State of green marketing research over 25 years (1990-2014): Literature survey and classification

1. Introduction

Marketing management literature well recognizes the strategic importance of customer retention and long-term customer relationship to achieve marketing performance (Webster, 1992). Converging sustainability thoughts in marketing, also known as green marketing, is discussed as one of the effective approaches in this regard (Menon and Menon, 1997). Green marketing was first introduced by Lazer (1969) as a societal dimension of marketing that addresses limited availability of environmental resources, environmental impacts of conventional marketing, and greening of the different aspects of traditional marketing. Kotler and Armstrong (2009) define green marketing as “marketing that meets the present needs of consumers and businesses while also preserving or enhancing the ability of future generations to meet their needs”. It is rooted in the fundamentals of what impact marketing has on society and the environment. It questions the present ideologies of consumption, brings ecological impact of marketing under scrutiny and raises the need to address environmental issues in marketing (Lazer, 1969). Over the last twenty-five years, several aspects of green marketing have garnered serious attention of researchers and have prominently featured in the literature. Green marketing has gradually emerged as a philosophy to develop, practice and communicate environmental mission-focused business operations that result in improved corporate reputation and market performance (Lu et al., 2013; Stainer and Stainer, 1997). Over the period, it has evolved from responding to trade, market and regulatory pressures to enlightened self-interest of companies and the notions of environmental responsibility. This enables them to adapt to changing marketing boundaries (Lazer, 2013), and to ensure their survival, stability and success in the markets they operate. Thus, once limited to the ideology of activists, environmental consciousness has become a matter of market competition (Mostafa, 2009; Follows and Jobber, 2000).

An extensive development in green marketing research raises a need for reviewing the literature to understand transition from sustainability research in marketing to emergence of green
marketing as a sub-domain of marketing. For structure of the paper, it establishes need for the study, sets its objectives, describes its methodology, reports classification and distribution of the articles, and concludes with a summary and limitations of the study. Following sub-section reports the contribution made by earlier literature reviews, develops need for another literature review and sets its objectives.

1.1 Need for the study

Need for the study is established based on understanding contributions of earlier literature reviews that reviewed the extant literature on sustainability-marketing interface in varying time-frames. Five literature review articles on sustainability-marketing interface were found in the literature. First literature review by Kilbourne and Beckmann (1998) reviewed articles published in twelve journals within the period 1971-1997. It focused upon environmental consciousness, characteristics of green consumers, corporate attitude towards environmental protection, environmentally-friendly corporate behaviour, and legislation and public policy issues. Second, Chamorro et al. (2009) highlighted upon characteristics of research in green marketing. Reviewing articles published in twenty-two journals within the period 1993-2003, they classified the literature under five categories: green consumer, green communication, concepts and strategies, macro-marketing, and recycling behaviours. They explored the topics, the methodologies and the techniques of analysis, and identified nine main authors in the domain. Third, Leonidou and Leonidou (2011) reviewed articles published in 119 journals within the period 1969-2008. It highlighted upon seven macro-marketing dimensions of environmental marketing and environmental management. Fourth, Chabowski et al. (2011) reviewed journal articles published within the period 1958-2008 to present a structure of sustainability research in marketing. Using co-citation analysis, they categorised 1,320 articles from 36 journals under five themes: external-internal focus, social-environmental emphasis, legal-ethical-discretionary intent, marketing assets, and financial performance. Fifth, McDonagh and Prothero (2014) conducted a literature review of articles published within the period 1998-2013. They followed the categorisation of literature made by Kilbourne and Beckmann (1998) and focused upon preparedness of companies to develop and adopt green marketing practices, and addressed macro-marketing issues.
It is evident that all the literature review articles, except Chamorro et al. (2009)’s, discussed sustainability issues in marketing from a macro-perspective. For Chamorro et al. (2009), their categorisation of articles can be further refined for a specialised literature review to discuss micro-perspective of green marketing and to extend time period for the coverage of journal articles. Moreover, green marketing is an area for research for its relative novelty and relevance to relationship of business with the natural environment. During the last two decades, the literature on green marketing has extensively increased in terms of knowledge creation from different continents and diversity in themes addressed in research papers. Recently, Kotler (2011) emphasised upon desirable changes in marketing practices for green marketers, the basis for green marketing (functional and strategic) decisions and opportunities created by green marketing adoption. This calls for a distinction in conducting literature classification and survey that highlight upon green marketing practices. Since earlier literature reviews and surveys somehow lack in addressing these dimensions, investigating green marketing literature from these aspects seems appropriate to try to get a complete understanding of green marketing. Since the green marketing literature is intense, widespread and diverse, a comprehensive literature survey is required for classification of the literature to unleash its potential that serve as a roadmap for conducting rigorous research in green marketing. It requires understanding different sub-categories in green marketing literature and their development in the literature. It also requires understanding development and growth of green marketing literature explicitly that highlights upon distribution of articles, prominent publication outlets, key authors, and popular journal articles. In this article, this will be accomplished by surveying peer-reviewed journal articles on green marketing published between 1990 and 2014 to: (i) identify the articles related to green marketing, (ii) classify the articles according to their dominant themes, (iii) investigate how the published literature has evolved over time, and (iv) identify impactful publication outlets, individual articles and authors based on citations and number of articles written. This intends to complement contextual focus of earlier literature reviews and contributes towards explicitly understanding development in green marketing literature.
2. Methodology

To meet the objectives of the study, a detailed literature review proposal was prepared and formally discussed with a panel of two academic experts and two industry practitioners who had been working in the domains of marketing, sustainability and environment management for a minimum of ten years. Suggestions of the panel members on selection of time period and selection of keywords were included in the methodology.

This study uses a systematic review approach (Tranfield et al., 2003) and considers a peer-reviewed journal article as a unit of analysis. As peer-reviewed journals are perceived as representing highest level of research and mostly serve as source of gaining information by academicians and practitioners, collection from other sources (such as conference papers, masters and doctoral dissertations, textbooks and unpublished working papers) were excluded. The articles in English (American and British) language were searched in marketing and business journals accessed from databases known for their comprehensive journal coverage such as ABI Inform, ISI Web of Knowledge, Blackwell Synergy, Emerald, EBSCO and Elsevier Science Journals. As the panel suggested, articles were searched from peer-reviewed journals in three domains of business management: sustainability, marketing and operations management (Figure 1). Selection of articles in English language only may be perceived as a limitation of the study.

Figure 1: Green marketing literature in three types of journals
Searching peer-reviewed journal articles was facilitated using specific keywords related to green marketing activities: green design, product variety, packaging, labeling, green pricing, green promotion, green distribution, marketing waste, green alliance, targeting, and green positioning (Polonsky and Rosenberger III, 2001; Lampe and Gazda, 1995). The keywords were also constructed into search strings to search the articles. Searching articles by cross-referencing was also adopted. Over 400 articles were screened for relevance by the authors. They analysed titles of the articles and then, their abstracts, keywords, frameworks, headings and sub-headings. No duplication of articles was ensured in the process of article collection and screening. The articles with unsubstancial or no contribution to green marketing, and those with highly technical work and highly ecological perspective were excluded. This resulted in 161 peer-reviewed journal articles for inclusion in the paper.

The study chooses a time period 1990-2014 for literature survey and classification. Since 1990s, green marketing has matured towards life-cycle approach and related management processes, and their alignment with organisational goals and strategies for improved corporate performance. This is very much reflected in the post-1990s definitions of green marketing (e.g. Fuller, 1999; vanDam and Apeldoorn, 1996; Lampe and Gazda, 1995; Herbig and Butler, 1994).

**Inter-rater reliability**

The articles were classified into four categories: eco-orientation, green marketing strategy, green marketing functions and green marketing consequences (Figure 2). Though any classification system may be challenged for its comprehensiveness, initially it was a subjective assessment of the authors to classify the articles in four categories to fulfil the objective of developing a thorough understanding of green marketing literature. To further ensure robustness and high inter-rater reliability, the classification was discussed and reviewed by the panel. The results were compared and discussed by the authors with each panel member separately as well as in group until a consensus was reached.
3. Findings

Findings are discussed in two parts. First part discusses classification of green marketing literature that describes themes of articles, their nature and evolution over the period analysed. Second part illustrates upon general classification that shows distribution of articles for year of publications, journals and location of authors.

3.1 Classification of green marketing literature

The peer-reviewed journal articles included in the literature review were analysed for coverage of green marketing activities, thematic classification of green marketing literature and classification of articles by topic and types of research. The findings are described in the following sub-sections.

3.1.1 Thematic classification of green marketing literature

For thematic categories of the articles, 29 papers (18%) covered eco-orientation, 46 papers (28%) covered green marketing strategy, 127 papers (79%) covered green marketing functions, and 32 paper (20%) covered green marketing consequences. Table 1 classifies the 161 articles by their themes and time period. The table indicates subsequent progress across thematic categories over the period. For a simplistic view of the domain, the classification does not take into account relationships and interactions among the categories. Following explanation of thematic categories serves the purpose of easier understanding of range of themes and a holistic view of green marketing domain.

Table 1: Classification of articles based on themes and their time period

<table>
<thead>
<tr>
<th></th>
<th>Percentage of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eco-orientation</td>
</tr>
<tr>
<td>1990-1994</td>
<td>0.6%</td>
</tr>
<tr>
<td>1995-1999</td>
<td>3.1%</td>
</tr>
<tr>
<td>2000-2004</td>
<td>3.1%</td>
</tr>
<tr>
<td>2005-2009</td>
<td>3.7%</td>
</tr>
<tr>
<td>2010-2014</td>
<td>7.5%</td>
</tr>
</tbody>
</table>
(i) Eco-orientation


Menon and Menon (1997) related eco-orientation with strategy and discussed corporate environmentalism as a market strategy. Banerjee (2002) developed corporate environmentalism as a two-dimensional construct having environmental orientation and environmental strategy dimensions. Banerjee et al. (2003) identified antecedents of corporate environmentalism and described significance of environmental marketing strategy over environmental corporate strategy. Environmental (green) marketing strategy is based on green marketing philosophy that Chamorro and Banegil (2006) defined as “the way to conceive exchange relationships that goes beyond the current needs of the consumers, considering at the same time the social interest in protecting the natural environment” (p. 12). Its implementation is determined by establishment of environmental values and principles in organisational culture (Chamorro and Banegil, 2006). Later, Mitchell et al. (2010) related eco-orientation with managing marketing strategy. They discussed approaches to select sustainable development objectives in corporate marketing strategy from a macro-marketing perspective. Crittenden et al. (2011) proposed a market-oriented model of sustainability that illustrates how incorporating sustainability into market orientation creates competitive advantage. These advancements in eco-orientation literature indicate a shift from greening as a corporate liability to greening as a core ideology.

A major contribution under the theme includes recognition of eco-orientation as an emerging strategic response of firms to environmental dynamics (Miles and Munilla, 1993). The literature illustrated upon the fact that firms need to develop internal eco-orientation to develop green marketing decisions while external eco-orientation balances economic and environmental objectives. Firms incorporate environmental values in their business orientation to develop environmental marketing practices and strategies. Another major contribution is explanation of complex relationship between environmental orientation and environmental marketing strategy.
The relationship explains how environmental marketing strategies are derived from external and internal environmental orientation in a firm, and how it results in business performance.

(ii) Green marketing strategy

Literature on green marketing strategy is classified as: (i) strategy types, (ii) approaches to manage green marketing strategy and (iii) its evaluation. For strategy types, Jose (1996) proposed environment-strategy matrix and described its rationale for strategy selection. Hutchinson (1996) presented a framework for integrating environmental policy with business strategy and described its implications on strategy design. Later, Menon and Menon (1997) defined its three levels of green marketing strategy: strategic (corporate-level), quasi-strategic (business-level) and tactical (functional). Green marketing strategies at functional level have featured prominently in the literature. An example is product strategy that relates to product and process design strategies (Narula and Upadhyay, 2011; Pujari and Wright, 1996). Another example is retailing strategy that relates to fair-trade retailing and store design (Kumar, 2014; Nicholls, 2002).

For approaches to manage green marketing strategy, Ginsberg and Bloom (2004) proposed a green marketing strategy matrix by plotting sustainability of green market segments against differentiability of greenness and proposed four types of strategy: defensive, extreme, lean and shaded. This serves as a decision-making framework for practitioners to choose right kind of green marketing strategy for their products and markets. Many authors have used stakeholder theory to design and understand appropriateness of their green marketing strategies (Rivera-Camino, 2007; Morsing and Schultz, 2006; Polonsky, 1995). Mitchell et al. (2010) discussed sustainable market orientation as a new approach to managing marketing strategy. These approaches have significant implications for designing and selecting appropriate green marketing strategies.

For evaluation of green marketing strategies, the literature can be classified as (i) effect on firm performance (Fraj et al., 2011; LeCren and Ozanne, 2011; Mathur and Mathur, 2000) and (ii) market assessment (Wong et al., 1996). Thus, major contributions related to green marketing strategy include proposing its typology and assessing them for their consequences in different
settings. Studies guide decision-making processes of practitioners in choosing an appropriate green marketing strategy and developing an effective roadmap to achieve defined firm-level economic, operational and environmental objectives. These studies have illustrated upon the relevance of firms’ marketing departments in internalising pro-environmental values within their corporate strategies.

(iii) Green marketing functions

Literature on green marketing functions addressed issues related to products, promotion, retailing and distribution, and other issues such as branding, positioning and international marketing.

**Product**: This is a very important area within green marketing functions. The literature can be classified as green product design innovations and green product-offering innovations. Green product design innovations relate to product-related environmental benefits such as reduced resource consumption, substitution of harmful ingredients, and recyclability and reusability properties (Zhu *et al.*, 2013; Holt and Ghobadian, 2009; Pujari *et al.*, 2003; Pujari and Wright, 1996). Green product-offering innovations relate to non-product benefits such as offering incentives to consumers engaged in product recovery activities (Abraham, 2011; Canning, 2006). Also, Hartmann and Ibanez (2006) discussed adding emotional benefits (e.g. social, technological) and logical benefits (e.g. information approved by eco-labels, direct personal benefits such as health and financial benefits) to green product-offerings. Product-offering innovations such as monetary and non-monetary incentives are also applicable in service sectors such as hospitality, financial, travel and tourism, telecommunications, and education (Chan, 2013; Grove *et al.*, 1996). Further, these innovations are measured by some studies for their market success and their impact on firm performance (LeCren and Ozanne, 2011; Huang and Wu, 2010). Thus, different approaches for green product design and offerings, and assessing their relevance in a given competitive environment are the major contributions in this sub-theme.

**Promotion**: Green promotion literature relates to green advertisements and use of communication tools. An extant literature on content of green advertisements relates to advertising message and message credibility. Many authors have captured trend-analysis on greening of advertising and changing nature of advertising messages (Leonidou *et al.*, 2014; Leonidou *et al.*, 2011; Easterling *et al.*, 1996). Attempts to ensuring message credibility are relatively less addressed
though many authors have discussed scepticism of environmental claims in advertisements (Leonidou et al., 2014; Banerjee et al., 1995; Kangun et al. 1991). Thus, major contributions are related to capturing changing nature of green advertisements and environmental disclosures for degree of advertising greenness for focal points, evaluation areas, leverage aspects, and driving forces of environmental claims.

Literature on use of communication tools discusses the use of websites (Herzig and Godemann, 2010; Gill et al., 2008), sustainability reports (Blengini and Shields, 2010; Chatterjee and Mir, 2008; Cerin, 2002), and eco-labeling and environmental certifications (Blengini and Shields, 2010; Proto et al., 2007) as several tools of communication. Gallastegui (2002) presented a literature review on use of eco-labels. Main objectives of using these tools are spreading environmental knowledge, creating awareness of green products and developing credibility of environmental claims (Cegarra-Navarro and Martinez, 2010). There are no studies to demonstrate effectiveness of one communication tool over the other and authors (e.g. Carlson et al., 1996) have suggested an integrated approach to green marketing communication.

Retailing and distribution: Retailing literature has addressed sustainability issues in retailing and retailers’ shift towards sustainability practices. Sustainability practices in retailing include fair trade, ethical sourcing and reduced resource consumption (Kumar, 2014; Nicholls, 2002). Other contributions in green retailing include green atmospherics and service environment evaluations (Kreidler et al., 2009), green product assortment and promotion in retail stores (Bezawada and Pauwels, 2013), and choice editing as retailers’ tool for sustainable consumption (Gunn and Mont, 2014).

For reverse logistics, the literature on marketing-supply chain interface discussed product recovery practices (Rogers and Tibben-Lembke, 2001; Beamon, 1999). Literature on product recovery practices included issues in aftermarket practices (Abraham, 2011), mobile phone recovery (Chan and Chan, 2008; Canning, 2006) and waste collection in electronics industry (Lau and Wang, 2009). Kapetanopoulou and Tagaras (2011) explained drivers and challenges in product recovery activities. Bernon et al. (2011)’s literature review on retail reverse logistics
proposed a grounding framework that may guide for future research in product recovery activities.

*Other issues*: Other issues in green marketing functions include branding, positioning and international marketing. Green branding literature discussed building green brand equity (Benoit-Moreau and Parguel, 2011), antecedents of green brand equity (Ng et al., 2013), and relationship between environmental orientation and brand value (First and Khetriwal, 2010). Though recently, robust frameworks on green branding are developed and tested by these studies. Green positioning literature discussed functional and emotional positioning strategies (Hartmann et al., 2005) and significance of environmental strategic positioning (Monteiro and Guzman, 2009). An important contribution of these studies is demonstration of relevance of conventional branding and positioning constructs which can be successfully used in conceptualisation and theorization of green branding and positioning. Green marketing functions are also investigated in international context for their effects (Gurau and Ranchhod, 2005; Herbig and Butler, 1994).

*(iv) Green marketing consequences*

For green marketing consequences, literature is classified as consequences of green marketing strategies and consequences of green marketing activities. These consequences are discussed as operational, marketing, environmental and economic consequences. Consequences of green marketing strategies are explained as innovation, strategic alliances, credibility, service quality and improved public relations (Richey et al., 2014; LeCren and Ozanne, 2011; Rolland and Bazzoni, 2009; Mendelson and Polonsky, 1995). Consequences of green marketing activities are also diverse. Miles and Covin (2000) discussed environmental marketing as a source of reputational, competitive and financial advantage. Leonidou et al. (2013) investigated the effect of green marketing mix on product-market performance and return-on-assets. Ko et al. (2013) discussed the role of green marketing functions in building green retail corporate image. Papista and Krystallis (2013) discussed value of green brands and Wong et al. (2014) value of green advertising.

Recent literature on green marketing consequences also discussed economic value and its measurements (e.g. Bowers, 2010). Lin et al. (2013) investigated firms’ economic performance
in forms of increase of investment for environmental friendly technology, decrease of cost for hazardous materials purchasing and zero customer complaints or returns, and firms’ overall performance in forms of market position improvement, change in sales volume and profit rate. Papista and Krystallis (2013) proposed a conceptual framework for green branding to investigate types of value and cost of green brands.

Major contributions under this theme is investigation and explanation of potential value of different green marketing activities and strategies in terms of firms’ financial and environmental performances. This seems to answer why firms should invest in greening their marketing functions. Nonetheless, many studies have compared different green marketing activities and strategies for their consequences, and elaborated why some green marketing activities and strategies have better performances than the others.

3.1.1.1 Implications for green marketing practice

Literature on green marketing clearly guides practitioners for proactive behaviour of marketing department to develop eco-orientation of a firm and for their green marketing decisions that exhibit their environmental values, commitment, respect and care for natural resources. Literature explained three levels of green marketing decisions: strategic, quasi-strategic and tactical, and recommended practitioners to set their operational, financial, marketing and environmental goals differently for the three levels. These decisions are made in collaboration with other functions of business so that they are effectively aligned with the needs of green marketing.

Another inference important for practitioners is that green marketing practices and programmes are not based on standard checklist of procedures (Menon et al., 1999). It requires understanding needs and perceptions of target markets, competitive environment, firm-level resource capabilities, nature of corporate leadership and corporate environmental values and policies. So, many studies have warned practitioners not to make abrupt green marketing decisions that may not offer them competitive advantage. Practitioners are suggested to choose their green marketing practices wisely based on availability of firm resources and aligned with needs of target markets. For green marketing decisions, literature has highlighted upon their financial
feasibility for investors and operational feasibility for environmental teams in firms. For financial performance of green marketing activities, some authors have also differentiated them between weaker and stronger financial performances. Given the challenges in green promotion, practitioners are recommended to focus upon content suitability to target markets and credibility of information, focal points, evaluation areas, leverage aspects and their suitability with the product(s). Moreover, they are suggested to favour firm-level policies/ regulations oriented towards collective sacrifices that reassure consumers the significant impact of their actions favourable to the environment (Prakash, 2002).

3.1.2 Classification of articles by themes and types of research

In the classification of articles by themes and methodology of research, 23 papers (14%) were conceptual, 73 papers (45%) were quantitative in nature, 13 papers (8%) were qualitative in nature using case study approach, 18 papers (11%) were qualitative in nature using other qualitative approaches like interview, secondary sources, 9 papers (6%) were review papers, and 26 papers (16%) presented viewpoints of authors in the domain. In eco-orientation category, 48% of the articles are conceptual in nature and discuss viewpoints of the authors. Given very less number of papers (n=29) in the theme, green marketing researchers may build upon existing frameworks and concepts, and also, may develop new ones. In green marketing strategy theme, case-based articles are limited which could have captured deeper insights for the constructs that are difficult to measure. This offers an avenue for future research. In green marketing functions theme, the articles published are overwhelmingly empirical (68%). A literature review of green marketing functions may capture the development in the literature. Classification-related details are available from author(s) by request.

3.2 General results of research

This sub-section describes analysis of the articles for distribution by the year of publication, distribution by journal and type of journal, distribution by location of authors, top authors in the domain, and ten informative green marketing publications.
3.2.1 Distribution of the year of publication

This distribution (Figure 3) indicates the amount of research published on green marketing. It indicates that compared to the duration of 1990-1994, the amount of research published has seen considerable increase in the duration of 1995-2004, and remarkable increase in the duration of 2005-2014 (Table 2).

![Figure 3: Distribution of the year of publication](image)

<table>
<thead>
<tr>
<th>Duration</th>
<th>Year</th>
<th>Number of publications</th>
<th>Total Number of publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-1994</td>
<td>1990</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>1991</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1992</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1994</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1995-1999</td>
<td>1995</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>1996</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1997</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2000-2004</td>
<td>2000</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2004</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2005-2009</td>
<td>2005</td>
<td>7</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2007</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2009</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>2010-2014</td>
<td>2010</td>
<td>15</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

3.2.2 Distribution by journal and type of journal

In the distribution of articles in 73 journals, 62 (38.5%) out of 161 articles appeared in 21 marketing journals. Major publication outlets in marketing journals include Marketing Intelligence and Planning (6 articles, 10%), Industrial Marketing Management (5 articles, 8%), Journal of Academy of Marketing Science (5 articles, 8%), Journal of Marketing Management (5
articles, 8%), Journal of Marketing (4 articles, 7%), Journal of Marketing Theory and Practice (4 articles, 7%), and European Journal of Marketing (4 articles, 7%).

Other 99 articles (61.5%) appeared in 52 non-marketing journals. Major publication outlets in non-marketing journals include International Journal of Retail and Distribution Management (9 articles, 9%), Business Strategy and the Environment (8 articles, 8%), Journal of Business Research (7 articles, 7%), International Journal of Operations and Production Management (6 articles, 6%), Journal of Business Ethics (5 articles, 5%), Management Decision (5 articles, 5%), British Food Journal (4 articles, 4%), Management of Environmental Quality: An International Journal (4 articles, 4%), and Social Responsibility Journal (4 articles, 4%).

3.2.3 Distribution by location of authors
In distribution of locations of authors, 171 of the authors (48%) were based in countries in European continent, 107 of the authors (30%) were based in countries in North American continent, 45 of the authors (13%) were based in countries in Asian continent, 33 of the authors (9%) were based in countries in Australian continent, and 2 of the authors (1%) were based in countries in South American continent. Important to note, 100 articles (62%) were written by US authors, 77 articles (48%) by UK authors, 29 articles (18%) by Spanish authors, 26 articles (16%) by Australian authors, 12 articles (7%) by Swedish authors, and 11 articles (7%) by Chinese authors.

3.2.4 Top authors in the domain
Table 3 shows authors in green marketing with most citation weighted (adjusted) per author contribution. The adjustment is based on number of equal consideration of contribution of co-authors for each article in the study. For example, if an article was co-authored by four authors, credit received by each author is 1/4 of the article.

3.2.5 Ten informative green marketing publications
Based on citation analysis, table 4 shows ten informative green marketing publications based on citation per year since publication.
Table 3: Top 8 authors - weighted

<table>
<thead>
<tr>
<th>Rank</th>
<th>Author</th>
<th>Citations/ contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shrivastava, P.</td>
<td>1158</td>
</tr>
<tr>
<td>2</td>
<td>Polonsky, M.J.</td>
<td>804.5</td>
</tr>
<tr>
<td>3</td>
<td>Banerjee, S.B.</td>
<td>623.6</td>
</tr>
<tr>
<td>4</td>
<td>Covin, J.G.</td>
<td>578</td>
</tr>
<tr>
<td>5</td>
<td>Kashyap, R.K.</td>
<td>429</td>
</tr>
<tr>
<td>6</td>
<td>Crane, A.</td>
<td>428.5</td>
</tr>
<tr>
<td>7</td>
<td>Menon A.</td>
<td>396.3</td>
</tr>
<tr>
<td>8</td>
<td>Menon A.</td>
<td>396.3</td>
</tr>
</tbody>
</table>

Table 4: Ten informative green marketing publications

<table>
<thead>
<tr>
<th>Rank</th>
<th>Citation /year</th>
<th>Article title</th>
</tr>
</thead>
</table>
4. Concluding remarks

Though environmental concerns in marketing were first introduced about four and a half decades before, research activity in green marketing has increased significantly in recent years. Based on a comprehensive review of 161 articles on green marketing published between 1990 and 2014 in business and management journals, this literature review delineated thematic categories in green marketing literature. Differentiating itself from earlier literature reviews, it outlined the contribution of the earlier work under each theme and illustrated upon their implications for green marketing practice. For literature classification, it captured distribution of the articles by years of publications, journals and types of journals, and locations of authors, and listed ten informative green marketing publications and top authors in the domain. Thus, it summarises the literature that will be useful for researchers.

The findings indicate that green marketing seems growing as an intellectual sub-discipline of marketing that discusses and examines micro-issues in green marketing more prominently in last twenty-five years. In early 1990s, literature discussed the relevance of green marketing philosophy in changing orientation of marketing to achieve ecological sustainability objectives. Literature in mid-1990s discussed corporate environmentalism as a market strategy and literature in early 2000s proposed business-level and functional-level strategies to understand dynamics of marketing green products and to achieve effective firm performance. From mid-2000s onwards, green marketing functions and their marketing consequences registered their strong presence in the literature. Later, economic value of green marketing strategies and functions was investigated by many authors. Recently, diversified and novel theoretical constructs/ frameworks are discussed in the literature such as framework for business-to-business green marketing (Sharma et al., 2010), sustainable market orientation, its framework and related-propositions (Crittenden et al., 2011), transformative green marketing (Polonsky, 2011), green marketing functions (Ko et al., 2013), and elements of green marketing mix (Leonidou et al., 2013; Kotler, 2011). This development may motivate researchers to investigate substantial research questions, test existing frameworks and propositions, develop frameworks with managerial significance, and build theories for strong conceptualisation on green marketing thoughts.
There are important research implications of the study. First, the study outlines current state of research in green marketing that classifies green marketing literature across four themes and presents contribution of the literature on each theme. This may serve as a roadmap for future researchers to choose their theme of research and position their work in the classification shown in figure 2. Also, other literature reviews in future either may build upon the classification made in figure 2 or differentiate theirs’. Second, ten informative green marketing publications may assist researchers in developing their research proposals for high relevance for research and practice. Future researchers may build upon contributions made by those ten publications and contribute in knowledge creation. Third, highlights upon methodological classification may be useful for researchers to choose a particular methodology that is less employed for a given theme and may develop useful insights.

Many directions can be proposed for future research. Many authors on green marketing philosophy and eco-orientation have related them with competitiveness, environmental values and economic objectives. This should be further extended to brand value, reputation and social performance of a firm and its products. Researchers may investigate how marketing department in a firm develop market-oriented sustainability and ensure survival of the firm in a turbulent market environment. Investigating green marketing capabilities and assessing them for their impact of firms’ performance is another interesting avenue. This will explain how the focus of sustainability is shifting towards the market and contribute to the framework of Crittenden et al. (2011) for market-oriented sustainability.

With rich green product development literature, there are some questions that need to be addressed such as how green products create green brand value and economic value (rather than market and firm performance). Identification of mediating variables (e.g. competitive environment, industry type and product) and control variables (e.g. cultural, behavioural and habitual variables) in the relationships may produce results with significant implications. Comparing company and consumer perspectives in the relationships may produce meaningful insights. For relating product development with branding activities, many questions should be answered such as (i) what product attributes build green product brand image and equity, and green corporate brand image, and (ii) why information on certain product attributes is perceived...
credible while others are not. Further, product attributes, combined with green retail attributes (e.g. fair trade retailing and sustainable retail operations), may develop useful insights related to price premium and acceptability of green products in markets.

In green promotion literature, linking green advertising claims with green message comprehension and green advertisement effectiveness needs attention of the researchers. Future researchers may address reflection of organisational values, culture and characteristics in green advertisements. Relating them with green advertisements in international context may prove an important research avenue. For corporate environmental reports, the extant literature available can be reviewed to capture the longitudinal change in reporting pattern across dimensions and their relationships with firm-level performance indicators. This can be further extended to relate with relevance of internet-based social media in environmental information disclosure. Further, evaluation of green promotion activities and approaches for integrated green marketing communication for their (firm- and market-level) consequences are at their introductory stages, and need further attention. For green branding and positioning constructs, attempts can be made to understand how they are different from conventional constructs and to illustrate upon whether adapting conventional constructs in environmental context results in meaningful theoretical and managerial contribution or new scales need to be developed for the constructs.

Methodologically, qualitative studies on green marketing are found limited in the literature. Given the ability of qualitative studies to reveal underlying phenomenon that are difficult to capture using quantitative approach, qualitative green marketing studies may produce useful insights for theory as well as practitioners. Further, researchers may conduct longitudinal studies to understand non-financial performances of green marketing functions and strategies. Moreover, future work on literature review on green marketing may propose substantial frameworks. Use of citation analysis and information visualisation techniques may further advance the findings of literature reviews.

Inevitably, this work also has limitations. First limitation of the study is that it included only peer-reviewed journal articles and excluded books, conference proceedings and other relevant sources in the literature. Second, though an extensive search of articles was made from all
possible sources, it does not ensure inclusion of all possible papers accounting possible human errors. To overcome limitation of coverage, this review includes non-marketing journals as well (on business ethics, operations and management) that publish marketing-related issues. Third, thematic classification of papers may be debatable though independent expert opinions were sought in making the classifications. Fourth, the study lacks in covering green marketing literature that interfaces with human resource, accounting and organisational structure. Nonetheless, this paper complements earlier literature reviews that surveyed burgeoning literature on macro-level sustainability-marketing interface.

References


Author’s biography:

Prashant Kumar is working as Assistant Professor in T. A. Pai Management Institute (TAPMI), Manipal, India. He offers courses in Business Marketing Management, Marketing Research, Supply Chain Management and Environmental Management at executive, post-graduate and graduate levels. He has been awarded doctoral thesis at National Institute of Industrial Engineering (earlier known as NITIE) India in 2015. He holds a Master degree in Business Administration and a Bachelor degree in Electrical Engineering from recognized Indian universities. His research work is published in reputed international journals like Marketing Intelligence and Planning, International Journal of Retail and Distribution Management, and International Journal of Applied Management Science and Engineering. He has presented papers in many international conferences and is actively engaged in research in green marketing area.