

Embedding Artificial Intelligence and Green Ideology in Formulating Corporate and Marketing Strategies

Abdulhameed Baqi

Directorate of Marketing and Public Relations, Applied Science University
Manama, Kingdom of Bahrain
abdulhameed.baqi@asu.edu.bh

Marwan M. Abdeldayem

College of Administrative Sciences,
Applied Science University (ASU)
Kingdom of Bahrain, Email:
Marwan.abdeldayem@asu.edu.bh
ORCID 0000-0002-9103-9802

Saeed Hameed Aldulaimi

College of Administrative Sciences,
Applied Science University (ASU),
Kingdom of Bahrain. Email:
Saeed.aldulaimi@asu.edu.bh ORCID
0000-0003-1131-56

Abstract— Artificial intelligence (AI) assists organizations with offering significant advantages to customers, for example, well-being observing with wearable gadgets, exhortation with recommended frameworks, inner harmony with brilliant family items, and comfort with voice-initiated menial helpers. Nonetheless, while AI should be visible as an impartial apparatus to be assessed on proficiency and precision, this approach doesn't consider the green ideology in formulating corporate and marketing strategies. This paper suggests practical implications that strengthen corporate image through sustainability strategies while responding to scandals like green-washing and the marketing environment that are confronted with such repeated views opposing the inclusion of green marketing and Eco-friendly consumption. This approach allows us to discuss embedding AI and green ideology in corporate and marketing strategies to address the manners by which buyers might neglect to encounter esteem in associations' interests into AI and to spread out a plan for future exploration

Keywords— Artificial Intelligence, Internet of Things, Sustainability, Greenwashing, Marketing, Strategies, Eco-Friendly Consumption

I. INTRODUCTION

Sustainability development is rapidly becoming a key instrument in the contemporary marketing landscape. Sustainable marketing is the methods of selling products or services centered on the environmental benefits (Saini, 2013). According to Murphy (2005) sustainable marketing must deal positively with the ecological environment and stay vulnerable to the need of the forthcoming generation. Thus, Marketers believe that branding within green-marketing can be significant; it can go beyond a particular market niche and target new exceptional buyers' segment. While conversely, it has been argued that the peoples tend to be suspicious of green claims, values and such requests found to be misleading or contradicting (Saini, 2013). The customer mentality of green product is a mental inclinations that is communicated by assessing a specific substance with some benefit or weakness contemplations. Aldo, the low of customer attention to consume green item, on the grounds that the need to grasp the significance of green item utilization for wellbeing and eco-accommodating (Handayani, 2017). The march toward marrying good business

practice with sustainability in the worldwide promoting settings is verbalized with the expectation of decoupling utilization and fortune from natural decay (Lin et al., 2021). Nonetheless, there has been little discussion or far too little attention paid to strategies and responses to such claims. Despite all the conflicting viewpoints, this paper seeks to remedy these concerns by investigating further in this context and propose practical suggestions of sustainable consumption with the determination of Price Attributes, Green-product, and Artificial Intelligence (AI).

II. CONCEPTUAL ANALYSIS

A. Assessing the Significant of Sustainability

In today's time, a sizable portion of consumers is environmentally conscious. Hence, they tend to buy from

markets that operate according to this norm. In many instances, businesses that strongly embrace sustainable practices, receive further support from consumers who appreciate the role in protecting the natural environment and increasing social legitimacy (Peterson, et al., 2021). Where consequently, marketing sustainability plays a key-strategy for organizations that want to expand and attract communities who holds-on with such ecological mindsets. Further to this context, Ameer et al. (2020) have elaborated that, buyers nowadays favor the consumption of sustainable products, based to its low impact of their production processes on the environment and society, which reflects positively on the image and the performance of an organization.

Incorporating sustainability into branding can enable businesses to better appeal to sustainability-oriented customers, and grant a competitive advantage (Kumar & Christodouloupoulou, 2014). Precisely, when the brand encompasses the sustainability initiatives of the company, the brand can resonate more profoundly and meaningfully with far more consumers, and thus enhances its reputation resulting to more secure future earnings over stakeholder loyalty. Brand image and reputation play an essential part, as they represent the intangible-assets that can be distinctive and difficult to imitate (Flores-Hernández, et al., 2020).

From a marketing-mix standpoint, producing a bold branding-statement does not have to be environmentally harmful. Choosing eco-friendly operation in administration and distribution, can be more cost-efficient at one perspective and constructively ensures longer-term objectives. Kazibudzki & Trojanowski (2020) argued that, sustainable products which take social aspects into account would better meet consumers expectations than the typical offers and significantly improves social/environmental performance throughout the entire product-life-cycle. Besides, its openness to the environmental/social aspects of offered products will more-likely contribute to achieving competitive advantage and planned economic goals.

The above-average pricing of sustainable products can also limit demands and conflicts with its economic benefits. Insofar, sustainable pricing considers the environmental/social costs associated with production while guaranteeing consumer benefit and profit for the producer. Subsequently, Distributing sustainably is another green approach, regardless of the means of unitized channels, supply-chain can emphasize on routes varieties that shorten delivery time, which therefore reduces fuel consumption and delivery cost. Lastly, the sustainable promotion, Peattie & Belz (2010) claims that one of the primary challenges for sustainability marketers is to benefit from communications techniques fully, and this is due to the widespread concerns of 'greenwashing' on the one hand. On the other hand, without effective and honest communication, it will be impossible to keep customers aware of the developed sustainability solutions, and how they incorporate with consumers' lifestyles or needs.

Technically, artificial intelligence (AI) is now the truth of everyday life in our progressive high-tech societies and another factor of sustainable enhancement. Indeed, (AI) could be a dominant force that can trigger decades of economic growth, which is one of the four principles of sustainable development, while at the same time, it addresses the impact of expenditure on our societies, governance systems, and the environment (Goralski & Tan, 2020). Marketing intelligence today utilizes (AI) applications and big data to produce automated decisions built on data collection, predictive analysis, detailed interpretations of audience or economic trends that may impact organization's marketing strategies. Recent studies have therefore proposed that big data analytics capability (BDAC) and man-made brainpower capacity (AIC) are two arising assets that add to the maintainability of authoritative development, as it further develops their advertising plans, client administrations, further develop item seriousness, and pursue better promoting choices (Zhang, et al., 2020).

B. Responding to the Opposing Viewpoints

Paradoxically, even though countless customers have lately been taking into consideration the societal, economic, and environmental matters when analysing a product (Horani, 2020). They repeatedly seem reluctant to follow through with brands that embrace sustainability purpose. Luzio & Lemke. (2013) added that the gap between "green attitudes" and contradictory consumption behaviour could merely exist since

eco-friendly products are not meeting buyers' requirements of perceived characteristics or performance, and products or services that cause unfavourable externalities are alternatively consumed. As a result, many environmental, social, and health crises result from these negative externalities (Demir, et al., 2015).

A study by Zhao et al. (2019) showed that customers have constant purchase intentions once they trust sellers or brands and, with informational and emotional help, consumers can generate confidence in specific products. In many instances, a vast number of businesses stating that their products are environmentally friendly when they are truly not. Indeed, Sustainable products tend to get avoided by many consumers after being trapped by greenwashed fraudulent marketing campaigns carried with varying types of environmentally friendly slogans and ending up purchasing a misleadingly advertised product, causing negative impression towards sustainable brands in general. In the same context Rahman et al. (2015) concluded that greenwashing not only negatively hit green trust but also influenced it indirectly through green consumer misperception.

Some individuals/groups especially in developing nations are under the belief that environmental problems are too significant to get altered by themselves, and such issues are better to be dealt with by the authorities. It is worth mentioning that sustainability is not only the state's responsibility, in fact, each and every member of society should also be concerned for the coming generations, environment, and therefore enforcing an obligation on everyone to become involved in the implementation of this principle (Rodina, 2019).

In the consumer-market (B2C), the demand for sustainable products still does not outweigh the demand for conventional products since they cannot compete in the price of an item that it's always beyond their budget. Hence, people feel that they do not have a choice but to purchase the cheapest alternatives. Arguably, this reflects on the general absence of transparency about pricing components of sustainable products, causing uncertainty, and consequently, decreases consumers' willingness to compensate a higher price for the assumed sustainability characteristics (Hanna & Stefan, 2019).

Many researchers claim that majority of educators approved on the importance of integrating environmental education in the learning courses (Sukma, et al., 2020). Although, environmental science and sustainable studies have not always been part of the school's essential curriculum. Hence, it is logical that not everybody understands how to treat this principle appropriately, where people merely do not have any practical knowledge on things' they do in their daily consumptions that could help eliminate the detrimental externalities on the environment. Concurrently, many still think they are not having much of an impact on the future and seeing sustainability knowledge as a secondary priority. People need to shift their paradigm and acknowledge that education is universal. It has the function of the foundation for social characteristics (Hilal, 2019). Where

many authors have uncovered that education is to be one of the significant elements influencing green-consumption behavior (Nittala, 2014).

III. CONCLUSION AND RECOMMENDATIONS

In a nutshell, this paper set out to determine that sustainable marketing is a modern concept in promoting/selling goods and a game-changer that is yet built on the notion of environmental and social responsibility, with consideration to meet the requirements of the potential generation without harming the future. Notwithstanding, marketers are investigating different approaches to communicating with the buyers in responding to all uncertain assumptions towards the misperceived green practices. Many green businesses started to retain consumers' confidence in adopting trusted eco-friendly consumption by implementing robust, sustainable strategies.

Taken together, the findings of this study suggest that, whether it is a developed or developing nation, the firm's marketers can educate the social community by demonstrating the long-term effect of sustainable products and value satisfaction for its key resources through all the digitized media drivers. As a factor, sustainable products/services enable consumers to express who they are, exploiting their paying-power and allowing them to communicate their feeling-good aspect from acquiring things with the awareness that they are accomplishing something that positively affects everyone the (green consumption effect). Ultimately, using green product makes buyers realize an increase in the extent to which they are valued people by society, which, it leads to warm emotions and enriches the pleasure of the consumption experience (Tezer, et al., 2020).

Sustainability-Marketers can retain their green audience who have been affected by greenwashing scandals. Brand personality proved to impact shoppers purchase behavior, as they choose brands that correspond with their character. True sustainable products/services are associated with the decent values, clear from window-dressing bias that is endorsed by many young educated consumers, who are willing to putting their values and beliefs ahead of monitory buying habits. These values to be communicated transparently without stating that these products are crystal perfect, but instead, presenting in details the positive environmental approach throughout the utilization of natural ingredients, and ensuring the acknowledgement of fair trade and morale amongst operational laborer, engaging in ethical practices, or the extent of the endowment to green and welfare organization, and other key elements that its collectively aligned with "the UN sustainable consumption and production patterns" (UNITED NATIONS, 2000).

It would also be highly beneficial to assess the effects of embracing the notion of Artificial Intelligence (AI) as an essential component of future marketing. Nowadays, the elements of (AI) methodology are primarily in use. Yet, its functions are utilized in fields ranging from marketing to

banking, agriculture, healthcare, security, space exploration to robotics and transport (Yigitcanlar & Cugurullo, 2020). Though modern marketing is increasingly quantitative, targeted, and bound to the corporate outcome (Sterne, 2017). Green marketers can adopt (AI) technological approaches to navigate eco-friendly consumers behaviors or activities in a sustainable framework. (AI) or big-data enables marketers to facilitate richer discussions and form the lifestyle and consumer preferences that are smarter and far more sustainable. It could also stand as an emerging opportunity to attract niche shoppers and create targeted experience-sharing for those who are looking forward to contributing to green campaigns.

REFERENCES

- [1] Ameer, N., Azhar, A. & Hayder, O., 2020. The Sustainable Marketing and its Role in Achieving High Performance for Business Organizations: An Analytical Study for Opinions of Sample of Workers in The Leather Industries Factory. *Journal of Critical Reviews*, 7(10), pp. 1625 - 1632.
- [2] Demir, E., Huang, Y., Scholts, S., & Van Woensel, T. (2015, May). A selected review on the negative externalities of the freight transportation: Modeling and pricing. *Transportation research*, 77, 95-114. doi:10.1016/j.tre.2015.02.020
- [3] Flores-Hernández, A., Olavarria-Jaraba, A., Valera-Blanes, G., & Vázquez-Carrasco, R. (2020). Sustainability and Branding in Retail: A Model of Chain of Effects. *sustainability*, 12(14), 5800. doi:10.3390/su12145800
- [4] Goralski, M. A., & Tan, T. K. (2020). Artificial intelligence and sustainable development. *The International Journal of*, 18(1). doi:10.1016/j.ijme.2019.100330
- [5] Hanna, R., & Stefan, H. (2019). Transparent Price Labelling for Sustainable Products: A Boost for Consumers' Willingness to Buy? *Journal of Research and Management*, 41(2), 21 - 36. Retrieved from <https://doi.org/10.15358/0344-1369-2019-2-21>
- [6] Hilal, M. (2019, Mar 4). Education and socialization: A study of social importance of education in the development of society. *Asian Journal of Multidimensional Research (AJMR)*, 8(2), 257-260. doi:10.5958/2278-4853.2019.00053.3
- [7] Horani, L. F. (2020, Nov 20). Identification of target customers for sustainable design. *Journal of Cleaner Production*, 274, 123102. doi:10.1016/j.jclepro.2020.123102
- [8] Kazibudzi, P. T., & Trojanowski, T. W. (2020, Oct 26). Examination of marketing mix performance in relation to sustainable development of the Poland's confectionery industry. *PLoS ONE*, 15(10), 1-25. Retrieved from <https://doi.org/10.1371/journal.pone.0240893>
- [9] Kumar, V., & Christodouloupoulou, A. (2014). Sustainability and branding: An integrated perspective. *Industrial Marketing Management*, 43(1), 6-15. doi:10.1016/j.indmarman.2013.06.008
- [10] Luzio, J. P., & Lemke, F. (2013, April 26). Exploring green consumers' product demands and consumption processes: The case of Portuguese green consumers. *European Business Review*, 25(3), 281-300. doi:10.1108/09555341311314825
- [11] Murphy, P. E. (2005). Sustainable Marketing. *Business & professional ethics journal*, 24(1), 171-198. doi:10.5840/bpej2005241/210
- [12] Nittala, R. (2014, Mar 03). Green Consumer Behavior of the Educated Segment in India. *Journal of International Consumer Marketing*, 26(2), 138-152. doi:10.1080/08961530.2014.878205
- [13] Peattie, K., & Belz, F.-M. (2010, Oct). Sustainability marketing — An innovative conception of marketing. *Marketing Review St Gallen*, 27(5), 8-15. doi:10.1007/s11621-010-0085-7
- [14] Peterson, M., Minton, E. A., Liu, R. L., & Bartholomew, D. E. (2021). Sustainable Marketing and Consumer Support for Sustainable Businesses. *Sustainable Production and Consumption*, 27, 157-168. doi:10.1016/j.spc.2020.10.018
- [15] Rahman, I., Park, J., & Chi, C. G.-Q. (2015). Consequences of "greenwashing": Consumers' reactions to hotels' green initiatives. *International Journal of Contemporary Hospitality Management*, 27(6), 1054-1081. doi:10.1108/IJCHM-04-2014-0202

- [16] Rodina, A. (2019). Sustainability as the State Principle, Diversity of its Application in Practice. Riga: University of Latvia Press. doi:doi.org/10.22364/iscflul.7.2
- [17] Saini, B. (2013, Dec). Green marketing and its impact on consumer buying behaviour. *International Journal of Engineering Science Invention*, 2(12), 61-64.
- [18] Sterne, J. (2017). Artificial Intelligence for Marketing: Practical Applications. New Jersey: John Wiley & Sons.
- [19] Sukma, E., Ramadhan, S., & Indriyani, V. (2020). Integration of environmental education in elementary schools. *Journal of physics*, 1481(1), 12136. doi:10.1088/1742-6596/1481/1/012136
- [20] Tezer, A., Bodur, H. O., Aggarwal, P., & Dahl, D. W. (2020). The Greenconsumption Effect: How Using Green Products Improves Consumption Experience. *Journal of Consumer Research*, 47(1), 25-39. doi:https://doi.org/10.1093/jcr/ucz045
- [21] UNITED NATIONS. (2000). *Department of Economic and Social Affairs: Sustainable Development*. Retrieved Dec 13, 2020, from <https://sdgs.un.org/goals>
- [22] Yigitcanlar, T., & Cugurullo, F. (2020). The Sustainability of Artificial Intelligence: An Urbanistic Viewpoint from the Lens of Smart and Sustainable Cities. *Sustainability*, 12(20), 2-24. doi:10.3390/su12208548
- [23] Zhang, H., Song, M., & He, H. (2020). Achieving the Success of Sustainability Development Projects through Big Data Analytics and Artificial Intelligence Capability. *Sustainability*, 12(3), 949. doi:10.3390/su12030949
- [24] Zhao, J.-D., Huang, J.-S., & Su, S. (2019, Sep). The effects of trust on consumers' continuous purchase intentions in C2C social commerce: A trust transfer perspective. *Journal of Retailing and Consumer Services*, 50, 42-49. doi:10.1016/j.jretconser.2019.04.014
- [25] Handayani, W. (2017). Green consumerism: an eco-friendly behaviour form through the green product consumption and green marketing. *Sinergi: Jurnal Ilmiah Ilmu Manajemen*, 7(2).
- [26] Lin, H., Chen, L., Yuan, M., Yu, M., Mao, Y., & Tao, F. (2021). The eco-friendly side of narcissism: The case of green marketing. *Sustainable Development*, 29(6), 1111-1122.
- [27] Aldulaimi, S. H., & Abdeldayem, M. M. (2018). The economic value of time in Arab culture: New evidence using Zimbardo Time Perspective Inventory (ZTPI). *American Journal of Social Sciences and Humanities*, 3(1), 63-72. Abdeldayem, M. M., Aldulaimi, S. H., & Aldulaimi, M. L. A. (2020). Virtual learning and students' connectedness in the time of coronavirus. *International Journal of Advanced Science and Technology*, 29(5), 12634-12645.
- [28] Aldulaimi, S. H., Abdeldayem, M. M., Abo Keir, M. Y., & Al-Sanjary, O. (2021). E-Learning in Higher Education and Covid-19 Outbreak: Challenges and Opportunities. *Psychology and Education Journal*, 58(2), 38-43.
- [29] Abdeldayem, M. M., & Aldulaimi, S. H. (2020). Trends and opportunities of artificial intelligence in human resource management: Aspirations for public sector in Bahrain. *International Journal of Scientific and Technology Research*, 9(1), 3867-3871