The Primacy of "Righteousness" and "Relevance" over "Rigour" in Strategic Sustainability Management Research

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Abstract : Strategic thinking for developing appropriate organisational responses to external environmental signals is irrefutably the master-key for winning in business. In this regard, the author underscores the need to hone the human capacity for strategic thinking in present times to expedite solutions for planetary well-being by aligning meaningful academic research outcomes with the imperative of steering holistically sustainable business practices.

Accordingly, the present paper is aimed at identifying the essential criteria of robust scholarly research in the emerging field of *strategic sustainability management (SSM)* that may be viewed as a ramification of the newly recognised domain of sustainability science as well as an extension of classical strategic management research. The essence of SSM as a fertile area of research is best cognized within an embedded-holarchical perspective of the business-society-nature (B-S-N) interface that represents a conspicuous breakaway from the traditional *disparate* B-S-N perspective dominating strategic management literature.

Strongly inspired by *dystopian* analyses (featured in the writings of H. Mintzberg, S. Ghoshal, W. Bennis, S. Clegg and J. Pfeffer, to name a few) that attributes mounting unethical corporate behaviour to the dysfunctional system of modern management education and research, this paper signifies a modest attempt to establish the primacy of *(moral) righteousness* and *(insightful) relevance* as criteria of sound SSM research. This contradicts the dominance of methodological rigour as the underlying criterion of pretentious pseudo-positivistic strategic management research currently popular in academic circles.

Key-words : Strategic thinking; strategic management; sustainability science; strategic sustainability management (SSM); trans-disciplinary; B-S-N interface; methodological versus intellectual rigour; research paradigm; interpretive *bricoleur*; insightful relevance; righteousness.

1. Introduction

Strategic thinking is irrefutably the master-key for winning in the battle-field of business. In simple terms, this involves critical thinking for the development of appropriate organisational responses to signals (favourable or adverse) captured from the external environment. In business, strategic thinking elicits answers to difficult strategic questions regarding long-term scope and direction of organizational efforts. Accordingly, it entails a profound understanding about *why* an organization exists, *where* it is headed in the future and *how* it intends to get there, by resorting to thorough analyses of long-term business impacts (ecological, social, economic and financial) on the well-being of both, the organization and *all* those who have a "stake" in it.

The present paper rests on two fundamental propositions about the capacity for incisive strategic thinking, namely: (1) It underlies (i) the discovery of *creative business opportunities,*

(ii) their embodiment in *dynamic organisational capabilities*, and (iii) the generation of *radical and disruptive sustainable innovations* that can simultaneously enhance customer satisfaction, societal progress, and environmental preservation, while promoting long-term business profitability. (2) Honing the capacity for strategic thinking in present times necessitates an alignment of meaningful research outcomes born out of pure theorization emanating from academia, with the imperative of making extant business practices holistically sustainable, in order to expedite humanity's quest for solutions that augment planetary well-being.

Based on the afore-stated propositions, the ideas presented in this paper are woven together with a primary aim to examine and establish the essential criteria of scholarly academic research in the context of *strategic sustainability management (SSM)*, which is an emerging branch of the newly recognised research domain of sustainability science standing on the ethic of sustainable development, as well as an extension of the frontiers of traditional strategic management research.

We posit that sustainability is neither the antithesis of crude competition under free market capitalism, nor is it a euphemism for charity and socialism. Instead, we look upon sustainability as a basic ingredient of sustainable value creation (Friedman, 2009: 54) that is indispensable for corporate survival and strategic success. We perceive sustainability both as an *end* (i.e., an outcome of individual, organizational, corporate and governance activities) and as a *means to the end* (practices founded upon the principles of sustainable natural systems). Sustainability upholds the relationship between various constituents of human society (including business enterprises) and the natural environment—a relationship that is nurtured by a human ethic of espousing sustainable values derived from the natural world to create enduring human institutions that are "strong" and also "good" (Friedman, 2009: 54). The quality of this relationship depends upon (i) our understanding of nature, (ii) the technologies we adopt, (iii) our understanding of how human exploitation affects natural systems, (iv) our understanding of how exploitation affects society, and (v) how we visualize and understand our ethical attitude regarding ourselves and nature. While the first four dimensions are necessary for achieving sustainability, history demonstrates that the fifth is the most critical and fundamental, and yet the most neglected dimension of sustainability (Vucetich and Nelson, 2010: 540). Sustainable relationships and values disregard humanity's current over-emphasis on situational relationships and values that favour exploiting nature as a resource for short-term economic gain. Our relentless obsession with the "situational" rather than the "sustainable" has transformed Earth, the only life-supporting planet, into a "hot, flat, and crowded" (Friedman, 2009) planet that is potentially life-threatening.

Furthermore, we hold that a paradigm shift towards sustainable relationships and values by business as a dominant social institution, hinges upon essential knowledge and insights obtainable from *strategic management*, a "relatively young" (Rumelt, et. al., 1994) area of academic enquiry, now considered a disciplinary field in its own right (Mintzberg et. al., 1998:18; Rumelt, et. al., 1994:15). Contextualized within turbulence and change, strategic management

in an era of globalization cannot be portrayed any longer as zero-sum dichotomies and simple choices, but as an imperative to manage paradoxes and tensions.

Conceptual dexterity to make sense of this new context through the plurality of multifaceted perspectives is indispensable for understanding the paradoxes of the similarities and differences, of big and small, of technical and political, of participation and control, of flexibility and accountability, of decentralization and centralization, and of global and local (Prahalad and Doz, 1987; Feldman, 2006: 959). This challenges modern strategic management researchers to question the conventional wisdom of taken-for-granted assumptions inherent in traditional dualistic thinking of choosing between extreme opposites (Clegg et. al., 2002: 485) and to break free from the dominant reductionist-positivist paradigm (Lewis and Keleman, 2002) of research methodology. Strategic management models born of reductionism and instrumental rationality categorically underscore self-interest maximization and internal consistency of choice; any departure from self-interest is considered non-rational (Rocha and Ghoshal, 2006: 590). Ghoshal and Bartlett's (1999) research reveals that the complex reality of globalization has compelled companies to develop complex "third generation strategies", but these are ineffectively implemented in "second generation organizations" by ill-prepared "first generation managers".

Hence, we surmise that the orientation to learning of management researchers and educators cannot remain static (Macdonald, 2003) but has to be influenced by the learning context in terms of pedagogy and research design, which, in its turn, must be based on "propositional knowledge" that facilitates the creation of new knowledge to solve unprecedented planetary scale problems. Conceptual learning (Maclellan, 2005:156)—i.e., the acquisition and application of new knowledge through understanding, is necessary to result in concepts and symbolic representations not previously in the individual's knowledge network, which can be exemplified through learning the meaning of a new idea, discovering connections between two unrelated ideas in general terms, or developing an essential behaviour/competence through practice.

The formalization of a science of strategic management, considered by many to be the bedrock of strategic thinking, appears to have a militaristic origin. It is usually traced back to the powerful exhortations of Sun Tzu (**End-note#1**) on military strategy contained in *The Art of War* (Sun Tzu, 1971). Sun Tzu propagated an anti-war perspective as the key to military achievement. He underlined powerful strategic thinking (instead of physical force) as the basis for victory in the battlefield: the fundamental principle in battle is to win without a fight because creating alliances facilitates and, in fact, reinforces success. Victory in battle is rarely the product of physical prowess; rather, it is rooted in an incisive knowledge of one's opposition (whether a single entity or an alliance or even disparate groups), their weaknesses and strengths, as well as their application of methods and practices (Krippendorff, 2003: xiii). The true skill of a warrior involves making and implementing the right strategic choices (Hawkins and Rajagopal, 2005: ix-x), because every battle is initially fought in the minds of the opponents before embarking on the field of conflict. Echoing the Taoist philosophy, Sun Tzu avowed that the

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true focus of a great warrior is on integration of physical, intellectual, emotional and spiritual capacities for vanquishing any adversary. History shows that about a century later, Chanakya (also known as Kautilya), who lived in the 3rd Century B.C., made a similar assertion in his famous treatise on warfare strategy, namely, *Arthashastra* (**End-note#2**), that true power in warfare is fourfold—(i) the power of morale, inspiration, and enthusiasm; (ii) the power of knowledge; (iii) the power of individual and collective human energy, and finally, (iv) financial power (Pillai, 2010: 4-5). The power of strategic thinking still remains the foundation of outperforming competitors in existing and potential markets, under conditions of turbulence.

2. Strategic Management as an Academic Discipline

The evolution of strategic management research as a disciplinary field is identifiable in a grey zone representing the interface between management education, business-related research, and management consultancy. In reality, the constitution of this grey zone hinges upon two important factors: the dominant management focus in extant business practices, and the modalities of funding business education and research. Today, under academic capitalism (Slaughter and Rhoades, 2004), we cannot overlook the fact that corporate sponsors deeply influence the construction of strategic management knowledge emanating from the corporatization of research outcomes under university-corporate partnerships (Fairweather, 1989: 388-407).

Quite unlike political science or economics, strategic management cannot be considered as having ancient roots in philosophy, and hence, has largely failed to attract scholars with the elegance of its theoretical underpinnings. In fact, like medicine, it is a complex, practice-based discipline aiming to codify, teach, and expand what is known about skilled performance of organizational roles and tasks that are a necessary part of modern human civilization. Like medicine, it is a clinical art (Piasecki et.al., 1999: 95) rather than a pure science. Hence, the advancement of strategic management as a discipline of study depends greatly upon the extent to which academic theorization can help explain and predict organizational success and failure in practice (Rumelt, et.al., 1994). Thus, theory culled out of research must have practical relevance.

A review of strategic management literature indicates that both management researchers and practitioners have largely failed to comprehend entirely the wide scope of this practice-oriented discipline. On the contrary, different schools of thought have surfaced, but only with a blinkered understanding of the whole. This situation is equivalent to the partial vision of the blind men "railed on in utter ignorance" (Mintzberg et. al., 1998: 2-3) in describing a singular aspect of "the elephant", which is used by American poet, John Godfrey Saxe (1816-1887) in his famous poem, '*The Blind Men and the Elephant*' (1963), as a metaphor to depict the vastness of the totality of complex reality. Although an understanding of the parts is essential to comprehend the whole (i.e., the major contention of analytical reductionism), unquestionably, an elephant exceeds what is obtained by adding up the parts—i.e., its side resembling a wall, its tusk resembling a spear, its swinging trunk resembling a snake, its leg resembling a tree, its ear resembling a fan, and its tail resembling a rope. Just like the mental images of the elephant deduced by the six blind men in Saxe's poem developed from an old Indian fable, the different

"schools of thought" (Mintzberg et. al., 1998: 4) of strategic management present ten distinct view-points, each focusing on a unique perspective of strategy development. Each individual perspective is narrow and exaggerated in one sense, but, interesting and insightful in another. The contentions of the ten schools of strategic thinking are (Table 1):

Table 1 : Schools of Strategic Management Thought

School of Thought	Nature of strategy development
1. Design School	Process of *conception*
2. Planning School	*Formal* process
3. Positioning School	*Analytical* process
4. Entrepreneurial School	*Visionary* process
5. Cognitive School	*Mental* process
6. Learning School	*Emergent* process
7. Power School	Process of *negotiation*
8. Cultural School	*Collective* process
9. Environmental School	*Reactive* process
10. Configuration School	Process of *transformation*

Source: Mintzberg et. al., 1998).

These ten schools of thought evolved at different stages in the development of strategic management (Mintzberg et. al., 1998: 7) as a stand-alone academic discipline. Based upon the nature of enquiry adopted, they may be divided into three broad categories—(i) the first three schools are *prescriptive*, stating how strategies should be formulated; (ii) the next six schools are *descriptive*, considering specific aspects of strategy formation, and (iii) the last school is *integrative* in seeking how best to synergise the various elements to create the living elephant. As organizations enter stable states, this perspective triggers necessary social/ecological transformation.

3. The Sub-discipline of Strategic Sustainability Management (SSM)

Exploring the interconnectedness of academic fields and disciplines is inevitable for understanding the interconnected nature of today's global challenges and solutions. Interconnectivity can be perceived either as a vicious circle or as a virtuous circle, depending upon whether we see ourselves as part of the problem or solution. For example, interconnectivity degenerates into a vicious circle when we find that increasing human population is straining food and water supplies, and also increasing the load of greenhouse gas emissions into the atmosphere, thus accelerating climate change. This inflicts a further pressure on water shortages, which in turn causes losses in agricultural productivity, thereby leading to regional conflicts, as water increasingly becomes a scarce resource. Conversely, addressing any one of these challenges in a coordinated manner can yield a positive impact on other challenges to help

transform the vicious circle of interconnectivity into a virtuous circle. For instance, better education and health for women can reduce poverty, arrest population growth, and improve family health. Furthermore, interconnected global sustainability challenges require the discovery of interconnectivity between three fundamental change agents—civil society, government and business, united in fulfilling a shared global vision as well between related fields of knowledge that can be the conduit of novel ideas.

As concerns the role of business in this regard, contemporary management literature abounds with efforts to integrate strategic management with the newly identified "meta-discipline" **(End-note#3)** of sustainability science (Mihelcic, et al., 2003) and the ethics of sustainable development. Sustainability science itself is anchored in the concept of sustainable development (WCED, 1987), and represents humanity's efforts, on the intellectual front, to progress towards a sustainable society (Komiyama and Takeuchi, 2006 : 2). In a hot, flat and crowded world (Friedman, 2009; 2010 : 17-18), where climate change represents *the* most decisive sustainability challenge in the coming years, the locus of study in sustainability science lies in the progress of society's capacity for using planetary resources to meet the needs of a growing human population (especially the poor at the bottom of the economic pyramid), in ways that sustain the planet's life-support system (Clark, 2007).

Sustainability science includes a wide spectrum of interdisciplinary research areas that are currently in a nascent stage of development (Seager, 2008: 444-453), such as ecological ethics, social ecology, industrial ecology, ecological economics, ecosystem health, sustainable architecture and green design, green urbanism, green chemistry, environmental toxicology and epidemiology, marine and plant ecology, environmental engineering and technology, plus the gamut of themes in the business-related research agenda like corporate social and environmental responsibility, corporate citizenship, corporate sustainability, strategic sustainability management, sustainability performance measurement and sustainability reporting. At the core of all these unfolding fields of study, the uniting force of sustainability science encourages "use-inspired basic research" (Stokes, 1997), which can foster learning and understanding of interactions among humans (including their cultural, political, economic and demographic characteristics), their technologies and the natural environment (Clark and Dickson, 2003).

Sustainable development in the context of sustainability science may be viewed as a global ethic of humanity's progress that shuns the conventional mode of relentless resource-intensive economic growth globally, through techno-economic modernization along Western lines. It symbolises a paradigm shift **(End-note#4)** in the idea of progress by integrating environmental care into the definition of development. Also, it accommodates everyone's aspiration on the planet by decrying individual advancement and underscoring the common future of all life on the planet. The idea of sustainable development is derived from the ecological-cum-philosophical concept of sustainability that represents an ethic of acknowledging non-human sensibilities, e.g., animal rights, plant rights and unborn generations (Singer, 1975) and a process of engaging both human and non-human stakeholders. When sustainability is integrated into the idea of

development the focus shifts from ecology to society. Thus, sustainable development is a society-centred concept that aims to infuse ecological values for heralding socio-economic change. The three cornerstones of sustainable development (Ekins, 2000) are the *social* that highlights human mores, values, relationships and institutions; the *economic* that involves allocation and distribution of scarce resources; and the *ecological* that focuses on the impacts of society and economy upon the natural environment.

Eight instrumental values (Stead and Stead, 2009: 122-126) buttress the core ethic of sustainable development, namely: (i) valuing *quality* of all life, (ii) valuing *wholeness* to recognise interconnectedness and co-evolutionary relationships, (iii) valuing *posterity* to base current strategic choices on a time-horizon that considers needs of future unborn generations of human and non-human species, (iv) valuing *community* to recognise that long-term organisational prosperity relies on a congenial balance between business, human society, and the natural environment, (v) valuing *smallness* to reduce the ecological footprint of human economic activity, (vi) valuing *diversity* to maintain life-sustaining eco-systems and cultural variety, (vii) valuing *dialogue* to create interacting patterns of questioning underlying assumptions, values and principles of different social actors, and (viii) valuing *spiritual fulfilment* to enable organisations balance economic success, social responsibility and ecological protection.

Orienting strategic management to fulfil the criteria of sustainable development means that it is to be founded upon a world-view of business entities and communities nested in a wider socio-ecological context. Historically, three distinct world-views/conceptions of the relationship among business, society and nature (B-S-N) (Marcus et al., 2010: 402) are identifiable in management literature—(i) *disparate*, (ii) *intertwined* and (iii) *embedded* (Table 2), signalling different strategic choices for coping with contemporary environmental, social and economic challenges.

The *disparate* view pervades traditional strategic management literature. Representing an atomistic, reductionist (**End-note#5**) world-view, it confers on the business system a central role in maximizing financial wealth to satisfy human needs (Friedman, 1971; Jensen, 2002). Hence, effects of business on nature and society are externalized and not embodied in market transactions (Crouch, 2006). Adoption of the *intertwined* view has produced mixed results—unprecedented economic growth in many parts of the world and the business community's wider acceptance of the global ethic of sustainable development leading to increasingly environmentally benign business practices, on one side; ruinous mega-corporate scandals, devastating ecosystem impacts, social inequity and conflict, on the other. The intertwined perspective is ill-equipped to resolve the critical dilemmas subsumed in the global sustainability challenge, necessitating a "more robust understanding of the B-S-N interface" in terms of the *embedded* view (Marcus et al., 2010: 419). This is a redefining-reorganizing perspective, which advocates a "holarchical" (holistically hierarchical) perspective of the B-S-N interface (Marcus et al., 2010: 402). B-S-N are seen as nested systems (Porritt, 2006; Victor, 2008), so that business, like all other systems (e.g., religious, moral and legal) of human creation, is seen as a component nested within the

larger societal system, and society is considered completely nested within the natural environment. Though the embedded view has historically lacked support from strategic management researchers, it appears to be the most apt in addressing today's global-scale, socio-ecological challenges, by offering a logical ordering of the three meta-systems (i.e., macro-systems made up of smaller sub-systems), and emphasizing the inevitable dependency of society and economy on nature.

Table 2 : Three Alternative Perspectives of the B-S-N Interface

World-views B-S-N Relationships	Disparate (Atomistic)	Intertwined (Systemic)	Embedded (Holarchical)
1. Business (B)	Separable; self-contained and self-regulating	Partially separable; relatively equal in status to society and nature	Inseparable; sub-system contributing to social welfare within the biosphere
2. Society (S)	Aggregation of individual interests; exogenous to and separate from business	Interfaces with business through stakeholder networks analysis	Includes all human systems and activities across various levels of
3. Nature (N)	Exogenous to and separate from business	Interfaces with business to enhance business value and natural capital	Finite; manifests as all-embracing life-support system
4. Relevant value domains	Economic	Unordered and multi-form; usually implies economic, social and environmental	Ordered and multi-form—nature, society and business existing in a "*holarchy*" (i.e., a holistic hierarchy)
5. Relationship of B to S and N	Independence	Interdependence	Dependence

Source: Marcus et al. (2010) (adapted)

Adoption of the embedded view of the B-S-N interface has, over time, led to the emergence of several fertile business research areas, positioned at the confluence of strategic management, sustainability science and sustainability ethics (Stead et. al., 2004; Parnell, 2008) varying somewhat in nomenclature, but quite similar in scope. These include "strategic management for sustainability", "sustainable strategic management", "strategic sustainable development" "strategic sustainability management", and "corporate sustainability management". These emerging research areas may be viewed as sub-disciplines of sustainability science and strategic management, committed to caring for the Earth as the ultimate corporate stakeholder. Hence, they aim at reorienting classical strategic management by making traditional profit-seeking business behaviour in free-market economies compatible with the critical requirement for obeying planetary "carrying capacity" constraints, and reducing humanity's ecological footprint through planetary stewardship under sustainable capitalism.

For the purposes of this paper, we choose the domain of strategic sustainability management (SSM) as a starting point for exploring ways to elevate the quality of contemporary strategic management research (Figure 1). SSM is founded on the idea of "true" or "holistic" sustainability as opposed to the traditional strategic management focus on "economic sustainability"; in this sense, it seeks to integrate market-based economic sustainability with ecological and social sustainability into a holistic perspective through appropriate strategies, processes, systems and resources. The aim is to voluntarily anticipate and precede law and government regulation through collaborative efforts to manage planetary resources sagaciously so that continuity of competitively superior performance is ensured and the threat of organizational crises is averted.

Figure 1 : Evolution of the Sub-discipline of Strategic Sustainability Management

(Author's diagrammatic representation)

4. Nature of Strategic Sustainability Management (SSM) Research

Mintzberg (2005: 356-57), the Canadian management expert, maintains that irrespective of the disciplinary field of research or the process of theory construction, "all theories are false", since they use words and symbols to simplify a complex reality by providing multiple explanations of the same phenomena. Thus, while theory does stimulate observing and thinking, it never really allows a complete and conclusive knowing. Theory development in SSM research is no exception to this rule.

As such, the nature of SSM research is deeply influenced by its parent, i.e., strategic management research, which in its turn, derives many of its characteristics from other disciplines featured under the ambit of the social sciences. It is worth noting that social sciences potentially

offer two alternative paths to theory building—(i) *creation of (interpretive) theory* (e.g., grounded theory and case study research) based on a process of induction from the particular empirical world to the general, and (ii) *testing of (predictive) theory* rooted in deductive logic from the general (i.e., framing research hypotheses or propositions) to the particular. In particular, the role of theory in strategic management research is threefold (Alvesson and Deetz, 2000): (i) Directing attention to important details and major differences that facilitate sense-making about the real world; (ii) culling and sense-making of managerial experience from the real-world; and (iii) enabling useful pragmatic responses from individuals and groups to shape future organisational worlds. In other words, the scope of strategic management research ideally involves a combination of positivist, interpretive and normative perspectives. Nevertheless, it is observable that most strategic management researchers of the current generation are unnecessarily fixated on a blind imitation of the methodologies of the natural (or hard) sciences, and the positivistic tradition of testing predictive theory. Mintzberg (2005: 359-360) laments that very few researchers today are inspired to create interesting theory by inventing explanations and providing discursive interpretations about observed phenomena. He ascribes this asymmetry in researcher behaviour to the management academia's obsession with judging the "academically correct" by what is "scientific" and "objective". Such asymmetry is a major cause of today's flourishing dehumanized MBA model that patronizes "misguided" amoral management theories/techniques by ignoring the inescapability of ethical judgment in real-life managerial decisions, and therefore 'trains the wrong people in the wrong ways with the wrong consequences' (Mintzberg, 2004: 6).

Likewise, Sumantra Ghoshal (2003), the late London Business School professor of Global Business, too, was convinced that 'the worst excesses of recent management practices have their roots in a set of ideas that have emerged from business-school academics over the last 30 years'. Influenced by the high-frequency corporate scandals as well as the academic writers over the last decade, an article in *The Economist* (2005) featured the headline 'Business schools stand accused of being responsible for much that is wrong with corporate management today'. This may be readily testified by the fact that Jeffrey Skilling and Andrew Fastow, the villains in the Enron debacle, who are serving lengthy prison sentences owing to their criminal acts, hold MBA degrees from Harvard Business School and Northwestern Case University, respectively.

The in-vogue ideas (e.g., Agency Theory and Porter's 5-Forces Model) pervading the curricula in Business Schools (B-Schools) presume that all economic actors are self-interested human beings, that managers are not trust-worthy, that business is fundamentally a "I-win-you-lose" zero-sum game, and that shareholder value is the only legitimate business goal. The propagation and perpetuation of such a set of assumptions over time has been dysfunctional in depriving B-School students of even a rudimentary sense of moral responsibility, let alone providing them with a business opportunity to mainstream corporate responsibility in order to "do good and do well" simultaneously. The dominant world-view implicit in strategic management research since the 1980s regarding environmental determinism, i.e., a Porterian

static, fixed and known (natural, social-political, techno-economic, and industry) environment for making decisions about competitive superiority is not only anachronistic but also academically invalid (Cooper and Law, 1995; Grey, 2004; Ghoshal, 2005).

So, we argue that reforming MBA courses to produce both morally (Lennick and Kiel, 2005) and ecologically (Goleman, 2009) intelligent managers, for whom ethical judgment is a way of professional and everyday living (Chakraborty, 1999; Carroll, 2001: 139-151; Chatterjee, 2001), must begin with an overhaul of business academics that has been instrumental in incubating the amoral ideas, theories, models, techniques and practices imparted to aspirant students.

Traditionally, strategic management research is familiar with one or more of the following three important objectives (Bromiley, 2005: 2), namely: (i) *Explaining firm behaviour* at the aggregate strategic level (positivist stance); (ii) *Comparing and explaining performance differences* among firms based on firm environment, characteristics, and the use of these characteristics (positivist-comparative stance); and (iii) *Recommending behaviours to improve firm performance* through an understanding of how firms currently behave and what influences their future performance (normative).

In professing one or more of these objectives, strategic management researchers have, for the last half a century, contended the balance between "rigour" and "relevance" as the two fundamental attributes of "good scholarly research" in strategic management (Bromiley, 2005: 5). However, in the post-Enron era, a number of enlightened management academics (e.g., Donaldson, 2002; Clegg et. al., 2003; McLean and Elkind, 2003; Mintzberg, 2004; Ghoshal, 2003, 2005; Bennis et. al., 2005; Pfeffer and Sutton, 2005) accord primacy to a critical third dimension, namely, "righteousness" as *the* criterion for judging the integrity of strategic management research. They base their recommendation on inferences drawn from non-fiction "dystopian" analysis **(End-note #6)** applied to expose the vicious circle of positivist and value-neutral pseudo-scientific management research (Hagen, 2008: 147-148), which degenerates into amoral management education overtly and/or covertly endorsing unethical business practices.

We cannot forget that strategic sustainability management (SSM) is innately nurtured by a strong ethical core of sustainability; value-freedom is ruled out because sustainability values pervade the very foundation of this sub-discipline. Hence, it is obvious that "righteousness" should be a decisive criterion for determining good-quality SSM research. The agenda for SSM research in the years to come, potentially includes five major directions of concern (Parnell, 2008): (i) integration of near-term, long-term, and very long-term perspectives (e.g. climate change, climate justice and climate ethics) on the business strategy-performance relationship; (ii) examination of linkages among contemporary perspectives of business ethics, corporate responsibility, corporate governance, and moral leadership for expanding the scope of SSM; (iii) development of robust models that can facilitate effective planetary resource management from ecological and societal perspectives while upholding the concept of capitalism; (iv) adaptation of current strategic management models to an SSM perspective to create an integrated

framework; and (v) redefinition of organizational crises and risks to improve built-in resistance to the effects of crisis from natural disasters, disruptive technological innovations, and global terrorism.

5. Trans-disciplinary Orientation of SSM Research

By its very nature, SSM encourages a trans-disciplinary research approach to identify strategies and processes that may be considered sustainable from the economic, environmental and social perspectives. The development of a monolithic, trans-disciplinary knowledge structure is essential for gaining a comprehensive perspective of the inherent complexity (caused by multiple factors) and interconnectedness of global sustainability issues. The trans-disciplinary epistemological perspective seeks to provide 'a platform of knowledge' (Komiyama and Takeuchi, 2006 : 4) that can integrate disparate fields of inquiry (geology, life sciences, ecology, geography, engineering, technology, politics, psychology, sociology, ethics, economics, management, and finance).

Trans-disciplinary research is different from *"interdisciplinary"* or *"multi-disciplinary"* research, the only similarity among the three research perspectives being that they aim to overcome disciplinary monism. The research process and the end-products are significantly different (Rogers et al., 2005: 267). *Multidisciplinary* research merely recognises different disciplinary perspectives and assembles insights from them without integration around a research problem. *Interdisciplinary* research goes a step further to create a new synergy from the transfer of knowledge among disciplines to offer parallel analyses of different segments of a research problem, without attempting to understand the life-world, but only to solve a complex research problem in it. *Trans-disciplinary* research examines issues between, across and beyond all disciplines to develop an understanding of the complexities of contemporary global problems, instead of only focusing on a part of it (Nicolescu, 2001).

Interdisciplinary and trans-disciplinary research cultures promote collaborative problem-solving, but with fundamentally different goals. The latter does not merely borrow theories, concepts and/or methods from one discipline and apply them to other disciplines interested in the same problem. Instead, it encourages transcendence or crossing disciplines (Lattuca, 2001: 83) to connect stakeholders in public and private domains from different sectors of society. Trans-disciplinary research purports to overcome the mismatch between knowledge production in academia and knowledge requests from life-world actors for solving serious societal problems (Hoffman-Riem et al., 2008) such as climate change, water scarcity, poverty and terrorism that threaten human survival. In this regard, Brewer (1999) maintains: 'The world has problems, but universities have departments'. University departments, typically, encourage mono-disciplinary research with arbitrary boundary lines because—(i) academic institutional structures and incentive systems promote "ethnocentrism of disciplines" (Campbell, 1969), and (ii) the conceptual framework in basic mono-disciplinary research is becoming increasingly sophisticated. However, extensive application of the research-output from fragmented scientific

knowledge in the life-world has produced visible detrimental impacts. Mitigating them entails a fundamental transformation of research outlook, practices, institutions, education, and the conceptualization of science plus the creation of appropriate research capacities (Hoffman-Riem et al., 2008).

Trans-disciplinary research evokes research questions and methods framed according to life-world problems and not disciplinary frameworks (Bammer, 2005:6). Collaboration across scientific disciplines for integrating knowledge from heterogeneous sources is a prime necessity for (i) crossing borders between different academic cultures, e.g., humanities, social sciences and the natural sciences, (ii) engaging in mutual learning with different people in the life-world, and (iii) relinquishing disciplinary orientations in standards of knowledge production. Unfortunately, trans-diciplinarity, has not advanced beyond theoretical appeal, whereas inter-disciplinarity has gained wide acclaim among the academia, because it is largely pragmatic (Newell, 2000).

6. Criteria of Scholarly SSM Research

Based on our earlier discourses, we identify three basic criteria to characterise scholarly SSM research: (1) Rigour; (2) Relevance; and (3) Righteousness. This way of ordering the criteria largely reflects their current popularity in academic circles rather than the desired pattern of prioritization

Rigour: Methodological versus Intellectual

In earlier years, academics vehemently debated the pre-eminence of rigour versus relevance in strategic management research. Typically, scholars following the Harvard Business School (HBS) tradition of the case-study approach (McNair and Hersum, 1954) and the path of the management gurus (Lauer, 2008), endorsed a professional narrative (rather than a social science narrative inspired by sociology or psychology) to influence management practice; being actively engaged in qualitative research, they emphasized relevance. By contrast, those trained in the social sciences (particularly, economics and finance) and wielding stronger control over the field of academic management research, emphasized rigour as the *sine qua non* of scholarly work. For example, Schendel (1995:1) maintains that 'if a field is to continue its growth, and develop important linkages between research and practice, as it must, then we need to improve our research and understand that relevance comes from rigour'. However, Schendel's claim itself lacks rigour as it is not born out of evidence but established as an article of faith (Mintzberg, 2005: 357).

In the context of strategic management research, we may distinguish between two forms of rigour—methodological and intellectual. Visibly, the growing volume of "rigorous" management literature, following the "scientific model" of management research, emphasizes methodological rigour, considered the hallmark of decontextualised science (Notowny et al., 2001) that is dissociated from the society and the biosphere. It accords precedence to quantitative analysis (statistical analysis, mathematical and econometric modelling) and decries value judgment,

interpretation, and reflection (Pfeffer and Fong, 2002; Mintzberg, 2004; Bennis and O'Toole, 2005). The mind-set of the rigour-oriented social scientist is cynically captured by Krugman (1994: xi), thus: "If you are a good economist, you are reborn as a physicist; if you are an evil, wicked economist, you are reborn as a sociologist". Undeniably, the domination of egoism-based, dehumanized economics at the core of the paradigm underlying current MBA and Ph.D. programmes of B-schools, has produced a negative impact on the entire academic business community by breeding egoistic, self-centred and arrogant students (Mintzberg, 2004; Pfeffer, 2005; Ferraro et al., 2005), and stimulating opportunistic behaviour among top managers (Ghoshal, 2005) that ultimately contribute to the vicious circle of corporate scandals and failures, like Enron. Furthermore, it constricts business researchers to narrow scholarly debates in specialist and esoteric academic journals that is detached from the mainstream needs of management practice (Bennis and O'Toole, 2005) and the life-world.

Methodological rigour has been pervasively misconstrued by social science researchers in general, and strategic management researchers, in particular, as implying merely a mathematical derivation and validation of hypotheses, although it includes non-mathematical reasoning as well, through verbal theories and/or analogies/metaphors (Newell and Simon, 1956 : 69-70). While mathematical rigour constitutes a necessary condition for judging the worth of "positivist" scholarly management research, and enhances its credibility, the inherent advantages can accrue only if the evaluation is stretched across the entire span of the study, and not confined to the narrow empirical portion (Bromiley, 2005: 7-8).

The quality of scholarly work cannot be solely and singularly judged by claiming rigour in terms of the sophistication in using quantitative method, especially when the research method proves incompatible with the research question and context. This makes the researcher subservient to the research method. Methodological rigour is overly concerned with the correctness of research, and in the process, sacrifices insightfulness and discernment. This inhibits the relevance of the research study. Ironically, such a situation draws a parallel with a cardiac surgeon who claims the success of a by-pass surgery even when the patient dies. Here, the medic becomes a slave of medical science and technology; as a professional, he abandons his fundamental relationship with society to serve, cure, and improve the well-being of patients. This steadily causes the irrelevance of the medical profession in terms of impacts on society inflicted through health-care organizations functioning in a service-centred economy.

Similar concerns are voiced in B-School circles (Mintzberg, 2004; Bennis and O'Toole, 2005; Ghoshal, 2005) regarding the overly scientific and analytical nature of economics-centred management education and research, the concomitant narrow focus of academic publishing for gaining career advancements, lack of professionalism revealed through socio-ecological disservices, a conspicuous absence of insightful practitioners, and a burgeoning community of inexperienced, placement-obsessed students blindly guided by faculty estranged from managerial experience. In attempting to shun the image of vocational trade schools and to earn

respectability as distinctive academic institutions, business schools have conspicuously embraced "discipline-based scholarship" (Boyer, 1990; Ghoshal, 2005), and hence, erroneously pursued "mathematical elegance" through reductionist and prescriptive scientific models of management. Eliminating other forms of scholarship—pedagogical, integrative, and practice-based—has led to a loss of pluralism and relevance in research (Ghoshal, 2005). As a result, business schools are found to add value merely as placement/selection mechanisms, but not as seats of learning (Mintzberg, 2004; Pfeffer and Fong, 2004). Thus, it may be inferred that if rigour is narrowed down to its popular bureaucratised, "quantitative", methodological variant, its incompatibility with the achievement of relevance is obvious; but, if mathematically-oriented methodological rigour is supplanted by a more comprehensive intellectual rigour that attunes the quantitative approach to insightful thinking within a holistic, pragmatic perspective, it does not contribute to the irrelevance of research.

Relevance: Practical versus Insightful

Lately, the idea of relevance, hitherto scorned by researchers of the reductionist-positivist school, has been resurrected to quell concerns about a general lack of impactful research (e.g., Porter and McKibben, 1988; Leavitt, 1989; Donaldson, 2002; Mintzberg and Gosling, 2002) and is being increasingly considered a sufficient condition for justifying insightful and practically useful strategic management research. All too often, the reductionist-positivist genre of strategic management research leaves behind indelible and irreversible negative impacts (e.g., Ghoshal, 2005) of management practice. Many surmise that such problems do not result from adopting particular theories but are more deep-rooted in that they emanate from a higher intuitive-cognitive level of "framing" a tenuous "amoral" scientific world-view to restrict the moral imagination of management practitioners. Additionally, the failure of management pedagogy in inculcating the pre-requisites of responsible business behaviour within students is palpable as disenchanted B-school faculty concede their involvement in developing *Enron*-like managers and corporations worldwide (McLean and Elkind, 2003; Mintzberg, 2005: 5-7), who help promote a narrow conception of financial market capitalism that blind-folds the business community from using its capacities to address broader societal and planetary concerns, despite the existence of multiple opportunities.

Since the introduction of the first MBA course in 1908 (Mintzberg, 2004: 7), B-schools have assigned equal importance to four kinds of scholarship (Boyer, 1990) that are usually considered relevant to business academics: (i) scholarship of discovery (research), (ii) scholarship of integration (synthesis), (iii) scholarship of practice (application), and (iv) scholarship of teaching (pedagogy). Unfortunately, over time, the academic high-table was usurped by scientists professing a scholarship of discovery, who kept themselves insulated from and sometimes, even eliminated or relegated to the periphery those academics with primary interests in synthesis, application and/or pedagogy. This has culminated in what Ghoshal considers a "pretense of knowledge" evident in the absurdities characteristic of mathematically rigorous theorization,

dehumanization of management practice, and denial of research-related benefits to the generalists (Pfeffer and Fong, 2002: 88).

Thus, arguing in the lines of Ghoshal (2005: 77-82), we consider it fallacious to pretend that methods of the physical sciences can be arbitrarily applied to business-related SSM research by overlooking or undermining the fundamental differences between these disciplines. By rejecting the critical aspect of *human-will or intentionality* (expressed through choices, actions and achievements of individuals) in the study of business strategy (Andrews, 1980) in favour of *causal determinism* to explain various aspects of corporate performance, strategic management researchers render business realities and people's actions as being deterministically governed by economic, social and psychological *laws*.

It cannot be gainsaid that the perspective of a philosophy of science underscores the fundamental difference between various disciplines as existing not in the method of inquiry or the academic interest served, but in the appropriate mode of explanation and theorization (Elster, 1983). Three such modes are identifiable as *causal, functional* and *intentional*. The sciences of inorganic matter (e.g., physics) are guided solely by the causal mode. The sciences of organic matter (e.g., life-sciences) are guided by causal and functional explanations. Human intentionality is conspicuously absent in the natural sciences, whether organic or inorganic; however, in the social sciences, including strategic management, and hence, SSM, intentionality is the most important building block of research inquiry because human action is always conditioned by some intention or mental state. The causal and functional modes have limited roles here. Notwithstanding this fact, mainstream management theories are overly causal or functional in their orientation. Drawing attention to the pretentious positivistic research tradition in management research, and an apathy towards adopting an interpretive approach, Mintzberg laments: 'God invented Americans to test theories but she never realized that there would be so many Americans and so few theories worth testing' (McCarthy, 2000: 32).

The growing significance of relevance as a criterion of good scholarly research is justified for highlighting the all-important aspect of human intentionality or "free-will" as against determinism, which is the prevailing concern associated with rigour. Like in the case of rigour, it may be worthwhile to distinguish between insightful relevance and simplistic calls for relevance from management practitioners not backed by thinking or probing, which potentially breed managerial malpractice (Mintzberg, 2004: 400). For the social science researcher concerned with the development of insightful/mindful relevance, the need to articulate paradigm issues supersedes questions of method, to ensure compatibility among the research problem, research design, observation methods, measurement approaches, and types of analysis selected (Lincoln and Guba, 1985). A research paradigm is a 'human construction that defines the world-view of the researcher as "*interpretive bricoleur*", although the ultimate truthfulness of the same can never be established (Guba and Lincoln, 1994). It provides a unified research framework that reflects the researcher's role through five vital interrelated aspects: (a) ontology (assumptions about reality), (b) epistemology (relationship between knower and the known), (c) axiology

(role of value in research inquiry), (d) distinctiveness of cause-effect linkages, and (e) generalizability across time and context (Guba and Lincoln, 1994). Constructing a research paradigm under the interpretive/naturalist and positivist schools are remarkably different as might be noticed in Table 3. The need to make choices about research paradigm implies that the SSM researcher plays a stronger descriptive rather than prescriptive role—i.e., offering fresh insights and deepening descriptive understanding within a context, rather than prescribing context-free, "one-size-fits-all" solutions.

Table 3 : Contrasting Approaches in the Construction of Research Paradigm—The Positivist versus Interpretive Schools

Paradigm Element	Positivist School	Interpretive School
Ontology	Reality is single, tangible and capable of fragmentation	Reality is multiple, constructed and holistic
Epistemology	Knower and known are independent	Knower and known are inseparable and interactive
Axiology	Inquiry is value-free	Inquiry is value-laden
Cause-effect linkages	There are real causes, temporally precedent to or simultaneous with their effects	All entities are in a process of mutual, simultaneous shaping, making it difficult to distinguish causes from effects
Generalizability	Time and context-free generalizations (nomothetic or law-like statements) are possible	Only time-bound and context-bound ideographic statements are possible

Source: Lincoln and Guba (1985: 37); Teddie and Tashakkori (2009: 86).

Moreover, engaging in insightful research demands a progressive shift towards inter-disciplinary learning, thinking and producing knowledge for the following reasons:

♦ It reflects the reality beyond academic boundaries, which is necessary to grasp in addressing real-world problems (Klein, 1996: 12-13; Huber and Hutchings, 2004: 13);

♦ It seeks to rectify the dominance of disciplinary ways of knowing and specialization, without rejecting the individual disciplines (DeZure, 1999); in this way, it retains the depth and focus of disciplinary ways of knowing and supplements this with a broadening of the context;

♦ It highlights disciplinary inadequacy in addressing complex, real-world problems. Disciplinary inadequacy arises because of new developments in research and scholarship resulting in the formation of new hybrid fields, the pressing need for integrated approaches to complex social, economic and technological problems, and a self-fulfilling claim by many disciplines (e.g., economics and finance) that they can provide everything necessary for sense-making in the modern complex world,

♦ It emphasizes the fact that the globalizing world is undergoing a paradigm shift, even in the realm of academics.

Righteousness : Religious versus Ethical

Righteousness as a third research criterion indicates the primary responsibility of management academe to obtain consensus on fundamental philosophical issues (Bartlett and Ghoshal, 1989) surrounding academic research, before initiating structural reforms to the present system of business education. Its inclusion as a determinant of scholarly management research can be instrumental in mitigating ethical risk exposures of managers and organisations resulting from the co-existence of the following three elements in the corporate fraud triangle (Cressey, 1953; Rota, 2010: 49-51)—namely, (a) the psychological pressure to commit fraud due to lack of guidance, excessive responsibilities, and an ethically insensitive work environment; (b) opportunity to elude weak organizational control systems vulnerable to ethical failure, and (c) intentional rationalization of unethical behaviour as morally correct based on the moral muteness of most that economic and management theories.

Righteousness, as a human virtue, signifies a deeply rooted ethical concept that facilitates the exploration of paradox in strategic management research (Eisenhardt, 2000), i.e., the simultaneous existence of the "contradictory yet interrelated" (Lewis, 2000: 760) human drives for self-interest and altruism (or unselfishness), and how the gap between them may be bridged. In social science research, a paradox can be explored in four alternative ways (DeWit and Meyer, 2004): (i) The tension may be viewed as a *selection* problem of choosing between alternatives, e.g., the choice of mainstream economics in favour of self-interest instead of the non-rational motive of altruism (Rocha and Ghoshal, 2006); (ii) The tension may be viewed as a *trade-off* exercise of striking a balance between opposing forces of self-interest and altruistic motives, e.g., regulatory compliance-driven cost incurrence for corporate social responsibility; (iii) The tension may be managed through *temporal or spatial separation* usually contributing to organizational hypocrisy (Brunsson, 1985), e.g., an organization operating on the philosophy of self-interest, but conducting periodic ethical audits and maintaining a special centralized department for environmental management; (iv) The tension may be explored (not suppressed) by adopting a transcendental mind-set of synthesis and re-conceptualization with the aim of 'getting the best of both worlds' (DeWit and Meyer, 2004: 16). This involves constructing a social reality centred on the ethical tenet of righteousness that seeks to integrate the logic of self-interest and altruism, instead of considering them to be divergent logics of action (Friedland and Alford, 1991).

Etymologically, the religion-led origin of the term "righteousness" may be traced back to the 16th century, when William Tyndale coined the word as a workable translation of the Hebrew word "*tzedeq*" that is frequently mentioned in the Old Testament to imply ethical rightness in fulfilling demands arising out of multiple social relationships (Strong, 1980). The Biblical connotation of righteousness closely correlates with the modern pluralistic notion of stakeholder management (Freeman, 1984) viewed as development and nurture of reciprocity in social relationships. The ethic of reciprocity, underlying the concept of righteousness, is enshrined distinctly in Kant's *Categorical Imperative* (Kant, 1785) as the *Principle of Universalizability* to articulate non-utilitarian deontological (or duty-based) ethics, and also pervades the philosophies

(End-note#7) of the major world religions in widely diverse cultures (Jaspers, 1953; Armstrong, 2006). This proves the credibility of righteousness as a universal ethical principle.

If righteousness is adjudged the principal guidepost for scholarly SSM research in the interest of intellectual integrity, it can propel a moral transformation of the entire business academic community and undo the moral predicament in extant management education and research by proposing a new paradigm of "righteous management" (End-note #8), as shown in the 2 × 2 matrix in Figure 2.

Figure 2 : Four Forms of Management based on Opposing Ethical Drives

		Altruism	
		Low	High
Self-Interest	High	(3) Self-serving management	(4) Righteous management
(Egoism)	Low	(1) Unguided management	(2) Altruistic management

Source: Birnik and Billsberry, 2008: 992.

In Figure 2, *Cell 1* combines low altruism with low self-interest to produce *'laissez-faire' style of management*, which is neither self-serving nor protective of others' interests. *Cell 2* combines high altruism with low self-interest to result in *altruistic management* that genuinely cares to serve others by sacrificing self-interest, with the risk of stagnation in growth. *Cell 3* combines low altruism with high self-interest (corresponding to the assumption of mainstream economics and management practice) to produce *self-serving management* that is focused on serving self-interest and ignoring others' interests. This cell also represents self-serving altruism. The risks arising out of such an ethical stance are social inequities, poor treatment of stakeholders and environmental damage. *Cell 4* combines high altruism with high self-interest to result in *righteous management* that is based on intrinsic motives of personal excellence and a deep sense of service, aimed at doing good to organizational members, shareholders, and other stakeholders (Pfeffer and Fong, 2004; Rocha and Ghoshal, 2006). Righteous management draws a close parallel to the idea of strategic corporate citizenship behaviour. The greatest risk here is the possibility of disagreement among organizational members regarding the intensity of self-interest versus altruism in the integration of the two seemingly incompatible drives.

Righteousness in SSM research may be addressed by articulating the axiological bases (i.e., the ethical orientation) of the research work. Positivism conveniently absolves a researcher from moral responsibility regarding the investigation of values (Bahm, 1993:1) underlying (1) the research theme selected and (2) the research process adopted. This warrants the inclusion of axiology for inquiring into the values of goodness involved in research inquiry (Bahm, 1993: 4). Axiology affirms that it is impossible for a researcher to be entirely objective and impartial in judgment, no matter how unbiased one might intend to be. Becker (1967) maintains that it is impossible to undertake research, untouched by our personal sympathies. Thus, axiology seeks to reveal (i) the researcher as a moral person in the world, (ii) the researcher's personal and professional values, and (iii) the type of knowledge that the researcher values as a person and as

an educator. A researcher's values are derived partly from analysing values and aspirations (e.g., ecological versus economic sustainability; anthropocentric/weak versus eco-centric/strong sustainability) of research participants in social constituencies potentially influencing the research problem, and partly from personal values nurtured in this respect.

7. Why Righteousness Must Predominate SSM Research

It may be reiterated that although mainstream management research and education seemingly witness prosperity and widespread acceptance, the future viability of the current business school paradigm raises doubt and cynicism among many prominent scholars because of the following endemic symptoms (Birnik and Billsberry, 2007: 196):

1. Excessive focus upon the scientific and analytical nature of management education

2. Domination of self-interest based economics as an underlying paradigm in business schools

3. Pessimistic view of human nature under the "resourceful, evaluative, maximizing model" (REMM)

4. Teaching and research disconnected from the praxis of management; business academics distanced from the management profession

5. Over-emphasis upon narrow scholarly debate in increasingly specialist and esoteric management journals far removed from management practice (Bennis and O'Toole, 2005)

6. Narrow focus of academic research resulting in low impact on practice of academic research; high-impact publications in the management field are dominated by non-academics (Pfeffer and Fong, 2002)

7. Absence of an ethos upholding the intrinsic value of management education and research; the value proposition of B-Schools is highly focused on extrinsic motives like monetary rewards and career advancement (Pfeffer and Fong, 2004; Mintzberg, 2004))

A need to incorporate "righteousness" as the principal criterion of good scholarly SSM research is strongly defended at a time when we witness an all-out waning of integrity as the foremost quality of human endeavour in management academics—be it personal integrity, leadership integrity, academic integrity, or corporate integrity—thereby, signalling a worrisome imbalance between intellectual-economic and moral progress in a globalized society. Specifically in the realm of management academics (akin to many other spheres of human action), a glorification of self-interest fuelled by greed of tenure fulfilment, salary raises, promotions, and ostentatious recognition through awards reigns supreme within a milieu of pervasive degradation of the human values underlying intellectual advancement, the economic immorality of "externalizing" the socio-ecological impacts consequent upon *"Homo economicus"* (the globally rational economic man) oriented decision assumptions, the analytical immorality of circumventing the messiness of real-life human ethical behaviour, the legal corruption of aggrandizing and legitimizing fraudulent and narcissistic corporate leaders, and the propagation of meanness flowing from the anti-stakeholder doctrine of shareholder value maximisation. Resultantly, the broader spectrum of social and environmental responsibilities are decried and often overlooked

when selecting research problems for inquiry, maintaining researcher autonomy and honesty throughout the research process, disseminating research findings to the audience-of-interest (e.g., through publications), and ultimately, contributing to solving global-scale problems realistically.

The "righteousness" criterion is a wake-up call to strategic management researchers for developing greater sensitivity to ethical issues (e.g., choice of socially relevant research contexts, competent and informed consent, non-maleficence during data collection, beneficence of research output, autonomy, justice to research participants during data analysis, confidentiality about research participants and data accessed) and dilemmas (e.g., of finding and taking a role in observation), surrounding their work (Flick, 2009: 36-39). This implies revisiting (i) classic university roots in education (Pfeffer and Fong, 2004), (ii) context-defined, values-based, and reflective pedagogy and research (Clegg and Ross-Smith, 2003), and (iii) public policy/civil society implications of research ideas disseminated (Pfeffer, 2005). In this connection, SSM as a fledgling research area with enormous problem-solving potentialities, is opportunistically positioned to leap-frog the now-visible dysfunctional consequences of over-indulgence with methodological nitty-gritty vis-à-vis the utter neglect of the research community's ethical responsibilities towards nature and society.

Guided by the overarching criterion of righteousness, SSM research, true to its roots, must reflect a happy blend of research processes inherent in all the three disciplinary categories that lead to its culmination as a sub-discipline, namely, *strategic management* (involving the social sciences) *sustainability science* (involving the natural sciences and social sciences), and *sustainable development ethics* (involving humanities and the social sciences) as shown in Table 4:

Table 4 : Categories of Disciplines and Research Processes Influencing SSM

Disciplinary Category	Involved Disciplines	Research Process: Learning & Thinking	World-view of Humanity
Natural Sciences (reflects Sustainability Science root)	♦ Ecology ♦ Biology ♦ Chemistry ♦ Geology ♦ Physics ♦ Mathematics	Inductive; analytic; knowledge-intensive; going from specific phenomena to explanation; extensive vocabulary for describing elements and relationships between them	Humanity is subject to the laws and forces of nature
Social Sciences (reflect all three disciplinary roots)	♦ Economics ♦ Sociology ♦ Political science ♦ Psychology ♦ Anthropology	Abstract vocabulary; theory construction; theoretical frameworks; textual analysis	Human behaviour is patterned, lawful and principled
Humanities (reflects Sustainable Development Ethics root)	♦ Philosophy ♦ History ♦ Theology ♦ Literature	Understanding human nature with aesthetics (i.e., contemplative perception	Human behaviour is idiosyncratic, unique and results from free will, not determinism

Source: Repko, 2005 : 49 (adapted)

8. Addressing Validity in SSM Research

A critical criterion for justifying any research is validity, i.e., the "integrity of the conclusions" generated as the outcome of the research (Bryman, 2008: 32). The positivist tradition of quantitative research embodying the natural sciences is founded on two major ideas of validity, namely, *measurement validity* and *internal validity*.

Measurement validity, also known as *construct validity*, is a significant criterion in quantitative research that leads to trustworthy research outcomes in terms of improved objectivity and dependability. In the social sciences, it calls for the search for measures of domain-specific concepts, and is concerned whether a particular measure devised of a concept actually reflects that concept it purports to denote. For example, in psychology and management, do IQ tests on research subjects really measure variations in intelligence? The use of measurement validity in SSM research challenges researchers to devise more and more credible metrics (e.g., Green GDP ecological footprint, carbon footprint, GHG intensity of products, processes and activities, social and ecological equity indices, etc.) for describing sustainable performance at various levels of aggregation. Measurement validity is closely related to reliability—if a measure of a concept is unstable, then it fluctuates, becomes unreliable and hence, invalid for measuring the concept of the particular concept.

Internal validity relates to the issue of causality, i.e., whether a conclusion drawn from identifying a causal relationship between two or more variables holds good. It contributes to the trustworthiness of research outcomes by enhancing the credibility of research findings. In considering internal validity, it is common to refer to the factor producing the causal impact as an independent variable, and the effect as a dependent variable. Under SSM research, the issue of internal validity might arise in validating the independent and inter-related causes leading to unsustainable production and consumption systems, and those factors that can drive processes, products, services, enterprises, industries, economies and societies on the path of ecological sustainability in terms of low carbon intensity, conservation of scarce water resources, as well as protection of biodiversity and cultural diversity.

For the purposes of practice-based SSM research, two additional notions of validity deserve attention—*external validity* and *ecological validity* (Bryman, 2008: 33).

External validity, which focuses on whether the results of a research work can be generalized beyond the specific research context, is crucial for SSM research in establishing the practical as well as social relevance of the research outcome(s) to the real world. It demonstrates trustworthiness of research outcomes in terms of enhanced transferability of findings across different contexts. The need for external validity influences a researcher's sampling decisions under quantitative research or the choice of case study objects, people to be interviewed, or content to be interpreted under qualitative research. So far as SSM research is concerned, external validity is indispensable, given that sustainability science dwells on offering solutions to life-world problems through trans-disciplinarity. After all, real-world problem-solving for sustainability provides the ultimate justification for any kind of SSM research.

Ecological validity is concerned with the question of whether research findings are applicable to and can influence/alter people's lifestyles, value systems and knowledge bases, plus their natural and societal settings (Bryman, 2008: 33). It adds to the trustworthiness of research by avoiding artificiality and untruth, and making way for natural and spontaneous research settings. This strand of validity is meant to distinguish between research that is technically valid but alienated from the mainstream of people's everyday lives. For example, excessive dependence on primary/secondary data available from unnatural research settings like laboratory-based experiments, special rooms to carry out interviews, and administering questionnaires might raise the construct validity and internal validity of research outcomes, but definitely impairs their ecological validity.

It must be appreciated that the value-laden nature of SSM research, its imminent need to generate pragmatic research-based solutions, its inchoate stage of development and the difficult real-life challenges it addresses, necessitates the preponderance of ecological validity and external validity over measurement and internal validity.

9. Concluding Observations

At present, SSM research is quite like a perplexed adolescent. It holds the promise of bravely leading the business world towards more sustainable futures for espousing planetary well-being. At the same time it faces threats from mainstream strategic management researchers of being throttled by positivist reductionism and quantitative research techniques. Therefore, researchers dedicated to the cause of advancing sustainability need to steer SSM research on the right methodological path that: (i) seeks to balance the qualitative and the quantitative, the deductive and the inductive; (ii) helps arrive at unexpected connections, and (iii) encourages the researcher to be courageous and creative in going against the tide, if necessary. Accordingly, we draw inspiration from Mintzberg's (2005 : 361-371) ideas on theory development to recommend that SSM researchers, in future, need to focus on appropriate research strategies that underscore:

♦ A *"pull" approach* instead of a "push" (Mintzberg, 2005: 361) mind-set for undertaking research; a researcher must be pulled by realistic socio-ecological and/or economic concerns of the life-world into framing pertinent research questions, rather than be pushed by the methodological elegance of a fancied theoretical construct from academe (e.g., game theory or networking concepts) into framing bizarre testable hypotheses.

♦ Use of rich *"open-ended" descriptions embodied in anecdotal data* as essential and not incidental to theory development (Mintzberg, 2005: 362); hard data collected around abstract variables involving highly structured descriptions help suggest causal relationships to inject internal validity of the research findings, but anecdotal data is far more effective in explaining it.

♦ Starting the research work by structuring an *outline for theory development*, which can later facilitate data collection, taking and coding notes, and conveying research findings in linear order (with analytical left-brain activity) to other people (including students,

evaluators, other researchers, and civil society) interested in the research outcomes, although the researcher's understanding of the world (interplay between natural systems, human systems and technological systems) for sense-making and explaining, is non-linear (activated by the intuitive right hemisphere of the brain).

♦ Increasing use of *diagrammatic representation* (e.g., 2×2 matrix, flow-diagrams, family-trees, networks, idea-nests in concentric circles, pyramid hierarchies, interlocking circles, hub-and-spokes models, etc.) to depict relevant inter-related concepts and sculpt disparate ideas into a single mosaic. This reinforces Aristotle's (2001: 594) assertion that: 'The soul never thinks without a picture'.

♦ Increasing use of contextualization in research by overcoming existing methodological barriers (e.g., through the statistical technique of multi-level random-coefficient modelling) and epistemological barriers (through holistic context theorizing) (Bamberger, 2008: 839).

♦ *Shifting between connecting closely as a participant* with the phenomena under study for extracting the right inputs (e.g., evidences, data, stories, experiences, etc.) and *disconnecting (or stepping back) as a researcher* to produce illuminating theory (Mintzberg, 2005: 365); being too disconnected breeds excessive abstraction in intellectual ivory towers (such as libraries or computer terminals) with little relevance to the living reality, whereas being too connected might cause the researcher to develop absurd biases regarding the phenomenon being studied, thereby constraining interesting theory development.

♦ The need to connect with research phenomena necessitates a *direct and uncomplicated research method* (e.g., direct observation), not one that is "methodologically elegant" but produces boring, hackneyed results that are merely statistically significant (Mintzberg, 2005: 366); using statistical tests, must be done responsibly and insightfully without being allowed to dominate the research process.

♦ *Research work is like detective work* (Mintzberg, 2005: 366); unearthing more and more information still reveals big patches of the researcher's ignorance about the research problem and necessary practical solutions.

♦ A hallmark of successful research is its *profoundly simple (not simplistic), jargon-free, easy-to-understand, and appealing expression*; this reflects the researcher's own clarity of understanding (Mintzberg, 2005: 367) about the research work.

♦ Influx of an *increasing number of unpretentious researchers with open, courageous, probing, and creative minds* rather than "academically correct" research geniuses (Mintzberg, 2005: 368-369) with minds overwhelmed and clogged by a fear of challenging the status quo, of being creative, of being contrarian, of not belonging, and of being wrong; "academic correctness" of this form stunts SSM research because it requires dealing with a new paradigm, discovering new patterns of commonness, and identifying unexpected interconnectedness among apparently unrelated issues and phenomena. Unfortunately, at present, fear is instilled into the whole process of doing and evaluating research.

♦ The rare *insight to first sift and then weave creatively through the maze* of seeming anomalies, contradictions, similarities and relationships generated by data analysis.

♦ *Greater reliance on mental visualisation and literal writing* for discovering patterns in data, valuing anomalies, and drawing rich metaphors out of observed comparisons; our obsession with the technological wonder of the word processor powered by our personal computers must somehow be reduced because excessive use of computing technology is a deterrent to insightful theory development (Mintzberg, 2005: 371).

♦ The *value of repeated iteration in the research process* for reframing, rethinking, readjusting and refining previous versions of the research work with the aim of continuous improvement in research quality.

References (according to APA, 6th edition)

Alvesson, M. and Deetz, S. (2000). *Doing critical management research.* London: Sage.

Andrews, K. R. (1980). *The concept of corporate strategy.* Homeland, Il: Irwin.

Aristotle (2001). *The basic works of Aristotle*, translated by J.A. Smith. New York: modern Library.

Armstrong, K. (2006). *The great transformation.* London: Atlantic Books.

Bade W.F. and Gifford, T., (1924). *The life and letters of John Muir.* Seattle, WA: The Mountaineers Books.

Bahm, A.B. (1993). *Axiology: The science of values* (Value Inquiry Book Series 2). Amsterdam: Rodopi.

Bamberger,P. (2008). Beyond contextualization: Using context theories to narrow the micro-macro gap in management research. *Academy of Management Journal*, 51(5): 839-846.

Bammer, G. (2005). Integration and implementation sciences: Building a new specialization. *Ecology and Society, 10(2)*:6 (online); http://www.ecology and society.org/vol10/iss2/art6.

Bartlett, C.A. and Ghoshal, S. (1989). *Managing across borders: The transnational solution.* Boston: Harvard Business School Press.

Bennis, W. G. and O'Toole, J. (2005). How business schools lost their way. *Harvard Business Review,* 83(5): 96-104.

Birnik, A. and Billsberry, J. (2008). Reorienting the business school agenda: The case for relevance, rigor, and righteousness. *Journal of Business Ethics*, 82: 985-999.

Boyer, E.L. (1990). *Scholarship reconsidered: Priorities of the professoriate.* Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

Bromiley, P. (2005). *The behavioral foundations of strategic management.* Malden, MA: Blackwell Publishing.

Brunsson, N. (1985). *The irrational organization.* Bergen: Fagbokforlaget.

Bryman, A. (2008). *Social research methods* (3rd edition) Oxford: Oxford University Press.

Campbell, D.T. (1969). Ethnocentrism of disciplines and the Fish-scale model of omniscience. In M. Sherif and C.W. Sherif (Eds.) *Interdisciplinary Relationships in the Social Sciences* (pp. 328-348). Chicago: Aldine.

Carroll, A.B. (2001). The moral leader: Essential for successful corporate ctizenship. In J. Andrioff and M. Mcintosh (Eds.) *Perspectives of corporate citizenship*. Sheffield, UK.: Greenleaf (Chapter 8; pp. 139-151).

Chakraborty, S. K. (1999). *Wisdom leadership: Dialogues and reflections,* New Delhi: Wheeler.

Chatterjee, K. (2001). Sri Aurobindo's inspiration for the manager "*yogin*" in pursuit of integral management' in *Sri Aurobindo Mandir Annual,* August, Kolkata: Sri Aurobindo Pathmandir.

Clark, W. C. (2007). Sustainability science: A room of its own. *Proceedings of the National Academy of Sciences USA*, 104(6): 1737-8.

Clark, W. C. and Dickson, N. M. (2003). Sustainability science: The emerging research program. *Proceedings of the National Academy of Sciences USA*, 100(14): 8059-61.

Clegg, S.R., Viera da Cunha, J. and Pina, M. (2002). Management paradoxes: A relational view. *Human Relations*; 55(5): 483-503.

Clegg, S.R. and Ross-Smith, A. (2003). Revising the boundaries: Management education and learning in a postpositivist world. *Academy of Management Learning and Education*, 2(1): 85-98.

Cooper, R. and Law, J. (1995). Organization: Distal and proximal views. In Bacharach, S. (Ed.). *Research in the Sociology of Organizations*; 13: 237-274. Greenwich, CT.: JAI Press.

Cressey, D.R. (1953). *Other people's money: A study in the social psychology of embezzlement*. Glenco, II: Free Press.

Crouch, C. (2006). Modelling the firm in its market and organizational environment: Methodologies for studying corporate social responsibility. *Organizational Studies, 22*: 1533-51.

DeWit, B. And Meyer, R. (2004). *Strategy: Process, content, context* (3rd edition). London: Thomson Learning.

DeZure, D. (1999). Interdisciplinary teaching and learning. *Teaching Excellence*; 10(3): 2-3.

Donaldson, L. (2002). Damned by our own theories: Contradictions between theories and management education. *Academy of Management Learning and Education*, 1(1): 90-106.

Eisenhardt, K.M. (2000). Paradox, spirals, ambivalence: the new language of change and pluralism. *Academy of Management Review,* 25(4): 703-705.

Ekins, P. (2000). *Economic growth and environmental sustainability: The prospects for green growth.* London: Routledge.

Elster, J. (1983). *Explaining technical change.* Cambridge, England: Cambridge University Press.

Fairweather, J. (1989). Academic research and instruction: The industrial connection. *Journal of Higher Education,* 60(4), 388–407.

Feldman, M. (2006). Management and public management. *Academy of Management Journal*; 48(6): 956-960.

Ferraro, F., Pfeffer, J. and Sutton, R.I. (2005). Economic language and assumptions: How theories can become self-fulfilling. *Academy of Management Review*, 30(1): 8-24.

Flick, U. (2009). *An introduction to qualitative research* (4th edition). New Delhi: Sage.

Friedland, R. and Alford, R.R. (1991). Bringing society back: Symbols, practices, institutional

contradictions. In W.W. Powell and P.J. DiMaggio (eds.), *The new institutionalism in organizational analysis*. Chicago: University of Chicago Press.

Friedman, M. (1971). *Capitalism and freedom*. Chicago: University of Chicago Press.

Friedman, T. L. (2009). *Hot, flat and crowded: Why the world needs a green revolution-and how we can renew our global future*. London: Penguin Books.

____. (2010). The world is getting hot, flat and crowded. In *The environment emergency: Exploring solutions for a sustainable future* (pp. 16-30). New Delhi: The Energy and Resources Institute (TERI).

Ghoshal, S. (2003). *Business schools share the blame for Enron*. Financial Times, 18 July.

____(2005). Bad management theories are destroying good management practices. *Academy of Management Learning and Education*, 4(1): 75-91.

Ghoshal, S. and Bartlett, C.A. (1999). *The individualized corporation: A fundamentally new approach to management*. New York: Harper Business.

Goleman, D. (2009). *Ecological intelligence: Knowing the hidden impacts of what we buy*. London: Allen Lane, Penguin.

Grey, C. (2004). Reinventing business schools: The contribution of critical management education. *Academy of Management Learning and Education*; 3(2): 178-186.

Guba, E.G. and Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N.K. Denzin and Y. S. Lincoln, (Eds.) *Handbook of qualitative research* (pp. 105-117) Thousand Oaks, CA: Sage.

Hagen, R.S. (2008). The misalignment of management education and globalization: Conceptual, contextual and praxeological issues. In N.P. Barsky (Ed.) *The power of technology for learning*; Chapter 9: 143-160. Springer Science and Business Media BV.

Hawkins, D. and Rajagopal, S. (2005). *Sun Tzu and the project battle ground: Creating project strategy from the art of war*. New York: Palgrave Macmillan.

Hoffman-Riem, H., Biber-Klemm, S., Grossenbacher-Mansuy, W., Hirsch-Hadoren, G., Joye, D., Pohl, C., Wiesmann, U. and Zemp, E. (2008). *Handbook of transdisciplinary research*; Swiss Academies of Arts and Sciences, Berne, Switzerland: Springer.

Huber, M.T. and Hutchings,P. (2004). *Integrative learning: Mapping the terrain*. Washington D.C.: The Association of American Colleges and Universities.

Huxley, A. (1932). *Brave new world* (1998 edition). New York: Harper Perennial.

Jaspers, K. (1953). *The origin and goal of history*. London: Routledge.

Jensen, M.C. (2002). Value maximization, stakeholder theory, and the corporate objective function. *Business Ethics Quarterly*, 12: 235-256.

Kant, I. (1785). *Groundwork of the metaphysics of morals*. Translated from the original by H.J. Paton. New York: Harper and Row.

Klein, J. T. (1996). *Crossing boundaries: Knowledge, disciplinarities and interdisciplinarities*. Charlottesville: University Press of Virginia.

Komiyama, H. and Takeuchi, K. (2006). Sustainability science: Building a new discipline, *Sustainability Science*, 1: 1-6.

Krippendorf, K. (2003). *The art of the advantage: 36 strategies to seize the competitive advantage*. New York: Thomson Texere.

Krugman, P. (1994) *Peddling prosperity: Economic sense and nonsense in the Age of Diminished Expectations*, New York: W. W. Norton & Company.

Lattuca, L. (2001). *Creating interdisciplinarity: Interdisciplinary research and teaching among college and university faculty*. Nashville, TN: Vanderbilt University Press.

Lauer, C. (2008) *The management gurus*. Penguin Books.

Leavitt, H. J. (1989). *Educating our MBAs: On teaching what we haven't taught*. California Management Review, 31(3): 38-50.

Lennick, D. and Kiel, F. (2005). *Moral intelligence: Enhancing business performance and leadership success*. Upper Saddle River, NJ.: Wharton School Publishing, University of Pennsylvania. http://www.whartonsp.com.

Lewis, M.W. (2000). Exploring paradox: Toward a more comprehensive guide. *Academy of Management Review*, 25(4): 760-776.

Lewis, M.W. and Keleman, M.L. (2002). Multiparadigm inquiry: Exploring organizational pluralism and paradox. *Human Relations*; 55(2): 129-147.

Lincoln, Y. and Guba, E. (1985). *Naturalistic inquiry*. Beverly Hills: Sage.

Maclellan, E. (2005). Conceptual learning: The priority for higher education. *British Journal of Educational Studies*; 53(2): 129-147.

Macdonald, D. (2003). Curriculum change and the post-modern world: Is the School curriculum-reform movement an anachronism? *Journal of Curriculum Studies*; 35(2): 139-149.

Marcus, J., Kurucz, E.C. and Colbert, B.A. (2010). Conceptions of the business-society-nature interface: Implications for management scholarship. *Business and Society*; 49(3): 402-38.

McCarthy, D.J. (2000). View from the top: Henry Mintzberg on strategy and processes. *Academy of Management Executive*, 14(3): 31-42.

McLean, B. and Elkind, P. (2003). *Smartest guys in the room: The amazing rise and scandalous fall of Enron*. New York: Penguin.

McNair, M.P. and Hersum, A.C. (1954) *The case method at the Harvard Business School*. New York: McGraw-Hill.

Michelcic, J.R., Crittenden, J.C., Small, M.J., Shonnard, D.R., Hokanson, D.R., Zhang, Q. Chen, H., Sorby, S.A., James, V.U., Sutherland, J.W. and Schnoor, J.L. (2003). "Sustainability science and engineering: the emergence of a new metadiscipline". *Environ Sci Technol* 37: 5314-5324.

Mintzberg, H. (2004). *Managers not MBAs: A hard look at the soft practice of managing and management development*. New Delhi: Tata McGraw-Hill.

___(2005). Theory about the development of theory. In K.G. Smith and M.A. Hitt (eds.) *Great minds in management: The process of theory development* (Part II, chapter 17). Oxford: Oxford University Press.

Mintzberg, H., Ahlstrand, B. and Lampel, J. (1998). *Strategy safari: A guided tour through the wilds of strategic management*. New York: The Free Press.

Mintzberg, H. and Gosling, J. (2002). Educating managers beyond borders. *Academy of Management Learning and Education*, 1(1): 64-76.

Newell, A. and Simon, H. A. (1956). Models: Their uses and limitations. In L.D. White (Ed.) *The state of the social sciences*, pp. 66-83. Chicago: University of Chicago Press.

Newell, W. H. (2000). Transdisciplinarity reconsidered. In M. Somerville and D.J. Rappoport (Eds.) *Transdisciplinarity: Recreating integrated knowledge* (pp. 42-48). Oxford, UK: EOLSS.

Nicolescu, B. (2001). *Manifesto of transdisciplinarity* (Translated from French by Karen-Claire Voss). State of New York Press: New York.

Nowotny, H., Scott, P. and Gibbons, M. (2001) *Re-thinking science: Knowledge and the public in the age of uncertainty*. Oxford: Polity Press.

Orwell, G. (1980). *Nineteen eighty four*. London: Penguin.

Parnell, J. A. (2008). Sustainable strategic management: construct, parameters, research directions. *Journal of Sustainable Strategic Management*, 1(1): 35-45.

Pfeffer, J. (2005). Why do bad management theories persist? A comment on Ghoshal. *Academy of Management Learning and Education*, 4(1): 96-100.

Pfeffer, J. and Fong, C. T. (2002). The end of business schools? Less success than meets the eye. *Academy of Management Learning and Education*, 1(1): 78-95.

___(2004). The business school 'business': Some lessons from the U.S. experience. *Journal of Management Studies*; 41(8): 1501-1520.

Pillai, R. (2010). *Corporate Chanakya: Successful management the Chanakya way*. Mumbai: Jaico.

Piasecki, B.W., Fletcher, K. A. and Mendelson, F. J. (1999). *Environmental management and business strategy*. New York: John Wiley.

Porritt, J. (2006). *Capitalism: As if the world matters*. London: Earthscan.

Porter, L. W. and McKibbin, L.E. (1988). *Management education and development: Drift or thrust into the 21st century*. New York: McGraw Hill.

Prahalad, C. K. and Doz, Y. L. (1987). *The multinational mission: Balancing local demands and global vision*. New York: Free Press.

Repko, A. E. (2005). *Interdisciplinary practice: A student guide to research and writing*. Boston: Pearson.

___(2008). *Interdisciplinary research: Process and theory*. Thousand Oaks, CA: Sage Publications.

Rocha, H. O. and Ghoshal, S. (2006). Beyond self-interest revisited. *Journal of Management Studies*; 43(3): 585-619.

Rogers, Y., Scaife, M. and Rizzo, A. (2005). Interdisciplinarity: An emergent or engineered process? In S.J. Derry, C.D. Shunn and M.A. Gernbacher (Eds.) *Interdisciplinary collaboration: An emerging cognitive science* (pp. 265-85). Mahwah, NJ: Lawrence Erlbaum Associates.

Rotta, C. P. (2010). *A short guide to ethical risk*. Surrey, England: Gower.

Rumelt, R. P., Schendel, D.E. and Teece, D.J. (1994). *Fundamental issues in strategy: A research agenda*. Boston: Harvard Business School Press.

Saxe, J. G. (1963). *The blind men and the elephant*. New York: McGraw Hill.

Schendel, D. (1995). Notes from the editor-in-chief. *Strategic Management Journal*, 13(3): 1-2.

Seager, T. P. (2008). The sustainability spectrum and the sciences of sustainability. *Business Strategy and the Environment*; 17: 444-453. Wiley InterScience.

Singer, P. (1975). *Animal liberation: A new ethic for our treatment of animals*. New York: Random House.

Slaughter, S. and Rhoades, G. (2004). *Academic capitalism and the new economy: markets, state and higher education*. Maryland: Johns Hopkins University Press.

Stead, W. E., Stead, J. G & Starik, M. (2004). *Sustainable strategic management*. New Delhi: Prentice Hall of India.

Stead, J. G and Stead, W. E. (2009). *Management for a small planet*. Armonk, NY: M. E. Sharpe.

Stokes, D. (1997). *Pasteur's quadrant: Basic science and technological innovation*. Washington DC: Brookings Press.

Strong, J. (1980). *Strong's concordance of the Bible* (in 4 volumes). London: Pickering and Inglis.

Sun Tzu, (1971). *The art of war*. New York, NY: Oxford University Press.

Teddie, C. and Tashakkori, A. (2009). *Foundations of mixed methods research*. Thousand Oaks, CA: Sage Publications.

The Economist. (2005). *Business schools, bad for business*. The Economist, 17 February.

Victor, P.A. (2008). *Managing without growth: Slower by design, not disaster*. Northampton, MA: Edward Elgar.

Vucetich, J.A. and Nelson, M.P. (2010). Sustainability: Virtuous or vulgar. *BioScience*, 60(7): 539-544.

World Commission on Environment and Development (WCED) (1987). *Our common future*. Oxford: Oxford University Press.

Zamyatan, Y. I. (1924). *We* (1993 edition). London: Penguin.

End-notes

1. Sun Tzu was a military general and a philosopher during 400 B.C.E. towards the end of the Chou dynasty. *The Art of War*, a treatise on the art and strategy of military warfare was written *circa* 475 B.C.E. It contains 13 chapters, and is based on the military conflicts between the kingdom of Wu, and other Warring States represented by the kingdoms of Qin, Chu, Zhao, Yan, Qi, Han and Wei.

2. Chanakya is also well-known as Kautilya and Vishnugupta. His *Arthashastra* (written in 3rd century B.C.E.) consists of 15 books, out of which 6 are dedicated to the art of warfare.

3. A meta-discipline is one that transcends and subsumes knowledge from many other fields. During the last decade, several integrative disciplines have emerged that are motivated by sustainability and recognised as necessary for implementing sustainability.

4. Paradigm shift denotes a profound and transformative change in the philosophical and theoretical framework that dominates an approach to knowledge formation.

5. Reductionist is a term associated with reductionism, which is an approach to understanding the whole of something by examining its parts.

6. The genre of dystopian fiction as a form of literary research in the humanities is well-known in

the writings of Zamyatan (1924), Huxley (1932) and Orwell (1980), who attempt to make readers aware of a dystopian (i.e., anti-utopian) world, thus conveying a sense of hopelessness and rebellion. The genre of non-fiction dystopian analysis is conspicuous among strategic management writers in the post-Enron period since 2002. Tools of dystopia have been effectively employed to sensitize those directly and indirectly associated with streamlining management research and education, to the dysfunctional impact of the MBA on the rapidly degenerating moral fabric of a human society that has perilously chosen to be governed by self-serving managers in morally depleted companies.

7. The Golden Rule of reciprocity is expressed as a moral obligation of humans in society in multiple versions (Hauser, 2006: 358; Religious Tolerance, 2006) as under:

Religious Philosophy	Golden Rule of Reciprocity	Source
Hinduism	'This is the sum of duty: do not do to others what would cause pain if done to you.'	*Mahabharata*, 5: 1517
Islam	'None of you [truly] believes until he wishes for his brother what he wishes for himself.'	Number 13 of *Al-Nawawi's 40 Hadiths*
Buddhism	'Hurt not others in ways that you yourself would find hurtful.'	*Udana-Varga*, 5:18
Jainism	'A man should wander about treating all creatures as he himself would be treated.'	*Sutrakritanga*, 1.11.33
Confucianism	'Do not do to others what you do not want them to do to you.'	*Analects*, 15: 23
Judaism	'What is hateful to you do not to your fellow man. This is the law: all the rest is commentary.'	*Talmud*, Shabbat 31a
Christianity	'And as ye would that men should to you, do ye also to them likewise.'	*Luke*, 6: 31 (King James version)

Source: Religious Tolerance, 2006.

8. Righteous management is a philosophy initiated by American environmentalist, John Muir (1838-1914) that condemns the excesses and vulgarities of modernity's expansionist view versus the preservationist view of the sanctity of nature. Muir, as founder of the Sierra Club in 1892, laid the foundation of preservationist or righteous management based on the following tenets (Bade and Gifford, 1924): (1) The universe is an interrelated totality, with interconnected and interlocked parts; (2) Nature (e.g., animals, plants, rocks, etc.) is intrinsically valuable, irrespective of what other instrumental value is assigned to it in utilitarian terms; (3) Deterioration in the quality of natural systems affords both a physical and symbolic benchmark/standpoint for criticising modern society in terms of inadequacies in spiritual, aesthetic and moral sensibilities. Consequently, it is our collective responsibility to serve as planetary stewards in preserving and protecting natural systems from excessive human interference that produces irreversible adverse consequences.