

Green Marketing and Library User Satisfaction in Zimbabwean State Universities

Kandira Nobbie¹, Madziwo Edwin¹

¹ Zimbabwe Open University,

<https://orcid.org/0009-0008-9216-6521>

Corresponding Author's email: kandiran@zou.ac.zw

¹ Zimbabwe Open University

<https://orcid.org/0000-0002-7475-9605>

Abstract

Focused on Zimbabwe's academic libraries, this study examined how green marketing affects user satisfaction. The research was motivated by the fact that paper and paperboard, which are central to library functions, account for 65% of recyclable university waste and thus significantly influence global warming. This implies that new strategies are needed if the library is to maintain its competitiveness and achieve corporate sustainability. The study aimed to determine the benefits of green practices on library user satisfaction. The study was quantitative, with a multi-case research design. An online questionnaire was utilised to collect data from 315 academic librarians at their workstations, drawn from a total population of 598. Data was analysed with SPSS. The study found that there is a direct link between library user satisfaction and the green marketing. The study concluded that to achieve user satisfaction, the library's greening should be prioritised.

Key words: Green marketing, Library user satisfaction, Green Library, Sustainability.

Introduction

Climate change and global warming pose a huge threat to the world's ecosystems and human lives. For example, pollution, biodiversity loss, global warming and deforestation, among other challenges, all contribute to the impending catastrophic global environmental calamity. The consequences encourage a greener lifestyle in all aspects of life, including academic libraries, as it provides insights into user satisfaction. Librarians can meet customer expectations, navigate the ever-changing environmental landscape and contribute to a more sustainable future by understanding and using green marketing concepts. Green marketing is the activity of promoting products or services that are sustainable and environmentally beneficial. Thus, academic libraries that invest in green marketing gain from improved user loyalty and a strong brand reputation while simultaneously helping to create a more sustainable future. This makes green marketing an increasingly significant and indispensable tool for assisting academic libraries in solving the mounting difficulties they face. The study was guided by the following research questions:

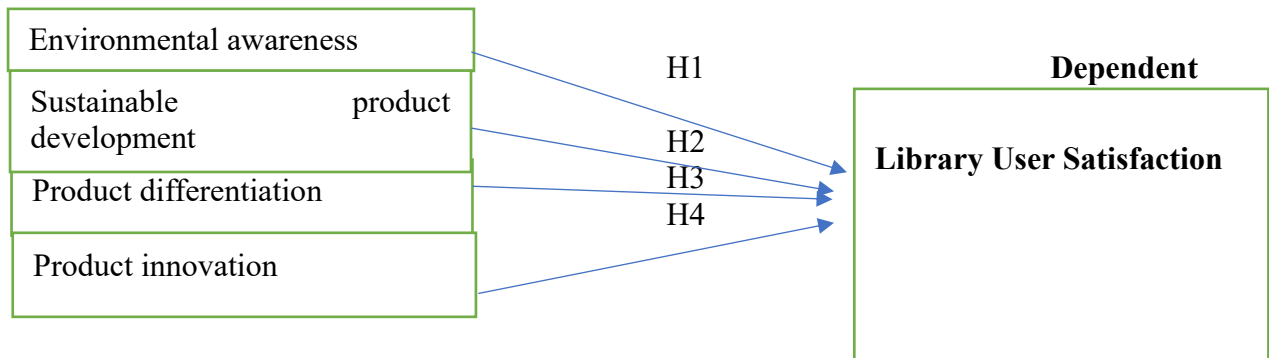
1. What is the effect of green environmental awareness on library user satisfaction among academic libraries in Zimbabwe?
2. What is the effect of green sustainable product development on library user satisfaction among academic libraries in Zimbabwe?
3. What is the effect of green product differentiation on library user satisfaction among academic libraries in Zimbabwe?
4. What strategies can be employed to make green marketing effective among academic libraries in Zimbabwe?

Conceptual Framework

A conceptual framework is an analytical tool that can be used in various situations and versions, according to Creswell (2019). It summarises the steps needed to complete the study or shows the researcher's synthesis of the literature on how to explain a phenomenon. The conceptual framework reflects the researcher's understanding of the relationships between the variables

being studied. As a result, it aids in identifying the variables needed for the research project and provides the researcher with a road map to follow.

Green marketing (Independent Variable)



H1. A positive relationship exists between green marketing and library user satisfaction.

Figure 1.1: Conceptual Framework of the Study

Source: Patra, S. K. (2019). *Greening of Libraries in India: A Study on Sustainable Practices*.

The conceptual framework for the current study was developed by the researcher using literature on green marketing and library user satisfaction, which is the dependent variable. The conceptual framework of the study indicates that green marketing elements that include environmental awareness, sustainable product production, product distinctiveness and product innovation are positively correlated with user satisfaction.

The Effect of Environmental Awareness on Library Users' Satisfaction

According to Jaiswal and Kant (2018), consumers' views towards environmentally friendly products are influenced by their level of environmental awareness. Amberg and Fogarassy, (2017) show that to reduce consumption, environmentally friendly products are designed and manufactured utilising recycled materials or by applying productive systems. Users love doing business with companies who care about the environment. As a result, an increasing number of libraries are inclined to view environmental preservation as a social obligation. The core of green marketing is providing eco-friendly items to eco-aware consumers (Siddique and Hossain, 2018; Singh & Singh, 2017; Patil, 2018).

The Effect of Sustainable Product Development on Library Users' Satisfaction

Green product design is the process of developing goods and services that have the least negative environmental impact feasible throughout the manufacturing cycle (Bing, 2018). Singh and Singh, (2017); Patil, (2018), show that green products have a positive impact on enhancing customer satisfaction. Thus, libraries should offer environmentally friendly resources and services.

The Effect of Product Differentiation on Library Users' Satisfaction

The long-term application of differentiation strategy can enhance a company's performance by boosting brand image, enhancing distribution channels and providing an exceptional service system that pleases customers (Amberg and Fogarassy, 2017; Bangar, 2018; Bing, 2018). Product differentiation is a tactic used to persuade consumers who are connoisseurs of distinctive items that offer a competitive edge over similar products (Singh & Singh, (2017); and Patil, 2018). In other words, a consumer evaluates a product primarily on its own values and characteristics, rather than those of other similar products. Possessing precise knowledge

about these qualities serves as the foundation creating a one-of-a-kind campaign related to a plan to target market wants, capitalising on the product's distinguishing features. As a result, the purpose of product diversification is to ensure user satisfaction.

The Effect of Product Innovation on Library Users' Satisfaction

According to Bing (2018) in a study on the effect of green marketing on consumer purchase intention of green products in Thailand, product innovation refers to any new or inventive product that has been produced or adjusted to meet customer needs. Furthermore, in their study on the factors of green purchasing intention in Nigeria, Hossain (2018) and Koul and Bhattacharya (2020) discovered that product innovation tackles the issue of product failure while also meeting and exceeding customer expectations. As a result, product innovation can lead to customer satisfaction and corporate growth.

Materials and Methods

A multi-case study was conducted to investigate the impact of green marketing on library user satisfaction among Zimbabwe's academic libraries. Also, a causal research design was also employed due to the deterministic nature of the research between green marketing and user satisfaction. The designs allowed the researcher to get data from many respondents at the same time without influencing them. A quantitative paradigm was also adopted, which involves measurable data such as statistical results, financial data and demographic data. The rationale for choosing this paradigm was that it allows the researcher to examine the relationship between the two variables (green marketing and user satisfaction).

The study's sample consisted of 315 librarians drawn from a population of 598 prospective responders. These were drawn from all academic libraries in Zimbabwe. The population is the group to which one wishes to apply the study's findings. Creswell (2013) defines population as an entire count of people or objects with characteristics under study. As a result, all respondents in this study should be librarians working in Zimbabwean academic libraries.

Results and Discussion

H₁ = Green environmental awareness has a positive effect on library user satisfaction

The first hypothesis states that there is a positive correlation between green environmental consciousness and library user satisfaction with a beta value of 4.75, t value of 5.470, a p value of .000 and r² was 0.1521. This shows that there is a moderate statistical association between green environmental consciousness and library user satisfaction, with a p-value of 0.00, which is less than the significance level of 0.05.

Decision Accept H₁ which states that environmental awareness positively affects library user satisfaction. This implies that there is a statistically significant relationship between library user satisfaction and environmental consciousness. These findings are in line with those of Siddique and Hossain, (2018) who discovered that user's attitude and behaviour are greatly improved by a high level of environmental knowledge.

Table 1.1: Regression analysis between green environmental awareness and library user satisfaction

Model		Coefficients				
		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.345	.319		7.361	.000
	Environmental awareness	.448	.082	.474	5.470	.000

Dependent Variable: Library user satisfaction

Source: Researcher's own compilation

H₂ = A positive relationship exists between green sustainable product development and library user satisfaction

The second hypothesis examined the relationship between library user satisfaction and the creation of environmentally friendly, sustainable products. The beta value was 4.65, t value of 5.329 and p value of 0.000, $r^2 = 0.9584$. Table 1.2 below shows the outcomes of testing this hypothesis. The results show that there is a positive link between sustainable product development and library user satisfaction, with p-values of 0.000, which were less than 0.05, found.

Decision: Accept H₂ which claims user satisfaction among academic libraries, is positively impacted by sustainable product development. This viewpoint is confirmed by Sharifian and Chandrasekaran's (2019) research, which shows that developing environmentally friendly, sustainable products improves user satisfaction.

Table 1.2: Regression analysis between green sustainable product development and library user satisfaction

Model		Coefficients				
		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.213	.342		6.469	.000
	Green product development	.469	.088	.465	5.329	.000

Dependent Variable: Library user satisfaction

Source: Researcher's own compilation

H₃ = Green product differentiation has a positive relationship on library user satisfaction

The third hypothesis investigated the relationship between green product distinctiveness and library user satisfaction. The beta value was 4.24, t value was 4.751 and p was .000, $r^2 = 0.953$. The test results for this hypothesis are shown in Table 1.3. There is a high statistical association between user satisfaction and green product differentiation, as demonstrated by the presentation, with a p-value of 0.00, less than the significance level of 0.05.

Decision: Accept H₃ which states that product differentiation positively affects user satisfaction and rejects the null hypothesis. This shows that the distinctiveness of green products and library user satisfaction are statistically correlated. These findings align with previous research by Siddique and Hossain (2018) and Singh and Singh (2017), which confirms that a product differentiation strategy is an effective means for a company to gain a competitive advantage and secure customer loyalty.

Table 1.3: Regression analysis between green product differentiation and library user satisfaction

Model		Coefficients			t	Sig.
		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta		
1	(Constant)	4.140	.225		18.410	.000
	Green product differentiation	.303	.064	.424	4.751	.000

Dependent Variable: Library user satisfaction

Source: Researcher's own compilation

H₄ = A positive relationship exists between green product innovation and library user satisfaction

The relationship between green products innovation and library user satisfaction was examined in the fourth hypothesis. The Beta value was 4.59, t value was 5.237, p was 0.000 and $r^2=0.877$ showing a strong positive relationship. With a p-value of 0.00, below the significance level of 0.05, Table 1.4 shows a statistically significant association between green product innovation and library user satisfaction.

Decision: Accept H₄ - There is a substantial positive correlation between product innovation and library user satisfaction. This means that academic libraries who improve their products will likely see high levels of library user satisfaction and have an advantage over competitors in the market. These results are consistent with prior research by Siddique and Hossain (2018), which established that the development of innovative products by a company is instrumental in achieving customer satisfaction and subsequently strengthening their loyalty.

Table 1.4: Regression analysis between green product innovation and library user satisfaction

Model		Coefficients			t	Sig.
		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta		
1	(Constant)	2.057	.324		6.359	.000
	Product innovation	.436	.083	.459	5.237	.000

Dependent Variable: Library user satisfaction

Source: Researcher's own compilation

Conclusion

Green library services have a favourable effect on raising library user satisfaction. In this case, green library services affect library user satisfaction and help libraries become more competitive. An active interface between supply (libraries) and demand (users) is created by product design. The services must be designed to meet the needs of the library user. There is also a direct association between library user satisfaction and the distinctiveness of green products. This is true since the purpose of differentiation strategy is to create an environment that distinguishes the library from its competitors in areas such as enterprise brand imaging, feature technology, service and network marketing, among others. Finally, there is a strong relationship between library user satisfaction and green product improvements. Thus, innovation improves library user satisfaction. Product innovation can thus contribute to library user satisfaction and success. This indicates that there is a positive relationship between library user satisfaction and green product improvements.

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