

# Human Capital and Sustainable Organizations: A Review

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**Abstract:** *While unsustainable business practices have increasingly led to environmental degradation, human capital stands out as a valuable asset for value creation and organizational sustainability. Sustainability argument is a current debate in world forums, management meetings, political and social arenas as well as in academics. Concerns on environmental degradation, global warming, pollution and climate change has compelled developed and developing countries to embark on training and development programs as well as green HR practices to protect the present and future generations. This paper seeks to establish the relationship between human capital and organizational sustainability in order to understand what it is, how it is, what should be done about it, and how quickly we need to act. Review of related literature indicates that human capital has a positive and significant relationship with economic and environmental sustainability in manufacturing firms. Green HR practices are also found to save money, reduce costs, lead to environmentally-friendly decisions, green talent pool, and employee retention by 61%; and provides that 71% of Americans consider environment while shopping. Thus, investing in human capital through training and development as well as integrating green HR practices will lead to organizational sustainability. Organizations should strike a balance between social, economic, and ecological objectives by practicing Triple Bottom Line as a long-term investment to preserve mother earth, meet present needs without compromising needs of the future generations.*

**Keywords:** human capital, sustainability, sustainable organizations, green HRM, Resource-based View (RBV), core competence theory, Triple Bottom Line.

## 1. Introduction

Human capital is an intangible asset regarded by the World Economic Forum (2013) as a tool for value creation and sustainable organizations in the 21<sup>st</sup> century. In the global economy, talent scarcity is a threat to sustainable development such that human resource strategies are more and more focusing on employee training on issues of responsibility, social and environmental dilemmas, negotiations, problem solving and responding to increasing stakeholder demands (Kola-Olusanya, 2013). With increasing cases of environmental and natural disasters such as tsunami, hurricane, famine, desertification, global warming and general climate change; individuals, organizations, and governments are concerned about the fate of the future generations if the trend is not reversed. Kola-Olusanya (2013) further explains that organizations have a duty to meet their current needs without endangering the needs of the future generations by practicing sustainable development and striking a balance between economic, social, political, and ecological objectives. On this regard, employers are vigorously searching for employees who are creative, innovative and possess adequate technical skills for managing global change especially in rapidly growing economies like Kenya (Odhon'g & Omolo, 2015; Republic of Kenya, 2007). Although industrialization has greatly improved the world economy through new innovations that have changed the world for the better, there are many challenges that include depletion of natural resources, carbon emission, and all kinds of pollution (Pathak, 2015). Kola-Olusanya (2015) observes that while unsustainable patterns of development is making life unbearable and unpredictable for the future generation; human resource development should be more concerned with knowledge management and training for increased environmental awareness and sustainable organizations.

## 1.1. Background of the Study

The World Business Council for Sustainable Development (2005) define sustainability as meeting the needs of people today without compromising the ability of future generations to meet their own needs. As global concerns on environmental degradation escalate, organizations are adopting sustainable operations through green policy formulations since strict international standards are being implemented (Mehta & Chungan, 2015). Green HRM as defined by Prasad (2013) refers to integrating HR policies and practices that encompass broader corporate and environmental agenda to protect and preserve natural resources. Thus, green HR practices include green policies and green culture on employee recruitment, selection, performance management, training and development, and compensation. In the green gap trend tracker survey, Dailey (2014) found that 71% of Americans consider the environment while shopping; therefore businesses that adopt good environmental practices improve sales and reduce costs in the long-term. Wirtenberg, Harmon and Fairfield (n.d.) and Kochan, Appelbaum, Leana and Gittell (2013) add that it is no longer adequate for organizations to focus on business sustainability in terms of only increasing shareholder value, but also a way of balancing social, environmental and economic factors in order to achieve sustainable business and environment.

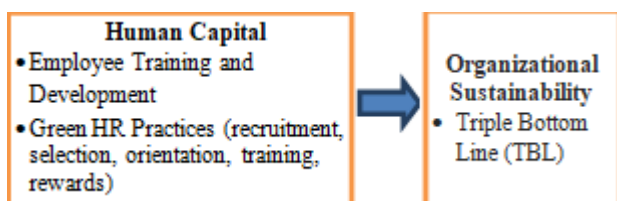
According to F-Jardon & Gonzalez-Loureiro (2013) human capital is an organization's source of competitive advantage that is related with value, rareness, inimitability and non-substitutability. Human capital is defined as the sum of knowledge, skills, abilities (KSA) and other characteristics of individuals accumulated through education and training (Polyhart & Moliteno, 2011; Odhon'g & Omolo, 2015). Marimuthu, Arokiasamy and Ismail (2009) provide that human capital is a fundamental factor for accessing global

markets and therefore developed and developing countries are allocating more time and money for human capital development. Companies as well are investing on the workforce as a competitive advantage through comprehensive human capital training and development programs. Marimuthu et al., (2009) further acknowledge that the rapidly changing environments require that the workforce have adequate knowledge, skills and competencies. Kochan et al., (2013) explain that human capital training on quality outcomes in large manufacturing firms such as auto assembly and steel mills shows significant performance improvement of 15-30%. This review of literature seeks to establish the link between human capital and organizational sustainability in order to explain what it is, how it is, what should be done about it and how quickly we need to act.

## 1.2. Problem Statement and Gap in Research

While sustainability initiatives are meant to ensure that the dreams and aspirations of the present generation does not endanger the safety and well-fare of the future generation; unsustainable business practices such as increasing shareholder values at the expense of others and the environment are common phenomena (WEF, 2013; Wirternberg et al., n.d; Kochan et al, 2013; Ekanem, 2017). Moreover, the industrial revolution, though it has greatly improved the world economy; has also brought about many unsustainable practices in organizations. Pathak (2015) points to the case of Nigeria's oil rich region of Niger Delta and issues of MNEs dumping waste materials and chemicals in waterways as a major environmental and sustainability debate. Ekanem (2017) argues that human capital remains a valued asset and organization's machine for generating innovative ideas, however, lack of training and development results into ineffective organizations and unsustainable business practices. The study by Ekanem further revealed that Human capital has a positive and significant relationship with economic and environmental sustainability in manufacturing firms. Correlation between human capital and economic sustainability,  $\tau_{b} = .412, n = 98, p < .05$  shows that enhancing human capital of the firm will positively influence their economic sustainability. Correlation between human capital and environmental sustainability,  $\tau_{b} = .365, n = 98, \text{ and } p < .05$ ; hence, human capital has positive effect on environmental sustainability. Therefore, there is need to invest in human capital for organizational sustainability so as to create value for the present and future generations by changing people's attitudes through training and green culture policy formulation.

This study, therefore, explores on the concept of human capital as an important asset for sustainable organizations.



**Figure 1:** Conceptual Framework  
Source: Researcher's Compilation, 2017.

## 1.3 Objective of the Study

The main objective of the study is to review existing literature so as to establish whether human capital is a valuable asset in organizational sustainability.

## 1.4 Research Questions

The following research question has been formulated in order to guide the study on human capital and organizational sustainability.

Is there a significant relationship between human capital and organizational sustainability?

## 1.5 Research Hypothesis

**H0:** There is no significant relationship between human capital and organizational sustainability.

## 1.6 Limitations and Delimitations

The study is limited to secondary data obtained from only 16 journal articles (see matrix review) which may not fully represent the existing research gaps in human capital and organizational sustainability.

## 1.7 Definition of Terms

To guide the reader, key words have been defined as operationalized in the research as follows:

- **Core competence** – is a unique capability acquired by a firm over a period of time in forma of a resource, operations facility, specially skilled manpower, technology know-how, and service delivery that give the firm sustainable competitive advantage (Ekanem, 2017).
- **Green HRM** – is the process of integrating HR policies and practices to encompass broader corporate and environmental agenda with the main aim of protecting and preserving resources (Prasad, 2013).
- **Human Capital** – is the sum of knowledge, skills, abilities (KSA) and other characteristics of individuals accumulated through education and training (Polyhart & Moliteno, 2011; Odhon'g & Amolo, 2015).
- **Organizational Sustainability** – is an important rating factor and driver of growth, profitability, value creation, social relations builder and a survival tool for organizations globally (Ekanem, 2017).
- **Resource-based View** – is a theory that focuses on human resources and the way they are deployed by management in organizations, how they contribute to the creation and development of value within the firm (Ekanem, 2017).
- **Sustainability** – meeting the needs of people today without compromising ability of future generations (World Business Council for Sustainable Development, 2005).
- **Triple Bottom Line** – sustainability concept for integrating organizational objectives on profits, people and planet (Hami, Mahamad & Ebrahim, 2014).

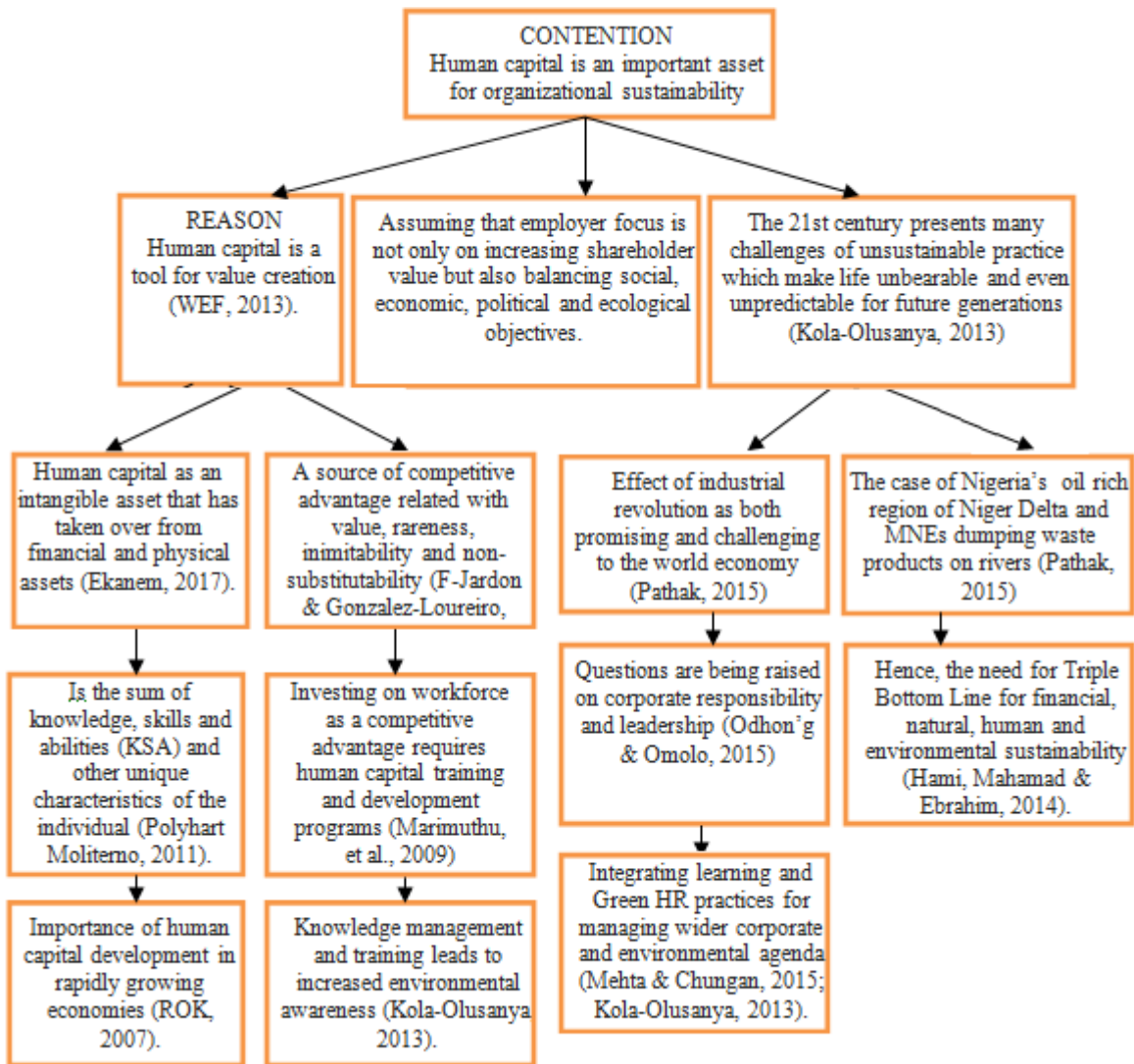


Figure 2: Argument Map

Source: Researcher, 2017

## 2. Review of Literature

### 2.1. Organizational Sustainability

Sustainability argument is one of the latest debates in the 21<sup>st</sup> century world forums due to increased cases of environmental and natural disasters in the last few decades (Kola-Olasunya, 2013). Slaus and Jacobs (2011) provide that sustainability problem has evolved to the level where human life and natural resources are endangered. Slaus and Jacobs believe that the only way to deal with this challenge is through social evolution by changing the way people perceive, think, and self-reflect about the wider ecological context. According to Ekanem (2017) organizational sustainability concept is a prominent topic in management that often attracts debates in the media, management meetings, political arenas and academics. The effect of global warming and climate change has raised concerns among individuals and organizations on the fate of present and future generations; hence some manufacturing firms have been compelled to adopt sustainable operations through green policy formulation (Mehta & Chungan, 2015). As a result, some organizations, especially in the manufacturing firms have embraced Triple Bottom Line (TBL) initiatives so

as to strike a balance between economic, social, political and ecological objectives (Hami, et al., 2014). Willard (2010) also recommends TBL initiatives and stresses the importance of integrating the environment, economics and equity for sustainable organizations.

Sustainability may mean different things to different people, but the World Business Council for Sustainable Development (2005) defines sustainability as initiatives for meeting the needs of present generation without endangering future generations to meet their own needs. Wirtenberg et al., (n.d.) explains that it is no longer adequate to focus on business sustainability in terms of increasing long-term shareholder value, but also balance social, economic and environmental objectives for sustainable organizations. Since organizational sustainability has gradually become an important rating factor for growth, profitability, value creation, social relations and survival tool for organizations; it is therefore very important in strategic decision making process (Ekanem, 2017).

The study by Mehta and Chungan (2015) indicate that adopting environmental practices saves money, reduces costs, lead to environment-friendly decisions, green talent pool, employee retention by 61%, improved sales, customer

awareness towards environmental responsibility e.g. 71% of Americans consider environment when they shop (Dailey, 2014). Dailey cites that the Nokia report of 2013 on green policies provides that shifting from air to ocean transport led to (80%) reduction in carbon dioxide and recycling processes reduced carbon dioxide by 30,000 tonnes. However, awareness campaigns and videoconferencing increased by (54%), waste treatment (30%), green operations (40%), energy efficient chargers (73%), product life-cycle assessment (50%). In addition, Ulus and Hatipoglu (2016) also found a positive link between human factors and organizational sustainability but argue that deep employee involvement is required for any change to happen.

## 2.2. Human Capital

Human capital is deeply rooted in macro-economic development theory unveiled in 1993 Becker's book entitled *Human Capital: A Theoretical and Empirical Analysis*, with a special reference to education, computer training, medical care workshop training on virtues such as punctuality and honesty. As cited in Marimuthu et al. (2009), Becker considers education and training as the most important investment in human capital with good returns. As a tool for value creation and sustainable organizations, human capital is equated to a machine that generates innovative ideas, provide competitive advantage and lead to economic and environmental sustainability (WEF, 2013). The Resource-Based View (RBV) provides that competitive advantage comes from aligning skills, motives, etc., with organizational structures, systems, and provide capabilities to the organization as core competence (Prahalad & Hamel, 1990). As evident in the study by Ekanem (2017) human capital has a positive and significant relationship with economic and environmental sustainability in manufacturing firms in Rivers State, Nigeria. Correlation between human capital and economic sustainability,  $\tau_b = .412$ ,  $n = 98$ ,  $p < .05$  shows that enhancing human capital of the firm will positively influence their economic sustainability. Correlation between human capital and environmental sustainability,  $\tau_b = .365$ ,  $n = 98$ , and  $p < .05$ ; also indicate that human capital positively influence environmental sustainability. Paille, Chen and Boiral (2013) also agree that strategic human resource management has significant and positive effect on environmental performance. However, Surnardi, Bangun and Tjakraamadja (2013) note that human capital initiatives are often affected by the way policies, procedures and programs are developed and implemented.

### 2.2.1. Employee Training and Development

The global economy presents challenging situations for both employers and employees in the 21<sup>st</sup> century where emerging business trends compel leaders to focus on HR strategies that empower human resources with skills needed to manage ethical dilemmas in the workplace (Odhong & Omolo, 2015). Due to increased environmental degradation and global warming, human resource development functions are more concerned with employee training and development as a key to sustainable organizations; despite unsustainable patterns of development across the globe (Kola-Olasunaya, 2013). Hami et al., (2014) add that learning has become an important element of social responsibility as well as sustainability in organizations

where emphasis is on managing renewable resources, reduce waste and pollution, use solar energy, and invest in repairing damage done to mother earth.

Training is essential for managing social and environmental dilemmas that arise in leadership, teamwork, negotiations, problem solving and stakeholder demands (Kola-Olasunaya, 2013). McGuire (2010) posits that training helps staff and management to disseminate positive messages on sustainability and develop affective commitment towards an organization, identify with its values, involve in, and have emotional attachment to the organization and its surroundings (Kola-Olasunaya, 2013). Odhong & Omolo (2015) found a positive significant relationship between human capital and organizational performance where mean: training (1.04), education (1.95), knowledge management (2.26), and skills development (2.31). There was a strong positive correlation between training and education (0.60); training and knowledge management (0.66); training and skills development (0.63); skills development and education (0.57). Regression results shows that training, education, knowledge management, and skills development jointly determine organizational performance in pharmaceutical industry in Kenya where the F-statistic which is the measure of joint determination has an estimated value of 46.7 and probability statistic of 0.000 ( $\text{Prob} > F = 0.000$ ), the four independent variables are jointly important. Adjusted R is 0.49 which means the model explains 48% of the changes in organizational performance.

Another study by Akhtar, Ismail, Ndaliman, Hussain and Haide (2015) investigated the relationship between intellectual capital of SMEs and sustainability and found that intellectual capital has a significant relationship as well as influence on sustainability of SMEs ( $r = .663$ ,  $p < 0.01$ );  $R = .663$ ;  $R^2$  indicates that intellectual capital is causing 44% variation in sustainability ( $R^2 .440$ ). Multiple regression results show that knowledge ( $\beta = 0.301$ ,  $p < 0.01$ ) and innovativeness dimensions of intellectual capital ( $\beta = 0.483$ ,  $p < 0.01$ ) are more influential in creating sustainability for small enterprises.

### 2.2.2. Green HRM Practices

Green HRM practices are defined by Prasad (2013) as the contribution of human resource management policies and practices towards the broader corporate environmental agenda to preserve natural resources. As environmental concerns increase, organizational culture has been widened to embody main assumptions, values, symbols and assumptions that reflect what employer and employee think about environmental sustainability (Mehta & Chungan, 2015). Green HRM programs include policy formulation and implementation to support green culture: recruitment, selection, training and development, rewards, punishments, and employee involvement. Arulrajah, Opatha and Nawaratne, (2015) identified and highlighted several Green HRM practices under the 12 functions of HRM as: job design, analysis, HR planning, recruitment, selection, induction, performance evaluation, training and development, discipline management, health and safety management, and employee relations. These green practices lead to organizational sustainability through green

performance, green teams, green behaviors, attitudes and competencies.

### 2.3 Historical Setting of the Study/Situating the Study in the Discipline

The concept of organizational sustainability originated from 1987 report of World Environmental and Development Commission called Brundland commission (Ekanem, 2017). Ekanem further describe sustainability concept as an important rating factor for growth, profitability, value creation, social relations and a survival tool for enhancing product differentiation in a crowded market. Therefore, sustainability as a concept is of great importance in strategic management decisions especially in manufacturing firms (Ekanem, 2017; Zomorrodian, 2014). In order to fit into global markets, human capital provide a unique competitive advantage in terms of value, rareness, non-substitutability and inimitability (F-Jadon & Gonzalez-Loureiro, 2013). Thus, investing in the workforce through comprehensive human capital training and development programs leads to achievement of business goals as well as long term survival and sustainability (Marimuthu, et al., 2009).

### 3. Findings, Discussion and Recommendations

The following major findings have been generated from the study:

- 1) While industrial revolution has contributed to the growth of global economy; it has also led to unsustainable business practices (Pathak, 2015; WEF, 2013; Ekanem, 2017; Wirtenberg, n.d). This is because employer focus is mainly on increasing shareholder value at the expense of other people and the environment.
- 2) Increased environmental degradation and natural disasters has led to sustainability argument and debates (Kola-Olasunya, 2013). There are many cases of MNEs whose reckless unsustainable practices endanger both the present and future generations through depletion of natural resources, carbon emission, and pollution,
- 3) Human capital is a tool for value creation and sustainable organization (WEF, 2013; F-Jardon & Gonzalez-Laureiro, 2013). Human capital refers to knowledge, skills, and capabilities (KSA) that are valuable in the knowledge economy. In addition, talent scarcity and lack of training threaten sustainability initiatives.
- 4) Emerging global trends have compelled employers to search for unique employee talent (Odhon'g & Omolo, 2015, ROK, 2007). Creativity, innovative culture and learning can create firm-specific core competencies and survival tools.
- 5) Studies reveal that human capital has a positive and significant relationship with economic and environmental sustainability in manufacturing firms (Ekanem, 2017).
- 6) Studies further revealed that Green HR practices saves money, reduce costs, lead to environmentally-friendly decisions, green talent pool, and employee retention by 61%, and also increase sales for example 71% of Americans consider environment when shopping (Mehta & Chungan, 2015).
- 7) There is a positive significant relationship between human capital and organizational performance (Odhon'g & Omolo, 2015; Kola-Olasuny, 2017).

- 8) Intellectual capital has significant relationship and influence on sustainability of SMES (Akhtar, et al., 2015).

Therefore, the researcher concludes that human capital is a tool for value creation as evidently pointed by a growing body of research findings. Organizational sustainability is possible through human capital empowerment initiatives such as employee training and development as well as integrating green HR practices in recruitment, selection, performance management, training and development, involvement, and compensation. Thus, the researcher recommends the following:

- 1) Organizations should strike a balance between social, economic, and environmental objectives by adopting triple bottom line so as to protect the present and future generations.
- 2) MNEs with unsustainable business practices should face heavy punishments and fines.
- 3) Investing in human capital through training and development programs as well as green HR practices.
- 4) Acting responsibly at individual, group, organizational, national, and international level to care for mother earth.

### 4. Acknowledgements

This study borrows ideas from the many insights, discussions, and case studies on topics related to ethics, strategic management, corporate governance, corporate responsibility, leadership issues and sustainability argument. I acknowledge Prof. Sunia and colleagues in DLC, Kenya for their contribution.

### References

#### Journal Articles

- [1] Akhtar, C., Ismail, K., Ndaliman, M., Hussain, J. & Haide, M. (2015). Can Intellectual Capital of SMEs Help in Their Sustainability Efforts, *Journal of Management Research*, 7(2), 82-97.
- [2] Arulrajah, A., Opatha, H., & Nawaratne, N. (2015). Green Human Resource Management Practices: A Review, *Sri Lankan Journal of Human Resource Management*, 5(1), 1-16.
- [3] Ekanem, I. S. (2017). Intellectual Capital and Organizational Sustainability in Manufacturing Firms in Rivers State, *International Journal of Advanced Academic Research, Social & Management Sciences*, 3(4), 1-17.
- [4] F-Jardon, C. & Gonzalez-Loureiro (2013). Human Capital as Source for Sustained Competitive Advantage in SMEs: A Core Competencies Approach, *Economia Seria Management*, 16(2), 255-276.
- [5] Kochan, T., Appelbaum, E., Leana, C. & Gittel, J. (2013). The Human Capital Dimensions of Sustainable Investment: What Investment Analysts Need to Know. Working paper prepared for the Sustainable Investment Research Initiative Sustainability and Finance Symposium, June 7, 2013. Center for Economic and Policy Research (cepr).
- [6] Kola-Olusanya, A. (2013). Embedding Environmental Sustainability Competencies in Human Capital Training

- and Development, *Mediterranean Journal of Social Sciences*, 4(4), 65-71. *Doi: 10.5901/mjss.2013.v4n4p65*
- [7] Marimuthu, M., Arokiasamy, L. & Ismail, M. (2009). Human Capital Development and Its Impact on Firm Performance: Evidence from Developmental Economics, *The Journal of International Social Research*, 2(8), 265-272.
- [8] Mehta, K. & Chugan, P. (2015). Green HRM in Pursuit of Environmentally Sustainable Business, *Journal of Industrial and Business Management* 3(3): 74-81. *Doi: 10.13189/ujibm.2015.030302*
- [9] Odhongo, E. & Omolo, J. (2015). Effect of Human Capital Investment on Organizational Performance of Pharmaceutical Companies in Kenya, *Global Journal of Human Resource Management*, 3(6), 1-29.
- [10] Paille, P., Chen, Y. & Boiral, O. (2013). The Impact of Human Resource Management on Environmental Performance: An Employee-Level Study, *Journal of Business Ethics*, DOI 10.1007/s10551-013-1732-0
- [11] Slaus, I. & Jacobs, G. (2011). Human Capital and Sustainability, *Sustainability*, 3, 97-154; doi: 10.3390/su3010097.
- [12] Sunardi, O., Bangun, M. & Tjakraatmadja, J. (2013). Human Capital Management Initiative and Organizational Sustainability: Case Study in a Selected Medium-sized Manufacturing Enterprise, *Proceedings Book of ICEFMO, Handbook on the Economics, Finance, and Management Outlook*, pp. 349-356.
- [13] Ulus, M. & Hatipoglu, B. (2016). Human Aspect as a critical Factor for Organizational Sustainability in the Tourist Industry, *Sustainability*, 8, 232; doi: 10.3390/su8030232.
- [14] Wirtenberg, J., Harmon, J., & Fairfield, K. (n.d.). HR's Role in Building a Sustainable Enterprise: Insights from Some of the World's Best Companies, *Human Resource Planning*, 30(1), 10-20.
- [15] Zomorrodian, A. (2014). Strategic Human Capital: Approaches and Models for Achieving Organizational Long-Term Competitiveness and Sustainability. *Proceedings of ASBBS Annual Conference: Las Vegas*, 21(1), 754-771.
- Review, 68(3), 79-91. Prasad, R. S. (2013). Green HRM - Partner in sustainable [1]competitive growth. *Journal of Management Sciences and Technology*, 1(1), 15-18.
- [23] Republic of Kenya (2007). *Kenya Vision 2030: A Globally Competitive and Prosperous Kenya*. Nairobi: Ministry of Planning and National Development and National Economic and Social Council.
- [24] World Business Council for Sustainable Development, University of Cambridge Programme for Industry (2005). "Driving Success: Human Resources and Sustainable Development."
- [25] World Economic Forum (2013). *Human Capital Report*, prepared in collaboration with Mercer, Switzerland.

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### Bibliography

- [16] Becker, G.S. (1993). *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education* (3rd ed.). Chicago: University of Chicago Press.
- [17] Dailey, W. (2014). *Cone Communications Green Gap Trend Tracker*, [11]2013, accessed on December 18, 2014, from <http://www.conecomm.com/>:
- [18] <http://www.conecomm.com/2013-green-gap-trend-tracker-1>
- [19] Hami, N., Muhamad, M. R. & Ebrahim, Z. (2015). The impact of sustainable manufacturing practices and innovation. *Procedia CIRP*, 26, 190 – 195
- [20] McGuire, D. (2010). Engaging Organizations in environmental change: A greenprint for Action. *Advances in Developing Human Resources*, 12(3), 508-523.
- [21] Polyhart, R. E., & Moliterno, T. P. (2011). Emergence of The Human Capital Resource: A Multilevel Model. *Academy of Management Review*, 36(1), 127-150.
- [22] Prahalad, C. K., & Hamel, G. (1990). *The Core Competence of the Corporation*. Harvard Business