comprising the human body of which the nucleus of nearly every cell (less red blood cells and certain skin and hair cells) contains two copies of our genetic inheritance, one from each parent. These genes are the basic unit of heredity with implications for not only physical attributes such as hair and skin color but also personality and behavioral attributes (Robinson et al. 2008).

> Individuals are not stable things, they are fleeting. Chromosomes too are shuffled into oblivion, like hands of cards soon after they are dealt. But the cards themselves survive the shuffling. The cards are the genes. The genes are not destroyed by crossing-over, they merely change partners and march on. Of course they march on. That is their business. They are the replicators and we are their survival machines. When we have served our purpose we are cast aside. But genes are denizens of geological time: genes are forever. (Dawkins 1989, p. 35)

According to evolutionary biologist, Richard Dawkins, genes are "selfish" such that they are biologically designed to perpetuate their own survival and replication within the gene pool. This genetic programming manifests in human behavior. At a very base level, humans are fixated on survival and reproduction—not as a global species (which would facilitate sustainable advances), not even at a collective, local group level—but at the level of individual beings, along with our kin (i.e., those carrying our genes). Individual interactions with the environment fall into two broad categories: things that get in the way and things that can be exploited. Regrettably, humans have a natural biological propensity to exploit our fellow humans, hence the economic phenomenon known as "tragedy of the commons." Dawkins acknowledges altruistic behavior in humans but suggests that it is directed to our kin and

interactions in which cooperation will produce a net gain for all involved. In short, we cooperate when it satisfies our own self-interest.

While Dawkins' connotation of "selfish" is repugnant and has been contested, not only from a scientific point of view but also the manner in which he popularized the concept, his metaphor endures. Edwardes (2014) points out that the gene is not selfish in the context of modern usage of the word, rather it is "self-ish" in that it will exploit limited resources to the detriment of other genes. Modern evolutionary theorists (Laland et al. 2014) conclude that Dawkins understood part of a bigger, more complex picture. In essence, his thinking was gene-centric. Recent science suggests an "extended modern synthesis" theory of evolution in which the gene plays a significant role, but not the only role (Noble 2015).

Science commentator and theoretical physicist, Stephen Hawking (2009), suggests that evolutionary influences are changing radically with respect to humans. For our species only, biology is being eclipsed by our ability to store and disseminate information across generations. Until recently, humankinds' ability to store and disseminate information was both localized and limited. In his *Life in the Universe* lecture, Hawking points out that even though our DNA contains millions of bits of information, humankind is now producing billions of bits of useful information capable of influencing our behavior. A key consideration is, of course, relative efficacy based on information source. Even Dawkins acknowledges that humans can learn, for example, to be altruistic, but our genetic foundations should not be ignored when it comes to understanding the degree to which we behave (or don't behave) in a sustainable manner.

A case in point is the biological fact that all species are genetically programmed to breed, multiply, propagate, reproduce, or replicate in some form, either asexually or sexually. This propensity has critical implications for our relationship to Earth. There are two key considerations: the manner in which reproduction takes place and the additional resources that will be required. For example, cells replicate by splitting in two, via a process called "mitosis." The resultant growth pattern is 2, 4, 8, 16, 32, and 64—in a geometric sequence. Most people can appreciate that it is not long before the change curve becomes almost vertical relative to time. This is how a virus is able to spread quickly throughout the human body. Similarly, a single bacterium cell in a petri dish will quickly reproduce (asexually by binary fission) to fill the entire dish. The second consideration is the availability of resources. Life in any form on Earth requires energy. There are only two types of organism, autotrophs and heterotrophs. Autotrophs are able to create energy-based molecules from inorganic materials along with an external energy source, such as sunlight (e.g., a tomato plant). Heterotrophs cannot "fix carbon" and must consume organic substances in order to survive (e.g., a human being). Humans consume "far more energy than any heterotroph that has ever evolved" (Price 1995, p. 301).

Given these considerations, it is clear from a biological perspective that control over territory is critical. Species have a biological necessity to spread, to increase their territory and hence resource base, whether in a micro-sense (bacteria in a petri dish) or a macro-sense (humans on Earth). Prior to human dominance over nature, a very fine ecological tension existed called "balance of nature." There were of course

exceptions during which extinctions occurred, but overall the ecosystem moved toward stability (homeostasis) through an infinite number of intertwined, cybernetic feedback loops. For example, if a prey population (i.e., rabbits) increased, then a larger predator population would be produced (i.e., foxes), which in turn would bring the system back into balance.

The growth and expansion of the human species, until recently, were subject to the same natural dynamics. The Reverend Thomas Robert Malthus observed in his book (1798), *An Essay on the Principle of Population*, that sooner or later population growth would be checked by disease or famine. Over 200 years ago, when the Earth's human population had just passed the one billion mark, Malthus stated (p. 5): "The power of population is indefinitely greater than the power in the earth to produce subsistence for man." Currently, at the global reproduction rate of 255 births per minute (350,000 per day), the Earth's human population is about 7.4 billion. A child born today will witness the human population doubling to 15 billion within his or her own lifetime. In the language of systems theory, we are quickly approaching what is called an "overshoot." This means that a final steady-state value in the system will have been exceeded.

> All species expand as much as resources allow and predators, parasites, and physical conditions permit. When a species is introduced into a new habitat with abundant resources that accumulated before its arrival, the population expands rapidly until all the resources are used up. (Price 1995, p. 308)

Mills (2012) uses the example of wine, a beverage many people are familiar with, as an example of ecological overshoot. The grape juice exists within a defined, finite system—the barrel. The winemaker introduces a living organism—yeast. The yeast consume the sugars in the grape juice and begin to rapidly multiply, quickly reaching an exponential growth rate. Eventually, all of the sugars run out. The yeast are left swimming in their own waste products—alcohol. There is a massive (and rapid) population die-off, and all of the living organisms within that particular system become extinct. There is similar evidence of this biological propensity in mammals. In 1944, the island of St. Matthew in the Bering Sea was covered by a thick, natural carpet of lichens (Klein 1968). A herd of 29 reindeer was introduced to the island. By 1957, the herd had grown to 1350 and then to 6000 by 1963. By this point in time, all of the lichens had been consumed, and the following winter the herd died off.

Nobel Prize-winning atmospheric chemist, Paul Crutzen, has named the Earth's current geological age—"anthropocene"—in recognition that human activity has become the dominant influence on the environment and climate. Crutzen, along with a large research team (Steffen et al. 2011), proposes that the Earth is at a crossroads. They predict resource scarcity, ecosystem degradation, and excess pollution. They state (p. 739): "This situation is novel in its speed, its global scale and its threat to the resilience of the Earth System."

## 4 Scenarios for the Future

While the following scenarios are presented as separate and in contrast to each other, they are not mutually exclusive and are much more complex than brief discussion recognizes.

### *4.1 Status Quo*

The first scenario is "business-as-usual," which includes incremental changes to human behavior at the margin. The slow but sure proliferation of electric vehicles and electronic replacement of physical data are assumed under this scenario. However, it is likely that any gains will be offset by a burgeoning global middle-class population who will demand increased energy, material, and protein consumption. As the human population experiences (as of May 2016) the 13th consecutive warmest month on record, there will be increasing "felt" effects of climate change. For many of us, up until this point in time, the challenges of sustainability have been "distant"—images, statistics, and scientific reports which have prompted rational interest, that of a bystander, but little emotional impact. There is now sufficient evidence to state that the status quo will lead to further deterioration in the ecosystem (Steffen et al. 2011). As conditions deteriorate, the human species will become further divided between those who can afford to isolate themselves and their kin from the effects of a collapsing ecosystem, and those who cannot. Competition for key resources, including water, will increase, manifesting in violence at local and national levels.

It is not beyond historical precedent that humankind could experience a second "dark age"—a term coined by Renaissance Scholar, Francesco Petrarca (Petrarch). This would be a period during which the advance of human civilization regresses and what we know of as modern society—cars, electricity, rule of law, and logistical systems—disappears. Subsequent to the collapse of the Roman Empire (476 CE), Western Europe experienced a protracted period of deterioration, approximately 500 years (Early Middle Ages). We regressed as a species across cultural, economic, and demographic fronts. Tribal-like, warring bands (i.e., Huns, Goths, and Vandals) roamed, and the quality of life worsened. This sort of system "reboot" (back to basics) may be necessary for our species to redefine its ecological trajectory at a fundamental level.

### *4.2 Technological Reprieve*

Whether in the form of a flint shard, fire ember, steam engine, or digital server, *Homo sapiens*—direct descendants from the original toolmakers (*Homo habilis*)—have an

enduring and inextricable relationship with technology (which for the purposes of this discussion subsumes science and innovation in all its forms). In modern parlance, technology is a "game-changer." Unlike any other species on Earth, our survival is increasingly dependent on technology (Kahn 2011). Save for small groups (e.g., the Kalahari Bushmen), humans would not survive without current technology. Technological leverage has been immense in our civilization. Global food production, as an example, has tripled over the last 50 years using science and technology. Healthcare has extended the expected human lifespan from 50 to 83 years over the last century. And the Internet has redesigned the very fabric of human society. Williams and his colleagues state (2015, p. 208): "Eventually, technology allowed regional populations to grow beyond the individual survival capabilities of their members, and as global population growth accelerated local networks became connected to form a complex system of planetary scale."

As an adaptive species, we have come to expect that science, technology, and innovation will isolate us from our Darwinist reality. We continue to eat what tastes "good"—good as defined by obsolete evolutionary programming which values sweet and fatty foods—knowing that statins will keep our arteries clear. It is within the bounds of possibility that technology will rescue humankind from the challenges we face (Sharp 2014). This may explain humankind's sanguine response to the challenges of sustainability. The manner in which this reprieve will come is difficult to predict, but a low-cost source of clean energy is a candidate. The wind, oceans, lithium, and biomass all show potential, but real change will likely emerge from beyond our immediate horizon (antimatter, low-energy nuclear, harvesting from other planets). This would be a game-changer in that sea levels could be controlled by desalinating water from the oceans to irrigate large areas of nonarable land (i.e., the Sahara). It may not solve our fundamental drive to reproduce and dominate territory, but it would buy time to perhaps genetically reengineer our natural, biological propensity.

## *4.3 Beyond Physical Reality*

Earth as a physical entity comprises four spheres: atmosphere (air), hydrosphere (water), lithosphere (earth), and biosphere (life). A fifth concept—technosphere—emerged early in the twentieth century to recognize the realm of human technological activity. Vladimir Vernadsky, one of the founders of geochemistry, conceived this category to capture all human workings as well as flows of energies and materials. Today, the technosphere is acknowledged as a human-created and controlled system with "quasi-autonomous" dynamics (Haff 2014). In essence, humans are no longer fully in control of the technosphere. This situation in concert with Moore's Law—computing power doubles every 2 years—provides the rationale for a third scenario in which humankind isolates itself from physical reality by evolving into a virtual reality.

Humans currently live, in part, in virtual reality. Holography already exists, as does the Oculus Rift VR headset. Virtual reality is already used across our

technosphere, including education (virtual field trips), engineering and design (3D modeling), entertainment (CGI and gaming), medicine (stroke rehabilitation), psychology (phobia desensitization), training (surgical procedures), and social collaboration (avatars). Futurist and Google's Director of Engineering for machine learning and language processing, Ray Kurzweil (2005, 2012), who has an established predictive track record, gives talks in which a lifelike version of himself is beamed into the lecture theater. He envisages that virtual reality will become 100% authentic within the next two decades and that technology will enable individual human consciousness to be uploaded into cyberspace (i.e., "the cloud") within the next three decades. Kurzweil has popularized his version of "singularity," defined as the future point in our existence at which artificial intelligence (AI) surpasses human thinking. This may occur within the near future (20 plus years), perhaps sooner. Artificial general intelligence (AGI = networked AI) is expected to advance exponentially such that by the 2040s it will be a billion times more capable than biological intelligence.

Under this scenario, our relationship with Earth is beyond the scope of current imagination. Biodiversity, pollution, climate, and resourcing will fade as the critical factors to human sustainability because the nature of that which is being sustained will change. We may continue to experience (in our minds via stimulation of sensory modalities) the cool, lush feel of the Amazon rain forest; the visual majesty of polar bears, elephants, and lions; and the taste of a sparkling mountain stream; it's just that they will have ceased to exist in physical reality.

## *4.4 Earth 2.0*

Immortality may become part of humankind's future not only in a virtual sense but also in a physical sense, as evident in the acceleration of recent medical advances (3D printing of organs, nanotechnology, and stem cell research) and extensions to human lifespan (current estimates indicate that there are over 300,000 centenarians worldwide). The possibility exists for indefinite human lifespan, a term Cambridge gerontologist, Aubrey de Grey, calls "longevity escape velocity." He suggests that the first human who will achieve a lifespan in excess of 1000 years is currently alive today. If this prediction is even partially accurate, on top of current population growth rates, the Earth will simply not be big enough to host humankind. We will need to find new extraterrestrial territories—Earth 2.0. The search is currently underway for "Goldilocks planets" that are not too hot or too cold (i.e., Kepler 438b, 475 light-years away). The next-generation space telescope, NASA's James Webb Space Telescope, due to launch in 2018 will facilitate this search.

This scenario fits with our historical behavior, when our ancestors *Homo erectus* first ventured out of what is now known as East Africa, more than 2 million years ago. It fits with the enduring human characteristic of exploration, whether to the far reaches of our landmass or depths of our oceans. Paradoxically, it also fits with one of humankind's present-day antagonistic behaviors which is thwarting

sustainability—the widespread practice of "when something is no longer of use, then throw it away."

Under this scenario, instead of addressing the challenges of sustainability, we can simply leave them behind, perhaps not all of us, but a representative sample(s), which might mimic what at one time was "natural selection." Humankind has already proven that we can travel and live in outer space. Space colonization (permanent human habitation off planet Earth) is a viable possibility. Theoretical physicist, Stephen Hawking, advocates this idea as the means to save human civilization. NASA has plans to send humans to Mars in the 2030s and has already successfully launched a device (Voyager 1 in 1977) that has traveled beyond the limits of our solar system. The prohibitive factor is the cost of moving people and materials beyond Earth's gravitational field. Current costs are approximately of US \$6000 $kg^{-1}$. The scenario of space colonization could be brought forward with the advent of new energy sources (e.g., electric propulsion using superheated plasma) and/or technological innovations (e.g., a space elevator consisting of a carbon nanotube ribbon anchored to Earth's surface stretching 100 km to an object in geostationary orbit in outer space).

## 5 Concluding Comments

We live in an age of "discontinuity," which will only escalate in light of the wide array of disruptive technologies under development. Historical timelines are no longer valid. We have witnessed that global fundamentals can change very quickly, within weeks, if not days. In conclusion, to paraphrase Albert Einstein: when a large number of factors come into play, any sort of prediction is fraught. One prediction, however, appears to have strong validity: that is, as a species, our current relationship to Earth is no longer sustainable. Pending disaster can, without doubt, be attributed to many legitimate antecedents, including seemingly intractable adaptive lessons and biological imperatives. Regardless of causality, we are plundering our host. The purpose of this chapter has been to highlight the magnitude of the challenges which loom and the need for more than ritualistic, guilt-assuaging behavior.

Our most fatal error as a species would be to underestimate the magnitude of the challenges we face. In 1972, a team of researchers led by Dennis Meadows from the Massachusetts Institute of Technology warned humanity in a groundbreaking book based on computer simulation (*The Limits to Growth*) that disaster (plummeting population, contracting economy, and environmental collapse) would strike with the next 100 years (Meadows et al. 1972). It is not that this warning was restricted to the dusty recesses of a few university libraries, the book was published in more than 30 languages, and 10 million copies were sold. In 2012, a symposium (*Perspectives on Limits to Growth: Challenges to Building a Sustainable Planet*) was hosted by the Smithsonian Institution and the Club of Rome to mark the 40th anniversary of the publication. Actual data (1970–2000) confirms original predictions put forth

under their "business-as-usual" scenario. Meadows and Jorgen Randers, two of the original authors, were in attendance at the 2012 symposium. Meadows, now retired, concludes that it is already too late. Collectively and globally, as a relatively young, evolving species with significant promise and potential, let us do more, much more, than simply hope—that he is wrong.

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# Developing a CSR Definition and Strategic Model from the Sufficiency Economy Philosophy


**Marissa Chantamas**

**Abstract** Corporate social responsibility (CSR) is becoming more important in business practices since there is a growing demand for sustainability. However, to date the definition of CSR is still varied causing problems in its application. Therefore, it is the objective of this research to develop a CSR definition and framework for implementation. The Sufficiency Economy Philosophy proposed by His Majesty King Bhumibol of Thailand was incorporated into the study to develop a firm's strategy in dealing with its various stakeholders. This is because the Sufficiency Economy Philosophy focuses on the good values that will promote good within the community, which promotes a viewpoint in sustainability. This unique definition and resulting model is the first contribution of this research. The second contribution is the study of how firms can collaborate with the government in creating sustainable CSR practices. The third contribution of this paper is the wide cross section of companies studied including companies listed in the Stock Exchange of Thailand to small and medium enterprises. In addition a case study was conducted to further refine the framework developed. The CSR framework developed in this study proposes three stages in the development of sustainable CSR. The first is the basic stage showing accountability for business operations with a focus on long-term planning. The second stage is the integration of CSR practices with strategy in realigning work process and maximizing utility of resources. The final stage is the best practice where innovation drives the development of new products and services setting a new direction for the firm. The Hi-Q Company case study adds the importance of the dimension of partnership with stakeholders such as the government in ensuring that the CSR initiative will be a sustainable one.

M. Chantamas (✉)
Department of Marketing, Martin de Tours School of Management and Economics, Assumption University, Bangkok, Thailand



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## 1 Introduction

The public expects businesses to be socially responsible and engage sustainable practices for the environment and the community. However, implementing such responsible practices still remains a challenge. As early as 1953, Bowen coined the term corporate social responsibility (CSR), which meant that firms had responsibilities to the community and society in addition to profit making. This view is further confirmed by Dahlsrud (2008). The author observed that businesses realized the importance of being responsible toward society, the environment, and its stakeholders. However, businesses needed an incentive to be socially responsible. Consequently in recent years CSR has come to be considered as part of the value creation for companies by providing long-term financial benefits (Bhattacharya and Sen 2009; Piercy and Lane 2009). It does so by creating meaningful delivery of relevant initiatives that resonate with the values of consumers (Bhattacharya and Sen 2009).

According to Carroll and Shabana (2010) the original CSR definition had three core ideas—manager as the public trustee, balancing the competing claims to the limited corporate resources, and corporate philanthropy, which is the business's effort in supporting good causes (Bhattacharya et al. 2009). This is similar to Kotler and Lee (2005) that defined CSR as "a commitment to improve community well-being through discretionary business practices and contributions of corporate resources." To date the most widely referenced definition of CSR was developed by Carroll (1979)—"The social responsibility of the business encompasses, the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time." In this definition Carroll defined four domains of CSR as the economic, legal, ethical, and discretionary or philanthropic activities. This definition has been used as the main framework for study by many academics.

However Galbreath (2008) pointed out that many researchers attribute CSR activities as being strategic by simply fitting it into Carroll's definition of philanthropic activities. But just engaging in a philanthropic activity is not sufficient for the organization to realize the full benefits of CSR among the various stakeholders. Even Carroll revised the model for CSR removing the philanthropic activity dimension. Schwartz and Carroll (2003) proposed the three-domain model of corporate social responsibility that is in line with the initial four-part model. The main difference is the exclusion of philanthropic activities from the main model. Philanthropy is "subsumed" under the ethical and/or economic domains, which should be a better reflection of the possible differences in the motivations driving those activities. Consequently it is important to shift away from just defining CSR activities to definitions that support the development of strategy.

To develop a strategic definition of CSR, its various dimensions from previous research are analyzed. A common thread among these works is the topic that CSR should address based on the interests of the stakeholders such as the society or community, environment, employees, and economic considerations. For instance, Dahlsrud (2006) identified the dimensions of CSR in previous studies including stakeholder dimension, social dimension, economic dimension, voluntariness

dimension, and environmental dimension. Sen and Bhattacharya (2001) and Bhattacharya and Sen (2004) defined six areas in conducting CSR activities from a study of the Corporate Social Ratings Monitor. These six domains are listed as follows:

1. Community support such as the sponsorship of arts, health programs, or programs to help the disadvantaged groups
2. Promotion of diversity representing all groups regardless of sex, race, etc.
3. Employee support in terms of safety, job security, and benefits
4. Environmental protection and preservation
5. Extending the good practices to non-US-based operations such as labor practices
6. Product development to ensure safety and avoid controversial issues and antitrust dispute possibilities

Over the years the focus of CSR research has shifted from an ethical orientation (Carroll and Shabana 2010) to a firm's performance orientation with emphasis on the macro-social level to organization level. From the previous studies, it can be observed that the ethical orientation may create goodwill toward the firm. However, it still does not address the major objective of business in generating profits. Vogel (2005) termed this change to a performance orientation as the "new world of CSR" wherein the CSR initiatives must be linked to the firm's financial success. According to Vogel (2005), support for such a stand can be found in many research works. Kurucz et al. (2008) explained that there are four means in which a firm may gain profit from engaging in CSR activities, namely, (1) cost and risk reduction, (2) developing competitive advantage, (3) creating reputation and legitimacy, and (4) attaining synergistic value.

Supporting this view Berger, Cunningham, and Drumwright (2007) explained that CSR should be part of the day-to-day business agenda of the company. This can be applied in three types of models, namely, the social values-led model, business case model, and syncretic stewardship model. The social values-led model views that CSR initiatives are done for noneconomic reasons. The business case model means initiating CSR that has a direct link to the profit. The syncretic stewardship model is a more comprehensive model wherein the firm takes into consideration virtuous values while pursuing economic objectives. Thus it can be said that the syncretic stewardship model uses CSR as a management philosophy guiding the business practices.

Galbreath (2008) proposed anchoring CSR in the six dimensions of strategy, namely, mission, competitive advantage, strategic issues, resources, markets, and customer needs. O'Riordan and Fairbrass (2014) developed a framework proposing a set of steps in the process for developing CSR strategies. These authors based their work around the core concept of CSR stakeholder engagement believing that this model could help to improve the accountability of business. This is done by integrating their stakeholder network responsibilities (context) into business choices and calculations ultimately improving the way companies practice CSR as well as communication regarding the stakeholder engagement. However, it still is not sufficient to anchor CSR in strategy as described by Galbreath (2008).

Porter and Kramer (2011) proposed the idea of creating shared value (CSV) as a new perspective from their earlier work studying how CSR activities can be linked to

the firm's value chain in 2006. The authors reasoned that CSV makes "doing good" for society part of the profitability of the firm. It can be achieved by realigning the company's resources to innovate products or markets, rethinking the value chain, and enabling clusters. These authors explained that shared value is the key to the next wave of innovation and business growth. These dimensions are also found in the Sufficiency Economy Philosophy. It is within this framework that this study would examine the business practice that takes into consideration the Sufficiency Economy principles of His Majesty the King of Thailand while engaging all the relevant stakeholders. As a consequence the first contribution of this study is to develop a CSR definition and model that uses the Sufficiency Economy Philosophy to develop a firm's strategy in dealing with its various stakeholders as Dahlsrud (2008) stated that it is important to develop guidelines for managing CSR within the context of business operations. Another contribution is the study of how firms can collaborate with the government in creating sustainable CSR practices. This is supported by the research conducted by Chapple and Moon (2005) explaining that CSR cannot be done solely by the firm. It is imperative to involve the network of the firm including the government. The third contribution of this paper is its comprehensiveness in conducting data from companies that range from top performers in terms of CSR listed in the Stock Exchange of Thailand to small and medium enterprises. There are two phases of the study wherein the data from the first phase is used to identify the best practice to be studied for definition and model development.

## 2 The Sufficiency Economy

The view of CSR as a management philosophy is a balanced alternative view in creating what Reidenbach and Robin (1991) call an "emergent ethical corporation." In Thailand, this interpretation is done based on the Sufficiency Economy Philosophy proposed by His Majesty King Bhumibol Adulyadej as a means to ensure that business and society coexist (Suwanraks 2000; Kantabutra 2007).

The Sufficiency Economy Philosophy is distilled from the experiences of His Majesty throughout his reign. The emphasis is on staying on the "middle path" for the individual, family, and community. This is not a denial of globalization, but the critical element is a way to soften the blow from internal and external shocks to the economy.

Research conducted by many academics primarily on the SMEs in Thailand lend support for the success of firms that practice the Sufficiency Economy Philosophy in their operations (Puntasen et al. 2003; Kantabutra 2005a, b; Nuttavuthisit 2005; Kusumavalee 2005). Kantabutra (2005a, b) proposed that firms may adopt these principles into corporate values that can be critical to the practice for corporate sustainability. These studies focus on the application of the three basic tenets of the Sufficiency Economy Philosophy in business operations. Synthesizing Thai and

Western studies on best business practices, Kantabutra (2007) defined the set of practices called Sufficiency Economy business practices as follows:

1. Adopt a long-term perspective to management and decision-making.
2. Genuinely value and continuously develop human resources.
3. Be honest and genuinely concerned with and accountable for a wide range of stakeholders, including the society, the environment, and future generations.
4. Nurture both incremental and radical innovation throughout the entire organization, including products and processes.
5. Utilize resources effectively and efficiently.
6. Adopt/develop effective, but not expensive technology.
7. Expand business because of its actual growth as opposed to a surge in market demand.
8. Carefully diversify products, markets, and investment portfolios to minimize risks.
9. Share knowledge to develop the market.

According to Kantabutra (2007) the Sufficiency Economy Philosophy is the development of self-reinforcing management system that enhances the firm's ability to compete in the global market and sustain the success. Beyond the practices of transparency and responsibility to the society and environment, it is the prudent management of the business to reduce "people-hidden cost and the highest quality of products and services and bring about innovation not in products but throughout the entire organization." The key concept is keeping the business operations profitable and yet ethical. Rather the Sufficiency Economy Business Philosophy emphasis on knowledge, reasonableness, and self-immunity principle ensures an approach to business that should ensure operations would be sustainable and operated in the most effective and efficient manner with consideration made for all stakeholders and making an effort to maintain this good practice in the entire value chain (Kantabutra 2007; Puntasen et al. 2003).

## 3 Thai CSR

CSR in Thailand is usually associated to charitable acts and volunteerism (Prayukvong and Olsen 2009), which is a fundamental Buddhist practice (Rajanakorn 2012). Thai CSR activities fall primarily in the domain of economic/ethical overall as defined by Schwartz and Carroll. In this domain of economic/ethical overlap, law is not the only bind on the corporate activity. Rather it is ethical and economic in nature simultaneously. Activities that fall within this category should already be compliant with the law because any illegal activity would by default be unethical (Schwartz and Carroll 2003). Succinct to say it's the adage "good ethics, good business." The companies that engage in such activities can be defined as the "emergent ethical" corporation, which is actively seeking a greater balance between profits and ethics as described by Reidenbach and Robin (1991).