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An Updated Conceptualisation of Corporate Sustainability: Five Resources Sustainability

Introduction

Five Resources Sustainability (FRS) represents an approach to corporate sustainability (CS) which focuses on using, but also building, protecting and retaining access to the five types of capital resource necessary to both do business and to ensure the ongoing functioning of the natural environment and society in which that business exists. This developmental paper provides a brief critique of existing conceptualisations of CS before introducing FRS as an improved approach.

Existing Conceptualisations of Corporate Sustainability

The triple bottom line (TBL) is a popular categorisation of CS which first emerged in the 1990's (Elkington, 1994; 1997). Such a conceptualisation is depicted in a Venn diagram (Senge et al., 2010) (see Figure 1), which focuses on organisation's seeking the 'sustainability sweet spot' (Savitz, 2006) where all three components overlap or are in harmony.

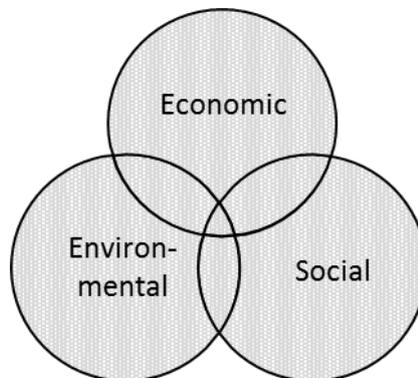


Figure 1: Traditional overlapping depiction of social, environmental and economic components

Such a categorisation provides a simplified depiction of complex inter-related components. Elkington himself has suggested that we must move beyond the TBL concept because “...there are limitations inherent in the over-simplified delineation of economy, society, and environment” (Elkington et al., 2006, p.14). This is linked to the increasing debate around the tensions, trade-offs and paradoxes which dominate approaches to CS (Hahn and Figge, 2011, Hahn et al, 2015, Ivory and Brooks, 2017). Moreover, it is argued that economic considerations or the ‘business case’ (Holliday et al, 2002), has come to dominate much of the literature and

thinking on the topic. The corollary is the subordination of the social and environmental components, which are then only considered if and when they contribute to economic attributes. This is reflected in Figure 2 below.

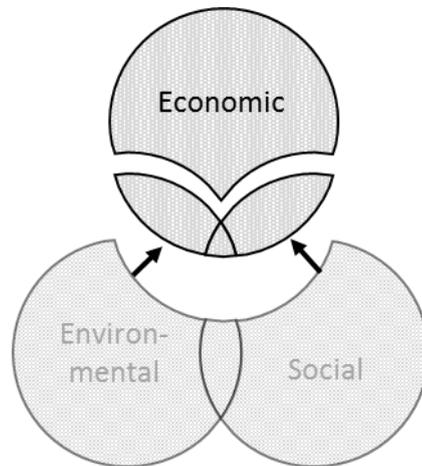


Figure 2: Subordination of social and environmental components

In part as a response to such colonisation, a more sophisticated depiction of these components emerged which sees them as nested, rather than overlapping: the economy as nested within society, which in turn is nested within the environment (Montiel, 2008; Porritt, 2003; Hart, 1997; Aras and Crowther, 2008) (see Figure 3). This intends to reflect the fact that “the global economy is in the first instance a sub-system of human society, which is in itself a sub-system of the totality of life on earth” (Porritt, 2003: 66).

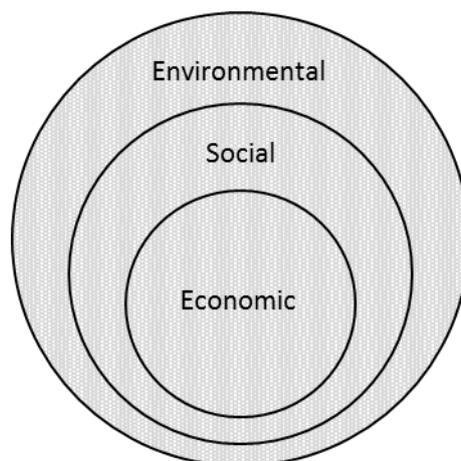


Figure 3: Nested depiction of economy, society, and environment

This developmental paper introduces a new model into attempts to conceptualise CS. FRS at the corporate level is adapted from the macro or systems-level Five Capitals Model. It focuses on using, but also building, protecting and retaining access to the five types of resources necessary to both do business and to ensure the ongoing functioning of the natural environment and society in which that business exists. We now introduce the Five Capitals Model.

Introducing Five Capitals Model and Five Resources Sustainability

The Five Capitals Model operates largely at the macro or system wide level and “...has strong intellectual pedigree and is influential in the literature on regional and community development [for sustainability]” (Brereton and Pattenden, 2007 in Tuazon et al, 2013; but see also Goodwin, 2003). While it has also been applied in popular management press and industry publications relating to business and sustainability (Forum for the Future, 2014; Porritt, 2003; 2007), it is so far absent from the business and management academic literature. The FCM depicts five different types of capital which exist at the macro-level and which society is able to draw on: natural, social, human, financial, and manufactured (Porritt, 2003; 2007) (see Figure 4).

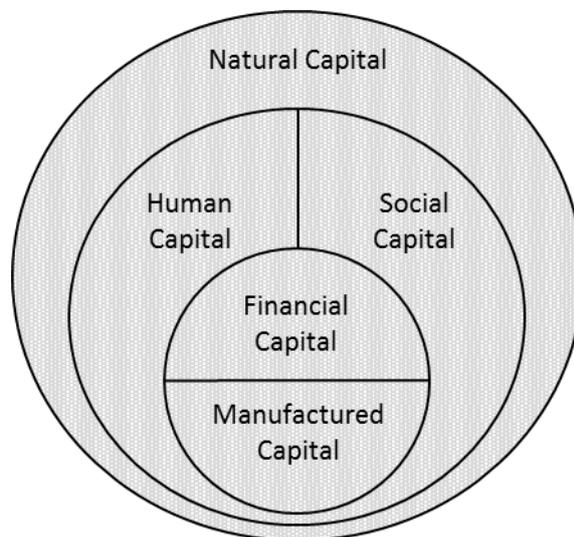


Figure 4: Five Capitals Model

In this depiction natural capital is “...the overarching capital for the others due to its inherent pre-conditionality and underpinning of fundamental human existence” (Tuazon et al, 2013, p. 43). Human capital is derived from natural capital as humans exist within a biosphere; humans

then have the capacity and desire to collaborate forming social capital. Finally, natural, human and social capitals are combined to produce manufactured and financial capital.

We argue that the Five Capitals Model can be adapted at a micro (organisational) level as a conceptualisation of CS. We refer to this as Five Resources Sustainability. We deliberately use the ‘resource’ terminology to distance our framework from ‘capitals’. This is because the use of the term ‘capital’ reflects the tendency to both label as ‘capital’ any factor used in the production process (Dean and Kretschmer, 2007) and to be synonymous with financial capital (Porritt, 2003) thereby reflecting the ongoing colonisation of non-economic elements with economic language.

FRS extends the traditional factors of production – land, labour, and capital – to better reflect the breadth and complexity of these components: replacing ‘land’ with natural resources, ‘labour’ with both human and social resources, and ‘capital’ with manufactured and financial resources. This responds to critiques of the traditional factors of production as increasingly ambiguous and false, with some favouring a shift to a capabilities-based approach which “focuses not on the provider (i.e. owner) of classes of resources but on the productive contribution of resources” (Dean and Kretschmer, 2007, p. 588). Moreover, land, labour, capital is often depicted as a closed or unidimensional system (Dean and Kretschmer, 2007) which makes little space for interactions with a wider system. FRS also responds to criticisms of the TBL (Norman and McDonald, 2004) as focused on a summative output (rather than inputs), as well as comprising three separate components which only occasionally overlap. We depict FRS in Figure 5 below and then examine each of the five resources.

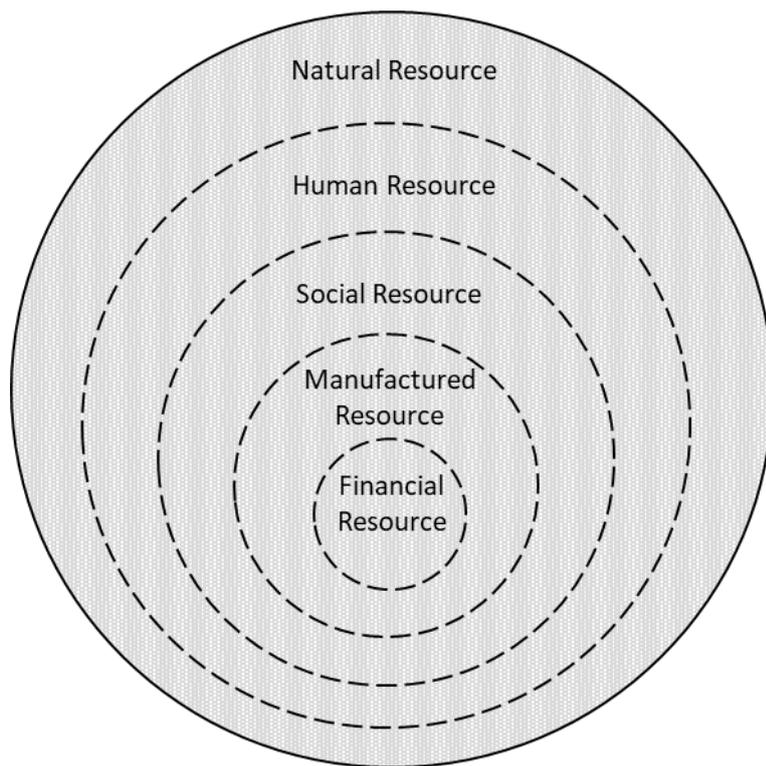


Figure 5: Five Resources Sustainability

Examining the Five Resources

Natural resources comprise all natural resources and processes that are used in the production and delivery of goods and services (Hawken et al, 1999), including renewable and non-renewable resources, sinks that absorb, neutralise, or recycle wastes, and processes such as climate regulation that maintain life (Porritt, 2007). A more holistic extension of the original 'land' factor of production, it better depicts the reality business' face in the array of resources they use from natural sources.

Human and social resources are an extension of the traditional 'labour' factor of production, better reflecting both the fact that humans contribute more than a mechanised notion of 'labour', and that they form social interactions and relationships which can also be considered a resource (Putnam 2000). The human resource consists of individual's health, knowledge, skills, motivation, and capacity for relationships which are needed for productive work. It can be fostered through improved opportunities for learning, creativity, stimulation, and enhanced healthcare and quality of living (Porritt, 2007). It acknowledges humans as more complex than the sum of their ability or willingness to do their job (Coleman, 1988), incorporating concepts of joy, passion, empathy, and spirituality.

Within the human resource, the social resource is nested. This concerns the stock of trust, mutual understanding, shared values, and socially held knowledge that facilitates the coordination of economic activity (Goodwin, 2003). Underlying the concept of social resource is the premise that strong norms of reciprocity lead people to trust and to help one another and that dense networks encourage actors to engage in mutually beneficial efforts rather than seeking only to gain individual or corporate advantage (Coleman, 1988; Goodwin, 2003). Social resource can be considered internally – enabling individuals to work together within the business cohesively and successfully towards a common goal, and externally – including for cohesive functional relationships with suppliers or customers, but also at a less specific level where society provides the business with a licence to operate (see for example Graafland, 2002). Moreover, while human and social resources may be built or facilitated over time, “creating and sharing knowledge are intangible activities that can neither be supervised nor forced out of people. They happen only when people co-operate voluntarily” (Kim and Mauborgne, 1997: 71).

Manufactured resource comprises material goods or produced fixed resources that contribute to the production process or the provision of services, rather than being part of the output (Porritt, 2007). This includes tools, machinery, and buildings, as well as infrastructure such as transport and communications networks. These are often the foundation of the operational processes pursued by organisations, but are subject to innovation and improvement emanating from human and social resources, and draw on natural resources also.

Finally, financial resources, nested inside all others, enable the others types of resource to be inputted, owned and traded (Porritt, 2007). However, unlike the other resources financial resources have no intrinsic value, but are representative (not necessarily accurately) of natural, human, social, or manufactured resources. Nevertheless, financial resource is the traditional primary measure of business performance and success (Porritt, 2007). For measures of financial resource to truly reflect the value of other resources, business must first understand these and also be able to accurately assign financial values to them. This includes valuing intangibles such as brand, reputation and goodwill; internalising environmental and social costs with fair economic values, and instituting effective corporate governance.

While many have spoken of the need to maintain and protect more tangible types of capital including natural and manufactured capital (Porritt, 2007), others are increasingly raising the “...necessity to maintain the intangible, unmeasurable stocks of human and social capital” (Goodwin, 2003, p.10) which are less explicitly discussed or considered. Moreover, even in relation to more tangible resources, while some argue that we may be witnessing improvements in manufactured resource, for example with old buildings replaced with better designed and constructed buildings, almost all businesses can be charged with operating as a net extractor of natural resources, sometimes to extensive degrees, where “either the existing stock is drawn down (when natural resource inputs are used), or the quality of the stock is diminished (e.g., by the introduction of waste products)” (Goodwin, 2003, p.10). In their seminal book *Natural Capitalism* Hawken et al (1999) argue that the traditional system of capitalism “liquidates its capital and calls it income. It neglects to assign any value to the largest stocks of capital it employs - the natural resources and living systems, as well as the social and cultural systems that are the basis of human capital.” (p.5)

Conclusion

We propose FRS as a conceptualisation depicting inter-related and dynamic inputs into a process or system. As such, it is not proposed as a simplified aggregational model comprising five mutually exclusive components: is not about summing or even trading-off five capitals to come to some ‘answer’ regarding the sustainability of a business. Rather, it is premised on the idea that organisations must build, protect, and maintain access to *all five* resources in order to survive and thrive to perpetuity (Werbach, 2009). As such, we argue that organisations must both use all five resources to derive goods and services (that is, to do business), and must also protect, build, and retain access to all five in order to be able to respond effectively to changing conditions and to withstand unexpected shocks (that is, to go on doing business). However, a key premise of FRS is that the resources are not necessarily compatible or complementary but are, in many cases, contradictory. Moreover, it fundamentally rejects the substitutability of these resources. As such, we argue that while all five resources must be used and maintained to some extent, this happens within a context in which the resources are paradoxically related and must be approached and managed as such. Finally, it should be noted that in our depiction only one of these resources is bounded – that of the outside ring of natural resources. This reflects the fact that this is the fundamental limitation that business must consider. All other

resources, depicted in the inner four rings, have dotted lines to demonstrate their inter-relationships and dynamic nature, although they remain non-substitutable.

In summary, not only does this paper make the case for a more nuanced and complex conceptualisation of CS, but by implication it points to a need for empirical work on areas such as paradoxical management, and a more rounded approach to the valuation of capitals and resources.

References

- Aras, G. & Crowther, D. (2008). Governance and sustainability: An investigation into the relationship between corporate governance and corporate sustainability. *Management Decision*, 46(3), 433-448.
- Coleman, J.S. (1988) Social Capital in the Creation of Human Capital, *American Journal of Sociology*, vol. 94, pp. 95-120.
- Dean, A. and Kretschmer, M. (2007). Can ideas be capital? Factors of production in the postindustrial economy: A review and critique, *Academy of Management Review*, 32(2), pp. 573-594.
- Elkington, J. (1994). Towards the Sustainable Corporation: Win-Win-Win Strategies for Sustainable Development. *California Management Review*, 36(2): 90-100.
- Elkington, J. (1997). *Cannibals with Forks. The Triple Bottom-Line of 21st Century Business*. Oxford, Capstone Publishing.
- Elkington, J., Emerson, J. & Beloe, S. (2006). The Value Palette: A Tool for Full Spectrum Strategy. *California Management Review*, 48(2), 6-28.
- Forum for the Future (2014). *The Five Capitals Model - a framework for sustainability*. Available at www.forumforthefuture.org/project/five-capitals/overview. Accessed 12/09/14
- Goodwin, N. (2003). *Five Kinds of Capital: Useful Concepts for Sustainable Development*. Working Paper No. 03-07, Global Development and Environment Institute, accessed 14/12/14, www.ase.tufts.edu/gdae/publications/working_papers/index.html
- Graafland, J. (2002). Profits and Principles: Four Perspectives, *Journal of Business Ethics*, 35(4), pp. 293-305
- Hahn, T. and Figge, F. (2011). Beyond the Bounded Instrumentality in Current Corporate Sustainability Research: Toward an Inclusive Notion of Profitability. *Journal of Business Ethics*, 104(3): 325-345
- Hahn, T., Figge, F., Pinkse, J. & Preuss, L. (2010). Trade-offs in corporate sustainability: you can't have your cake and eat it. *Business Strategy and the Environment*, 19(4), 217-229.
- Hahn, T., Pinkse, J., Preuss, L. & Figge, F. (2015). Tensions in Corporate Sustainability: Towards an Integrative Framework, *Journal of Business Ethics*, 127, 297-316.
- Hart, S.L. (1997). Beyond Greening: strategies for a sustainable world. *Harvard Business Review*, 75(1), pp. 67-76.
- Hawken, P., Lovins, A.B. and Lovins, L.H. (1999). *Natural capitalism: the next industrial revolution*, London: Earthscan.
- Holliday, C.O., Schmidheiny, S. and Watts, P. (2002). *Walking the Talk: The business case for sustainable development*, UK: Greenleaf.

- Ivory, S.B. and Brooks, S.B. (2017). Managing corporate sustainability with a Paradoxical Lens: Lessons from Strategic Agility. *Journal of Business Ethics*, pp.1-15
- Kim, WC. and Mauborgne, R. (1997). Fair Process: Managing in the Knowledge Economy. *Harvard Business Review*, 74(4), pp. 65
- Montiel, I. (2008). Corporate social responsibility and corporate sustainability: separate pasts, common futures. *Organization & Environment*, 21, pp. 245-269.
- Norman, W. and MacDonald, C. (2004). Getting to the bottom of 'Triple Bottom Line', *Business Ethics Quarterly*, 14:2, pp. 243-262
- Porritt, J. (2003). *The World in Context: beyond the business case for sustainable development*. University of Cambridge Programme for Industry. Available at www.cisl.cam.ac.uk/publications/the-world-in-context. Accessed 12/09/14.
- Porritt, J. (2007). *Capitalism as if the world matters*. Earthscan.
- Putnam, R.D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster, New York.
- Savitz, A. (2006). *The Triple Bottom Line*. San Francisco: Jossey Bass.
- Senge, P., Smith, B., Kruschwitz, N., Laur, J. and Schley, S. (2010). *The Necessary Revolution: how individuals and organizations are working together to create a sustainable world*, London: Nicholas Brealey Publishing.
- Tuazon, D., Corder, G.D., and McLellan, B.C. (2013). Sustainable Development: A Review of Theoretical Contributions. *International Journal Sustainable Future for Human Security*, 1(1): 40-48
- Werbach, A. (2009). *Strategy for Sustainability*. Harvard Business School Publishing, MA.