

EMPLOYEES' PRO-ENVIRONMENTAL BEHAVIOUR IN SMALL AND MEDIUM ENTERPRISES: THE ROLE OF ENJOYMENT, CONNECTEDNESS TO NATURE AND ENVIRONMENTAL KNOWLEDGE

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ABSTRACT

Business activities by small and medium enterprise (SMEs) have an impact on the ecosphere. Pro-environmental behaviours (PEB) can assist SMEs in reducing their negative environmental impact. The aim of the study was to investigate the effect of enjoyment, environmental knowledge and connectedness to nature on the PEB of the employees of SMEs. Data was collected from two hundred and thirty employees of SMEs. The study adopted the cross-sectional survey approach for data collection and the descriptive statistics and structural equation modelling path analysis were used for data analysis. The findings showed significant positive relationships between enjoyment and connectedness to nature and employees' PEB. The effect of environmental knowledge is not significant. Theoretically, the study established a nexus between enjoyment and connectedness to nature and PEB in the context of the employees of SMEs. The empirical contribution of the study is the addition to the body of literature on the factors that can influence workplace PEB by SMEs. The managerial implication of the study focuses on how SMEs and employees can improve workplace PEB.

Keywords: Workplace Pro-Environmental Behaviour, Employees, Small and Medium Enterprises, Enjoyment, Connectedness to Nature, Environmental Knowledge.

INTRODUCTION

South Africa is challenged by high levels of unemployment, income inequality and low economic growth. The unemployment rate currently stands at 29% and the gross domestic product growth rate is expected to be 1.5% in 2019. The consumption expenditure Gini coefficient of 0.63 in 2015 shows a high level of income inequality. To address these challenges, South Africa has vigorously promoted small and medium enterprises (SMEs). The whole formal business sector in South Africa generated a turnover of South African Rand 2.39 trillion in the first quarter of 2019. Large firms contributed 62% and SMEs 38% (World Bank, 2018; National Treasury, 2019; Statistics South Africa, 2019).

The business activities of both large and small firms have a negative impact on the natural environment. Economic growth that is derived from intensive exploration of natural resources and increasing pollution and waste is environmentally unsustainable. There is growing evidence that environmental challenges such as climate change and loss of biodiversity are caused by the activities of SMEs. Although, the individual effects of the activities of SMEs can be small, collectively their impact on the environment can be significant. This has led to the growing recognition of the environmental impact of SMEs and by extension research that

focuses on the sustainability of SMEs (ACCA, 2012, Graafland & Smid, 2015; Malesios et al., 2018; Rosa et al., 2018).

The recognition of the importance of environmental sustainability by businesses has increased due to reputational, customer, regulatory and supply chain pressure. Although, environmental management by SMEs is largely limited, recent evidence supports some awareness and good environmental practices. The relative inattention to good environmental management by SMEs is disturbing, given their large number and importance in most countries (ACCA, 2012; Struwig & Lillah, 2017). The behaviour of SMEs needs to change significantly to address the negative environmental effects of their activities. Pro-environmental behaviour (PEB) is one of the major ways for SMEs to reduce their adverse ecological impact. PEB can be described as personal actions that are taken by individuals and organisations to improve the environment (Kollmuss & Agyeman, 2002; Steg & Vlek, 2009; Park & Ha, 2012; Blankenberg & Alhusen, 2018).

Despite the fact that business organisations are a major cause of the environmental challenge faced by the world, research on PEB has concentrated mainly on households and limited studies have focussed on businesses. Although, studies done on households have led to important empirical results, it is unclear if the findings can be generalised to the workplace. Also, few studies have explored PEB in SMEs although they are the most common form of business enterprise (Cudmore, 2015; Boiral et al., 2015; Wesselink et al., 2017; Banwo & Du, 2019). In addition, the limited studies on SMEs have tended to focus on the organisational level and not employees despite the fact that they (employees) are one of the significant actors in the workplace. While organisational involvement in PEB may be driven by government, industry and societal expectations, the participation of employees in PEB is often voluntary or to meet firm expectations (Klößner, 2013; Gao et al., 2017).

The factors that can impact on PEB include interpersonal factors (attitudes, norms, motivation and values) and contextual or situational factors (government regulations, availability of recycling facilities) (Ertz et al., 2016; Leung & Rosenthal, 2019). A meta-analysis by Bras (2006) provided a systematic review of the determinants of PEB. These include socio-economic determinants (age, education, income and gender), psychological (awareness, norms, values, identity, environmental concern and knowledge), social, (social ties), individual (pleasure, enjoyment, happiness, connectedness to nature) and institutional (organisational leadership behaviour, institutional support). This study focuses on the effect of three factors (enjoyment, environmental knowledge and connectedness to nature) on the workplace PEB of the employees of SMEs. These determinants can be regarded as individual and psychological factors. Despite the importance of individual and other internal factors as motivators of PEB, it is important for researchers to articulate an interdisciplinary perspective that pays attention to both psychological and individual factors and integrate solutions that are a combination of many factors (Clark et al., 2003; Gifford & Nilsson, 2014; Onel & Mukherjee, 2016; Leung & Rosenthal, 2019).

This study aims to examine the effect of enjoyment, environmental knowledge and connectedness to nature on the PEB of the employees of SMEs. The research will contribute to knowledge in the following ways. Research on PEB has concentrated largely on large firms and few studies have focused on SMEs. However, SMEs are unique and different from large firms in that they typically display lower levels of awareness, severe lack of resources, dependence on top managers, fewer external knowledge sources and ad hoc decision-making processes. These impacts on their ability to adopt innovations and implement sustainability. However, SMEs tend to exhibit higher levels of flexibility and responsiveness to changes than larger firms. Therefore,

it is inappropriate to assume that a SME is a little big firm and caution should be exercised in translating sustainability findings and solutions that are effective in larger firms to SMEs (Bras, 2006; Boiral et al., 2015). Second, a thorough literature review by the researcher revealed that no study has investigated the effect of enjoyment, environmental knowledge and connectedness to nature on the PEB of employees in the context of SMEs. Thus this study integrates both individual and psychological determinants of PEB in the context of the SMEs.

The Kyoto Protocol is an international agreement on climate change with binding commitments by countries on emission reduction. South Africa is one of the signatories and has committed to reduce emissions by 42% in 2025 (Vosper & Mercure, 2016). PEB can help to achieve this goal. The findings of this research can assist SMEs in understanding individual and psychological factors that can improve their green behaviour. The study will be organised as follows: Section two will focus on the development of the hypotheses through a detailed literature review. Section three will focus on the research methodology and measures. The presentation of results and discussion will be done in sections four and five. The conclusion and managerial implications will be presented in section six.

LITERATURE REVIEW

There are three size classes for SMEs in South Africa. These are micro, small and medium. The quantitative definition focuses on the number of employees and the turnover (Government Gazette, 2019). Table 1 depicts the definition of SMEs in the retail and service sectors in South Africa.

Size	No of employees	Yearly turnover
Micro	0-10	Less or equal to R7.5m
Small	11-50	Less or equal to R25m
Medium	51-250	Less or equal to R80m

Adapted from Government Gazette (2019).

The number of employees is one of the indicators that can be used to classify SMEs. As depicted by Table 1, a micro enterprise is expected to have between zero and ten employees, a small enterprise between eleven and fifty employees and a medium enterprise between fifty one and two hundred and fifty employees (Government Gazette, 2019). Despite the three size classes, the term “*Small and medium enterprises*” (SMEs) (Suvittawat, 2019) is normally used with micro included as part of small. Despite their positive contribution, SMEs are responsible for about 64% of all industrial pollution (Calogirou et al., 2010; Pinget et al., 2015). Specific barriers that hinder sustainability in SMEs include limited resources and the dependence on the owner for decision-making. However, flexibility and fewer hierarchical levels favour the implementation of environmental practices by SMEs. One of the ways for SMEs to improve their sustainability practices is PEB (Sáez-Martínez et al., 2016; Baranova & Paterson, 2017).

Pro-Environmental Behaviour (PEB)

Kollmuss & Agyeman (2002) describe PEB as the action that is deliberately taken by individuals to reduce harm and protect the natural world. According to Boiral et al. (2015), PEB comprises of voluntary or recommended activities that an individual engages in with the goal of

protecting the natural environment. PEB includes individual behaviour that contributes to environmental sustainability and can be practiced in the workplace or at home (Mesmer-Magnus et al., 2012). PEB in the workplace can be categorised as the actions by employees and management to improve the natural environment (Ture & Ganesh, 2018). When environmentally sustainable behaviours are performed in the workplace by employees, it is called employees green or pro-environmental behaviour. Ones & Dilchert (2012) describe employee PEB as the voluntary actions and behaviours engaged in by employees to improve environmental sustainability at work.

Employees PEB can be categorised into five. These include (1) Conserving. This focuses on behaviours that preserve resources and avoid waste (i.e. recycling). (2) Avoiding harms: This includes behaviours that reduce or mitigate the damage to the environment (i.e. pollution prevention). (3) Transforming: This focuses on changing and adapting to sustainable behaviour (i.e. buying green products, renewable energy) (4) Influencing others: This focuses on social behaviours that support sustainability (i.e. motivation, training, incentives) (5). Taking initiative: This involves behaviours that do not support the status quo (i.e. lobbying, activism) (Ones & Dilchert, 2012; Bamberg & Rees, 2015; Wiernik et al., 2016). Engagement in PEB by employees of a firm has many benefits (1) Improvement of the natural environment. The long-term survival of the world depends on PEB and waste is reduced and scarce resources conserved through PEB. (2) Failure to comply with environmental regulations can have financial implications. (3) Through PEB, firms can reduce costs and improve the triple bottom line (financial, environmental and social performance) (Ture & Ganesh, 2018; Palupi & Sawitri, 2018).

Enjoyment and Employees' Workplace (PEB):

The self-determination theory (SDT) postulates that goal-directed behaviours are inspired in different ways. The focus of SDT is the degree to which an individual's behaviour is self-motivated and self-determined (Deci & Ryan, 2000). Studies that are grounded on SDT have shown that people's behavioural experience is intrinsically motivated and autonomous and not extrinsically motivated and controlled. SDT is significantly related to PEB because it depicts how motivation will influence behaviour. In addition, SDT has been widely used by empirical research on motivation and PEB (Aitken et al., 2016). These motivations include the pursuit of interest and pleasure. Therefore, if an employee enjoys PEB, he/she will be interested in performing PEB. Enjoyment can be described as the degree to which an individual does something (e.g. work) because he/she finds the thing intrinsically interesting or pleasurable (Graves et al., 2012). An individual level factor is how pleasure or enjoyment can affect PEB. If PEB is enjoyed, engagement in such behaviour will increase (Venhoeven et al., 2013). Tanu & Parker (2018) find that students are attracted to PEB because it is the fun thing to do. Chakraborty et al. (2017) point out that happiness, pleasure and enjoyment can be linked to PEB by individuals. Zhang et al. (2013) note that enjoyment is powerful motivator of individual behaviour. The enjoyment of a behaviour, can lead to inner satisfaction and fulfilment through the behaviour. Enjoyment positively impacts on employees' knowledge contributing behaviour in an organisation and there is a significant positive relationship between enjoyment and energy saving behaviour. Lindenberg & Steg (2007) argue that not all PEB are enjoyed or pleasurable. PEB should not be included in the goals of individuals that aim to feel good because it involves personal sacrifice. Thøgersen & Ölander (2002) find a negative correlation between hedonism and sustainable consumption. Enjoyment can lead to inner satisfaction and fulfilment and encourage PEB by employees.

H₁: Enjoyment is positively related to employees' workplace PEB.

Connectedness to Nature and Employees' Workplace (PEB):

Connectedness to nature can be defined as the connection of an individual emotionally and cognitively to nature (Mayer & Frantz, 2004; Geng et al., 2015). The connectedness to nature (CNT) theory stipulates that an individual's well-being is associated to his/her relationship, exposure and experiences with the natural world (Tauber, 2012). The degree of an individual's connection with nature can have a significant positive effect on PEB. However, connectedness to nature by individuals has been reduced by globalisation, urbanisation and technological advances and this may negatively impact on PEB (Klaniecki et al., 2018). Studies by Pereira & Forster (2015); Pensini et al. (2016) find that connectedness to nature has a significant positive relationship with PEB and individuals that are exposed to and have relationship with nature tend to have higher levels of PEB.

H₂: Connectedness to nature is positively related to employees' workplace PEB.

Environmental Knowledge and Employees' Workplace (PEB):

Kim et al. (2018) describe environmental knowledge as the knowledge and understanding of issues related to the environment. Environmental knowledge focuses on of the familiarity of an individual with issues related to collective responsibility and environmental influence and appreciation. Environmental knowledge can be divided into two. The first issue relates to knowledge regarding the influence of an individual on nature and the second issue relates to knowledge with respect to actions that can be taken to reduce the adverse consequence of an individual on the environment (D'Souza et al., 2006). The theory of environmentally responsible behaviour (ERB) stipulates that knowledge and a sense of personal responsibility positively affect the adoption of behaviour by an individual (Hines et al., 1986/87]. Majid et al. (2016) argue that human knowledge leads to the understanding of new things and the capability to use the knowledge for improvement. The possession of environmental knowledge increases the likelihood of PEB (Blankenberg & Alhusen, 2018). Environmental knowledge promotes awareness and leads to positive attitudes toward nature (Kim et al., 2018). There is a positive association between environmental knowledge and energy saving behaviour (Pothitou, et al., 2016). Research findings are not conclusive about the effect of environment knowledge on PEB (Zsóka et al., 2013). Studies by Bartiaux (2008); Oguz et al. (2010) find an insignificant relationship between environmental knowledge and PEB. Direct repeated information about the effect of climate change has not significantly reduced carbon consumption and the relationship between environmental knowledge and PEB is not significant (Latif et al., 2018). However, individuals with environmental knowledge are more likely to be aware about the damage caused to the environment and more likely to engage in PEB.

H₃: Environmental knowledge is positively related to employees' workplace PEB.

RESEARCH METHODOLOGY

The empirical study followed the quantitative research approach. The study adopted the cross-sectional survey approach for data collection in the Central Business Districts of Johannesburg. The convenience method was used for sampling because there is no identifiable

sampling frame of SMEs in the study area and all the respondents were in the retail and service sectors. Employees of SMEs were the participants in the study. The self-administered questionnaire method was used for data collection. Repeated phone calls, emails and visits were made to the participants to complete the questionnaire. If the questionnaire is not completed after two months, it is treated as non-response. The cover page of the questionnaire assured respondents of anonymity and confidentiality. Therefore, the name of the respondents and the SMEs were not included in the questionnaire. The questionnaire was pre-tested with 30 employees in a pilot study. The results of the pilot study helped to improve face and content validity. Three well-trained field agents assisted in the data collection process. The questionnaire was divided into five parts: (1) biographical information; (2) pro-environmental behaviour (3) enjoyment (4) connectedness to nature and (5) environmental knowledge. After data collection and coding, descriptive statistics and the structural equation modelling (PLS SEM) were used for analysis. The Cronbach's alpha was used to measure of internal consistency and the minimum acceptable coefficient is 0.70.

Measures

Employees' PEB was measured by six items adapted from previous studies (Roberson & Carleton, 2017; Fatoki, 2019). The questions were anchored on the five-point Likert scale (1 =never, 5=always). The study used the 14-item connectedness to nature (CNS) scale by (Mayer and Frantz, 2004) to measure employees' connectedness to nature. Respondents were graded on a five-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). Three items adopted from Zhang et al. (2013) and anchored on a five-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree) were used to measure enjoyment. Four measures adapted from Pothitou et al. (2016); Kim et al. (2018) and anchored on a five-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree) were used to measure environmental knowledge. The scales adopted from previous studies to measure the constructs had acceptable psychometric findings as shown by their Cronbach's alphas. The complete items of the four constructs are depicted in Appendix A.

RESULTS

Response Rate and Biographical Detail

Letters were written to two hundred SME owners/managers by the researcher to request for their participation in the study. One hundred and twelve SMEs accepted to partake in the survey. Three hundred and thirty six questionnaires (three per SME) were sent out. Two hundred and thirty questionnaires were returned and found usable. The respondents had the following biographical details: 119 female and 111 male respondents. The ages of the respondents were (71, 21-30 years, 84, 31-40 years, 46, 41-50 years and 29, 51-60 years).156 respondents had Matric Qualifications and 74 respondents with post Matric diplomas and degrees. 128 respondents were in the retail sector and 102 respondents in the service sector. This Kolmogorov-Smirnov test assured the normality of the data and the results of the T-test and Anova did not show any significant difference on the basis of biographical information.

Descriptive Statistics

Construct	Mean	Standard deviation (SD)
Pro-environmental behavior	3.10	1.05
Enjoyment	4.25	0.98
Connectedness to nature	3.55	1.01
Environmental knowledge	3.05	1.03

The results of the descriptive statistics are illustrated in Table 2. The construct PEB had a mean score of 3.10 and a SD of 1.05 while enjoyment had a mean score of 4.25 and a SD of 0.98. Connectedness to nature had a mean score of 3.55 and a SD of 1.01 and environmental knowledge had a mean score of 3.05 and a SD of 1.03. Neneh & van Zyl (2017) point out that using a five-point Likert scale, a mean value above four is below three can be measured as high, three to four moderate and below three low.. The PEB, connectedness to nature and environmental knowledge of the respondents can be considered as moderate while enjoyment can be considered as high.

Structural Equation Modelling

The PLS SEM comprises of two sub-models ad these are the measurement and the structural models (Hair et al., 2019).

The assessment of the measurement model: The initial step in measurement model assessment is to examine the item loadings of each construct. Loadings that are above 0.708 are recommended for retention. Values less than 0.708 are recommended for deletion. After the initial step, the composite reliability was used to measure the internal consistency and values between 0.79 and 0.90 are considered acceptable. The Cronbach's alpha is also used to measure reliability although it value is usually lower than the composite reliability. Cronbach's alphas of 0.7 and above are considered as satisfactory. The next step in the measurement model assessment is to examine the convergent validity of each construct through the average variance extracted (AVE) and an AVE should be a minimum of 0.50. Furthermore, AVE's square root should not be lower than the correlations among the latent variables (Hair et al., 2019).

Construct	Measurement items	Loading	Cronbach's alpha	Composite reliability	AVE
Enjoyment (E)	E1	0.892	0.759	0.863	0.700
	E2	0.788			
	E3	0.827			
Connectedness to nature (CN)	CN 1	0.874	0.762	0.833	0.638
	CN2	0.839			
	CN3	0.773			
	CN 4 deleted	0.496			
	CN5	0.808			
	CN6	0.772			
	CN7	0.736			
	CN8	0.840			
	CN9	0.796			

	CN10	0.762			
	CN11	0.824			
	CN12 deleted	0.508			
	CN13	0.749			
	CN14	0.801			
Environmental knowledge (EK)	EK1	0.839	0.813	0.881	0.651
	EK2	0.794			
	EK3	0.786			
	EC4 deleted	0.503			
Pro-environmental behaviour (PEB)	PEB1	0.826	0.746	0.875	0.627
	PEB2	0.784			
	PEB3	0.803			
	PEB4	0.729			
	PEB5 deleted	0.479			
	PEB6	0.813			

Construct	PEB	A	CN	EK
PEB	0.837			
E	0.708	0.86		
CN	0.726	0.713	0.799	
EK	0.499	0.506	0.544	0.807

Diagonals in bold signify the square root of the AVE while the other figures depict the correlations.

Tables 3 and 4 illustrate the discriminant and the convergent validity. The three items used to measure enjoyment had factor loadings above 0.708 and were retained. For connectedness to nature, two items had factor loadings lower than 0.708 and were deleted. Twelve items were retained. For, environmental knowledge, one item had factor loading below 0.708 and was deleted. Three items were retained. For PEB, one item had factor loading below 0.708 and was deleted. Five items were retained (Hair et al., 2019). As depicted by Table 4, the composite reliability and Cronbach's alpha values are not lower than 0.70 implying an adequate level of construct validity. Also, the four constructs of this study attained AVEs above 0.50 signifying an adequate level of convergent validity. Furthermore, the square root of AVE is not lower than the correlations among the latent variables. The tests confirmed that the measurement model is satisfactory.

The assessment of the structural model: Hair et al. (2019) point out that in assessing the structural model, collinearity, the R square, the Q square and the path coefficient should be examined.

Common method bias: Likert scale questions form an important part of SEM measurement method. Common method bias (CMB) is caused by the measurement method in a SEM study, and not by the causes and effects among latent variables in the model being examined. A cause of the CMB is the social desirability issue that is connected with the questions contained in a questionnaire being answered in a certain way as this can result in the sharing of a particular amount of common variation by indicators. A useful approach for the identification of is the variance inflation factors (VIFs) obtained through a full collinearity test. VIF greater than 3.3 is a sign of pathological collinearity and signals that a model may be

contaminated by CMB. If all the VIFs obtained from a full collinearity test are equal to or lower than 3.3, the model can be assumed to be free of CMB (Henseler et al., 2015). The VIF values obtained are as follows: PEB (2.03), enjoyment (1.95), connectedness to nature (1.93) and environmental knowledge (2.00). This is an indication that the model is not contaminated by CMD.

The value of the R²: The R² also recognised as the coefficient of determination shows the proportion of variance in the dependent variable that can be explained by the independent variable. A R² of 1 shows that the regression predictions perfectly fit the data. R² values of 0.25, 0.50 and 0.75 are considered weak, moderate and substantial respectively (Kock, 2015). This study obtained a R² of 0.527% and this can be considered as moderate. The three independent variables explain 52.7% of the variance in PEB.

The path coefficients (β) and T-statistics: The study used the bootstrapping technique to obtain the significance levels of the standardised coefficients and the β value was used for hypothesis testing. The T-statistics is used to test the significance of the β value and the bootstrapping technique was used to measure the significance of each hypothesis. A bootstrapping procedure with 5000 sub samples and with no sign changes was done in order to test for the significance of the path coefficient and the values of the T-statistics. The results of the path coefficient and T-statistics are depicted in Table 5.

Hypothesised path	Standardised Beta	T-statistics	Decision
H1 E to PEB	0.316	6.408*	Accepted
H2 CN to PEB	0.269	6.152*	Accepted
H3 EK to PEB	0.103	1.082	Rejected

*P<0.01;

Hypothesis 1 proposes that enjoyment is positively related to employees' workplace PEB. The results H1 ($\beta = 0.316$, $T = 6.408$, $p < 0.001$) show a significant positive relationship between enjoyment and PEB. Hypothesis one is accepted. Hypothesis two proposes that connectedness to nature is positively related to employees' workplace PEB. The results ($\beta = 0.269$, $T = 6.152$, $p < 0.001$) show significant positive relationship between connectedness to nature and PEB. Hypothesis two is accepted. Hypothesis three proposes that environmental knowledge is positively related to employees' workplace PEB. The results H3 ($\beta = 0.103$, $T = 1.082$, $p > 0.05$) show an insignificant relationship between environmental knowledge and PEB. Hypothesis three is rejected.

The Goodness of fit: The study used the goodness of fit test (GOF) to determine if the model adequately explains the empirical data. The values of the GOF range from 0 to 1 with 0.10 considered as small, 0.25 medium and 0.36 large. The GOF value obtained is 0.587 which indicates that the empirical data satisfactorily fits the model and has a good predictive power when compared to baseline values.

The Predictive relevance of the model (Q²): An additional assessment test in addition to the size of R², is the predictive relevance of the model (Q²). The two prediction techniques for Q² are the cross validated communality and cross validated redundancy. The cross validated communality is obtained by predicting data points using latent variable score while the cross validated redundancy is arrived at by predicting the questionable blocks using the latent variables used for prediction. Chin (2010) suggests the use of cross validated redundancy to estimate the predictive relevance of the model. A cross validated redundancy Q² > 0.5 is regarded as a

predictive model. The study obtained a Q^2 of 0.641 which is indicative of a highly predictive model.

The Effect Size (f^2): The f^2 illustrates the effect that one construct has on another construct and how the R^2 changes if one construct is deleted from the model. The value obtained depicts the effect size and values of 0.02, 0.15, and 0.35 depict small, medium, and large effects respectively. The effect size for enjoyment, connectedness to nature attitude and environmental knowledge are 0.355, 0.216, 0.249 respectively. While the effect size of T enjoyment can be considered as large, the effect size of connectedness to nature and environmental knowledge are moderate.

DISCUSSION

The SME sector creates employment and is a driver of inclusive growth in South Africa. Business activities by small and medium enterprise (SMEs) have an impact on the ecosphere and pro-environmental behaviours (PEB) can assist SMEs in reducing their negative environmental impact. Although the individual effect of the activities of a small business can be small, collectively they are very important. This has led to the increasing recognition of the environmental impact of SMEs and a growing sustainability movement and research that focus on SMEs. One of the ways to reduce the adverse ecological impact of individual and businesses is to engage in pro-environmental behaviour (PEB). The study investigated the effect of enjoyment, environmental knowledge and connectedness to nature on the PEB of the employees of SMEs. The results of this study which is validated by a data set of two hundred and thirty respondents showed that the relationship between enjoyment and PEB is significantly positive. Hypothesis one is accepted. The findings are consistent with previous theoretical and empirical studies. The self-determination theory (SDT) by Deci & Ryan (2000) argues that different types of motivation underlie goal-directed behaviour. Tanu & Parker (2018) find that students are attracted to PEB because it is the fun thing to do. A study by Zhang et al. (2013) finds that enjoyment and energy saving behaviour (a pro-environmental behaviour) are positively correlated. The results of this study show that connectedness to nature is a predictor of PEB. H2 is supported. The connectedness to nature (CNT) theory stipulates that an individual's well-being is associated to his/her relationship, exposure and experiences with the natural world (Tauber, 2012). Empirically, Pereira & Forster (2015) find that there is a significant positive relationship between connectedness to nature and PEB. Studies by Pensini et al. (2016) and Rosa et al. (2018) find that positive experience in nature by adults is positively associated with higher engagement on PEB. The results of this study did not find a significant relationship between environmental knowledge and PEB. Hypothesis three is rejected. The findings of the study are consistent with previous empirical studies. The findings of Bartiaux (2008); Oguz et al. (2010); Latif et al. (2018) did not show a significant relationship between environmental knowledge and PEB.

CONCLUSION

Despite the positive contribution of SMEs, their activities are a major cause of environmental problems. The study investigated the effect of enjoyment, environmental knowledge and connectedness to nature on the PEB of the employees of SMEs. The findings of the study indicated that the relationships between enjoyment and connectedness to nature and the PEB of the employees of SMEs are significantly positive. The effect of environment knowledge is not significant. Theoretically, the study established a nexus between enjoyment and

connectedness to nature and the PEB in the context of the employees of SMEs. PEB have focused mainly on large firms. A SME is not a little big firm and sustainability findings and solutions that are effective in larger firms may not be applicable to SMEs. The determinants of employee's workplace PEB in SMEs is an under-researched areas and SMEs are not little large firms. Barriers such as limited resources and the dependence on a single decision maker and advantages such as flexibility, informal communication style and fewer hierarchical levels suggest that the sustainability behaviour of SMEs may be different from large firms. The empirical contribution of the study is the addition to the body of literature on the factors that encourage workplace PEB by SMEs. Practically, the study recommends that SME owners should be proactive and organise training on PEB for their employees. The availability of technologies that support PEB in SMEs such as recycling bins and energy efficient appliances can stimulate enjoyment of PEB by employees. The owners of SMEs should endeavour to bring nature into the workplace as humans (including employees) have an intrinsic need to be connected with nature. This is referred to as biophilia. This can be done by incorporating nature into the workplace e.g. Offices with green walls, green buildings, indoor trees and planter boxes and views of nature on television screens. SME owners can encourage the use of the outdoors and nature as part of overall employee wellness. The creation of spiritual organisations can help to encourage connectedness to nature. Workplace spirituality should not only focus on the connectedness between employees but also social and environmental connectedness. One of the limitations of the study is the use of convenience sampling method was used for the study and the data collected may be biased to study. Also, only two hundred and thirty employees participated in the study and care should be applied in generalising the findings of the study. Other studies can explore the effect of environmental consciousness and literacy on employees' workplace PEB.

APPENDIX

Appendix A Questionnaire		
Enjoyment B	<ol style="list-style-type: none"> 1. I enjoy PEB in my workplace. 2. PEB is very interesting to do. 3. Involvement in PEB in my workplace gives me pleasure. 	I strongly disagree, 5 strongly agree
Connectedness to nature C	<ol style="list-style-type: none"> 1. I often feel a sense of oneness with the natural world around me. 2. I think of the natural world is a community to which I belong. 3. I recognize and appreciate the intelligence of other living organisms. 4. I often feel disconnected from nature. 5. When I think of my life, I imagine myself to be part of a larger process of living. 6. I often feel a kinship with animals and plants. 7. I feel as though I belong to the Earth as equally as it belongs to me. 8. I have an understanding of how my actions affect the natural world. 9. I often feel that I am a part of living things. 10. I feel that all inhabitants of Earth, 	I strongly disagree, 5 strongly agree

	<p>human, and nonhuman, share a common 'life force'.</p> <ol style="list-style-type: none"> 11. Like a tree can be part of a forest, I feel happy within the broader natural world. 12. When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature. 13. I often feel like I am only a small part of the natural world around me, and that I am no more important than the grass on the ground or the birds in the trees. 14. My personal welfare is independent of the welfare of the natural world. 	
Environmental knowledge D	<ol style="list-style-type: none"> 1. I am very knowledgeable about environmental issues. 2. I understand the environmental phrases and symbols noted on product packages. 3. I know that I buy products that are environmentally safe. 4. I know more about recycling than an average person 	I strongly disagree, 5 strongly agree
Pro-environmental behaviour E	<ol style="list-style-type: none"> 1. I print double sided whenever possible. 2. I put recyclable material (e.g. cans, paper, and bottles) in the recycling bins. 3. I bring reusable eating utensils to work (e.g. travel coffee mug, water bottle, reusable containers, reusable cutlery). 4. I turn lights off when not in use. 5. I take part in environmentally friendly programs (e.g. bike/walk to work day, bring your own local lunch day). 6. I make suggestions about environmentally friendly practices to manager/owner 	1 = never, 5 = always

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