

African Journal of Emerging Issues (AJOEI)

Online ISSN: 2663 - 9335 Available at: https://ajoeijournals.org ENTREPRENEURSHIP AND INNOVATION

INFLUENCE OF ENTREPRENEURIAL GREEN CONSUMER DEMAND ON INNOVATION PERFORMANCE OF MANUFACTURING SMES IN NAIROBI, KENYA

1*Nelly Jepngetich, ²Prof Elegwa Mukulu & ³Dr. James Mailu
 ¹PhD Student: Jomo Kenyatta University of Agriculture and Technology
 ^{2&3}Lecturer: Jomo Kenyatta University of Agriculture and Technology
 *Corresponding Author's Email: nelly.limo@gmail.com

Publication Date: September, 2024

ABSTRACT

Purpose of Study: The study aimed to examine the influence of entrepreneurial green consumer demand on the innovation performance of manufacturing SMEs in Nairobi.

Statement of Problem: There is a need to understand how entrepreneurial green consumer demand impacts the innovation performance of manufacturing SMEs in Nairobi, as this relationship could inform better marketing and innovation strategies within the sector.

Methodology: The study employed a descriptive design, targeting 172 SMEs in Nairobi's manufacturing sector. A stratified random sample of 120 owner-managers was surveyed using questionnaires and interviews. Data analysis involved descriptive and inferential statistics, with linear regression assessing variable relationships.

Result: The model results indicated that the coefficient of entrepreneurial green consumer demand has a positive and statistically significant relationship with the innovation performance of manufacturing SMEs ($\beta = 0.787$, p = 0.0001 < 0.05). The study recommends that SMEs in Kenya adopt consumer-driven marketing practices, as they significantly enhance innovation.

Recommendation: SMEs in Kenya should adopt consumer-driven marketing practices to enhance innovation performance.

Keywords: Entrepreneurial green consumer demand, innovation performance, Manufacturing SMEs, Nairobi

INTRODUCTION

Innovation plays a crucial role in enhancing corporate performance by strengthening a firm's market position, competitiveness, and overall effectiveness. According to Coad and Rao (2013), innovation can significantly impact these areas by introducing novel products, production methods, and organizational practices. Oke (2017) expands on this by defining innovation as encompassing new products, production procedures, supply sources, markets, and organizational methods. Jalles (2014) emphasizes that the impact of innovation is often measured through investments in R&D, patents, and new products.

The distinction between green and traditional entrepreneurs lies in the former's commitment to integrating environmental and social considerations into their business models. Green entrepreneurs engage in activities like ecotourism, recycling, energy efficiency, and renewable energy, focusing on profitability while considering environmental impacts (Katz & Green, 2019). This approach contrasts with traditional entrepreneurship, which primarily prioritizes economic gains without such environmental considerations.

Several studies have explored the influence of green marketing on business performance and consumer behavior. Wu and Chen (2014) found that consumer awareness of green marketing significantly affects purchasing intentions. Fatoki (2019) reported a positive relationship between green marketing and performance in hospitality firms, while Maziriri (2020) highlighted how green packaging and advertising boost competitive advantage and performance in manufacturing SMEs. Boztepe (2012) demonstrated that consumer purchasing decisions are greatly influenced by awareness of environmental issues, green product features, and green promotional practices, further supported by Bagheri (2014) in the context of sports shops.

Statement of the Problem

Globally, environmental pollution has negatively impacted enterprises in the manufacturing sector and their consumers, as evidenced by the rising disease burden among households (World Health Organization, 2018). In response, many businesses are adopting innovative, green practices that enhance economic profitability while adding value to environmental and societal activities. These practices include ecotourism, recycling, energy efficiency, sustainable mobility, organic agriculture, and renewable energy (Katz & Green, 2019; Patnaik & Chopdar, 2019; Prakash, 2012). The study aims

to examine how these green marketing practices are being embraced by enterprises to promote products and services with environmentally friendly targets and outcomes (Luthra, Garg & Haleem, 2016; Groening, Sarkis & Zhu, 2017).

In Africa, rapid industrialization has led to increased industrial pollution, resulting in unhealthy food products and negatively affecting both the manufacturing sector and consumers (Wichmann, 2017; Efobi et al., 2019). To address these challenges, some innovative private sector enterprises are forming "green" alliances and partnerships with organizations such as the United Nations Environmental Program and national governments. This study seeks to explore how these partnerships and strategies are helping businesses navigate environmental pollution and remain competitive (Efobi et al., 2019).

In Kenya, many manufacturing enterprises continue to rely on outdated technologies and systems, which limits their ability to innovate and adopt environmentally friendly practices. This study aims to investigate how these enterprises are struggling with obsolete machinery and traditional business models, and to assess the potential for adopting more sustainable and modern approaches to improve their environmental performance and overall business sustainability.

Objective of the Study

To examine the influence of entrepreneurial green consumer demand on innovation performance of Manufacturing SMEs in Nairobi

Research Hypothesis

Ho₁: Entrepreneurial green consumer demand has no influence on innovation performance of Manufacturing SMEs in Nairobi.

Theoretical Literature

Consumer behavior theory posits that both internal and external influences shape a consumer's needs and desires, ultimately guiding their consumption decisions (Schiffman & Kanuk, 2007). Internal factors such as motivation, perception, and attitudes interact with external influences from reference groups, culture, social class, and marketing activities. The theory asserts that satisfaction is derived from the gap between expected and perceived performance. Customers compare their performance expectations with their actual buying and usage experiences. Therefore, firms aim to enhance customer satisfaction by managing

expectations through tailored marketing mix variables, including green consumer marketing practices (Johnson, Nader & Fornell, 2016).

The tri-component theory of consumer satisfaction involves three psychological components that influence perceptions of a firm and its products or services (Oliver, 1993). The cognitive component relates to the consumer's thought process and evaluation based on the perceived quality of the product's performance. This includes knowledge gained from direct experiences and information from various sources (Vainikka, 2015). The affective component pertains to the consumer's emotional responses or feelings towards a product or brand (Yu & Dean, 2017). The conative component focuses on behavioral measures that result from the interaction between the provider and the customer during the buying process (Schiffman & Kanuk, 2017).

The interaction of these three components—cognitive, affective, and conative—shapes consumer perception by evaluating current stimuli against previous information or expectations. This perception affects corporate and brand image, expectations, and perceived product value, which in turn influences consumer satisfaction and behavior.

Empirical Review

A study done by Joshi and Rahman (2015) sought to determine the factors that affect green consumer purchasing behavior. Data collection was done through empirical review of exiting literature on green purchasing behavior. The two factors that were recognized in the study included consumer's environmental concern and products environmental attributes.

Whereas Hamdan (2015) assessed the influence of green marketing and innovation on purchase intention. The study was conducted among Consumers' Organics Vegetables Purchasing at Yogya Riau Junction Department Store in Bandung. Data was obtained from 60 consumers on organic vegetables who were sampled through purposive sampling. Both primary data and secondary data were collected using a closed questionnaire. Pearson correlation was used in analyzing the data. The study established that green innovation and innovation have a positive impact on purchase intention.

Research was done by Luzio (2013) on green consumers' product demand and consumption processes in Portugal. The study sought to understand how green consumers perceive green products in a marketplace context. Semi-structured in-depth interviews with Portuguese green consumers were used to discuss potential key factors (reasons to buy

green products, defining green product characteristics, feelings about pricing, perceived product confidence, willingness to compromise, environmental knowledge, and consideration of alternatives, product's point of purchase and use and disposal). The analysis indicates that green consumers represent an artificial segment.

RESEARCH METHODOLOGY

This study employed a positivism research philosophy and adopted a descriptive survey design. The target population consisted of 172 SMEs in the manufacturing sector, as reported by the Kenya Association of Manufacturers (KAM, 2019). To select a representative sample, a stratified random sampling technique was used, resulting in a sample size of 120 SMEs. Data collection involved the use of structured questionnaires and an interview guide for primary data, while secondary data on innovation variables was sourced from key organizations such as the Kenya Bureau of Standards (KBS) and the National Environment Management Authority (NEMA).

Upon collecting the quantitative data through the questionnaires, the data preparation process included editing, addressing blank responses, coding, and categorizing before inputting it into the Statistical Package for Social Sciences (SPSS) version 20.0 for analysis. SPSS was chosen for its extensive data handling capabilities and various statistical routines suitable for analyzing both small and large datasets (Donald & Tromp, 2006). Data collected via interview guides was analyzed using content analysis.

The analysis involved generating both descriptive and inferential statistics. A multivariate regression model and path analysis technique were used to examine the relationships between independent and dependent variables. These methods provided insights into how different factors influence the outcomes of interest in the study.

RESULTS AND DISCUSSION Background Information of the Respondents

The researcher started by a general analysis on the demographic data gotten from the respondents which included: gender, level of education of respondents and duration of the business in terms of inception, awareness of green marketing practices and key areas where green marketing was being practiced. This was followed by a description of the study variables under various sections of the questionnaire.

Gender of Respondents

The respondents were required to indicate their gender by ticking against the option of either male or female. This was to have a clear understanding on who are the owner managers whether it is male or female owned enterprises.

Table 1: Gender of Respondents

Gender	Frequency	Percentage
Male	87	74.4
Female	30	25.6
Total	117	100

The findings revealed that 74.4% of the respondents were male, while 25.6% were female. Specifically, there were 90 male respondents and 30 female respondents, indicating a gender imbalance in the sample. This distribution reflects a broader trend in the Kenyan manufacturing sector, which is predominantly male-dominated. Despite this imbalance, the diversity in the sample suggests that the data collected was not unduly skewed by gender-related factors.

This gender distribution highlights a general male bias in business demographics in Kenya. However, increasing gender diversity within organizational positions could enhance environmental performance through various channels. Greater representation of women could introduce a broader range of values, beliefs, and attitudes into the decision-making process, potentially fostering diverse perspectives (OECD, 2012). This diversity can stimulate critical thinking and creativity, contributing to more effective and innovative environmental practices (Lee & Farh, 2004).

Level of Education of Respondents

The study sought to determine the respondents' level of education. This is because the level of education influences the impartation of managerial skills as observed by Owino and Kwasira (2016). Response on the level of education of the respondents is as presented in Table 2.

Table 2: Level of Education of Respondents

Level of Education	Frequency	Percentage
Diploma	65	55.6
Bachelors	42	35.9
Masters	10	8.5
PhD	-	-
Total	117	100

The study findings revealed that 35.9% of the respondents held a bachelor's degree. This finding aligns with Wario's (2012) study, which indicated that 76% of the population had bachelor's degrees. The increase in modular studies, which offer evening and weekend classes, has also contributed to this trend. Respondents with master's degrees constituted 8% of the sample, reflecting the tendency of experienced employees to pursue advanced degrees to enhance their competitive edge. Meanwhile, 57% of the respondents held a diploma, likely influenced by the Technical and Vocational Education and Training Act of 2013. This Act aims to expand and improve learning institutions in Kenya by providing practical and technical skills to learners.

The high percentage of respondents with diploma-level education can be attributed to the practical skills acquired from these institutions, which enable graduates to start their own businesses. The study indicates that most respondents had qualifications above the diploma level. King and McGrath (2002) suggest that in today's dynamic business environment, education significantly impacts firm development. They argue that organizations with a higher level of human capital, including education and vocational training, are better equipped to adapt to unexpected changes. This underscores the importance of academic qualifications in influencing the environmental sustainability of the business sector in Kenya. Higher academic qualifications among business owners positively affect the overall performance and rating of SMEs.

Firm's Age

The respondents were required to indicate the age of the firm. This was to ascertain the milestones in terms of innovation gained over time. Findings are presented in Table 3.

Table 3: Age of the Firms

Duration	Frequency	Percentage
0 to 3 years	15	12.8
3 to 5 years	30	25.6
Over 5 years	72	61.6
Total	117	100

The findings indicated that 61.6% of the firms under study had been in existence for over 5 years. Further, 25.6% had existed for between 3 to 5 years while 12.8% had existed for

less than 3 years. The firms that have been in operation for over 5 years were the majority and hence the information provided can be seen to be authentic.

This means that the information provided was reliable and could be used to make conclusions on the study hypothesis and variables. The findings also indicated that the managers in these firms were the owners of the enterprises who had a higher need to succeed, explaining the success rate of these firms. This can relate to the entrepreneurship theories especially the psychological approach theory which pays attention to personal traits, motives, and incentives of an individual and concludes that entrepreneurs have a strong need for achievement (McLelland & Winter, 1971).

Descriptive Analysis

Entrepreneurial Green Consumer Demand and Innovation Performance of Manufacturing SMEs in Nairobi

The study investigated the influence of entrepreneurial green consumer demand on innovation performance of Manufacturing SMEs sector in Kenya by probing the customer awareness of the environmental issues and conservation. Further the study sought to establish whether price, gender and environmental knowledge were some of the determinants in influencing consumer demand and purchase. The results are shown in Table 4.

Table 4: Entrepreneurial Green Consumer Demand

Statements	SD	D	N	A	SA	Mean	SD
Our firm has measures to create							
awareness on customers pertaining							
need for the environmental issues							
and conservation	11.7%	5.8%	21.4%	28.2%	33.0%	3.65	1.31
Green products demand is							
influenced by their price	12.6%	5.8%	13.6%	32.0%	35.9%	3.73	1.34
Demand of green products							
increase if only they meet the							
needs of the consumers by							
providing extra value to them	13.6%	10.7%	13.6%	28.2%	34.0%	3.58	1.40
Consumers' knowledge and							
environmental responsibility have							
significant influence on green							
purchase behavior.	12.6%	10.7%	20.4%	22.3%	34.0%	3.54	1.38
Gender of consumers influence							
how consumers purchase products							
to a great extent.	12.6%	9.7%	8.7%	33.0%	35.9%	3.70	1.38
Green promotion practices							
influence how consumers purchase						3.57	1.26
products to a great extent.	9.7%	12.6%	12.6%	40.8%	24.3%		
Our customers have proper							
knowledge on environmental							
conservation	11.7%	13.6%	12.6%	22.3%	39.8%	3.65	1.42
Aggregate mean and SD						3.63	1.36

N=117, SA=Strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree S.D=Standard Deviation

The findings on whether manufacturing SMEs have measures to create awareness to customers on the need for the environmental issues and conservation, shows that majority of the respondents at 61.2 per cent agreed that their firms have measures in place, with mean response of 3.65 and standard deviation of 1.31. A study by Genoveva (2016) supports these findings which state that customer awareness, environmental concern and attitude, perceived consumers, consumer knowledge and environmental responsibility have significant influence on green purchase behavior.

The study examined the influence of price on the product demands and established that most of the respondents, at 67.9 per cent, agreed that green products demands are influenced by their price with a mean response of 3.73 and standard deviation is 1.34. The results further showed that majority of the respondents at 62.2 per cent were agreeing that the demand for green products increased if only they meet the needs of the consumers by providing extra value to them with mean response of 3.58 and standard deviation is 1.40.

Moreover, the respondents at 56.3 per cent agreed that consumers' knowledge and environmental responsibility have significant influence on green purchase behavior as shown by mean response of 3.54 and standard deviation is 1.38. These findings agree with the research done by Hamdan (2015) which established that green innovation has a positive impact on purchase intentions of the consumers. The study assessed the influence of green marketing and innovation on purchase intentions.

Finally, on the issue of gender, promotion and consumer knowledge, majority of respondents at 68.9 per cent agreed that the gender of consumers influence how consumers purchase products to a great extent with mean response of 3.70 and standard deviation is 1.38. The study also indicated that most of the respondents, 65.1 per cent, agreed that green promotion practices influence how consumers purchase products to a great extent with mean response of 3.57 and standard deviation is 1.26. The descriptive results for consumer knowledge showed that most of the respondents, at 62.1 per cent, agreed that customers have proper knowledge on environmental conservation with mean response of 3.65 and standard deviation of 1.36. A study by Muntaha and Marike (2014) is in line with these findings, since it established that individual attitudes towards green products are influenced by price, social influence, and environmental awareness.

The study further revealed that females have positive attitudes and are often likely to purchase green products compared to males. These findings are further validated by a study done by Fonseca (2015) which established that consumers are more motivated when they are informed of environmental issues, and they are influenced by the green market practices. The aggregate mean responses on statements about green consumer demand and innovation of Manufacturing SMEs sector is 3.63 an indication that majority of the respondents agreed that green consumer demand affect innovation of manufacturing SMEs. The aggregate standard deviation of 1.36 is an indication that the response by respondents were clustered around the mean response.

Innovation Performance of Manufacturing SMEs

The study evaluated the level of innovation of SMEs in the manufacturing sector in Kenya. The researcher investigated whether the firms under study had new products with new performances and whether the firms released their products into the market before the competition. Further the study sought to examine the introduction of new, improved, and

enhanced processes aimed at improving the products and service offerings to the consumers. The percentages, mean scores and standard deviation are shown in Table 5.

Table 5: Innovation performance of Manufacturing SMEs Sector

Statements	SD	D	N	A	SA	Mean	S.D
Our company create new							
product with new performances	5.8%	12.6%	7.8%	28.2%	45.6%	3.95	1.26
Our company introduces new							
product into the market before							
the competitors	8.7%	7.8%	15.5%	26.2%	41.7%	3.84	1.29
Our company offers improved							
products to the consumers	14.6%	11.7%	11.7%	24.3%	37.9%	3.59	1.46
Our company has been							
introducing new processes of							
manufacturing	10.7%	11.7%	12.6%	24.3%	40.8%	3.73	1.38
Our firm has been continually							
improving on exiting processes	8.7%	14.6%	13.6%	33.0%	30.1%	3.61	1.29
We have improved services to							
our customers	10.7%	8.7%	15.5%	29.1%	35.9%	3.71	1.33
Aggregate mean and SD						3.74	1.34

N=117, SA=Strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree S.D=Standard Deviation

The study found that 73.8% of respondents agreed that manufacturing SMEs create new products with enhanced performance, with a mean response of 3.95 and a standard deviation of 1.26. Additionally, 67.9% of respondents agreed that these SMEs introduce new products to the market ahead of their competitors, with a mean response of 3.84 and a standard deviation of 1.29. Furthermore, 62.2% of respondents agreed that manufacturing SMEs offer improved products to consumers, reflected by a mean response of 3.59 and a standard deviation of 1.46.

The study also revealed that 65.1% of respondents agreed that manufacturing SMEs have been introducing new manufacturing processes, with a mean response of 3.73 and a standard deviation of 1.38. Additionally, 63.1% of respondents agreed that these SMEs continually improve existing processes, with a mean response of 3.61 and a standard deviation of 1.29. Finally, 65% of respondents agreed that manufacturing SMEs have

enhanced their services to customers, with a mean response of 3.74 and a standard deviation of 1.34.

The aggregate mean response on statements about innovation in the manufacturing SME sector was 3.74, indicating that a majority of respondents believe these SMEs are actively innovating. These results are consistent with recent studies, such as the one by Miroshnychenko, Barontini, and Testa (2017), which highlight initiatives like Dell's "Plant a Tree for Me" program aimed at offsetting carbon emissions and demonstrating commitment to environmental sustainability.

Inferential Statistics

Hypothesis Testing

The section presents the hypothesis testing of the study. The Main purpose of hypothesis testing was to choose between two competing hypotheses about the value of a population parameter. The decision to either accept or reject the null hypothesis was based on p-value. If the p- value is less than 0.05, the hypothesis is rejected but if it is more than 0.05, then it is not rejected.

Ho₁: Entrepreneurial Green consumer demand has no influence on innovation Performance of Manufacturing SMEs in Nairobi.

The study hypothesized that green consumer demand has no significant influence on innovation of Manufacturing SMEs in Nairobi. The results are presented in Table 6.

Table 6: Entrepreneurial Green Consumer Demand and Innovation performance of Manufacturing SMEs Model Summary

				Std. Error of the
Model	R	R Square	Adjusted R Square	Estimate
1	.840a	.705	.675	.611

a. Predictors: (Constant), Green consumer demand

The coefficient of correlation between green consumer demand and innovation of Manufacturing SMEs was 0.840 indicating a positive relationship between green consumer demand and innovation of Manufacturing SMEs. The coefficient of determination of 0.705 indicated that 70.5% of innovation of Manufacturing SMEs could be explained by green consumer demand. The remaining percentage can be explained by other factors not in the

model. The standard error of estimate (0.611) showed the average deviation of the independent variables from the line of best fit.

Table 7: Entrepreneurial Green Consumer Demand and Innovation Performance of Manufacturing SMEs Model Anova

		Sum of				
Mod	lel	Squares	df	Mean Square	\mathbf{F}	Sig.
1	Regression	9643.613	1	9643.613	223.94	.001 ^b
	Residual	4995.378	116	43.063		
	Total	14638.991	117			

a. Dependent Variable: Innovation of SMEs

The findings revealed (F=223.94, p value = .001^b). The results indicate that the significance of F is 0.000 which is less than 0.05, this, therefore, implies that the regression model statistically significantly predicts the outcome variable and is, therefore, a good fit for the data. This is an indication that there exists a significant relationship between green consumer demand and innovation of Manufacturing SMEs in Nairobi in Kenya.

The study hypothesized that entrepreneurial green consumer demand has no significant influence on innovation performance of Manufacturing SMEs in Nairobi in Kenya. The results are presented in Table 8.

Table 8: Entrepreneurial Green Consumer Demand and Innovation Performance of Manufacturing SMEs Model Coefficients

				Standardize		
		Unstandardized Coefficients		d Coefficients		
		0001	Std.			
Mod	del	В	Error	Beta	t	Sig.
1	(Constant)	.705	.647		1.089	.302
	Green consumer demand	.787	.161	.840	4.888	.001

a. Dependent Variable: Innovation of SMEs

The study findings indicated that there was a positive significant relationship between entrepreneurial green consumer demand and innovation performance of Manufacturing

b. Predictors: (Constant), Green consumer demand

SMEs (β = 0.840, t= 4.888 and p value 0.001). This, therefore, means that an increase in entrepreneurial green consumer demand will increase innovation performance of Manufacturing SMEs significantly. Since the t was 4.888 which is greater than zero, the null hypothesis that green consumer demand has no significant influence on innovation of Manufacturing SMEs in Nairobi was rejected and the alterative hypothesis accepted.

It was therefore concluded that entrepreneurial green consumer demand has positive significant influence on innovation performance of Manufacturing SMEs in Nairobi in Kenya.

Discussion of Findings on the Relationship between Entrepreneurial Green Consumer Demand and Innovation Performance of Manufacturing SMEs

The study found that entrepreneurial green consumer demand positively affects the innovation performance of manufacturing SMEs in Kenya, with a correlation of r=0.787r = 0.787r=0.787, t=4.888t = 4.888t=4.888, and p=0.001p = 0.001p=0.001. This suggests a strong and statistically significant relationship between green consumer demand and innovation performance.

Luzio (2013) conducted research in Portugal on green consumers' product demand and consumption processes to understand how they perceive green products in the marketplace. Using semi-structured in-depth interviews, the study explored factors such as reasons for purchasing green products, defining green product characteristics, pricing concerns, perceived product confidence, willingness to compromise, environmental knowledge, and considerations of alternatives. The analysis revealed that green consumers represent an artificial segment within the market.

Boztepe (2012) examined the impact of green marketing on consumer behavior, sampling 540 consumers to assess how green marketing influences purchasing decisions. The study found that awareness of environmental issues, product features, green promotional practices, and green pricing significantly affected consumer purchase behavior. Similarly, Bagheri (2014) investigated the effects of green marketing on consumer behavior in sports shops in East Azerbaijan Province, Iran. The study, which included 210 shops, revealed a significant impact of green marketing on consumer behavior, particularly concerning product features, green promotion, green pricing, and green distribution. However, the study also noted a smaller effect of green marketing on consumer behavior in sports shops compared to other factors such as education, income, and age.

Summary of the Findings

The study found that 61.2% of respondents agreed that their manufacturing SMEs have measures in place to raise customer awareness about environmental issues and conservation, with a mean response of 3.65 and a standard deviation of 1.31. This finding is supported by Genoveva (2016), who highlights that customer awareness, environmental concern, attitudes, consumer knowledge, and environmental responsibility significantly influence green purchase behavior.

Regarding the influence of price on green product demand, 67.9% of respondents agreed that the price of green products affects their demand, with a mean response of 3.73 and a standard deviation of 1.34. Additionally, 62.2% of respondents indicated that demand for green products increases when these products offer extra value to consumers, reflected by a mean response of 3.58 and a standard deviation of 1.40. Moreover, 56.3% of respondents agreed that consumer knowledge and environmental responsibility significantly impact green purchase behavior, with a mean response of 3.54 and a standard deviation of 1.38. These results align with Hamdan's (2015) research, which found that green innovation positively affects consumer purchase intentions.

Conclusions

The study concludes that entrepreneurial green consumer demand has a positive influence on innovation performance of manufacturing SMEs Sector in Kenya. The firms have measures in place to create awareness to customers on the need for the environmental issues and conservation and that green products demands are influenced by their price. Further, the demand for green products increased if the firms meet the needs of the consumers by providing extra value to them. Consumers' knowledge and environmental responsibility have significant influence on green purchase behavior. Gender of consumers' influence how consumers purchase products and green promotion practices influence how consumers purchase products. The customers also have proper knowledge on environmental conservation.

Finally, model results also showed that the coefficient of entrepreneurial green consumer demand has a positive and statistically significant relationship with innovation performance of Manufacturing SMEs sector (β =.787, p = .0001<0.05). The regression of coefficient results implies that as green consumer demand increases by one unit, the innovation of SMEs in the manufacturing sector increases by .787 units. The null

hypothesis was therefore rejected. The study adopted the alternative hypothesis that green consumer demand significantly influences the innovation of Manufacturing SMEs sector in Kenya.

Recommendations

The study recommends that SMEs in Kenya to adopt consumer driven marketing practices since they enhance innovation. They can be done by integrating environmental awareness, need for environmental products and use of customer feedback. This will enhance the demand of products that are perceived to be ecofriendly that enhance innovation in the organization.

REFERENCES

- Ar, I. M. (2012). The impact of green product innovation on firm performance and competitive capability: the moderating role of managerial environmental concern. *Procedia-Social and Behavioral Sciences*, 62: 854-864.
- Barbier, E. (2011). The policy challenges for green economy and sustainable economic development in natural resources forum. *NRF –A United Nations Sustainable Development Journal*, 35(3):233-245.
- Chen, C. C., Shih, H. S., Shyur, H. J., & Wu, K. S. (2012). A business strategy selection of green supply chain management via an analytic network process. *Computers & Mathematics with Applications*, 64(8): 2544-2557.
- Chen, W., Wu, Y., Yue, Y., Liu, J., Zhang, W., Yang, X., ... & Han, L. (2015). Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. *Science*, 350(6263): 944-948.
- Coad, A., Segarra, A., & Teruel, M. (2013). Innovation and firm growth: Do firm age play a role? *Research Policy*, 45(2): 387-400.
- Daub, C. H., Scherrer, Y. M., & Verkuil, A. H. (2015). Exploring reasons for the resistance to sustainable management within non-profit organizations. *Sustainability*, 6(6): 3252-3270.
- Drucker, P. (2014). *Innovation and entrepreneurship*. London; HarperCollins Publishers Ltd.

- Drucker, P. F. (1985). The discipline of innovation. *Harvard Business Review*, 63(3): 67-72.
- Efobi, U., Belmondo, T., Orkoh, E., Atata, S. N., Akinyemi, O., & Beecroft, I. (2019). Environmental pollution policy of small businesses in Nigeria and Ghana: Extent and impact. *Environmental Science and Pollution Research*, 26(3): 2882-2897.
- Fatoki, O. (2019). Green Marketing Orientation and Environmental and Social Performance of Hospitality Firms in South Africa. *Foundations of Management*, 11(1): 277-290.
- Federal Statistical Office of Germany (2020). Greenhouse gas emissions in industry: *Ecological Economics* 68(10): 2637-2645
- Freeman, R. E., & Phillips, R. A. (2002). Stakeholder theory: A libertarian defense. *Business Ethics Quarterly*, 12(3): 331-349.
- Frese, M. (2018). Strategy Process as a Characteristic of Small-Scale Business Owners: Relationships with Success in a Longitudinal Study. *Journal of occupational and organizational Psychology* 82(1): 21-44
- Green Jr, K. W., Zelbst, P. J., Meacham, J., & Bhadauria, V. S. (2012). Green supply chain management practices: impact on performance. Supply Chain Management: *An International Journal*, 17(3): 290-305.
- Green, K. W., Zelbst, P. J., Meacham, J., & Bhadauria, V. S. (2012). Green supply chain management practices: impact on performance. Supply Chain Management: *An International Journal*, 42(7): 640-672.
- Greenberg, R. (2018). The Environmental Impact of Manufacturing from the Industrial Revolution to Automation and Everything in Between. Retrieved on February, 19, 2018 from: https://cerasis.com/manufacturing-and-the-environment/
- Greeno, J. & Robinson, S. (1992). Rethinking corporate environmental management. *The Columbia Journal of World Business*, 28(2): 222-232.
- Herbst, U., & Merz, M. A. (2011). The industrial brand personality scale: Building strong business-to-business brands. *Industrial marketing management*, 40(7): 1072-1081.
- Hwang, V., Desai., S., & Baird, R. (2019). *Access to Capital for Entrepreneurs: Removing Barriers*. Kansas City: Ewing Marion Kauffman Foundation.

- Jalles, J. T. (2014). How to measure innovation? New evidence of the technology–growth linkage. *Research in Economics*, 64(2): 81-96.
- Johnson, M. D., Nader, G., & Fornell, C. (2016). Expectations, perceived performance, and customer satisfaction for a complex service: The case of bank loans. *Journal of Economic Psychology*, 17(2):163-182.
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behavior and future research directions. *International Strategic management review*, 3(1-2): 128-143.
- Katz, J. A., & Green, R. P. (2019). *Entrepreneurial small business* (Vol. 200). New York, NY: McGraw-Hill/Irwin.
- Kinoti, M. W. (2011). Green marketing intervention strategies and sustainable development: A conceptual paper. *International Journal of Business and Social Science*, 2(23): 263-273.
- Ko, E., Hwang, Y. K., & Kim, E. Y. (2013). Green marketing 'functions in building corporate image in the retail setting. *Journal of Business Research*, 66(10): 1709-1715.
- Krishna, A. (2012). An integrative review of sensory marketing: Engaging the senses to affect perception, judgment and behavior. *Journal of consumer psychology*, 22(3): 332-351.
- Kumar, V., Rahman, Z., & Kazmi, A. A. (2013). Sustainability marketing strategy: an analysis of recent literature. *Global Business Review*, 14(4): 601-625.
- Leung, L. (2015). Validity, reliability, and generalizability in qualitative research. *Journal of family medicine and primary care*, 4(3):324.
- Luthra, S., Garg, D., & Haleem, A. (2016). The impacts of critical success factors for implementing green supply chain management towards sustainability: an empirical investigation of Indian automobile industry. *Journal of Cleaner Production*, 121:142-158.
- Ma, Y., Hou, G., & Xin, B. (2017). Green process innovation and innovation benefit: The mediating effect of firm image. *Sustainability*, 9(10): 1778.
- Ma, Y., Yin, Q., Pan, Y., Cui, W., Xin, B., & Rao, Z. (2018). Green product innovation and firm performance: Assessing the moderating effect of novelty-centered and efficiency-centered business model design. *Sustainability*, 10(6): 1843.

- Maziriri, E. T. (2020). Green packaging and green advertising as precursors of competitive advantage and business performance among manufacturing small and medium enterprises in South Africa. *Cogent Business & Management*, 7(1): 1719586.
- Miroshnychenko, I., Barontini, R., & Testa, F. (2017). Green practices and financial performance: *A global outlook. Journal of Cleaner Production*, 147: 340-351.
- Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of Business Venturing*, 16(1): 51-75.
- Nelson, R. R., & Winter, S. G. (2002). Evolutionary theorizing in economics. *Journal of Economic Perspectives*, 16 (2): 23-46.
- Obayelu, A. E. (2016). Sustainable Consumption and Green Marketing in Developing Countries: Contemporary Perspective Using. *Handbook of Research on Consumerism and Buying Behavior in Developing Nations*, 429(3): 51-58.
- Oke, A. (2017). Innovation types and innovation management practices in service companies. *International Journal of Operations & Production Management*. 27(6): 564-587.
- Otieno, D. J., Ruto, E., & Hubbard, L. (2011). Cattle Farmers' Preferences for Disease-Free Zones in Kenya: An application of the Choice Experiment Method. *Journal* of Agricultural Economics, 62(1): 207-224.
- Otieno, S., Bwisa, H. M., & Kihoro, J. M. D. (2012). Influence of entrepreneurial orientation on Kenya's manufacturing firms operating under East African regional integration. *International journal of Learning & Development* 2(1)
- Ott, R. L., & Longnecker, M. T. (2015). An introduction to statistical methods and data analysis. Ontario, CA: Nelson Education.
- Patnaik, M. R. P., & Chopdar, M. P. (2017). Green Marketing: An innovative step towards Sustainable Development. *Journal of Cleaner Production* 141: 385-393
- Patnaik, M. R. P., & Chopdar, M. P. (2019). Green Marketing: An innovative step towards Sustainable Development. *Journal of environmental Planning and Management* 62(13)

- Patnaik, M.R., & Chopdar, M. P. (2013). Green Marketing: An Innovative step towards Sustainable Development. *International Journal of Remote Sensing and GIS*, 2 (3): 80-91.
- Prakash, A., & Kollman, K. L. (2012). Biopolitics in the EU and the US: A Race to the Bottom or Convergence to the Top? *International Studies Quarterly*, 47(4): 617-641.
- Sarkis, J., Gonzalez-Torre, P., & Adenso-Diaz, B. (2010). Stakeholder pressure and the adoption of environmental practices: *The mediating effect of training. Journal of Operations Management*, 28 (2): 163-176.
- Sarkis, J., Zhu, Q., & Lai, K. H. (2011). An organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*, 130 (1): 1-15.
- Scott, A. J. (1992). The Roepke lecture in economic geography the collective order of flexible production agglomerations: Lessons for local economic development policy and strategic choice. *Economic Geography*, 12(2): 309-350.
- Sherman, E., Mathur, A., & Smith, R. B. (2017). Store environment and consumer purchase behavior: mediating role of consumer emotions. *Psychology & Marketing*, 14(4): 361-378.
- Shqipe, G., Gadaf, R., & Veland, R. (2013). Innovation strategies and competitive advantage. *South East European University*, 8(1)): 18-23
- Thomas, J. R., Silverman, S., & Nelson, J. (2015). *Research methods in physical activity*, Champaign, Illinois: Human kinetics.
- Uy, M. A., Chan, K. Y., Sam, Y. L., Ho, M. H. R., & Chernyshenko, O. S. (2015). Proactivity, adaptability and boundaryless career attitudes: The mediating role of entrepreneurial alertness. *Journal of Vocational Behavior*, 86: 115-123.
- Vainikka, B. (2015). Psychological factors influencing consumer behaviour. *The Journal of Consumer Research* 14: 189-199
- Were, A. (2016). Manufacturing in Kenya. Features, Challenges and Opportunities. *International Journal of Science, Management and Engineering*, 4(6): 15-26.

- World Health Organization, (2018). How air pollution is destroying our health. Retrieved 23rd, March 2020 from; https://www.who.int/airpollution/news-and-events/how-air-pollution-is-destroying-our-health
- Wu, S. I., & Chen, Y. J. (2014). The impact of green marketing and perceived innovation on purchase intention for green products. *International Journal of Marketing Studies*, 6(5): 81.
- Yu, Y. T., & Dean, A. (2017). The contribution of emotional satisfaction to consumer loyalty. *International journal of service industry management*, 12(3): 34-42.