

# Marketing Information Systems and Sustainable Consumption

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## Abstract

Sustainable consumption is an emerging issue in many economies and this had been evidenced by grouping such as United Nations which has embarked on sustainability programs to ensure effective production and development of individual well-being in the society. Previously, main concern of firms was in satisfaction of needs and wants with less concern of its effect both to the consumers and the business environment. Global conferences have emphasized the need to manage excessive demands and unsustainable lifestyles and redistribution of resources from the developed to developing states globally as to progress regional sustainability both in production and consumption. Among other factors, sustainable consumption in firms can be ensured through measurement of operations and activities as well as information flow from the market to the firm and vice versa. The study focused on the marketing information systems. The main objectives of the study include: to review extant theoretical literature on the constructs of marketing information systems and sustainable consumption; to review extant empirical literature on the constructs of marketing information systems and sustainable consumption; to identify emerging theoretical and empirical gaps that forms the basis of future research on marketing information systems and sustainable consumption and to propose a conceptual model to respond to the gaps identified in the study. The literature reviewed suggested existence of relationship between MkIS and sustainable consumption. Even though various models and theories identify with the relationship, there is need for a unified model that explains the relationship. Further, from the empirical review, it emerged that the key elements that determine the effectiveness of a marketing information system is the information, the infrastructure of the MkIS, and the marketing orientation where the product offers are of superior value than that of competitors.

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The main empirical gap identified was that firms that practiced sustainable consumption possessed sustainable consumption models, however the models did not translate to firm market performance and hence the need to establish impact of MkIS on sustainable consumption. Further, firms that practiced non sustainable consumption were viewed to be more profitable while those that practiced sustainable consumption cited the processes to be costly and unprofitable. The study developed a conceptual model should future researchers opt to conduct an empirical review to validate the study.

**Key words:** sustainable consumption; marketing information systems; consumer decisions; information characteristics; sustainable products; marketing orientation.

## **1. Introduction**

Consumption worldwide has resulted to negative impacts among them, depletion of resources by marketers in the attempt cater for the ever-increasing demands and populations; disparity socially such that the affluent few enjoy desired products and dispose irresponsibly at the expense of those less affluent or society at large; laxity in regulation and consumer protection in global consumer market. This called for a turn around to sustainability in consumption globally as noted by author in [2]. According to author in [25] sustainable consumption is one of the indicators of Millennium Development Goals. Currently, the member states of United Nations have set up targets for its achievement. However, some of the member states are yet to reach their set targets. In developing states such as Kenya, this is incorporated in the Kenya Vision 2030. Member states through their governments have since played a great role of regulation towards achievement of individual Millennium Development goals. Outcome of this worldwide initiative is expected to be more healthy wellbeing of humanity, efficient and effective production as well as natural resources conservation as noted by author in [29]. Sustainable consumption is basically a consumption model that has social, economic and environmental considerations, and that seeks to alter the consumption behaviour of individuals towards an orientation that protects or preserves available resources for future consumption and performance, this therefore calls for the availability and the accuracy of marketing information from its multiple sources as noted by authors in [2, 3, 24, 23, 14]. MkIS is key marketing information tool that is continuous in nature and composed of people, processes, policies and procedures that acquires information from the environment, classifies and filters out the relevant marketing information, analyses and distributes to marketing centers in the organization for timely and accurate decision making of marketing programs as noted by authors in [17, 10].

## **2. Sustainable consumption**

Sustainability is detailed under climate, biodiversity, agriculture, fishery, forestry, energy and resources, water, economic development and health and lifestyle, and according to author in [3], sustainability management adds economic value to management by identifying, analyzing and managing non-market aspects in relation to market issues and processes. Based on authors in [23, 24] sustainable consumption entails acquisition, utilization and disposal of goods and services in a responsible way, that considers future consumers. Based on input a consumer channels from the market environment, various factors among them psychological as viewed by authors in [24, 1] , personal as noted by authors in [24, 29, 11] , cultural as noted by

authors in [20] social factors as identified by authors in [18] and even regulatory factors as noted by authors in [20, 14, 4] influence sustainable consumption by such consumer. These may variably range for consumer attitudes, level of knowledge and cultural beliefs, personal experience and affiliations and impact from government interventions such as through subsidization, mandatory labeling or subsidies.

Indicators of sustainable consumption are influenced by Sustainability dimensions which include social equity, environmental protection and economic feasibility. Sustainable consumption seeks to alleviate social inequity and disparity among consumers through creation of a healthy environment for all consumers, by marketers. Environmental protection considers safe utilization of environmental resources rather than harsh depletions while economic feasibility, factors in the match between efficiency and effectiveness and hence firms avoid wastages as well as take up attainable sustainability measures as noted by authors in [15, 28, 29].

The reviewed literature identified that sustainable consumption is signified by change in behavior. However, the change is significant to such an extent where it is measurable by marketers. According to authors in [22,15] sustainable consumption in its self-promotes localization in production where consumers appreciate local sustainable products instead of imports. It is also valuable in terms of functional and environmental value as noted by author in [4]. Whereby, functional value relates with consumption value obtained by consumer where the actual performance of product leads to fulfillment and satisfaction of the consumer. Environmental value relates to responsible use of the market environment, particularly ecological environment in a protective manner as noted by authors in [4, 8].

### **3. Marketing information systems**

Marketing information system is structured in nature whereby any data that is passed through the system is critically analyzed and is filtered for relevance in marketing decision making. It adapts a holistic view of organization and as such require coordinated efforts of various departments including: top management, marketing and brand management, sales management, new product groups, market research personnel, system analysts and designers, control and finance departments, programmers and computer experts as noted by authors in [2, 15, 8].

Based on the Unified Acceptance Theory of technological acceptance by author in [27] information technology facilitates quality both in perception and use where in this case users are both the marketer and consumer, such that main benefit entails continuous relay of relevant information between the market and market players. This influences effective and rational decision making hence leading to need satisfaction proposed by Russell and Wilikinson in 1979, proposing Rational Choice Model. Also based on Resource advantage theory as proposed by author in [12] a firm can achieve superior performance through occupying marketplace positions of competitive advantage.

### **4. Empirical review**

As noted by author in [18] complex information may leave consumer dissatisfied, disorganized and disempowered, the literature however focused much on consumer satisfaction rather than consumer choice.

According to author in [5] a well-designed MkIS can be used to determine firm performance, where main indicators include information characteristics, market orientation and information. According to authors in [9, 21] information characteristics, among them heterogeneity, framing, perishability and tangibility ensure effectiveness of market information. Author in [1] further noted that information characteristics may be based on the differentiation dimensions between goods and service that is perishability, heterogeneity, inseparability and tangibility. Authors in [21] further noted that information requirements are essential in MIS, which make crucial in designing of the MkIS infrastructure.

Market orientation as an indicator of sustainable consumption plays the role of directing marketing managers towards the market objective of the firm as noted by author in [1]. It enables understanding of the role of Market Information Systems in the performance of a business as it dwells on satisfaction of consumer needs and wants in a more superior way. Direct impact would be obtaining customer loyalty by engaging sustainability practices in product development. However indirectly would be manifested where stakeholders provide information on sustainability and market opportunities. Studies such as authors in [8,7] noted that market orientation required analysis of consumer demographics, market knowledge and experience for effectiveness.

Based on environmental regulation, study by author in [9] identified government regulation to have an impact on market information and sustainable consumption, where the government affects business either through subsidies, taxes and mandatory labelling of product packaging. Further, author in [19] points out that economic and political state of a country are a driving force towards sustainable consumption by firms. Author in [14] identified measures of sustainable consumption to include, consumer behaviour patterns, consumer expectations and nature of decision making process as well as shifting attitude. Author in [29] further added that consumer characteristics including, intention, perception, value attached to environment and behavioral control effect as indicators of sustainable consumption behavior.

While the literature discussed the proposed variables, various gaps exist such that there's no point of convergence. For instance, author in [6] discusses impact of MIS on performance, however it focuses on components such as internal reporting system, market research and market intelligence systems. However, this review incorporates the input and process systems which determine the outcome. Also authors in [9, 7] discuss information characteristics however, its for the purpose of choice editing and consumer lifestyle rather than sustainable consumption or long term considerations. Further author in [6] agrees with other studies such as authors in [21, 9,14] where sustainability consumption behavior variables are integrated to four main areas, that is, phases of consumption, impact of consumption behavior (acquisition, usage and disposal), sustainability dimensions and consumption area however focus is on establishing measures of sustainable consumption but not in relation to MkIS hence generalised across various organizations. As pointed out by author in [16] most market sustainability programs to consumer markets have failed due to lack of business model that incorporates the aspects of consumption market communication and sustainable and hence the purpose of this review.

According to author in [25] resource decoupling deals with effectiveness of use of resources and reduction of environmental risk whereas impacts decoupling focuses on threats to ecosystem and technical solutions for mitigation. Authors in [25, 26] study on decoupling natural resource use and environmental impacts from

economic growth applied case study and desktop research technique where South Africa, Germany and China were used as cases. The study identified that South Africa was yet to attain effective use of resources whereas more developed states such as Germany and China had attained sustainability in environmental and consumption practices as a result of explicit efforts towards decoupling including modernization of economy and stringent policies on the intensity of usage of resources.

The established issues and gaps in literature reviewed can be conceptualized as shown:

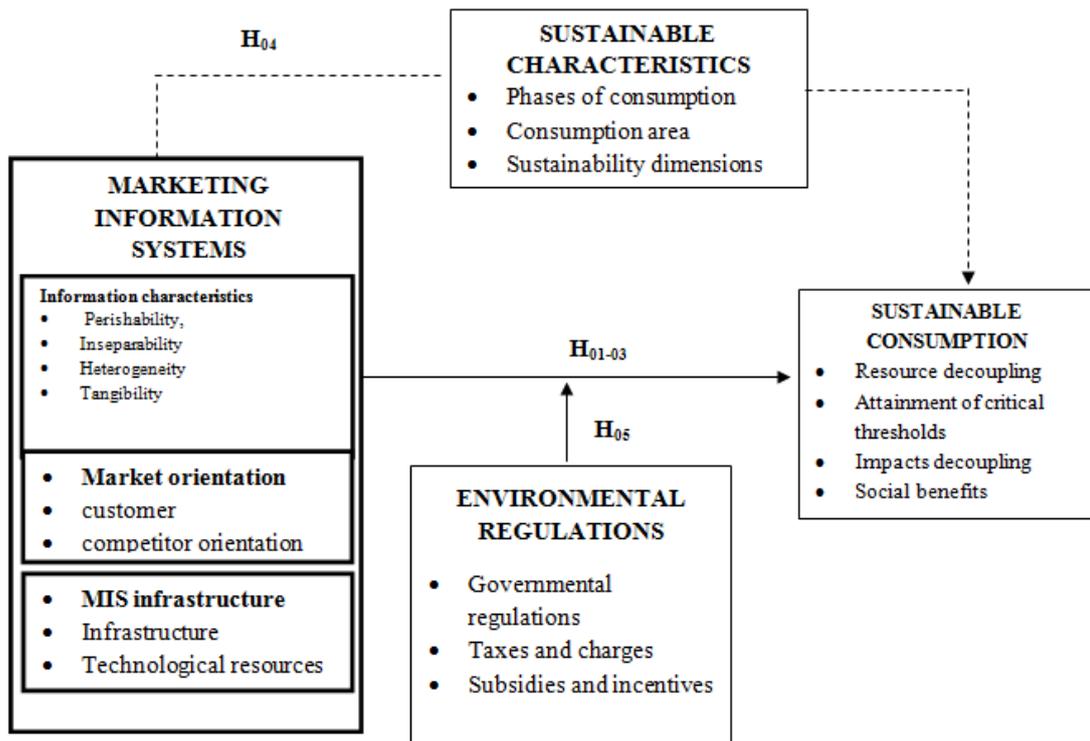


Figure 4.1: A proposed conceptual model

Source: Author (2018)

## 5. Proposed Research Hypotheses

From the reviewed literature and the proposed conceptual framework, it is proposed that further empirical study should be conducted, where it will be guided by the following proposed hypotheses:

H<sub>01</sub>: Information characteristics has no effect on sustainable consumption

H<sub>02</sub>: Market orientation has no effect on sustainable consumption.

H<sub>03</sub>: MkIS infrastructure has no effect on sustainable consumption.

H<sub>04</sub>: Sustainability characteristics have no mediating effect on the relationship between Marketing Information Systems and sustainable consumption.

H<sub>05</sub>: Environmental regulation has no moderating effect on the relationship between Marketing Information Systems and sustainable consumption.

## **6. Conclusions and recommendations**

Despite the link, three important issues are yet to be addressed so as to understand relationship between marketing information systems and sustainable consumption, with sustainable consumption as a mediator: there is need (1) for an integrated theory for operationalizing the constructs of marketing information systems and sustainable consumption and performance, (2) identification of behaviors that are direct result of sustainable consumption, and (3) to understand the perception of the people who have been in practice of sustainable consumption. Based on further investigation empirically, the above conceptual framework can be proposed for future studies on the relationship between market information systems and market performance.

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