

METHODOLOGICAL PERSPECTIVE OF EVALUATION OF GREEN MARKETING PERFORMANCE

Ilona SKACKAUSKIENE¹, Neringa VILKAITE-VAITONE²

^{1,2}*Vilnius Gediminas Technical University, Vilnius, Lithuania*
Corresponding author's e-mail: neringa.vilkaite-vaitone@vgtu.lt

Abstract. There is an increasing interest among academics, top managers, stakeholders regarding green marketing and its potential to improve environmental performance. Considering the prominence green marketing has risen to in recent decades, it is surprising to note that marketing literature has drawn relatively limited attention to evaluation of green marketing performance at the level of business unit. Therefore, the aim of this article is to investigate methodological background for the evaluation of green marketing performance. Using multi-source data, the authors have found out that it is possible to ground the evaluation of green marketing performance on different methods, criteria and scales used for the evaluation of green marketing. The contribution of the present research focuses on suggesting well-founded guidelines for the evaluation of green marketing performance in a modern organisation. The study suggests evaluating performance of green marketing at strategic, tactical and operational levels.

Keywords: *Environment, Green Marketing, Sustainability, Marketing Performance, Methods.*

JEL Classification: M30, M31, M37, Q56.

INTRODUCTION

Sustainability related issues are a business imperative in today's global marketplace. Companies may engage in various actions related to protection of environment in order to stop or at least prevent the increase of global warming, over-consumption of non-renewable resources, depletion of the ozone layer. In today's market where customers more than ever before clearly demonstrate an increasing interest in protection of environment, environmental initiatives have become a relevant element of majority business agendas.

During the past decade one can witness customers' shift from being extremely sceptical about adoption of green products to the commodization of green in many cases. Green has become a mainstream under the rapidly changing environment (Ottman, 2017). Many organisations responded to this trend by adopting green initiatives. The social concern about environmental issues has also affected the discipline of marketing. Recyclable, environmentally friendly, non-toxic products have become a focus for marketers in satisfying customer needs and earning better profits. These changes are followed by green marketing as a tool that is used in many companies of various industries all over the world for improving natural

ecosystem. Along this line, it is conventional that the measurement of green marketing holds relevant importance both for academics and practitioners.

Although solutions for implementation of green marketing initiatives are well recognised in academic literature (Rex, Baumann, 2007; Chan, 2013; Saxena, 2015; D'Souza *et al.*, 2015), only few contributions (Zhang & Fu, 2017; Chen & Yang, 2019) provide a way how to evaluate company's progress in this field. There is a significant lack of research into valid and reliable scales, well-reasoned methods for the measurement of the level of green marketing orientation in a company. Therefore, it is necessary to carry out intensive research to search and develop new approaches for the evaluation of green marketing performance. The study is aimed at investigating methodological background for the evaluation of green marketing.

The remainder of the paper is structured as follows. The paper starts by discussing challenges that arise during the evaluation of green marketing performance. The paper is followed by an in-depth review of measurement methods, criteria and scales that have been previously proposed to evaluate green marketing performance. In the third part, the authors present suggestions for the evaluation of performance of green marketing in a company. The paper concludes with the most relevant insights provided by the research and lines for future research.

1. ADDRESSING METHODOLOGICAL CHALLENGES IN GREEN MARKETING PERFORMANCE RESEARCH

Measurement of green marketing performance might be a challenging task. First of all, profile of a customer and size of green market have captured attention of academics since the 1980s (Rex & Baumann, 2007). It means that the majority of understanding of green marketing used to come from customer's perspective. Company level knowledge about progress in implementing green marketing orientation is still very limited.

Challenges also arise due to misconception of green marketing. Despite the fact that the concept dates back to the late 1960s (Zampese *et al.*, 2016; Papadas *et al.*, 2017), green marketing in some cases is associated with such marketing claims as recyclable, ozone friendly, etc. In some cases, the analysis of green marketing is limited to advertising context only (Chen, 2016), which is only part of the whole marketing construct. Other researchers (Nadanyiova *et al.*, 2015), even if claim to cover the whole green marketing complex, include the evaluation of applicable promotion forms that do not have any relation to greenness. Green marketing means something, but not always the same thing to everybody – it definitely becomes a difficulty for the measurement of performance of green marketing. The authors of the present paper suggest the evaluation of green marketing progress to base on a broad view to green marketing. Previous theoretical analysis in this field has incited to define green marketing as organisation's engagement in strategic, tactical, and operational marketing activities and processes that have a holistic aim to create, communicate and deliver products with the minimal environmental impact (Vilkaite-Vaitone & Skackauskiene, 2019). Green marketing involves strategic, tactical and operational activities. Such a versatility of green marketing concept

requires the evaluation of green marketing performance to be based on a synthetic and integrated concept of green marketing. Z. Yong *et al.* (2011) confirm that green marketing evaluation is a synthetic subject that involves multi-objects, multi-elements and multi-levels.

When environmental issues gain such a large portion of attention by customers, competitors, governments, and international organisations, some companies choose an effortless way of becoming greener, i.e., promote themselves to be green instead of being green. Such a practice is entitled as “green washing”. In some cases, it is neglected that “green washing” can overstate the performance of green marketing in a particular company. When some well-known companies, such as Volkswagen, Nestle, H&M, are being accused of “green washing”, it is important that the chosen method for the evaluation of progress in implementing green marketing initiatives reveals the actual situation rather than a desirable one.

One more limiting feature of the past research in the measurement of green marketing performance is related to the choice of an approach to the activities of green marketing. There are two main approaches to the activities of green marketing: defensive and assertive. Companies that adopt a defensive approach to green marketing imply only the minimum of regulations in order to avoid negative consequences (for example, penalties for not meeting environmental regulations). Companies taking an assertive approach demonstrate aggressiveness in the field of green marketing. These companies aim at responding to market trends and outreaching stakeholder expectations (Chan, 2013). It is relevant if the chosen method allows finding out if the company adopts a defensive or an assertive marketing strategy.

The evaluation of green marketing adoption should provide a particular result (preferably a numerical one) that shows the level of greenness in a particular company. Even if it is preferable for a valuation method to result in a quantitative measure, it is usually quite hard to quantify and figure out indices reflecting the performance of green marketing (Yong *et al.*, 2011).

Furthermore, settings of the majority of green marketing studies were limited to national boundaries (Rivera-Camino, 2007; Yadav *et al.*, 2016; Duffett *et al.*, 2018). There is a threat that the application of the suggested method for the evaluation of green marketing performance will not be suitable in other environments under different conditions. This can be explained by different contextual characteristics. Therefore, the evaluation of green marketing should match demands of companies that operate not only at the national level but also at the international level.

While past studies generate relevant theoretical and practical insights into the field of green marketing evaluation, they highlight challenges that are experienced during the process of evaluation. Based on the gaps identified in the previous studies, it can be stated that it is essential for the method to have a potential: (1) to find out company’s progress at different levels of marketing (strategic, tactical, operational); (2) to reveal the actual situation of progress of green marketing in a company; (3) to assess the type of strategy applied; (4) to show the level of marketing greenness; and (5) to be suitable for international companies.

2. METHODOLOGICAL APPROACHES TO THE MEASUREMENT OF GREEN MARKETING PERFORMANCE

Despite various challenges faced in green marketing performance studies, academics have widely adopted such studies. A variety of measurement methods can be found in academic literature. The authors have categorised the most frequent techniques in green marketing studies into questionnaire research, observations and interviews (Table 1).

Table 1. Research in Green Marketing

Author(s)	Object of the research	Data collection method	Respondents	Research setting
C. Gurau, A. Ranchod (2005)	Challenges and opportunities for international green marketing	Interview	Managers responsible for the international commercial strategies (6 British and 6 Romanian eco-friendly companies)	Agri-food, cosmetics in Britain and Romania
J. Rivera-Camino (2007)	Green marketing strategy	Questionnaire research	115 environmental managers of companies with workforce of more than 50 employees	Spain
S. Ham, S. Lee (2011)	Communication of green marketing initiatives	Observation	53 restaurant companies	Catering industry in the USA
M. Abzari <i>et al.</i> (2013)	Green marketing mix	Questionnaire research	150 managers and employees	Iran
E. S. W. Chan (2013)	Importance of green marketing attributes	Questionnaire research	55 hotel managers	Hotels in Hong Kong
E. Ko <i>et al.</i> (2013)	Awareness of green marketing	Questionnaire research	389 females	Retailing industry in Korea
R. G. Richey <i>et al.</i> (2014)	Green marketing performance	Online questionnaire research	204 top managers	Sales, retailing and wholesaling
J. Majerova (2015)	Perception of green marketing activities	Questionnaire research	384 citizens over 15 years old	Slovakia
M. Nadanyiova <i>et al.</i> (2015)	Tools and instruments of green marketing	Questionnaire research	Representatives of 60 companies	Slovakia
B. Singh, S. Kumar (2015)	Status of green marketing	Questionnaire research	1020 customers	India
T. Paiva, V. Garcia (2016)	Green marketing of low carbon green label products	Interview	Project team manager, 20 consumers	Low carbon green label products in Portugal

Author(s)	Object of the research	Data collection method	Respondents	Research setting
R. Yadav <i>et al.</i> (2016)	Green marketing functions	Online questionnaire research	220 customers	Hotels in India
K. K. Papadas <i>et al.</i> (2017)	Green marketing orientation	Online questionnaire research	700 marketing or other managers	Multinational companies in a single European country
R. Duffett <i>et al.</i> (2018)	Green marketing as a competitive advantage	Interview	10 professionals (3 managers, 3 marketers, 4 owners)	Small, medium and micro enterprises in South Africa

As explained by C. Gurau and A. Ranchhod (2005), interview is one of the most appropriate methods to measure green marketing performance. They conducted interviews with British and Romanian companies in order to find out challenges and opportunities for international green marketing. Later the interview technique was also applied by T. Paiva, V. Garcia (2016), R. Duffett *et al.* (2018) for the studies of green marketing performance in Portugal and South Africa, respectively. Questionnaire surveys (Rivera-Camino, 2007; Abzari *et al.*, 2013; Chan, 2013; Ko *et al.*, 2013; Richey *et al.*, 2014; Majerova, 2015; Nadanyiova *et al.*, 2015; Singh, Kumar, 2015; Yadav *et al.*, 2016; Papadas *et al.*, 2017) and observations (Ham, Lee, 2011) are used to measure green marketing performance based on information provided by either the companies themselves or customers. Combined data multi-gathering techniques are also appropriate for the evaluation of performance of green marketing (Fuentes, 2015; Saxena, 2015; Chen, 2016; Duffett *et al.*, 2018). For example, C. Fuentes (2015) has combined interviews, observations, collections, analysis of textual and non-textual artefacts for studying green marketing. R. Duffett *et al.* (2018) have given a priority to a two-prong approach for the measurement. The authors employed in-depth interviews and questionnaire research subsequently.

Practical application of any type of method usually involves particular scales for evaluation of green marketing performance. The authors of the present paper have carried out the systematisation of scales of green marketing evaluation. A considerable list of scales suitable for the evaluation of green marketing performance has been identified. Table 2 presents a summary of the most relevant measurement scales that have been proposed in literature to evaluate green marketing performance.

Review of previous scales proposed in the literature to measure green marketing performance reveals that many existing studies have focused on top management: owners, general, resident, marketing, environmental, product or store managers (Chan, 2013; Fraj *et al.*, 2013; Richey *et al.*, 2014; D'Souza *et al.*, 2015; Papadas *et al.*, 2017; Duffett *et al.*, 2018; Chen, Yang, 2019; Dzulkarnain *et al.*, 2019). Some scholars also based their green marketing scales on customers (Ko *et al.*, 2013; Yadav *et al.*, 2016).

Table 2. Scales for the Evaluation of Green Marketing Performance

Author(s)	Type of scale	Number of dimensions	Number of propositions	Respondents	Research setting
E. S. W. Chan (2013)	Likert scale	4	30	Top management	Hotels in Hong Kong
E. Fraj <i>et al.</i> (2013)	Likert scale	0	14	Top management	B2B organisations in a European country
E. Ko <i>et al.</i> (2013)	Likert scale	5	19	Customers	Retailing (department store) in Korea
R. G. Richey <i>et al.</i> (2014)	Likert scale	3	21	Top management	Sales, retailing and wholesaling in the USA
C. D'Souza <i>et al.</i> (2015)	Likert scale	0	4	Top management	Australia
R. Yadav <i>et al.</i> (2016)	Likert scale	5	13	Customers	Hotels in India
K. K. Papadas <i>et al.</i> (2017)	Likert scale	3	21	Top management	Multinational companies in a single European country
R. Duffett <i>et al.</i> (2018)	Semantic differential scales (low-high)	0	5	Top management	Small, medium and micro enterprises in South Africa
H. C. Chen and C. H. Yang (2019)	Likert scale	4	16	Top management	Electronic manufacturing industry in Taiwan
I. S. Dzulkarnain <i>et al.</i> (2019)	Likert scale	6	20	Top management	Trade in Indonesia

The analysis of scientific studies in the field of green marketing leads to the conclusion that there is a wide variety of views and approaches on contents of methods and scales of evaluation of green marketing performance. The lack of systemic viewpoint to the evaluation of performance of green marketing motivates the authors to suggest their approach to the issue. All in all, a new tool for the measurement of green marketing performance is needed. Such a tool should allow researchers and practitioners to evaluate green marketing performance better.

3. THE SUGGESTED APPROACH TO THE EVALUATION OF GREEN MARKETING

Review of scientific studies has shown that generally accepted principles for the evaluation of green marketing have not been formulated yet. There is a lack of a unified system of tools and methods for the evaluation.

Based on the gaps identified in the previous literature, the authors suggest the following combination of interview and questionnaire survey procedures in order to ensure validity and reliability of the research. Principle criteria for the evaluation of green marketing performance should include strategic green marketing performance, tactical green marketing performance and operational green marketing performance. Therefore, scales should be based upon these three dimensions. The authors suggest presenting the quantitative evaluation of green marketing performance in a non-dimension index that can get value between 0 and 1. Higher value of the index indicates better performance of green marketing in a company.

There is a possibility that performance of green marketing differs in distinct companies. Therefore, it might be useful to consider particular company level variables, such as business type, industry, location, number of employees, number of operational years (Atay & Dilek, 2013; Duffett *et al.*, 2018). Managerial experience should also be chosen as a control variable (Atay & Dilek, 2013).

It is a common practice to search for links between green marketing implementation and results of the company (Abzari *et al.*, 2013; Duffett *et al.*, 2018). Therefore, it might be useful to evaluate relations between green marketing and sales, profit of the company.

CONCLUSION

The study has aimed at investigating the methodological background for the evaluation of green marketing performance. A detailed review of academic literature in this field has shown that the choice of appropriate methods and scales for the measurement of green marketing performance is a complicated task.

Research has suggested the dominance of questionnaire research for the evaluation of green marketing. More importantly, the present research has indicated that the majority of previous studies were too narrow or too broad to allow for an understanding of green marketing as a concept involving strategic, tactical and operational issues. It is worth noting the absence of dimensions related to operational marketing in the scales intended to measure the performance of green marketing.

The research has had limitation that should be mentioned. Although suggestions for the measurement of green marketing performance in this paper have been developed from the inputs of extant literature, future studies may concretise criteria for the measurement of green marketing, involving academic experts, experts from the business sector or public administration institutions. The approach presented in this paper should be developed to include a list of criteria allowing for the evaluation of performance of green marketing at the strategic, tactical and operational levels.

ACKNOWLEDGMENT

This paper is an extension of research originally presented at the 60th International Scientific Conference “Scientific Conference on Economics and Entrepreneurship” (SCEE’2019) that took place at Riga Technical University (Riga, Latvia) on 11–12 October 2019.

This project has received funding from the European Social Fund (project No. 09.3.3-LMT-K-712-02-00533) under grant agreement with the Research Council of Lithuania (LMTLT).

REFERENCES

- Abzari, M., Shad, F.S., Sharbiyani, A., Morad, A. P. (2013). Studying the effect of green marketing mix on market share increase. *European Online Journal of Natural and Social Sciences*, 2(3), 641–653.
- Atay, L., Dilek, E. (2013). A survey to determine hotel managers’ perceptions of green marketing. *Changes in Social and Business Environment*, 5, 6–12.
- Chan, E. S. W. (2013). Managing green marketing: Hong Kong hotel managers’ perspective. *International Journal of Hospitality Management*, 34, 442–461. <https://doi.org/10.1016/j.ijhm.2012.12.007>
- Chen, H. C., Yang, C. H. (2019). Applying a multiple criteria decision-making approach to establishing green marketing audit criteria. *Journal of Cleaner Production*, 210, 256–265. <https://doi.org/10.1016/j.jclepro.2018.10.327>
- Chen, S. (2016). Selling the environment: green marketing discourse in China’s automobile advertising. *Discourse, Context and Media*, 12, 11–19. <https://doi.org/10.1016/j.dcm.2016.03.003>
- D’Souza, C., Taghian, M., Sullivan-Mort, G., Gilmore, A. (2015). An evaluation of the role of green marketing and a firm’s internal practices for environmental sustainability. *Journal of Strategic Marketing*, 23(7), 600–615. <https://doi.org/10.1080/0965254X.2014.1001866>
- Duffett, R., Edu, T., Haydam, N., Negricea, I. C., Zaharia, R. (2018). A multi-dimensional approach of green marketing competitive advantage: a perspective of small medium and micro enterprises from Western Cape, South Africa. *Sustainability*, 10(10), 1–27. <https://doi.org/10.3390/su10103764>
- Dzulkarnain, I. S., Ariqoh, T., Maulida, N. (2019). Green marketing strategy for local specialty agro-industry development to support creative agro-industry. *IOP Conference Series: Earth and Environmental Science*, 230, 1–8. <https://doi.org/10.1088/1755-1315/230/1/012052>
- Fraj, E., Martinez, E., Matute, J. (2013). Green marketing in B2B organisations: an empirical analysis from the natural-resource-based view of the firm. *Journal of Business & Industrial Marketing*, 28(5), 396–410. <https://doi.org/10.1108/08858621311330245>
- Fuentes, C. (2015). How green marketing works: practices, materialities, and images. *Scandinavian Journal of Management*, 31, 192–205. <https://doi.org/10.1016/j.scaman.2014.11.004>
- Gurau, C., Ranchhod, A. (2005). International green marketing: a comparative study of British and Romanian firms. *International Marketing Review*, 22(5), p. 547–561. <https://doi.org/10.1108/02651330510624381>
- Ham, S., Lee, S. (2011). US restaurant companies’ green marketing via company websites: impact on financial performance. *Tourism Economics*, 17(5), 1055–1069. <https://doi.org/10.5367/te.2011.0066>
- Jain, S. K., Kaur, G. (2004). Green marketing: an attitudinal and behavioural analysis of Indian consumers. *Global Business Review*, 5(2), 187–205. <https://doi.org/10.1177/097215090400500203>
- 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. <https://doi.org/10.1016/j.jbusres.2012.11.007>
- Majerova, J. (2015). Analysis of Slovak consumer’s perception of the green marketing activities. *Procedia Economics and Finance*, 26, 553–560. [https://doi.org/10.1016/S2212-5671\(15\)00954-5](https://doi.org/10.1016/S2212-5671(15)00954-5)
- Nadanyiova, M., Kicova, E., Rypakova, M. (2015). Green marketing and its exploitation in Slovak companies. *Procedia Economics and Finance*, 26, 219–226. [https://doi.org/10.1016/S2212-5671\(15\)00820-5](https://doi.org/10.1016/S2212-5671(15)00820-5)
- Ottman, J. A. (2017). *The New Rules of Green Marketing. Strategies, Tools and Inspiration for Sustainable Branding*. New York: Routledge. <https://doi.org/10.4324/9781351278683>
- Paiva, T., Garcia, V. (2016). ECO2SEIA – low carbon green label products: a green marketing “study case”. *Holos*, 32(8), 1–15. <https://doi.org/10.15628/holos.2016.4451>
- Papadas, K. K., Avlonitis, G. J., Carrigan, M. (2017). Green marketing orientation: conceptualization, scale development and validation. *Journal of Business Research*, 80, 236–246. <https://doi.org/10.1016/j.jbusres.2017.05.024>
- Rex, E., Baumann, H. (2007). Beyond ecolabels: what green marketing can learn from conventional marketing. *Journal of Cleaner Production*, 15(6), 567–576. <https://doi.org/10.1016/j.jclepro.2006.05.013>

- Richey, R. G., Musgrove, C. F., Gilison, S. T., Gabler, C. B. (2014). The effects of environmental focus and program timing on green marketing performance and the moderating role of resource commitment. *Industrial Marketing Management*, 43(7), 1246–1257. <https://doi.org/10.1016/j.indmarman.2014.06.014>
- Rivera-Camino, J. (2007). Re-evaluating green marketing strategy: a stakeholder perspective. *European Journal of Marketing*, 41(11/12), 1328–1358. <https://doi.org/10.1108/03090560710821206>
- Saxena, S. (2015). Are they really green: flipping the second side of green marketing coin - a critical analysis using selected cases? *Amity Global Business Review*, 10, 110–113.
- Singh, B., Kumar, S. (2015). A study on current status of green marketing in North India. *Pacific Business Review International*, 7(11), 16–23.
- Vilkaite-Vaitone, N., Skackauskiene, I. (2019). Green marketing orientation: evolution, conceptualization and potential benefits. *Open Economics*, 2(1), 53–62. <https://doi.org/10.1515/openec-2019-0006>
- Yadav, R., Dokania, A. K., Pathak, G. S. (2016). The influence of green marketing functions in building corporate image. Evidences from hospitality industry in a developing nation. *International Journal of Contemporary Hospitality Management*, 28(10), 2178–2196. <https://doi.org/10.1108/IJCHM-05-2015-0233>
- Yong, Z., Ming, F., Mingxia, W. (2011). A research on evaluation of green marketing performance based on gray system. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.196.9351&rep=rep1&type=pdf>
- Zampese, E. R. S., Moori, R. G., Caldeira, A. (2016). Green marketing as a mediator between supply chain management and organizational performance. *Revista de Administracao Mackenzie*, 17(3), 183–211. <https://doi.org/10.1590/1678-69712016/administracao.v17n3p183-211>
- Zhang, L., Fu, J. (2017). Performance evaluation of the green marketing of circular economy based on the combination of expert evaluation of neural network. *3rd Asian Pacific Conference on Energy, Environment and Sustainable Development*, 56–62. <https://doi.org/10.12783/dteees/apees2017/7657>

AUTHORS' SHORT BIOGRAPHIES



Ilona Skačkauskienė is Doctor of Social Sciences (2009), Professor, Head of the Department of Management at Vilnius Gediminas Technical University (Lithuania). She has experience of over 15 years in research work and over 7 years in leading staff. She has supervised two doctoral theses in the social (management) science; now she is a scientific adviser of 3 doctoral students elaborating a doctoral thesis in the social (management) science. She has published over 50 papers during her scientific period and has read reports at the Lithuanian and international conferences. Fields of scientific interest cover the creation process of new services, management of services, social and economic development, social innovation management, green organisation development.

Author's contact data: Sauletekio av. 11, LT-10223, Vilnius, Lithuania,
E-mail: Ilona.Skackauskiene@vgtu.lt
<https://orcid.org/0000-0002-5078-3678>



Neringa Vilkaite-Vaitone received a Doctoral degree at Vilnius Gediminas Technical University (Lithuania) in 2015. She is a Researcher at the Department of Management of the Faculty of Business Management at Vilnius Gediminas Technical University. N. Vilkaite-Vaitone is the author and co-author of more than 30 publications, 7 of them were published in journals indexed in Clarivate Analytics Web of Science database. Results of her research has been presented at more than 20 conferences in Lithuania, Latvia, Poland, Slovenia, and Bulgaria. Her research interests include green marketing, customer loyalty, service business, socially responsible behaviour.

Author's contact data: Sauletekio av. 11, LT-10223, Vilnius, Lithuania,
E-mail: Neringa.Vilkaite-Vaitone@vgtu.lt