

Antecedents towards employees' harmonious habitation of the environment and workplace environment-friendly behaviour: a case of Johannesburg employees within small and medium enterprises (SMES)

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Abstract

Despite the increasing research on green issues within the workplace environment, there is a dearth of studies that have investigated the impact that elements of green intellectual capital and green transformational leadership have on the harmonious habitation of the environment and workplace environment-friendly behaviour. Therefore, this study examines the relationships using a data set of 150 employees working with SMEs in Gauteng Province of South Africa. Seven research hypotheses were postulated, and the hypotheses were empirically tested using sample data from the SME sector in South Africa's Gauteng Province. The collected data was analysed by means of Structural Equation Modelling using Partial Least Squares. The results indicated that the relationship between green human capital, green structural capital, green relational capital, green transformation leadership and employees' harmonious habitation of the environment is positive in a significant way. However, green transformation leadership emerged to have a negative and an insignificant impact on workplace environment friendly behavior. Lastly the findings suggested that employees' harmonious habitation of the environment has a positive and a significant impact on workplace environment friendly behavior. The research paper discusses both academic and managerial implications of the results and future research directions are suggested.

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1. Introduction

With the burgeoning defective impact that the environments we inhabit endure, it has become an increasing cause for concern for organisations to positively influence the behaviours of employees towards their work and external environments (Chiras, 2013). While it is imperative that the dissemination of information among employees takes place to afford them a better environmental acumen, it is even more imperative for those at the reins of driving such initiatives to be vigilant in their execution and implementation of these initiatives (Filho, 2016). Although there have been significant suggestions thus far, on measures that may be employed when confronting the issue of encouraging environment-friendly attitudes and behaviours in employees (Sell & Bryan, 2011; Chandrasekar, 2011; Lee & Brand, 2005), it is essential that each organisation fully understands its own organisational fibre in terms of how best to promote or induce such behaviours. This study therefore seeks to determine how positive attitudes towards the environment can be induced in the employees of the specific organisation(s) under investigation, by adopting a unique approach and methods of inquiry, most pertinent to the organisation.

In the subsequent sections of this paper, the authors outline the main objective and specific objectives of the study as well as research questions, the theoretical framework of this study, a delineation of pragmatic literature sourced from the work of authors who have conducted similar investigations, a conceptualised model customised for this study including hypotheses, the research methods and approach adopted by the study and a discussion of the findings that are unearthed through the process of investigation.

2. Primary objective

According to Perneger and Hudelson (2004) a good research paper addresses a specific research question and the research question or study objective, or main research hypothesis is the central organizing principle of the paper. Therefore, the subsequent section pinpoints the primary objective of the current study.

2.1 Primary objective

To determine the impact that elements of green intellectual capital (green human capital, green structural capital, green relational capital) and green transformational leadership have on the harmonious habitation of the environment and workplace environment-friendly behaviour.

3. Theoretical framework

In this part of the paper, the fundamental theory on which the study is based is critically analysed and delineated. The main theories highlighted in this paper are Human Capital Theory, the Natural Resource based review theory and the Green Theory.

3.1. Intellectual Capital Theory

An understanding of the working definition of intellectual capital is also imperative in the understanding of intellectual capital theory as a whole. Kamarudding and Abeysekera (2013), postulate that intellectual capital is information which can translate into value or intellectual worth, towards the creation of organisational wealth or affluence. A more profound analysis of intellectual capital reveals that authors have dissenting views on how to encapsulate the concept of knowledge (Abeysekera, 2007), thus, such conceptualisations emerging from the literature should be viewed as basic meanings that merely allow a better understanding of intellectual property.

According to Cunha, Cunha, Matos and Thomaz (2015), the world currently operates mainly on a knowledge-based economy and there is a perpetual revolutionizing of information technology and other factors like innovation and telecommunication. The authors also imply that this contemporary economy, founded on information and knowledge has resulted in a growing inquisitiveness concerning intellectual capital theory. If management is to successfully address the challenges surrounding the management of intellectual property, they should initially determine the factors that incumbent in realizing the organisation's competitive advantage and which contribute to the organisation's present and imminent or ongoing value generation (Burton-Jones & Spender, 2011). Cunha, Cunha, Matos and Thomaz (2015) pointed out that there are various research operations that entail intellectual capital theory as well as information technology and the analysis of how these concepts have on performance and innovation. This study uses a similar approach by investigating the influence that green intellectual capital would have on the pleasant habitation of employees in their working environment and their attitude or behaviour towards their environment.

3.2 Natural Resource based view theory

A better comprehension of the natural resource-based view theory is dependent upon understanding the working definition of natural resource-based view theory. According to Akkucuk (2015), this theory is characterised by the association between organisational resources, capabilities and competitive advantages, while encouraging the internal discovery of sources of organisational competitive advantage than external, by finding the most competitive environment for it. Prior to the emergence or establishment of the Natural Resource-based Theory, the mere Resource-based Theory (RBT) was prominent. This RBT highlights the essence of a resource being precious, not easy to come by, unparalleled, and backed by agile abilities or socially intricate organisational processes, in order for it to offer perpetual competitive advantage (Barney, 1991). An observation by Hart (1995) later unearthed the

possibility of the existing RBT being deficient. This view was in consequence of the theory disregarding the association between an organisation and the natural environment in which it exists, although it addressed an array of other noteworthy resources and could more logically be argued in terms of competitive advantage as opposed to prior attempts to do so. (Hart & Dowell, 2011) contend that while it may have been easier to disregard this previously, by 1995 it was already unequivocal what kind of an impact ignoring the natural environment could have on the on-going competitive advantage of the organisation, an oversight that has become even more difficult to make in present day, as suggested then by Hart (1995: 991) who predicted that "it is likely that strategy and competitive advantage in the coming years will be rooted in capabilities that facilitate environmentally sustainable economic activity - a natural-resource-based view of the firm".

The Natural Resource-based Theory contends that there are three pivotal elements namely, pollution avoidance, product custodianship, and maintainable development, each of which has unique environmental motivations, is founded on various fundamental resources and has a diverse source of competitive advantage (Hart & Dowell, 2011). Pollution avoidance, which aims to curtail waste and discharges as opposed to cleaning after them once the process is done, translates into lower costs; product custodianship broadens the horizon of pollution avoidance in order to accommodate the whole lifecycle of the organisation's product processes; and maintainable development strategy has a dual detectable disparity from pollution avoidance or product custodianship strategies. Initially, a maintainable development strategy will not simply attempt to cause less damage to the environment but to create in a manner than can be sustained on a perpetual basis. Secondly, maintainable development, in line with its definition, is not reduced to alarms concerning the environment, but also entails emphasis on economic and social alarms (Hart & Dowell, 2011).

4. Empirical literature

While theories are greatly essential for the sake of establishing where different concepts or phenomena emanate, it is even more imperative for observation of these phenomena in order to determine the extent to which these theories are applicable and also to allow for pragmatic evidence to emerge from investigation and observation, thus possibly giving rise to new theories or additions to existing ones. The sections that ensue therefore delineate the views and findings obtained from research conducted by various scholars in a similar context, to better inform the current investigation and offer a point of reference or comparison with what this research unravels.

4.1 Green Human Capital

Ahmad (2015) explains the latest notable growing consciousness among business sectors regarding the importance of going green and embracing different environment management mechanisms. To ensure more conducive workplace surrounding environments, it is important that the employees or human capital of an organisation have a deeper acumen of green systems, and to actively participate in them. Empirical research previously conducted revealed that individual enabling has an optimistic effect on productivity as well as performance, while also aiding self-regulation, individual rational, and problem-rectifying abilities (Renwick, 2008; Wee & Quazi, 2005). A compelling way to promote human capital participation within the firm is the identification of entrepreneurs internally, who have a social or ecological mindset thus characterizing them as eco-entrepreneurs (Mandip, 2012).

4.2 Green Structural Capital

Green structural capital with regards to organisational culture, organisational image, systems pertaining to knowledge management, information technology systems and databases in which important data pertaining to the environment are stored - for instance, records indicating pollution, as well as the use of water and energy) are integrated in organisational endowment that maintain the management of the organisation's environment and the activity of devising environmental strategies (Salvadó, de Castro, López, Verde, 2013). Chen (2008) conducted an investigation which brought out results indicating that green structural capital has a positive influence on the competitive advantage of organisations.

4.3 Green Relational Capital

Green relational capital has a pivotal duty in the management of an organisation's environment, considering that the dissemination of environmental responsibility is one of the Natural Resource-based

View's keys aims. The advantage of such relationships is depicted by product custodianship mechanisms in which the way the product is designed as well as the cooperation of concerned parties through its chain of significance could result in the organisation's competitive advantage (Salvadó, de Castro, López, Verde, 2013). Investigation by scholars (Rezaei, Izadi, Jokar, Rezaei, 2016; Ribiere & Worasinchai, 2015) showed that there is a positive, though insignificant association between green relational capital and organisational competitive advantage.

4.4 Green Transformational Leadership

Literature suggests that several organisations are still attempting to determine how viable going green would be in their businesses, while others are considering the attractiveness of embracing a green strategy in their organisations. Before the human resources division can even think of going green and integrating green systems in their organisational policies and talent development initiatives, a deliberate and calculated decision to include a green approach to the organisation's anticipated business results must first be taken, through alterations to the internal and outside value chain that significantly influences the ultimate outcomes of the business (Ahmad, 2015). Moreover, Chen and Chang (2013) have opined that green transformational leadership assesses the sustainability of business structures as well as eco-creativity in the worldwide economy. They described or defined green transformational leadership as a group of behavioural tendencies of business leaders when it comes to encouraging their human capital to cultivate and produce environmental-friendly ideas and influence groups to go beyond the environmental-innovation expectation.

4.5 Employees' Harmonious habitation of the environment

In order for employees to harmoniously inhabit the environments in which they operate, it is necessary for environmental awareness or consciousness to be inculcated in them. Evidence implies that consumers in developed countries have a greater sense of environmental responsibility compared to those in developing countries (Paul, Modi & Patel, 2016). Despite this, to avoid greater environmental damage than has already been done, it is pertinent for further research to be undertaken so that there is heightened understanding of Green Product consumer tendencies in less developed nations which exhibit less environmental concern, belief, and dispositions compared to their global equivalents (Singh and Gupta, 2013). The upsurge of worldwide environmental codes of practice and prevalent environmentalism could result in substantial positive influence on organisations globally (Chen, Lai & Wen, 2006).

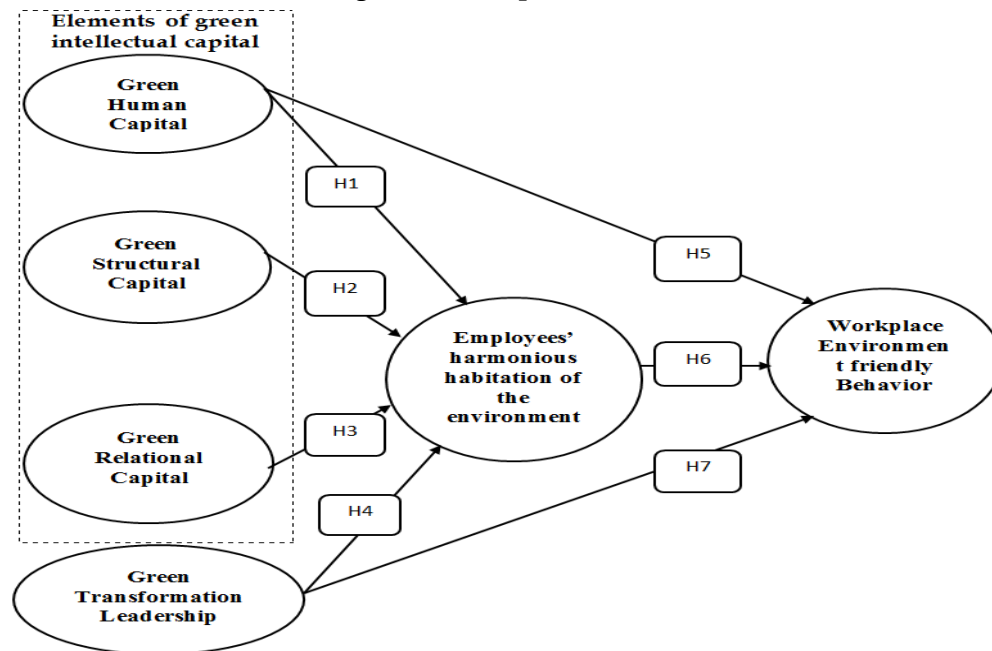
4.6 Workplace Environment-friendly Behavior

The theory of planned behavior is one of the models that delineate the formation of behavioural intents (Sanchez-Medina, Romero-Quintero, & Sosa-Cabrera, 2014). This theory states that intention or willingness to perform is the greatest determining factor of behaviour. Van der Hoek, Hunink, Vellema and Droogers (2011) point out organizations that are introducing sustainability policies to promote environmentally friendly behaviors. According to Paillé and Mejía-Morelos, (2014) if the employee knows that environmental protection is an essential objective of the employer, and if she feels supported by their organization, she is more likely to engage in pro-environmental behaviors in order to reciprocate the benefits that she receives. Therefore, if the employee's environmental values are congruent with those of the organization, reciprocity may play a role, since an employee's environmental workplace behaviors might also help the organization's environmental efforts (Ciocirlan, 2017). Russel and McIntosh (2011) propose that instead installing technology employees of the organization should be trained and motivate to behave in environment friendly manners which are a more prominent approach for sustainable and healthy environment. Environmental behaviors might not always create value for the organization, but create value for the natural environment (Ciocirlan, 2017).

5. Conceptual model and hypothesis development

Figure 1 shows the seven hypothesized relationships in this paper. green human capital, green structural capital, green relational capital and green transformation leadership are the predictor variables, while employees' harmonious habitation of the environment is the mediator, and workplace environmental-friendly behavior is the outcome variable.

Figure 1: Conceptual Model



Hypothesis development

Elements of green intellectual capital and employees' harmonious habitation of the environment

It is imperative to discuss the relationship that exists between the elements of green intellectual capital and employees' harmonious habitation of the environment. Rezaei, Izadi, Jokar and Rezaei (2016) elucidates that green human capital is a set of knowledge, skill, capability, experience, tendency, wisdom, creativity and commitment of employees to protect the environment or green innovation. Paillé, Chen, Boiral, and Jin (2014) points to the importance of human capital in enabling the implementation of a firm-specific strategy toward the environment. For instance, training, appraisal, and rewards contribute to develop employees' motivation to endorse the firm's environmental concerns, enabling it to be more competitive and to reach environmental standards (Paillé, Chen, Boiral, & Jin 2014; Govindarajulu and Daily 2004).

Firms must be able to rely on employees who, on the one hand, accept the responsibility to act for the good of the environment beyond the demands of the job task, and who, on the other hand, are convinced of the importance of environmental issues (Molina-Azorín *et al.*, 2009). Thus, motivated employees willing to go the extra mile can be a source of competitive advantage for firms involved in protecting the environment (Paillé, *et al.*, 2014). In their, their study entitled the role of green intellectual capital on business sustainability, Omar and Yusoff (2017) emphasized that green structural capital has a positive relationship business sustainability, whereby a sustainable enterprise, is an organization that has got employees which supports and engages in minimizing the negative impact on the environment. In addition, Chen and Hung (2014) explained that structural capital offers opportunities for exchanging green knowledge and resources through the structural environment mechanism. Thus, the presence of green structural capital enables employees' harmonious habitation of the environment because there is supportive infrastructure, processes, and databases of the organisation that enable human capital to function in an environmental conscious way. It is also of significance to assess the relationship that exists between green relational capital and employees' harmonious habitation of the environment. Green relational capital refers to the employees, customers, suppliers, and business partners associated with environmental management (Huang & Kung, 2011). In this study, the authors argue that green relational capital may affect employees' harmonious habitation of the environment since employees will be networking with employees from other organizations on the issue of environment management. Green relational capital may reduce organizational costs in many ways, for example, the

higher level of green relational capital will result in better planning, problem solving and troubleshooting, all of which most likely increase production and service delivery efficiencies and, thereby, reduce organizational costs (Kijek & Kijek 2007; Youndt & Snell, 2004). Hence, greater relational capital among employee within small and medium enterprises would facilitate the sharing of green knowledge as trusting relationships build and ultimately this will lead to employees' harmonious habitation of the environment. Therefore, inferring from the literature and the empirical evidence above, it is hypothesized that:

H¹: Green human capital has a positive impact on employees' harmonious habitation of the environment

H²: Green structural capital has a positive impact on employees' harmonious habitation of the environment

H³: Green relational capital has positive impact on employees' harmonious habitation of the environment

Green transformational leadership and employees' harmonious habitation of the environment

It is essential to note the important impact that green transformational leadership has on employees' harmonious habitation of the environment. According to Zafar, Nisar, Shoukat and Ikram (2017) in order to increase the green performance of an organization green transformational leadership is very important. In their study entitled, "greening organizations through leaders' influence on employees' pro-environmental behaviors", Robertson and Barling, (2013) found out that environmentally-specific transformational leadership predicted employees' harmonious environmental passion. On the basis of the recent studies (Gebauer, 2011; Wang, Tsai, & Tsai 2014; Mittal & Dhar, 2016) it is observed that green transformational leaders promote harmonious habitation of the environment to their subordinates. Precisely, green transformational leadership promotes green creativity among employees, whereby green creativity involves coming up with an idea that is uncommon, creative and having value driven strategies that enhance environment habitation (Mittal & Dhar, 2016; Chang, & Chen, 2013). Based on the above positions on the relationship between green transformational leadership and employees' harmonious habitation of the environment, the following hypothesis is posited:

H⁴: Green transformation leadership has a positive impact on employees' harmonious habitation of the environment

Green human capital and workplace environment friendly behaviour

According to Yahya, Arshad and Kamaluddin (2015) effective management of human capital is critical success determining factors for all organisations. This may involve investments in the knowledge and skills of employees and empowering them with the information they need to make decisions on the organization's behalf (Suraj & Bontis 2012). Green human capital is the summation of employees' knowledge, skills, capabilities, experience, attitudes, wisdom, creativity, and commitments, etc., about environmental management and environmental concerns (Chen, 2008). Therefore, companies should hire high potential employees and develop their competences in environmental protection to achieve the strict environmental standard (Chang, 2016). In addition, Arulrajah, Opatha, & Nawaratne, (2015) argues that the greening of human resources management functions will reduce negative environmental impacts of the organisation and improve the positive environmental impacts of the organisation. Drawing from the aforementioned expositions it can be noted that if employees within small and medium enterprises are well equipped with competences in environmental protection this will ultimately leads to workplace environment friendly behaviour because there will be delighted by being provided with full employee support in terms of knowledge and skill in making the workplace environment friendly. In nutshell this study argues that green human capital positively affects workplace environment friendly behaviour and implies the following hypothesis.

H⁵: Green human capital has a positive impact on workplace environment friendly behaviour

Employees' harmonious habitation of the environment and workplace environment friendly behaviour

It is also vital to discuss on the relationship between employees' harmonious habitation of the environment and workplace environment friendly behaviour. According to Kellert, (2012) a moralistic

and spiritual perspective encourages and motivates people to protect and conserve nature. Afsar, Badir, and Kiani (2016) proved that the interaction of individuals' senses of responsibility and concern about the results of their activities with their senses of community membership and meaningfulness in life can activate their moral obligations and result in pro-environmental behavior. Moreover, numerous studies have indicated that when employees are aware of environmental problems, they are more likely to exhibit eco-friendly behaviors (Crossman, 2011; Zilahy, 2004). Moreover, Viljoen (2016) conducted a study which aimed at determining the antecedents of organisational citizenship behaviour towards the environment and found out that environmental concern and awareness are important constructs to promote workplace environment-friendly behavior. Deducing from the aforementioned explications it can be stated that if employees are harmoniously protecting their workplace environment this will ultimately nourishes workplace environment friendly behaviours. It is also imperative to note that by means of some literature search and to the best knowledge of the researchers, previous studies did less work on the effect of employees' harmonious habitation of the environment on workplace environment friendly behaviour so in this current study the authors strive develop a framework in order to cover this gap. Hence it can be hypothesised that:

H⁶: Employees' harmonious habitation of the environment has a positive impact on workplace environment friendly behaviour

Green transformation leadership and workplace environment friendly behaviour

According to Zafar, Nisar, Shoukat and Ikram (2017) green transformational leadership entails the characteristic of leader to encourage his colleagues to attain environmental goals and motivate them to behave above the environmental expected performance. Therefore, deducing from Zafar, Nisar, Shoukat and Ikram's definition it is crystal clear that green transformational leadership enhances workplace environment friendly behaviour because the leader is determined in encouraging as well as motivating other employees to behave above the environmental expected performance. Hence this ultimate contributes to workplace environment friendly behaviour. Transformational leadership also helps in introducing new thoughts by delivering inspiration, rational motivation and visualization (Mumford, 2000). In addition, transformational leadership also help individuals to see their position as a worker in an organization more attentive and superior perspective (Vogues & Sutcliffe, 2012). Inferring from the aforementioned explanations and taking in to account that previous studies pay less attention to the effect of green transformation leadership on workplace environment friendly behaviour. It can be hypothesised that:

H⁷: Green transformation leadership has a positive impact on workplace environment friendly behaviour

6. Research methodology

The study used a quantitative research design using a structured questionnaire. In quantitative research, data are quantified to apply statistical techniques in order to gain meaningful insights into relationships (Dhurup, Mafini & Dumasi 2014). Furthermore, the design was suitable to solicit the required information relating to elements of green intellectual capital and green transformational leadership, employees' harmonious habitation of the environment and Workplace Environment-friendly Behavior. Moreover, the researchers opted for a quantitative research approach for this study, because it enhances the accuracy of results through statistics analysis (Berndt & Petzer 2011) and avoids the elements of subjectivity associated with the qualitative approach (Du Plessis & Rosseau 2007).

6.1 Data collection

Berndt and Petzer (2011) notes that data collection comprises the actual collection of responses from the identified sample. Therefore, Data for this research was collected from employees working within SMEs located in Johannesburg, which is located within the Gauteng province of South Africa. Of the total of 170 questionnaires distributed, 150 usable questionnaires were retrieved for the final data analysis, representing a response rate of 89 percent. To eliminate differences in response patterns due to different reference points, all respondents were prompted to answer the questionnaire with reference to elements of green intellectual capital and green transformational leadership, employees' harmonious habitation of the environment and workplace environment-friendly behavior.

6.2 Questionnaire design

The survey approach was used for this study. A questionnaire is a form of survey and is a very traditional approach to employ when conducting research. Surveys are more commonly appropriate in describing reality through non-experimental descriptive research designs and this approach is often used as an instrument to collect data on attitudes and behaviour (Mathers, Fox, & Hunn, 2007). A questionnaire is defined as a set of questions that are used to collect specific data whereby questions can either be closed-ended or open-ended and can be administered online, face-to-face, telephonically or by self-completion (Mathers, Fox, & Hunn, 2007). For the purpose of this study, a self-administered questionnaire designed in an ethical manner was used. The questionnaire was structured and based on a five-point Likert scale using a combination of closed ended questions to get a quick, honest response from the participants.

7. Research variables measurement instrument, scale and source

The research independent variables undertaken as part of this study are: Green human capital, green structural capital, green relational capital and green transformation leadership. The dependent variables used in this study are employees' harmonious habitation of the environment and workplace environment friendly behaviour. Section B, C, D, E, F and G of the questionnaire were related to data gathering in terms of the variables used in the study whereby each variable had separate instruments that was adapted or adopted from similar studies.

The measurement of green human capital includes five items which were adapted from Chang and Chen (2012). In addition, green structural capital was also measured using six items which were adapted from Chang and Chen (2012). Furthermore, green relational capital was measured through the adaptation of Chang and Chen (2012) green relational capital scale which had three items. Green transformation leadership was measured using a six-item scale adapted from Chen, Chang and Lin, (2014). Employees' harmonious habitation of the environment was measured using a ten-item scale adapted from Robertson and Barling (2013). Moreover, workplace environment friendly behavior was measured using a seven-item instrument adapted from Robertson and Barling (2013).

8. Respondent profile

The respondents were asked to report their demographic information on gender, age, marital status and participants working experience. The respondents were predominantly females (n=87; 58%). The median age group of the respondents was that of less than 30 years (n=82; 54.6%). Most of the respondents indicated that they are married representing (n=90; 60%) of the total sample and the remainder (n=60; 40%) indicated that they are single. Almost half of the participants had less than 5 years working experience (n=71; 47.3%), more than a quarter of the participants had 5-10 years working experience (n=59; 39.3%), and less than a quarter had above 10 years working experience (n=18; 12.1%).

9. Data analysis and results

A Microsoft Excel spread sheet was used to enter all the data and in order to make inferences of the data obtained, the Statistical Packages for Social Sciences (SPSS) and the Smart PLS software for Structural Equation Modeling (SEM) technique was used to code data and to run the statistical analysis. Smart PLS has emerged as a powerful approach to study casual models involving multiple constructs with multiple indicators (Chinomona & Dubihlela 2014). According to Hsia and Tseng (2015) PLS is more appropriate in research areas where theory is not as well developed as that demanded by LISREL. In addition, Smart PLS supports both exploratory and confirmatory research, is robust to deviations for multivariate normal distributions, and is good for small sample size (Hair, Ringle & Sarstedt 2013). Since the current study sample size is relatively small (150) Smart PLS was found more appropriate and befitting the purpose of the current study.

10. Reliability analysis

The statistical measures of accuracy tests shown in Table 2 specify the different measures that were used to assess the reliability and validity of the constructs for the study. Precisely, the table depicts means and standard deviations, Item to Total correlations, Cronbach alpha values Average variance extracted (AVE), Composite Reliability (CR) and Factor Loadings.

Table 2: Accuracy analysis statistics

Research constructs		Descriptive statistics*		Cronbach's test		C.R.	AVE	Measurement Item Loadings
		Mean	SD	Item-total	Cronbach-Alpha Value			
Green Human Capital (GHC)	GHC1	3.716	0.890	0.755	0.889	0.919	0.697	0.741
	GHC2			0.733				0.861
	GHC3			0.783				0.880
	GHC4			0.884				0.787
	GHC5			0.895				0.894
Green Structural Capital (GSC)	GSC1	3.973	0.916	0.759	0.855	0.892	0.582	0.652
	GSC2			0.788				0.687
	GSC3			0.791				0.797
	GSC4			0.736				0.820
	GSC5			0.723				0.803
	GSC6			0.711				0.800
Green Relational Capital (GRC)	GRC1	3.717	0.816	0.556	0.758	0.818	0.609	0.856
	GRC2			0.685				0.885
	GRC3			0.518				0.558
Green Transformation Leadership (GTL)	GTL2	3.878	0.926	0.771	0.840	0.887	0.711	0.785
	GTL3			0.787				0.748
	GTL4			0.711				0.775
	GTL5			0.783				0.761
	GTL6			0.738				0.835
employees harmonious habitation of the environment	EHHE1	3.830	0.988	0.716	0.895	0.914	0.715	0.706
	EHHE2			0.791				0.694
	EHHE3			0.814				0.712
(EHHE)	EHHE4			0.823				0.731
	EHHE5			0.741				0.692
	EHHE6			0.861				0.724
	EHHE7			0.880				0.644
	EHHE8			0.787				0.694
	EHHE9			0.894				0.759
	EHHE10			0.652				0.806
Workplace Environment friendly Behavior (WEFB)	WEFB1	3.873	0.915	0.787	0.822	0.872	0.736	0.611
	WEFB3			0.897				0.624
	WEFB4			0.820				0.735
	WEFB5			0.807				0.840
	WEFB6			0.700				0.794
	WEFB7			0.756				0.757

Note: SD = standard deviations; AVE = average variance extracted; CR= Composite Reliability

On green transformation leadership 1 item was deleted which was gtl1 and on workplace environment friendly behavior 1 item was deleted which is wefb2 because the items factor loadings were less than 0.500 which means they explained less than 50% of the variance and did not meet the threshold of equal to or above 0.500. The lowest item to total loading observed was GRC3 with 0.518 and the highest was GHC5 with 0.895. The lowest factor loading observed was 0.611 and the highest is 0.894. This shows that the measurement instruments are valid. In addition, table 2 shows that the item-total correlation value lies between 0.518 and 0.895 which is above the cut-off point of 0.5 as recommended by Anderson and Gerbing (1988:411). The higher inter-item correlations reveal convergence among the measured items. In addition, the Cronbach's coefficient alpha was used to assess the internal consistency of each construct employed in the study. The closer the co-efficient is to 1.00, the greater is the internal consistency of the items in the scale (Malhotra 2010:724). All alpha values ranged from 0.758 to 0.895, they exceeded the recommended threshold of 0.70 suggesting that all the items in the scale tap into the same underlying constructs (Hair *et al.*, 2010:44) and this also shows that the constructs are very reliable and are explaining more than 50% of the variance. The results of composite reliability are shown in Table 2. The results yielded CR indexes between 0.818 and 0.919. The exhibited CR level exceeded the estimated criteria of greater than 0.70, which is recommended as adequate for internal consistency of the constructs (Nunnally 1978:247; Chin 1988:320), thus finding support for the scales satisfactory composite reliability. Moreover, convergent validity of the study was determined by computing AVE values. AVE is the average of communalities for each latent factor in a reflective model. According to Malhotra (2010) the AVE values should be at least 0.50, which means that the construct explains at least half of the variance of its observed variables. Chin (1998) also points out that AVE values below 0.50 indicate error variance levels that surpass the explained variance. Thus, the AVE values reported in this study were within the acceptable range ($0.582 \leq AVE \leq 0.736$), implying that more of the variance along each indicator variable was shared with its respective construct.

Table 3: Inter - Construct Correlation Matrix

VARIABLES	EHHE	GHC	GRC	GSC	GTL	WEFB
EHHE	1.000					
GHC	0.494	1.000				
GRC	0.543	0.540	1.000			
GSC	0.591	0.565	0.347	1.000		
GTL	0.594	0.447	0.566	0.501	1.000	
WEFB	0.500	0.502	0.522	0.588	0.512	1.000

11. Inter-construct correlation matrix

Nunnally and Bernstein (1994) proves that one of the methods used to check on the discriminant validity of the research constructs was the evaluation of whether the correlations among latent constructs were less than 0.60. A correlation value of less than 0.60 is recommended in the empirical literature to confirm the existence of discriminant validity (Nunnally & Bernstein 1994). As can be seen all the correlations are below the standard level of 0.60 which indicate the existence of discriminant validity. As shown in Table 3, the inter-construct correlation values ranged from 0.347 to 0.594 Below the rule of thumb of 0.8 (Fraering & Minor, 2006), indicating the attainment of discriminant validity. Therefore, table 3, above shows that the results further validate the existence of discriminant validity.

12. Assessment of the goodness of fit (GoF)

Overall, R^2 for habitual brand loyalty and impulsive and careless buying in Figure 2, indicate that the research model explains 60.1% and 44.5% respectively of the variance in the endogenous variables. Following formulae provided by Tenenhaus, Vinzi, Chatelin & Lauro, (2005), the global goodness-of-fit (GoF) statistic for the research model was calculated using the equation:

$$\begin{aligned} \text{Goodness of Fit} &= \sqrt{2 \times (\text{average of all AVEs values} \times \text{average of all } R^2)} \\ &= \sqrt{2 \times 0.675 \times 0.201} \\ &= 0.37 \end{aligned}$$

Where AVE represent the average of all AVE values for the research variables while R² represents the average of all R² values in the full path model the calculated global goodness of fit (GoF) is 0.37, which exceed the threshold of GoF>0.36 suggested by Wetzels, Odekerken-Schröder & van Oppen (2009). Therefore, this study concludes that the research model has a good overall fit.

13. Path model results and factor loadings

The PLS estimation results for the structural model as well as the item loadings for the research constructs are shown in Figure 2.

Figure 2: Path Modelling and Factor Loading Results

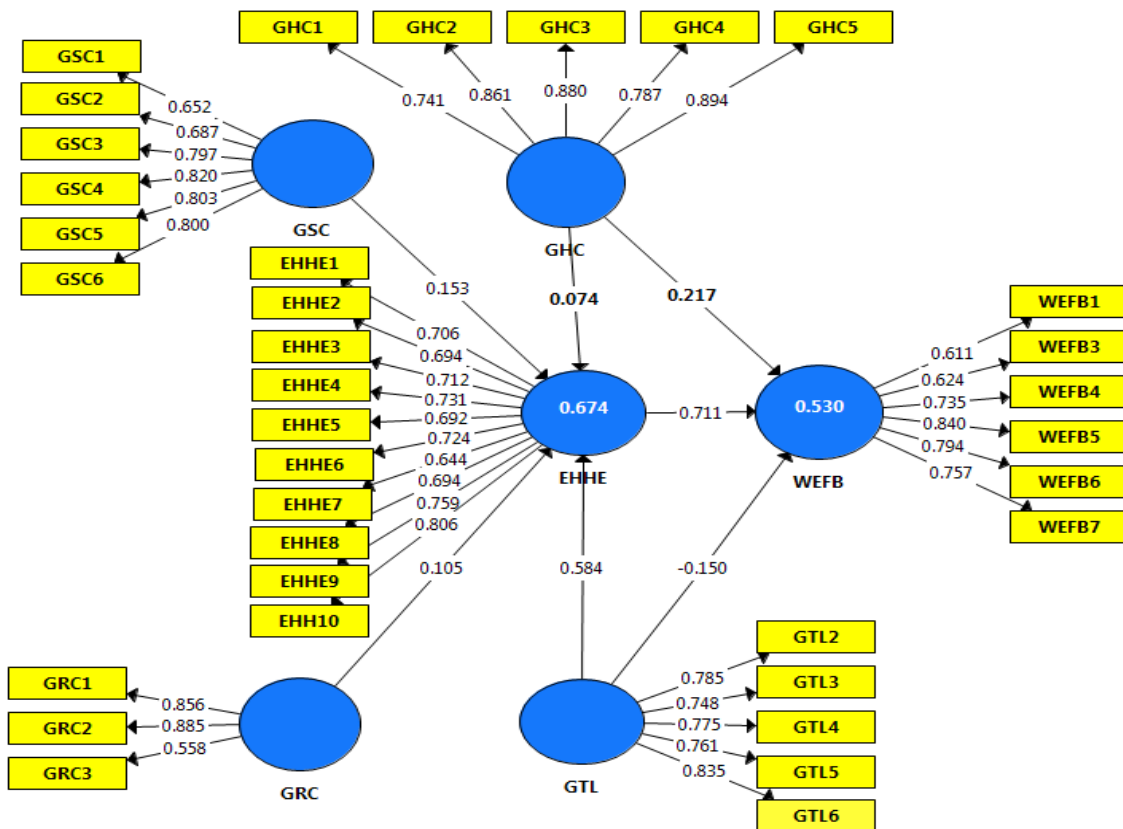


Table 4: Results of structural equation model analysis

Path	Hypothesis	Path coefficients (β)	T-Statistics	Decision
GHC → EHH	H1(+)	0.074	1.987	Positive and significant
GSC → EHH	H2(+)	0.153	2.614	Positive and significant
GRC → EHH	H3(+)	0.105	2.254	Positive and significant
GTL → EHH	H4(+)	0.584	8.943	Positive and significant
GHC → WEFB	H5(+)	0.217	3.124	Positive and significant
EHH → WEFB	H6(+)	0.711	6.887	Positive and significant
GTL → WEFB	H7 (+)	-0.150	1.438	Negative and insignificant

14. Outcome of hypotheses testing

In this study testing of the hypothesis will be determined by the path coefficient values as well as the t-values for the structural model obtained from the bootstrapping algorithm. According to Beneke and Blampied (2012) T-values indicate whether a significant relationship exists between variables within the model and path coefficients demonstrate the strength of the relationships in the model. Two tailed t-tests were conducted at the five percent significance level.

Outcome of Hypotheses Testing Hypothesis 1: Green human capital has a positive impact on with employees' harmonious habitation of the environment

In this study, this hypothesis was supported. It can be observed in Figure 2 and Table 4 that green human capital exerted a positive impact ($\beta = 0.074$) and was statistically insignificant ($t=1.987$) in predicting employees' harmonious habitation of the environment. This result suggests that green human capital positively influence employees' harmonious habitation of the environment in a significant way.

Outcome of Hypotheses Testing 2: Green structural capital has a positive impact on employees' harmonious habitation of the environment

In this study, this hypothesis was supported. It can be observed in Figure 2 and Table 4 that green structural capital exerted a positive impact ($\beta = 0.153$) and was statistically significant ($t=2.614$) in predicting employees' harmonious habitation of the environment. This result implies that green structural capital directly influences employees' harmonious habitation of the environment in a positive and significant fashion. Therefore, it can be noted that the more a company capitalizes in having supportive infrastructure and processes about environmental protection or green innovation within a company it ultimately leads to employees' harmonious habitation of the environment.

Outcome of Hypotheses Testing 3: Green relational capital has positive impact on employees' harmonious habitation of the environment

Hypothesis 3 posited a positive association between green relational capital and employees' harmonious habitation of the environment. Consistent with Hypothesis 2, results indicated that higher levels of green relational capital will lead to higher levels of employees' harmonious habitation of the environment ($\beta = 0.105$; $t = 2.254$). Therefore, H3 is accepted since the relationship between Green relational capital and employees' harmonious habitation of the environment was positive and significant. Thus, it can be noted that if the management of SMEs capitalises in building strong rapports (centered on green innovation or environmental management) among employees as well as other stake holders this would ultimately lead to employees' harmonious habitation of the environment.

Outcome of Hypotheses Testing 4: Green transformation leadership has a positive impact on employees' harmonious habitation of the environment

The fourth hypothesis proposed that green transformation leadership has a positive impact on employees' harmonious habitation of the environment. This hypothesis was reinforced in this study. Figure 2 and Table 4 indicate that Green transformation leadership and employees' harmonious habitation of the environment are supported. Green transformation leadership exerted a positive influence ($\beta = 0.584$) on employees' harmonious habitation of the environment and was statistically substantial ($t= 8.943$). This result signifies that green transformation leadership is related positively and meaningfully to employees' harmonious habitation of the environment. Thus, higher levels of green transformation leadership will lead to higher levels of employees' harmonious habitation of the environment.

Outcome of Hypotheses Testing 5: Green human capital has a positive impact on workplace environment friendly behaviour

In addition, the fifth hypothesis proposed that green human capital has a positive impact on workplace environment friendly behaviour. This hypothesis was reinforced in this study. Figure 2 and Table 4 indicate that green human capital and workplace environment friendly behaviour were supported. Green human capital exerted a positive impact ($\beta = 0.217$) on workplace environment friendly behaviour ($t=3.124$). This result signifies that green human capital is related positively and meaningfully to workplace environment friendly behaviour. Thus, higher levels of green human capital will lead to higher levels of workplace environment friendly behaviour.

Outcome of Hypotheses Testing 6: Employees' harmonious habitation of the environment has a positive impact on workplace environment friendly behaviour

It is depicted in Figure 2 and Table 4 that H6 is supported significantly. The t-statistics is 6.887. The strength of the relationship is indicated by the path coefficient of 0.711. This finding suggests that Employees' harmonious habitation of the environment has a positive impact on workplace environment friendly behaviour. So, the more employees are engaged in harmonious habitation of their environment, it is the more the incite workplace environment friendly behaviour among employees.

Outcome of Hypotheses Testing 7: Green transformation leadership has a positive impact on workplace environment friendly behaviour

Moreover, Hypothesis 7 posited a positive relationship between green transformation leadership and workplace environment friendly behaviour. However, the result in Table 4 and Figure 2, indicates that they are a negative ($\beta = -0.150$) but insignificant ($t = 1.438$) relation between procedural justice and work locus of control. Therefore, H2 is rejected since the relationship between green transformation leadership and workplace environment friendly behaviour was negative and insignificant.

15. Academic, practical and policy implications for the study

The present study offers implications for academicians. For example, an investigation of the research findings indicates that green transformation leadership \rightarrow employees' harmonious habitation of the environment has the strongest influence on each other as indicated by a path coefficient of ($\beta=0.584$). Therefore, for academicians in the field of green work practice as well as small business management, this finding enhances their understanding of the relationship between green transformation leadership and employees' harmonious habitation of the environment as this is a useful contribution to existing literature on these two variables.

On the practitioners' side, this study therefore submits that SMEs' managers can benefit from the implications of these findings. For example, given the robust relationship between employees' harmonious habitation of the environment and workplace environment friendly behaviour ($\beta=0.711$), SMEs' managers are ought to pay attention or they should put more emphasis on finding ways that makes their employees to dwell harmoniously in their environment and this will ultimately incite workplace environment friendly behaviors among employees.

Moreover, the present study offers implications for policy makers who have been developing green work practices policies that enhance employees' harmonious habitation of the environment and workplace environment friendly behaviour. Precisely; policies which exist in various small and medium enterprises can be modified to inaugurate employees' harmonious habitation of the environment and workplace environment friendly behaviour. Thus, the results which have been obtained from this study may be used to generate new policies and revision of the existing policies.

16. Limitations and future research suggestions

Although the present study offers valuable insights pertaining to the antecedents towards employees' harmonious habitation of the environment and workplace environment-friendly Behavior, it is prone to limitations that offer avenues for future research. The results of this study are based on a sample of 150 respondents which is not a bigger sample and the study was conducted only in Johannesburg and findings may not be generalized to the whole of South Africa. Therefore, future studies, should take into consideration other areas of South Africa. This will eventually offer more insight and accurate research findings into the understanding of antecedents towards employees' harmonious habitation of the environment and workplace environment-friendly Behavior. Furthermore, the study only made use of a quantitative research approach. Future research may consider using a mixed-method approach that includes both a qualitative and quantitative research design, where a quantitative design technique could be more reliable and objective because of the use of statistics to generalize the findings.

17. Conclusion

This study was conducted with the intent to investigate the way optimistic dispositions towards the environment can be encouraged among the employees of the specific organisation(s) under investigation, by embracing a unique approach and methods of inquiry that are most relevant to the

organisation(s). From the literature consulted for this study, the importance of organisations understanding their own specific environment to establish the best practices and environmental awareness promotion mechanisms among employees, emerged prevalently. Establishing the conditions for optimum environmental awareness campaigns among employees within the organisation(s) was therefore a main point of investigation. The findings showed that the association between green human capital, green structural capital, green relational capital, green transformation leadership and employees' harmonious habitation of the environment is positive in a significant way. However, green transformation leadership emerged to have a negative and an insignificant impact on workplace environment friendly behavior. Lastly the findings suggested that employees' harmonious habitation of the environment has a positive and a significant impact on workplace environment friendly behavior.

18. References

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