

Sustainability- Competitive advantage?

Elizabeth M. Ojo

School of Engineering Management,
University Of Johannesburg, Johannesburg, South Africa
Eoyo1978@gmail.com

Charles Mbohwa

Department of Quality and Operations management
University Of Johannesburg, South Africa
cmbohwa@uj.ac.za

Esther T. Akinlabi

Department of Mechanical Engineering Science
University of Johannesburg, South Africa
etakinlabi@uj.ac.za

Abstract

Sustainability is the incorporation of environmental, health and social value in the firm's business. A Firm need to include sustainability in decision-making regarding all activities taking place in the whole supply chain. Businesses presently are in a competitive stage as every firm is trying to stay in place and be above their competitors, therefore every business are striving towards sustainability to give their business competitive advantage over their competitors. This paper adopts literature review and case studies to show the link between sustainability and competitive advantage, also to test if sustainability could actually bring about competitive advantage.

Keywords: Competitive edge, Business, firm, Link, and Sustainability.

1. Introduction

It is important to find out whether differences in environmental strategies and their consequences regarding a firm's competitiveness originate from different resource requirements and endowments. Also, for practitioners, it is important to be aware of the resource requirements for the implementation of a successful environmental strategy. Otherwise, such strategies are likely to result in adverse effects on the firm's competitive advantage.

In this paper, we attempt to check the link between sustainability and Competitive edge and assess whether sustainability can bring about competitive advantage; that underline a firm's ability to generate a competitive advantage from their environmental strategy. A firm's absorptive capacity, defined as the "ability to recognize the value of new information, assimilate it, and apply it to commercial ends" (Cohen & Leviathan, 1990, p. 128), provides the foundations for a successful environmental strategy.

2. Sustainable Development

Sustainable development is clearly defined in the Brundtland Report as a development that meets the needs of the present without compromising the ability of the future generations to meet their needs. Sustainability is about paying attention to activities as they impact on the environment. According to Laszlo and Zhexembayeva (2011). Sustainability is the incorporation of environmental, health, and social value in the company's core business with no trade-off in price or quality. Therefore firms need to include sustainability in decision making regarding all activation taking place in the whole supply chain.

2.1 Drivers of Sustainability

According to Bansal and Roth (2000), there are three environmental related issues; among them two are institutional, namely legal and societal related, and one is economic rational which addresses the financial benefits the company gains by becoming sustainable. First driver is the role of legislation because companies try to fulfill the requirements to avoid fines and other legal costs (Cordano & Frieze 2000). Nidumolu et al. (2009) emphasize on the point that although some companies think it is good to practice the lowest environmental standards, it is beneficial for them to have proactive approach to adapt the strictest rules and regulations before governments force them to comply; this will give them the advantage of first movers who can see the opportunities first. Additionally, firms follow proactive approach to adapt environment related activities to better understand and predict legal issues and keep themselves competitive (Aragón-Correa & Sharma 2003). According to King and Lenox (2000) clear sanctions are, too, necessary for firms to respond and address this issue more quickly; otherwise they may take actions slowly which destabilizes ecological performance. The second force is driven by stakeholders, customers, local communities and environmental groups as well as the natural environment; these put pressure on companies to reduce their negative impact on environment when making decisions (Berry & Rondinelli 1998). The third driver is economic. Companies which perform eco-efficiently can decrease their operating cost by minimizing waste; conserving energy, reusing materials and focusing on life cycle costs (Porter & Linde 1995).

The three drivers are illustrated in figure 1 and explained below:

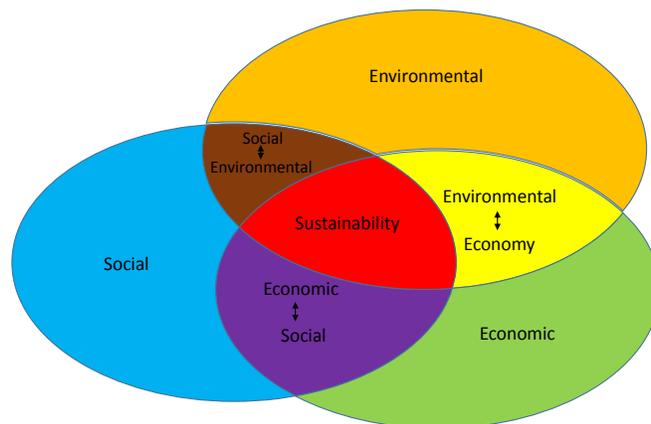


Figure 1: Sphere of Sustainability (Adapted from the 2002 University Michigan)

Economic

In the economic aspect, there are certain things companies must consider as well as some questions that should be asked (Elkington 1999). There must be an extended knowledge of what the economic capital is. The traditional definition is assets minus the liabilities, but there are other factors that need to be considered such as the human capital, the intellectual capital and the natural capital in long-term (ibid). This emphasizes on the fact that sustainable companies must take responsibility towards not only shareholders, maximizing their profitability, but also towards a wide range of stakeholders in consideration of the social and environmental bottom lines (ibid).

Environmental

Earlier, natural capital was mentioned; this is part of the environmental bottom line. The meaning of natural capital does not only include price and amount of the natural resources the organization has, but there must also be an extended knowledge of it (Elkington 1999). The organization must consider the effects the natural capital has on the environment when it is used or harvested (ibid). There is a need for legislation to make companies more responsive to environmental challenges (ibid).

Social

Social drivers relate to social structures and Institution that shape people's preferences behaviour and possibilities (UNRISD, 2013). Social structures include forms of socio stratification, Institutions include the formal and informal rules that pattern the behaviour of people. The social capital is an important part of the social bottom line. It reflects on the human capital in terms of their education, expertise and health (Elkington 1999). It is also important that it gives an extended knowledge regarding the potentials of society's health and welfare (ibid). In order for corporations to work well in the society, a trust must exist between the corporations and the stakeholders (ibid). In order for the long term sustainability to work, companies must have a level of trust in the stakeholders and vice versa (ibid). Corporations are part of society; consequently, they must take responsibilities on the areas which they affect (ibid). Although,

making profit is the first purpose of a business, companies must also take social responsibilities into the account (O'Donovan 2002).

3. Competitive Advantage

According to Porter (1998), competitive advantage initially comes from the value that a firm is capable of creating for its customers; which is higher than the cost of creating it. Firms can gain a competitive advantage on two bases: cost leadership and differentiation (ibid). In gaining competitive advantage companies must get the critical knowledge and information (Guo 2007) regarding the nature of competition and the fast pace changing needs of customers. It is also necessary for companies to develop new resources, capabilities, and activities; because of the scarcity of natural resources (Rodriguez et al. 2002). By doing so, following the path of innovation, firms will gain a competitive advantage that is long-lasting.

Competitive advantage describes the advantage a company has over other companies, which compete in the same market (Burn, 2008). It can be explained as the resources and features of a company that helps it to do better than their competition. (Chahabaghi & Lynch, 1999; Sharp 1991; Leaning, 2009). It's the attributes that a company can deliver over its competitors in terms of both tangible and intangible assets. A competitive advantage can be any innovation, product, service, patent or anything else that differentiates the company in a positive way from the rest of the competition (Rijamampianana et al., 2003).

Competitive advantage results from a firm's ability to perform the required activities at a collectively lower cost than rivals, or perform some activities in unique ways that create buyer value and hence allow the firm to command a premium price (Porter, 1991). An important feature of competitive advantage is the way activities fit and reinforce one another. Since strategy involves the whole system of activities performed by a firm, and not a collection of parts, one activity's cost is lowered because of the way other activities are performed. Similarly, one activity's value to customers can be enhanced by a firm's other activities (Porter, 1996).

3.1 Environment-friendly construction practices as a competitive advantage

Business strategy aims to ultimately create a competitive advantage for the firm. There are two basic types of competitive advantage: lower cost than rivals or the ability to differentiate and command a premium price that exceeds the extra costs of doing so (Porter 1991 cited in Ngwo, 1999). In other words, superior profitability can only logically arise from commanding a higher price than rivals can or enjoying lower costs. Competitive advantage is attained within some scope and the choice of scope is a central one in strategy. A firm's strategy defines its configuration of activities and how they interrelate.

To create a competitive advantage using environment-friendly building practices, the whole life-cycle of the building should, therefore, be the context under which these practices are carried out. Environmental improvement efforts have traditionally focused on pollution control through better identification, processing, and disposal of discharges or waste. More recently, some firms and regulators have embraced the concept of pollution prevention (source reduction) which uses such methods as material substitution and closed-loop processes to limit pollution before it occurs (Federle 1993, Bossink & Brouwers 1996.). However, because these steps are mandatory, they do not provide competitive advantage to the firms that adopt them. What will ultimately create competitiveness is when a firm includes the opportunity costs of pollution, reducing wasted resources, wasted effort, and diminished product value to the customer in its strategy. A firm may, therefore, create competitive advantage through using resources productively in a way that is different from its rivals'. Like defects, pollution reveals laws in the product design or production process. Efforts to eliminate pollution can, therefore, follow the same principles widely used in quality programmes: use inputs more efficiently, eliminate the need for hazardous, hard-to handle

materials, and eliminate unneeded activities (Porter, 1995). Building firms can improve resource productivity by producing buildings more efficiently or by installing building services that are more valuable to customers services and customers are willing to pay more for. It is important to use resources productively, whether those resources are natural and physical or human and capital. Environmental progress demands that firms innovate to raise productivity. This may be a problem for developing countries, which by virtue of their limited intellectual resources may not be able to create competitive advantage through productivity innovation. However, these countries may create competitive advantage by using environmentally harmonious technologies that are based on such natural resources as solar power, wind and rainwater, which are often in abundance in most rural communities.

3.2 Sustainability as a Competitive Advantage

The ‘word’ sustainable contributes the necessary time component to the concept of competitive advantage. Adding the word sustainable in front of a competitive advantage is a way to describe a firm’s lasting success in the market (Kananpully & Diddy, 1999). Sustainable considers the protection of resources over a period of time into the future for the organizations to maintain its competitiveness (Chahabaghi & Lynch, 1999). To sum up, businesses must incorporate TBL into their overall strategy, if they are to become sustainable. The link between the terms sustainable and competitive edge seems to be rather complex. Due to the word’s highly dynamic global market place, sustainable competitive advantage is somewhat of an oxymoron. Hence, all three aspects of economic, environmental and social need to be considered by companies in order to satisfy the interests of not just shareholders but also all stakeholders. Sustainable competitive edge is more than just one product or service but the existing products and services which can make a company successful (Oliver, 2000).

Today, the nature of competition has changed due to the quest for sustainability; therefore companies that gain the knowledge of this changing environment and set the sustainability as their goal will enjoy the advantages of first movers (Nidumolu et al. 2009). In this global competitive marketplace, acquiring critical knowledge and information is the key element in company’s survival and gain of competitive advantage in both domestic and international arena (Guo 2007). In addition to this, Rodriguez et al. (2002) emphasize on the importance of the fact that natural resources are scarce; consequently, firms need to think of developing new capabilities, resources and activities. Companies also have to be responsible towards the society and develop social resources that will result in creation of sustainable competitive advantage (ibid). According to Guo (2007), superior performance and long-lasting superior performance are believed to create competitive advantage and sustainable competitive advantage, respectively. Moreover, to gain a sustainable competitive advantage, firms need to adopt a long term proactive environmentally friendly approach (Aragón-Correa & Sharma 2003). Managers must set a strategy which is consistent and one that encourages simplification of contradictory environmental challenges (ibid). Appropriate organizational and managerial knowledge has to be developed in order to affect the existing interface between business and natural environment, as well as encouraged continuous learning (from various stakeholders), innovation, and growth (ibid).

4.1 Case 1: Starbucks

The Starbucks Corporation is an exceptional company that has a relatively long history of having many prolonged competitive advantages. Their sustainable competitive advantages are almost unmatched in terms of longevity and their core product.

Financial gain: Starbucks stock’s price rose from \$2 in 1995 to a value near \$39 in 2006 (Capital; R, 2008 cited in)

Expansion: Starbucks business concept seems to be working out fantastically well from both a commercial and social point of view. By the year 2007, the Starbucks Corporation had become the largest

coffee retailer in the world (Michelle, 2007). Its numbers were definitely impressive, operating more than 15,000 store locations around the world and revenues of about \$9 billion (Starbucks 10k, 2007)

Innovations: Starbucks has had many innovations, coffee based and non- coffee based alike, throughout their history that has contributed to their success. The innovations have greatly expanded the menu at Starbucks where there is a variety of flavoured syrups, topping and even different types of milks to choose from adding up to over 87,000 possible drink combinations (Starbucks Nutrition Info, 2009).

Relationship Marketing: Starbucks Philosophy has been to take good care of their employees and they believe the employees will in turn take good care of the customers. If the customers are happy they will be frequent at the store and the subsequent profits will in turn please the shareholders (Shlutz & Yang, 1997; UCLA & Schlutz, 2008).

4.2 Case 2: IKEA

An integral part of the business at IKEA is sustainability. The company started reporting on its sustainability from 2005 onward. As part of its sustainability program, IKEA started the partnerships with organizations such as WWF to cope with the environmental aspect of CSR, and UNICEF and Save the Children to cope with the social aspect of it (IKEA 2010a, p. 65). Moreover, IKEA works together with trade unions, NGOs as well as other organizations to improve the organization's impact on both society and environment at local, national and global levels (IKEA 2010a, p. 15). Above all, IKEA has created a directive called —IKEA Sustainability Direction for the Fiscal Year 2015; which is a guideline to assist them to achieve their goals by moving everyday operations to the right direction in all levels of value chain; they do this by creating a set of orders in five key areas, namely product development and sourcing of raw materials of home furnishing and food products, production and distribution, marketing, stores and shopping centres, and the products end-of-life” (ibid, p. 8).

In addition, the company uses the e-wheel to ensure the product safety, quality and environmental impact throughout the product's life cycle (IKEA 2006).

Innovation

IKEA's president and CEO, Mikael Ohlsson, emphasizes on the importance of innovation as a tool for sustainable solutions by stating that "*Innovation is needed to build sustainable solutions into the IKEA range*"(IKEA 2009, p. 4). In addition, IKEA relies on the company's own co-workers for new designs and product innovation; it creates the atmosphere in the factory where everybody feels free to share ideas and exchange information (IKEA 2010a, p. 17).

Innovations: Furthermore, Mikael Ohlsson states that "*We see sustainability as a catalyst for further innovation and change within IKEA. It will transform the way we economise with resources and do business, for future generations and continuing success. IKEA is always about working together – customers, co-workers and suppliers.*" (IKEA 2010b, p. 15)

Flat packaging: Now IKEA designs flat packs because it makes possible to load more material on vehicles, thus save costs (IKEA 2009, p. 27 & 49). By using flat packs IKEA can transport more products by using less number of vehicles which will reduce CO2 emission (ibid).

Use of less raw materials: IKEA use less raw materials to more products. Few years ago they were producing 13 boxes from one tree but later produced 23 from one tree. (IKEA 2010a). IKEA replaced some wood with air, using a technique called board on stiles instead of the traditional 18mm chipboard and this enables them to produce twenty three STUVA boxes instead of thirteen from one tree (Ibid).

Recycling and IKEA'S policy: IKEA recycled materials to make new product such as TEPPAS drawer. (IKEA 2009)

Minimization and use of waste: Minimization of waste in the production process is one of IKEA's goal and they are trying to use the waste in manufacturing of other goods (IKEA 2009). They use every trunk to make something useable.

Removal of toxic substances: The Company use total chlorine free (TCF) paper for publication of colour catalogue. It was one of the initiatives taken by IKEA (IKEA, 2009).

5. Conclusion

The literatures reveal that sustainable competitive advantage is a way of explaining a firm's lasting success in the business. Competitive advantage is as a result of a firm's sustainability practice; ability to perform activities in a unique ways to create buyer value and sustain a premium price.

Also the case studies shows how the two firms used innovations, use of less raw materials, recycling, removal of toxic substance in their business to bring about sustainability which in turn gives them competitive advantage.

In conclusion, it could be said that there is a link between sustainability and competitive advantage and sustainability brings about competitive advantage. Therefore, it is profitable things for a company to thrive towards sustainability to sustain their business.

6. Acknowledgements

This study is supported by University of Johannesburg Research Fund

Reference

- Aragón-Correa, J.A. & Sharma, A Contingent Resource-Based View of Proactive Corporate Environmental Strategy. *Academy of Management Review*, 28 (1), 71-88, 2003
- Bansal, P. & Roth, K., Why Companies Go Green: a Model of Ecological Responsiveness. *Academy of Management Journal*, 43 (4), 717-736.2000
- Berry, M.A. & Rondinelli, D.A., Proactive corporate environmental management: A new industrial revolution. *Academy of Management Executive*, 12 (2), 38-50.1998
- Bossink B.A.G. & Brouwers HJH , Construction waste: quantification and source evaluation. *Journal of Construction Engineering and Management* 1996;122(1):56-60, 1996
- Burns, P. *Corporate Entrepreneurship – Building the Entrepreneurial Organization*, New York, NY: Palgrave Macmillan. 2008
- Capital IQ, www.capitaliq.com
- Chaharbaghi, K., Lynch, R., Sustainable competitive advantage: towards a dynamic resource-based strategy, East London Business School, MCB UniversityPress. 1999
- Cohen, W. M., & Levinthal, D. A., Absorptive-capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35, 128-152. 1990
- Cordano, M. & Frieze, I.H., Pollution Reduction Preferences of U.S. Environmental Managers: Applying Ajzen's Theory of Planned Behaviour. *Academy of Management Journal*, 43 (4), 627-641. 2000
- Guo, C., Sustainable Competitive Advantage an Achievable Holy Grail: The Relevance Gap between Academia and Business. *Journal of Business & Management*, 13 (2), 115-126. 2007
- Elkington, J., *Cannibals with forks: the triple bottom line of 21st century business*. Oxford: Capstone. 1999
- Federle M. O, Overview of building construction waste and the potential of materials recycling. *Building Research Journal*. 1993
- IKEA , *Sustainability Report 2006*.
- IKEA, *Sustainability Report 2009*.
- IKEA, *Sustainability Report 2010*.

- Learning For the Sustainable Enterprise: How Investment in Learning Drives Long Term Competitive Advantage. *Workforce Management*, 88(5), S7.ABI/INFORM Global database, 2009 April
- Laszlo, C. & Zhexembayeva, Embedded *sustainability - the next big competitive advantage*. Stanford, CA: Stanford University Press, 2011
- Nidumolu, R., Prahalad, C.K. & Rangaswami, M.R., Why Sustainability is Now the Key Driver of Innovation. *Harvard business review*, 87 (9), 56-64, 2009
- Ngowi, A.B. , Creating competitive advantage by using environment-friendly building process, *Building and Environment* 36 (2001)
- O'Donovan, G., Environmental disclosures in the annual report. *Extending the applicability and predictive power of legitimacy theory*, 15 (3), 344-371, 2002
- Porter ME. Towards a dynamic theory of strategy. *Strategic Management Journal*1991;1(12):91-117.
- Porter M.E, Van der Linde. Green and competitive. *Harvard Business Review* 1995;September(October):12034, 1995
- Porter M.E., What is strategy? *Harvard Business Review*, 1996
- Porter, M.E.,*Competitive advantage: creating and sustaining superior performance: with a new introduction*. NY: The Free Press., 1998
- Porter, M.E. & van der Linde, C., Toward a New Conception of the Environment-Competitiveness Relationship. *Journal of Economic Perspectives*, 9 (4), 97-118. 1995
- Rijamampianina, R., Abratt, R., February, Y., 'A framework for concentric diversification through sustainable competitive advantage', *Management Decision*, vol. 41, issue 4:362-371.2003
- Rodriguez, M.A., Ricart, J.E. & Sanchez, P., Sustainable Development and the Sustainability of Competitive Advantage: A Dynamic and Sustainable View of the Firm. *Creativity & Innovation Management*, 11 (3), 135-146.2002
- Sharp, B. Competitive Marketing Strategy: Porter Revisited. *Marketing Intelligence & Planning* Vol. 9, Issue 1, pp.4-10. Retrieved April 29, 2009, from Emerald Insight.1991
- Starbucks 10K , Starbucks Annual Reports 1992, 1995, 1998, 1999.
- Starbucks Corporation, "Starbucks Coffee Company Outlines Core Strategies to Continue Delivering Long-Term Shareholder Value in Sixth Biennial Conference," Press Release, October 5, 2006.

Biography

Elizabeth Ojo is a doctorate student in Engineering Management from the University of Johannesburg, South Africa. She also holds a Higher National Diploma (HND) in Building Technology, Lagos State Polytechnic, Lagos, Nigeria and a Masters in Project Development and Implementation, University of Ibadan, Oyo State, Nigeria. She has published several papers in peer-reviewed conferences. She has about eight (8) years working experience on the field, worked at private Construction Company in Lagos, Nigeria as a Site Engineer and Project Manager, Also worked with Association of Consulting Architects Nigeria as Administrative/Facility Manager before proceeding for her doctorate study. Her areas of Research interest are construction management, supply chain management, Green Economy and sustainability.

Professor Charles Mbohwa is the Vice Dean of Postgraduate Studies, Research and Innovation, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa. As an established researcher and professor in sustainability engineering and operations management, his specializations include renewable energy systems, bio-fuel feasibility and sustainability, life cycle assessment, and healthcare operations management. He has presented at numerous conferences and published more than 150 papers in peer-reviewed journals and conferences, 6 book chapters and one book. Upon graduating with a BSc in Mechanical Engineering from the University of Zimbabwe in 1986, he served as a Mechanical Engineer at the National Railways of Zimbabwe, Zimbabwe. He holds an MSc in Operations Management and Manufacturing Systems from the University of Nottingham, United Kingdom, and completed his doctoral studies at Tokyo Metropolitan Institute of Technology, Japan. Professor Mbohwa was a Fulbright Scholar visiting the Supply Chain and Logistics Institute at the School of Industrial and Systems Engineering, Georgia Institute of Technology. He has been a collaborator with the United Nations

Environment Programme, and a Visiting Exchange Professor at Universidade Tecnológica Federal do Parana. He is a fellow of the Zimbabwe Institution of Engineers and a registered Engineer with the Engineering Council of Zimbabwe.

Professor Esther Akinlabi is the current Head of Department, a young National Research Foundation (NRF) rated researcher and an Associate Professor of Mechanical Engineering in the field of Manufacturing systems and production, Materials processing, Characterization and Mechanical Properties of Materials, Metal Matrix Composites, Laser Additive Manufacturing and Laser Material Processing, Design and Process Optimization of Mechanical and Manufacturing Processes, Surface Engineering and Modifications, Wear and Corrosion of processed materials, Failure analysis and structural integrity of metal, Metal Matrix Composites, Welding Processes – Friction Stir Welding and Laser Welding processing and sustainability engineering. Professor Akinlabi has demonstrated excellence in all fields of endeavors. In addition, she has been a reviewer to many reputable peer-reviewed Journals and Conferences and has been an external examiner to many Masters' dissertations and PhDs' theses both nationally and internationally. Prof Akinlabi has been able to strike the right balance between teaching and research and she is a recipient of several research grants.