

ECO VENTURE PRODUCT ON SUSTAINABLE DEVELOPMENT AMONG SMALL AND MEDIUM ENTERPRISES IN NAIROBI COUNTY

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Abstract:

This study was designed to investigate the relationship between eco-venture product on sustainable development among SMEs in Nairobi County. A sample representation of 246 from three levels of management of all SMEs was taken from the study using simple random sampling. In the process of answering the fundamental questions, a questionnaire for this study consisted of two sections: the profile of the respondents and their business, and the main questionnaire, which contained questions on the eco-venture product. After the data the data collection, it was analyzed for parametric tests. Most of the data gathered using the Likert scale was ordinal. Open-ended questions were analyzed using descriptive content analysis. There was error checking before data analysis to check for correctness of data input to the system cleared out transcription errors. Descriptive statistics such as the mean, the range, the standard deviation and variance gave a good idea of how the respondents reacted to the items of the questionnaire and how useful the things measured were. Exploratory data analysis included reliability tests for constructs at both individual and composite level, and measurement of both convergent and constructed validity was carried out using regression analysis to determine the relationship between the eco-venture products on sustainable development. The findings established the effect of the eco-venture product on sustainable development as having a good fit since all were above or below the recommended levels. Regression model results indicated the eco-venture product as ($R^2 0.525$, $P < 0.000$). Eco eco-venture product had a significant effect on sustainable development ($P > 0.004$). The study recommends for an integrated environmental aspect into the eco-venture products that would address the experiences of the environmental entrepreneurs in their endeavor to achieve sustainable development goals. The study established theoretical foundations drawn basically from Social Cognitive Theory (SCT) started as the Social Learning Theory (SLT) eco-venture product and sustainable development.

Key Words: Eco venture product, sustainable development, SMEs

Background

Eco investment product enables firms to become environmentally responsible for their actions. The world is facing challenges on climate change, carbon emission menace. Several conferences have yielded the Kyoto Protocol which aims at making industries more environment sensitive in their production and general operation.

Various principles hold environmental entrepreneurship business ventures towards their sustainable business solutions. These policies designed to reduce energy waste as well as carbon emission. Companies must recognize the fact that they owe a responsibility to the environment in which they operate in and must, therefore, develop sustainable solutions towards tackling problems related to waste management, energy needs, carbon emission, hazardous chemical usage as well as air pollution.

What is imperative to consider is the fact that most of the environmental entrepreneurship business ventures derive many benefits as a result of their eco-friendly business operations. This paper succinctly looks into the benefits that environmental entrepreneurship has both to itself and the larger environment in which it operates.

Bulevska (2014) adds that venture capital financing is essential to the creation of sustainable development through environmental entrepreneurship. Sustainable development as the focal point of development will result in growth regarding social, economic and ecological aspects of improving the quality of life. Since there is evidence that an ambiguous relation between venture capital, employment, and economic growth exists in most systems, it is assumed that venture capital funds can play a role in promoting sustainable development.

Literature Review

Theoretical Review

Social cognitive theory informed the completion of the theoretical framework. SCT considers the unique way in which individuals acquire and maintain behavior, while also considering the social environment in which people perform the action. The theory takes into account a person's past experiences, which factor into whether a behavioral action will occur. These past experiences influence reinforcements, expectations, and expectancies, all of which shape whether a person will engage in a particular behavior and the reasons why a person engages in that conduct (Bandura, 1987). Social cognitive theory has led to the development of social cognitive career theory.

Social Cognitive Theory (SCT) started as the Social Learning Theory (SLT) in the 1960s by Albert Bandura. It developed into the SCT in 1987 and posited that learning occurs in a social context with a dynamic and reciprocal interaction of the person, environment, and behavior. The unique feature of SCT is the emphasis on social influence and its emphasis on external and internal social reinforcement. SCT considers the unique way in which individuals acquire and maintain behavior, while also considering the social environment in which people perform the action. The theory takes into account a person's past experiences, which factor into whether the behavioral action will occur. These

past experiences influence reinforcements, expectations, and expectancies, all of which shape whether a person will engage in a particular behavior and the reasons why a person engages in that conduct.

Social Cognitive Theory considers many levels of the social, ecological model in addressing behavior change of individuals. SCT used on entrepreneurship has given the emphasis on the person and the environment, the latter of which has become a major point of focus in recent years for environmental entrepreneurship activities.

The Theory of Social Cognition introduces the idea of knowledge structure; the mental models (cognitions) that are used to achieve personal effectiveness in certain situations. Thus, since entrepreneurship definitions relate to individuals or teams that create products/services for other people, Cognitive Psychology is increasingly useful to help establish the phenomena associated with an enterprise (Sánchez, 2011b).

The cognitive approach uses the cognitive aspects of entrepreneurs to study and even to explain their behavior, which is related to the identification of opportunities for the creation of businesses and business growth. In fact, the term "cognitive style" is used to characterize certain ways of processing information related to entrepreneurial behavior. Two main lines can be differentiated within the cognitive literature: the study of cognitive structures and the study of cognitive processes (Sánchez, Carballo, & Gutiérrez, 2011). Lindblom, Mitronen, and Olkkonen (2008) found differences in the cognitive style of the different types of entrepreneurs. The authors investigated the cognitive style of local entrepreneurs concerning marketing decisions. The results indicated that the cognitive style of local entrepreneurs is more consistent with the style of employees than with that of other entrepreneurs.

Social cognitive theory refers to the different factors that affect the actions of an individual; these factors include environmental events, personal factors, and individual behaviors. Social cognitive theory has led to the development of social cognitive career theory (Bullough, Renko, & Myatt, 2014). Strongly related to entrepreneurship, social career theory links self-efficacy beliefs, outcome expectations, and personal goals, which individuals use to regulate their career goals (Bullough et al., 2014). As a result, these theories are both related to the study due to the importance of sustainable development in environmental entrepreneurship. That is since the social career theory has a close connection to outcome expectations, the entrepreneur can establish a final expectation of sustainable development for the organization he or she has created. It is important to note that social cognitive variables function in concert with other personal factors and environments (Bullough et al., 2014). The application of this theory allows this study to utilize variables that are directly related to environmental entrepreneurship and sustainable development. The social cognitive theory was chosen in this study because it relates to how people make decisions, a critical part of entrepreneurship and sustainable development.

Empirical Review

Venture capital has a pivotal role in nurturing entrepreneurship and new ventures. As such, venture capital viewed as an important catalyst for the development of sustainability. Furthermore, green marketing has allowed organizations to generate increased attention due to subsequent environmental deterioration and increased societal awareness of that global decline, forcing attention to the matter and creating not only a global problem but also a global challenge that demands attention (Kumar, 2011). Nowadays, the American Marketing Association (2016) divides the definition of

green marketing into three different aspects. "commercialization of products that are presumed to be environmentally safe. The development and marketing of products designed to minimize adverse effects on the physical environment or to improve its quality. Finally, as the efforts by organizations to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns (environmental definition).

The new venture has the potential to become a viable business opportunity; an entrepreneur should be willing to undertake a dynamic opportunity evaluation process. The screening involves answering a series of questions that shed light on the potential for the idea to become a product or service upon which business is created. Entrepreneurs who fail to evaluate their venture often discover, after they have invested lots of time and money, the answers to the questions that the opportunity evaluation process would have revealed. When the idea becomes a reality in the form of a product or service, how will this new product or service differ from what the market already has? Second, how will the product create value for the buyer or end user? What, exactly, do we know about the buying behaviors of the marketplace?

According to York and Venkataraman (2010), the study found that uncertainty, innovation, and allocation of resources are the primary concerns among entrepreneurs and SME developers, as these organizations must create value as well profit. This relates strongly to eco-venture products by showing that products and the establishment of SMEs may be risky, but, in spite of the risk, that value created through these means. However, studies established that profitability might not accurately measure eco-venture products (York & Venkataraman, 2010). Eco venture products are the basis for sustainable development today. However according to Pacheco et al. (2010). The study found that it may be difficult to classify if a business in this area has a primary focus on the environment or for profit, to make such a determination regarding a particular SME in this area, a research investigation may be required (Pacheco et al., 2010). An example of such a difficulty in determination of classification stems from the fact that consequences include changes in trade-offs for the innovation, requiring decision makers to consider that all models have limitations (Merton, 2013). The changes produced must be based on five different factors: recognizing the need for a model, accepting model limitations, expecting unexpected factors (consequences), understanding type user and use, and checking the infrastructure (Merton, 2013). Thus, innovation is crucial, yet has advantages and disadvantages associated with it.

Venture capital financing is also critical, as evidenced by Bulevska (2014). This study notes, Sustainable development is the focal point of development and growth, regarding social, economic and environmental aspects of improving the quality of life. Since there is evidence that an ambiguous relation between venture capital employment and economic growth exists in most systems, it can be assumed that venture capital funds can play a role in promoting sustainable development (Bulevska, 2014, p. 92). This particular study emphasizes the importance of financing eco-venture products through surveys of different, new companies requiring investment services. The study also discusses the importance of sustainable development policies and practices by new businesses. This leads to the following hypothesis

H₀: Eco venture product does not have significant effects on sustainable development.

Research Methods

The study used a descriptive research design to investigate the effects of the eco-venture product on sustainable development among SMEs in Nairobi County, Kenya. A descriptive study design provided for a standardized collection and interpretation of data through surveys and statistical software SPSS. The study was conducted in Nairobi County. The population of the study comprised of the management of the SMEs. The research targeted 246 respondents. However, the survey received a total of 236 respondents who completed the questionnaires, and this was considered sufficient. This being a descriptive study, the questionnaire was an appropriate tool for data collection. Respondents selected their answers guided by a seven Likert scale. The Likert scale primarily used in surveys to obtain participant's preferences or degree of agreement with a statement or set of statements where 1 – Highly Disagree; 2 – Disagree; 3 – Slightly Disagree; 4 – Neutral; 5 – Slightly Agree; 6 – Agree, and 7- Highly agree.

Reliability ensured through the use of standard survey questionnaires administered to all SMEs who formed the sample selected (Sunders, Lewis, & Thornhill, 2012). The consistency of the variables checked with Cronbach's alpha statistics. Cronbach's Alpha verify also used to test internal reliability assuring the ability of data collected techniques and analytic procedure to produce consistent findings if they are replicated by a deferent inquirer (Sunders et al., 2012). The Cronbach's (α) alpha as a coefficient of reliability score was 0.900 for this study. Cronbach's Alpha's can only measures variables which have more than one measurement question.

Data Analysis

Both descriptive and inferential statistics were used to analysis data. The inferential statistics included Analysis of Variance (ANOVA) and regression analysis. The study assumed a linear model based on the knowledge from reviewed literature and relationship between Innovation (independent) and sustainable development (dependent) where sustainable development is a function of the eco-venture. Sustainable development, $SD = f(\text{eco-venture}, VP)$

Thus, the regression model is $SD = \beta_0 + \beta_1 * VP_i + \epsilon_i$

Where:

SD = sustainable development

VP= Eco venture product

B 0 is the autonomous components which are the level of sustainable development that influenced independent variables considered in the study. It also gives the Y intercept of the model. From the table 2 on multiple linear regression, $\beta_0 = 0.964$

B 1 is the coefficient of proportionality which tells the variation to which eco-venture product causes on sustainable development in SMEs. The coefficient is positive, and the magnitude of the coefficient is 0.180. Therefore, changes in the score of SME eco-venture product reflects variations in the score of sustainable development in SMEs in Kenya.

€ is a random error term and takes care of other factors that affect sustainable development not defined in the model. The model generated can then be as follows: -

$$Y = 0.964 + 0.180 VP$$

Discussions on Results

Response rate and demographics

Out of 246 questionnaires distributed to SMEs in Nairobi County, 236 (95.9%) of the questionnaires were filled out and collected, all of which were analyzed. The response rate was higher and was enhanced using various ways. First, an introductory letter that briefly explained the purpose of the study accompanied the questionnaires assuring anonymity of the responses provided, secondly, the drop and pick late method used to administer the surveys enhanced the responses rate. Also, phone calls used so as to get enough responses for statistical analysis and validity. Respondent's gender, age, company and their Job positions in the organization are relevant personal data. Also, in all the indicators from the five-study contrast are related to the SMEs characteristics.

Background information

Background information was summarized using frequencies and percentages. From the study findings majority, 47.9% are from the age group of 21-30 followed by slightly old generation group of 31-40 years of age 36%, 2.5% of the respondents were the old generation 41-50 years of age and .8% of the respondents were above 50 years old. The study further sought to ascertain the gender balance of the interviewees, the study findings majority 107 (45.3%), were female while 99 (41.9%) were male. 12.7% (n = 30) did not disclose their gender, indicating that there were more female environmental entrepreneurs than male in the surveyed SMEs.

The study discusses the means and standard deviations of the results as per the variable of the study. The mean and the standard applied to the variables data collected through a Likert scale. There was an investigation of eco-venture and sustainable development.

Table 1: Eco venture product

Effects of Eco venture products on sustainable development among SMEs	Mean	Std. Deviation
The company considers the influence of the new product on the environment	5.00	1.45
The company considers different ways of to make the production process more environment-friendly	5.51	1.37
The company follows popularity trends within the industry	5.36	1.37
The company considers the activities of its competitors	5.58	1.43

Effects of Eco venture products on sustainable development among SMEs	Mean	Std. Deviation
The company focuses on providing environmental products that can meet multiple needs	5.70	1.39

The mean scores obtained for the above items were 5.00, 5.51, 5.36, 5.58, and 5.70. The standard deviations were 1.45, 1.37, 1.37, 1.43, and 1.39, respectively. The majority thus indicated that company considers the influence of the new product on the environment. An excellent majority also agreed that: company finds different ways of to make the production process more environment-friendly, company follows popularity trends within the industry, company considers the activities of its competitors and company focuses on providing environmental products that can meet multiple needs

Model Testing

Multiple linear regression model was applied to investigate the effects of eco-venture product on sustainable development among the SMEs

Based on the findings as presented in Table above, the overall model was statistically significant ($R^2 = 0.525$, $F = 48.18$, $p > 0.000$). The R- square coefficient of determination informs the proportion of change in sustainable development caused by the variation of the explanatory variables; $R^2 0.526$, means that the model can explain 5.25% of the variation in the dependent variable (Sustainable development).

Table 2: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics						
					R Change	Square Change	F Change	df1	df2	Sig. Change	F
1	.725 ^a	.525	.515	.635	.526	48.18	5	217	.000		

a. Predictor: (Constant), Eco venture product

Table 3: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	97.06	5	19.41	48.18	.000 ^b
	Residual	87.43	217	.403		
	Total	184.49	222			

a. Dependent Variable: Sustainable Development

b. Predictors: (Constant), Eco venture product,

Regression Coefficients

Table 4 on regression coefficient presents effects of eco-venture product and sustainable development among SMEs in Nairobi County. The table also shows the t-statistics and the p-values measuring the significance of the relationship between the dependent and independent variables.

Table 4: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.964	.321		3.00	.003
Eco venture product	.180	.062	.178	2.92	.004

a. Dependent Variable: Sustainable Development

The above Table 4 shows the coefficients of the multiple regressions for the explanatory variables. At 5% significance level and 95% confidence level, innovation, significantly influencing the growth of medium enterprises. The independent variable had a significant influence on an eco-venture product on sustainable development among SMEs in Nairobi County as indicated by the regression results of (β 0.964, $p > 0.003$). Table shows that eco-venture product had a significant influence on sustainable development at (β 0.180, $p > 0.004$)

Discussion

The debate about the significant findings of the study based on the objectives. This study sought to establish the effects of an eco-venture product on sustainable development among the SMEs in Nairobi County. The research objective under this variable was to determine the effect of eco-venture products on sustainable development among the SMEs.

Based on the research findings, the correlation analysis established that there existed a strong relationship between environmental entrepreneurship and sustainable development, in that, eco-venture product explains 18% of the variation in the sustainable development of SMEs in Kenya ($t = 2.923$, $b = 0.180$, $P > 0.004$). Thus, the t-calculated (2.923) value is greater than t-critical (2.069), and the P-value of 0.004 is statistically significant. To this end, the study findings lead to the rejection of the hypothesis that Eco venture product does not have a significant effect on sustainable development. The results seem to agree with other studies that product should minimize the direct impact by integrating the use of abundant materials, reducibility, recyclability, reusability of its parts and packaging without compromising the design and quality Ndubisi and Nwanko (2013). Reducibility, recyclability, reusability makes the product more suitable to create a huge impact thus creating more interest in the customer.

The Pearson's Product Moment Correlation coefficient for the eco-venture product is 0.562 and with a corresponding p-value of 0.004 which is statistically significant. Therefore, there is a positive and meaningful relationship between

sustainable development and eco-venture product. About the effect of eco-venture products on sustainable development, the study found out a positive and significant correlation at the 5% level of significance. Effects of eco-venture product on sustainable development illustrates that an increase in an eco-venture product would result to increased sustainable development in SMEs. The regression test results also gave similar findings where the eco-venture product was found to be statistically related to sustainable development at (β 0.180, $p > 0.004$), the relationship was a positive relation showing a positive trend in the relation between eco-venture products and sustainable development. Eco venture products are the basis for sustainable development today. But according to Pacheco et al. (2010), it may be difficult to classify if a business is for the environment or profit. A research investigation may be required.

The significance of the of eco-venture products on sustainable development, the study obtained sufficient evidence to reject the null hypothesis and established that there is a significant effect of eco-venture products on sustainable development of SMEs in Nairobi City County.

At the macro-level, the new venture must be acutely aware of the impacts of societal changes on the market for the new product or service. The process used has been termed environmental scanning. Environmental scanning is the process by which the various critical environmental sectors that influence the future viability of the venture scanned, evaluated, and an assessment is developed to assist the entrepreneur in determining the impact of the change of the potential investment. For the entrepreneur, the purpose of the environmental scanning process is to identify what new opportunities emerged through the shifting of the significant environmental forces. The questions answered deal with the appropriate market fit between the new venture and the market for the product or service.

Conclusion

The general objective of the study to investigate the effects of eco-venture product and sustainable development among SMEs in Nairobi County, Kenya. The explanatory variables used in the study to influence eco-venture product and sustainable development explains 18% of the dependent variable ($R^2=0.525$, $p>0.000$). Findings established that eco-venture product is more committed to sustainable development. The analysis also confirmed that a robust and significant positive relationship correlation exists between eco-venture product and sustainable development. Based on multiple linear regression analysis, there is a connection between the dependent variable 'eco-venture product' on 'sustainable development.'

This study tested hypothesis developed out of the existing literature on the relationship between eco-venture product on sustainable development. By the empirical results obtained from the analysis of the quantitative and descriptive data, the study concludes that eco-venture product relationship affects sustainable development among small and medium enterprises in Nairobi County, Kenya. Following the study findings and discussion presented in this research, below are the conclusions;

The results of research reaffirm the positive and significant relationship between sustainable development and eco-venture product. The new venture has the potential to become a viable business opportunity; an entrepreneur should be willing to undertake a dynamic opportunity evaluation process. The screening involves answering a series of

questions that shed light on the potential for the idea to become a product or service upon which a business created. Entrepreneurs who fail to evaluate their venture often discover, after they have invested lots of time and money, the answers to the questions that the opportunity evaluation process would have revealed. When the idea becomes a reality in the form of a product or service, how will this new product or service differ from what the market already has? Second, how will the product create value for the buyer or end user? What, exactly, do we know about the buying behaviors of the marketplace?

Recommendation

The findings of this study add significant information to the body of knowledge, specifically on environmental entrepreneurship and sustainable development among the SMEs in Nairobi County. Analysis and synthesis provide descriptions of and recommendations on how to integrate environmental aspects into the eco-venture product that would address the experiences of the environmental entrepreneurs in their endeavor to achieve sustainable development goals.

The government further should facilitate participation by green entrepreneurs in knowledge networks, particularly in areas that will allow for the ease off or the support of the creation of linkages with research players. Policies in this direction include the funding of collaborative projects. Mentoring schemes, green clusters, and green incubators. Which bring together entrepreneurs, end-users, researchers, and financial players, allowing for the free and easy exchange of knowledge and the ability to more readily explore technical solutions to existing and emerging needs, and affording the business ventures that might implement these solutions in markets access to the resources necessary to do so.

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