

Olushola S. AKEKE<sup>1</sup>

## EFFECT OF SOCIAL MARKETING ON SUSTAINABLE BEHAVIOUR TOWARDS HOUSEHOLD WASTE DISPOSAL IN LAGOS STATE, NIGERIA

The study seeks to determine the effect of social marketing on sustainable behaviour in the area of household waste disposal in Lagos State, Nigeria. This study focuses on four dimensions of social marketing namely: social product, social price, social promotions and social place. Descriptive research design was employed using cross-sectional survey methods for data collection. Three hundred and ninety one (391) respondents were used for the study. Four research questions were raised and answered through corresponding hypotheses. Data were analyzed using descriptive and inferential statistics. Findings indicated a convincing relationship between sustainable behaviour and social marketing particularly the elements of price and place; and by extension, implications for improvement is that decrease in price associated with waste disposal billings might cause individual household to dispose waste appropriately and more importantly regular maintenance of waste collection site in order to discourage road side waste disposal.

**Keywords:** social marketing, social product, social price, social promotions, social place, sustainable behaviour.

### 1. INTRODUCTION

Sustainability necessitates a shift in human behavior (Fischer, Dyball, Fazey, Gross, Dovers, Ehrlich, Brulle, Christensen & Borden, 2012). These improvements are critical for sustainable waste disposal practices, economic growth, and national development. Therefore, it is vital to prioritize issues pertaining to the United Nations' Sustainable Development Goals Agenda 2030, to which the majority of developing nations, including Nigeria, have already committed, notably in the field of waste disposal. Sustainability has been looked at as a proxy for "sustainable development", which is what the World Commission on Environment and Development (1997) commonly refers to as "development that meets the needs of the present without threatening the ability of future generations to meet their own".

Poor waste disposal and drainage system management in Nigeria is largely characterized by the lackadaisical attitudes of Nigerian households, and it is one of the most serious challenges in the country, resulting in considerable health complications and flooding (Beaudoin & Lawell, 2017; Mandy, 2016; Wilson & Cheeseman, 2008). According to the World Health Organization (2015), Sub-Saharan Africa accounts for roughly 35% of all

---

<sup>1</sup> Olushola S. Akeke, Ph.D Student, Dept. of Business Administration, University of Lagos, Nigeria; e-mail: solomonyz4real@yahoo.com. ORCID: 0000-0003-2877-4801.

home waste disposal problems that can be linked back to uncivilized waste disposal. Every day, approximately 14,000 metric tonnes of urban trash are generated in Lagos State, Nigeria, making waste removal and management a major concern and burden for the entire country (Ministry of Environment & Waste Resources, 2021).

Inconsequence, Mahdee, Bakar, Hassan and Seng (2016) submit that social marketing is the best known tool for addressing issues relating to societal and environmental threats and challenges. Chkanikova (2009) as cited in Kotler and Roberto (1989); conceptualized social marketing as a program planning process that promotes voluntary behaviors of a target audience by offering benefits they desire, minimizing barriers and obstacles they face, and motivating them through persuasion to participate in a program/social cause.

Despite the fact that a variety of explanations have been advanced to account for sustainable behaviour change, the majority of these studies only looked at one aspect of social marketing, namely mass media advertising, and the results were inconsistent, raising the question of whether social marketing is a universal concept or whether it is context specific to the point where its application may be misleading and inappropriate (Tweneboah-Koduah, Mann & Adams, 2019; Sharif, Ibrahim, Ndaghu & Yole, 2018; Truong & Hall, 2013; Attafar, Kazemi & Samimi, 2012; McKenzie-Mohr, 2000). Besides, an ever growing body of literature asserts that social marketing, in conjunction with the marketing mix is one of the most effective approaches to sustainable behavioural change (Attafar et al., 2012; Kennedy, 2016).

Therefore, the extent to which social marketing using the power of social marketing mix, might influence sustainable behaviour change in the area of household waste disposal in developing economies has remained largely unexplored to this day. Taking into consideration this deficiency, the purpose of this study is to investigate the effect of social marketing through the strength of social product, social price, social promotions and social place on sustainable behaviour in the area of household waste disposal in Lagos State. In order to accomplish this objective, the null hypothesized statements were formulated that there is no significant relationship between social marketing and sustainable behaviour towards household waste disposal.

## **2. LITERATURE REVIEW**

### **2.1. Conceptual Mode**

#### *2.1.1. Social Marketing*

A wide range of social marketing activities were implemented during the 1960's. They addressed issues such as public health, safe driving practices, drug misuse, tourism and family planning among others (Truong & Hall, 2013; MacFadyen, Stead & Hastings, 1999). When social marketing was first launched as a new discipline in 1971, Philip Kotler and Gerald Zaltman were able to fully appreciate the potentials of the field. Thus, Kotler and Zaltman (1971) being the pioneering authors conceived social marketing as a discipline capable of solving problems and advancing social issues by applying commercial marketing concepts informed by product design, pricing, communication and distribution that are capable of influencing the acceptance of social ideas.

According to Lokhande (2003) the components of social marketing is based on eco-friendly product mix, rational promotional policy, reasonable price of the product, effective and efficient distribution, partnership between organizations and society and sustainable

government policies. Almestahiri, Rundle-Thiele, Parkinson, and Arli (2017) report that social marketing is more than just communication and advertising. It is also about using the commercial marketing mix to create attractive benefits in the form of product design, minimising cost where it is necessary, communicating powerful messages through the media, and establishing an easy and convenient place for exchanges, among other things.

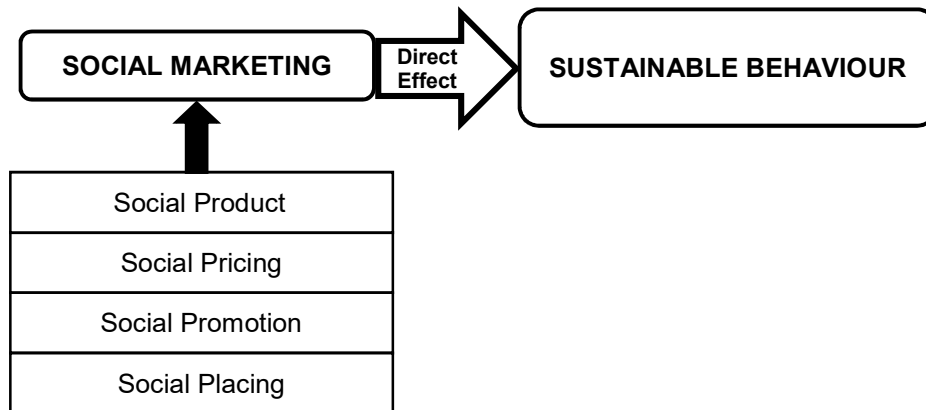


Figure 1. Conceptual Model Showing the Relationship between Social Marketing and Sustainable Behaviour

Source: Conceived by the researcher (2022).

*Social Product:* In social marketing, the product is not the usual product in commercial marketing but rather the social cause that is being promoted through campaigns among others. Social product could either be an idea, suggestion, thought and/or solution to a social problem, which in the case of this study is sustainable waste disposal behaviour. As the major concern of social marketing is sustainable behaviour change, the product in social marketing reflects the benefits of the behaviour being promoted and encompasses the desired behaviour (Akhtar & Bhattacharjee, 2013). For instance, Kotler and Zaltman (1971) provided the example of safer driving as a social product, which was also labeled as the core product in their discussion. In order to create that social product and achieve the objective of safer driving, various products have to be designed to make partial contribution to achieving safer driving that is the social product. Such products include public education media campaign on safer driving tips, offering courses on defensive driving, designing of insurance policy programmes for safer drivers to reduce premiums. By and Large, the social marketer tries to create a tangible product around the core product (social product) to advance and promote safer driving (social product).

*Social Pricing:* The pricing in social marketing refers to the cost or pain that the target audience is willing to bear in exchange for refraining from engaging in an unwholesome behaviour (Singaiah & Laskar, 2015). Social price, according to Almestahiri, Rundle-Thiele, Parkinson and Arli (2017) is the cost that the target audience will incur as a result of adopting a proposed behaviour. As reported by Kotler and Zaltman (1971) a social price is a combination of monetary costs, energy costs, and opportunity costs that are associated with a social cause or behavior that the buyer must pay in order to participate in it. In social

marketing, pricing can be typically expressed in monetary and/or non-monetary forms, as appropriate. The non-monetary aspects of social pricing can include time, effort, psychological, cultural and emotional factors, amongst other considerations.

*Social Promotions:* In social marketing, social promotion is a persuasive communication effort that a social marketer uses to remind and inspire members of the public to take a specific action (Lee & Kotler, 2011). This element and dimension of social marketing is required to facilitate better communication and convey accurate information to the general public. Social promotion encourages the target audience to continue performing an action. Some of the methods used by social promotions to convey messages to the target audience are advertising, public relations, sales promotion, personal selling, social media along with media advocacy (Singaiah & Laskar, 2015).

*Social Placing:* This is where the target audience is expected to acquire any tangible product associated with the behaviour and perform the desired behaviour (Almestahri et al, 2017). A social marketer must recognize that a service offered in a pleasant and accommodating environment results in a more positive impression and experience for the customer. Social place is used to strategically bring both social marketer and target audience together in order for them to take advantage of the services or engage in the proposed behaviour. It is necessary to consider a variety of factors while selecting a place for social marketing, including the distribution channel, coverage, product assortments, location selection, transportation, and inventory management, among others (Kotler & Keller, 2012; Singaiah & Laskar, 2015).

#### 2.1.2. Sustainable Behaviour

Sustainability have been explored to be representative of sustainable development which according to its commonly used definition by World Commission on Environment and Development (1987) as stated in Miller, De Barros, Kattan and Wirasinghe (2016) is “development” that “satisfies the requirements of the present without endangering the potential to satisfy the needs of future generations”. Sustainability demands that there should be positive changes in human/individual behaviour. Issues surrounding Sustainability are often driven by product innovation. That is, sustainability will no longer be an issue, if product and services become environmentally friendly (Antonides, 2017).

### 3. RESEARCH METHODS

The research design is purely descriptive, employing cross-sectional survey methods for data collection. The population of the study is made up of 37,367 households across ten (10) Local Government in Lagos West Senatorial district. The sample size is arrived at by employing Taro Yamane sample size determination formula putting the sample size at 391. Then multi-stage sampling technique was used to approach the determined sample size. The first stage involves identification of Local Government Areas across Lagos West Senatorial District, the second stage involves proportional allocation of sample size to each Local Government in Lagos West Senatorial District using proportional allocation formula  $n1 = (nxN1)/N$  (Bowley, 1926). While the third stage used simple random sampling procedure to obtain household respondent of each Local Government in Lagos West Senatorial District. Adapted structured questionnaire was used to obtain information from respondent across ten (10) Local Government in Lagos West Senatorial District. Data was analyzed using both descriptive and inferential statistic. The descriptive statistic

concentrated on percentages and frequency tables while the inferential statistic focused on multiple regression analyses.

#### 4. TEST OF HYPOTHESES

Following the formulation of the null hypothesis that there is no significant relationship between social marketing and sustainable behaviour in the area of household waste disposal.

The effect of social marketing on sustainable behaviour in the area of household waste disposal is presented in this sub section.

Table 1. shows the model summary of the regression estimates of social marketing on sustainable behaviour. The multiple correlation coefficient (R) of the model is 0.452. The coefficient of determination of the model (R Square) which measures the proportion of the variation in the dependent variable that could be explained by the independent variable is 0.206 while the adjusted R-square is 0.198. The result indicates that social marketing constructs such as product, price, promotions and place explain about 21% in the variation observed in sustainable behaviour of the respondents towards waste disposal.

Table 1. Model summary of the regression estimate

Model	R	R square	Adjusted R square	Std. Error of the estimate
	0.453	0.206	0.198	1.10704
Predictors: constant, place, product, price, promotion,				

Source: (Data Analysis, 2021).

Table 2. is presented from the model analysis to check F-statistics of the model. The result shows that the study regressors, that is social marketing measures significantly predict the sustainable behaviour measure (the dependent variable) in the model ( $F(4, 409) = 26.463, P < 0.005$ ). Consequently, the specified model is fit to explain the effect of social marketing on sustainable behaviour in the area of household waste disposal. This further supports the rejection of the null hypothesis and the acceptance of the alternative hypothesis which concludes that there is a significant relationship between social marketing and sustainable behaviour in the area of household waste disposal.

Table 2. ANOVA estimate of the regression model

Model		Sum of Squares	Df	Mean Square	F	Sig
	Regression	129.726	4	32.431	26.463	.000 <sup>b</sup>
	Residual	501.243	409	1.226		
	Total	630.969	413			
b. Predictors: (Constant), SMPLACE, SMP, SMPRM, SMPRC						

Source: (Data Analysis, 2021).

The estimated effect of social marketing on sustainable behaviour of household waste disposal is presented in Table 3. The results show that price and place are the most significant social marketing factors influencing sustainable behaviour in the area of waste

disposal. Parameter estimates of product and promotion are negative and statistically not significantly ( $p > 0.05$ ) related to sustainable behaviour. The coefficient of price is positive and significant at 5% level of significance ( $\beta = 0.470$ ,  $t = 5.748$ ,  $p < 0.05$ ). The result indicates that a reduction in the price associated with waste disposal would raise the level of sustainable behaviour of the people by 0.470. This price factors are associated with willingness of individual households to pay for waste disposal, purchase waste bags and charges associated with waste disposal. The result implies that lower waste billing might regulate misbehaviour towards waste disposal.

The coefficient of place is also positive and significantly ( $P < 0.05$ ) associated with sustainable behaviour in the area of waste disposal ( $\beta = 0.502$ ,  $P < 0.05$ ). The result indicates that increase in the regular waste collection site in area and street, massive distribution of waste bags/bins can change peoples' attitude towards disposing waste appropriately.

Table 3. Estimated effect of social marketing

Model	B	Std.Error	T	sig
(Constant)	-0.625	.388	-1.610	.108
Marketing product	-0.003	.003	-1.005	.315
Marketing price	0.470	.082	5.748	.000
Marketing promotion	-.075	.082	-.907	.365
Marketing place	0.502	.080	6.255	.000
Durbin-Watson = 1.907				
R <sup>2</sup> = 0.206				
Adj = .0198				

Source: (Data Analysis, 2021).

## 5. DISCUSSION OF FINDINGS

The formulated hypothesis sought to investigate the effect of social marketing (social product, social pricing, social promotion and social place) on sustainable behaviour towards household waste disposal.

The result of hypothesis one revealed that social marketing significantly predict the sustainable behaviour of household in the area of waste disposal ( $F(4, 409) = 26.463$ ,  $P < 0.005$ ). These findings corroborate the study of Truong and Hall (2013) that social marketing may perhaps be effective in promoting individual behaviour change for poverty alleviation and sustainable tourism development. More importantly, the findings support the recent study of Tweneboah-Koduah et al. (2020) that the model of social marketing will predict behavioural change of individual households.

### 5.1. Conclusion

The study found that on the average, majority of the respondent agree that only product and promotions as a measure of social marketing account for variations in behaviour of individual household towards waste disposal. That is, the use of plastic bags and rubbish drums for waste storage and related waste collection activities are agreed to be part of the behaviour associated with waste disposal. Most of the respondents also agree to the need to correct people for improper waste disposal, regulations and penalties, and printing of

campaign materials to raise awareness on waste disposal behaviour. The implication is that, decrease in price associated with waste disposal billings might cause individual household to dispose waste appropriately and more importantly adequate provision of policies and laws to regulate household waste generation, regular maintenance of waste collection site in other to discourage road side waste disposal, and availability of waste bags and bin drums in open spaces.

## 5.2. Recommendation and Future Research

Academic practitioners and social marketers should focus more attention on the marketing mix theory as a measure of social marketing. More importantly, concentrating more efforts on social pricing and social placing in order to prepare and encourage households towards healthy living and environment that is free of from pollution. Further studies can broaden and improve on this study by carrying it out in order senatorial district of Lagos State and more importantly using qualitative or triangulation research methods to adequately report and understand the behaviour of individual households towards waste disposal in Lagos State.

## REFERENCES

- Akhtar, S., Bhattacharjee, M. (2013, December). *The marketing mix elements for social cause: a rational approach to derive the new 4ps*. Paper presented in the International Conference on Research in Marketing (A Refereed International Conference), India: New Delhi.
- Almestahiri, R. D., Rundle-Thiele, S., Parkinson, J., Arli, D. (2017). *The Use of the major components of social marketing: A systematic review of tobacco cessation programs*. "Social Marketing Quarterly", 23(3).
- Antonides, G. (2017). *Sustainable consumer behaviour: A collection of empirical studies*. "Sustainability", 9. DOI: 10.3390/su9101686.
- Attafar, A., Kazemi, A., Samimi, A. (2012). *Investigating the role of social marketing in reducing the use of personal cars in city traffics, the case of Isfahan City*. "International Journal of Academic Research in Business and Social Sciences", 2(7).
- Beaudoin, J., Lawell, C. L. (2017). *The effect of urban public transit investment on traffic congestion and air quality*. DOI: 10.5772/66834.
- Bowley, A. L. (1926). *Measurement of precision attained in sampling*. "Bulletin of the International Statistics Institute, Amsterdam", 22(1).
- Chkanikova, O. (2009). *The application of social marketing in promoting sustainable transportation*. Lund University, Sweden. *Development in Emerging Cities in China: A Simulation Approach*. "Sustainability", 10(844).
- Fischer, J., Dyball, R., Fazey, I., Gross, C., Dovers, S., Ehrlich, P. R., Borden, R. J. (2012). *Human behavior and sustainability*. "Frontiers in Ecology and the Environment", 10(3).
- Kennedy, A. M. (2016). *Macro-social marketing*. "Journal of Macromarketing", 36(3).
- Kotler, P. Keller, K. L. (2007). *Marketing management* (12<sup>th</sup> Edition). Singapore: Pearson Prentice Hall.
- (2012). *Marketing management*, 14<sup>th</sup> Edt. New Jersey: Prentice Hall.
- Kotler, P., Roberto, E. L. (1989). *Social marketing: Strategies for changing public behavior*. The Free Press.
- Kotler, P., Zaltman, G. (1971). *Social marketing: An approach to planned social change*. "Journal of Marketing", 35(3).

- Lee, N. R., Kotler, P. (2011). *Social marketing: Influencing behaviours for good*. Thousand Oaks, CA: Sage.
- Lokhande, M. A. (2003). *Social marketing*. "Indian Journal of Marketing", 33(3). Retrieved 10<sup>th</sup> Feb. 2021. Access on the internet: <https://www.researchgate.net/publication/267574854>.
- MacFadyen, L., Stead, M., Hastings, G. (1999). *A synopsis of social marketing*. Institute for Social Marketing.
- Mahdee, J., Bakar, N. A., Hassan, H., Seng, V. O. K. (2016). Social marketing campaign: *Sustainable Recycling Model*.
- McKenzie-Mohr, D. (2000). *New Ways to Promote Pro-Environmental Behaviour: Promoting Sustainable Behaviour: An Introduction to Community-Based Social Marketing*. "Journal of Social Issues", 56(3).
- Miller, P., De Barros, A. G., Kattan, L., Wirasinghe, S. C. (2016). *Public transportation and sustainability: A review*. "KSCE Journal of Civil Engineering", 20(3).
- Ministry of Environment & Waste Resources (2021). Retrieved 8<sup>th</sup> Aug 2021. Access on the internet: <https://www.vanguardngr.com/2021/04/lagos-generates-14000-metric-tonnes-waste-daily-commissioner/>
- Sharif, H. A., Ibrahim, M., Ndaghu, J. T., Yole, D. M. (2018). *Social marketing approach to safer driving in Nigeria*. "The International Journal of Business and Technology", 2(4).
- Singaiah, G., Laskar, S. R. (2015). *Understanding of social marketing: A conceptual perspective*. "Global Business Review", 16(2).
- Truong, V. D., Hall, C. M. (2013). *Social marketing and tourism: What is the evidence?*. "Social Marketing Quarterly", 19(2).
- Tweneboah-Koduah, E. Y., Adams, M., Nyarku, K. M. (2019). *Using theory in social marketing to predict waste disposal behaviour among households in Ghana*. "Journal of African Business". DOI: 10.1080/15228916.2019.1597323.
- WHO (2015). Situation report on cholera outbreak in Ghana as of 24 May 2015 (Week 21). Retrieved 16<sup>th</sup> July 2020. Access on the internet: [https://reliefweb.int/sites/reliefweb.int/files/resources/Cholera situation Report](https://reliefweb.int/sites/reliefweb.int/files/resources/Cholera%20situation%20Report).
- World Commission on Environment and Development. (1987). *Our common future*, Oxford University Press, Oxford, UK.

DOI: 10.7862/rz.2022.mmr.07

*The text was submitted to the editorial office: April 2022.*

*The text was accepted for publication: June 2022.*