RESEARCH ARTICLE



A bibliometric retrospection of marketing from the lens of psychology: Insights from *Psychology & Marketing*

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Abstract

The contribution of psychology to marketing has been significant and invaluable. No discipline has benefitted from another as much as marketing from psychology. To gain an understanding of the scientific contributions emerging from the intersection of psychology and marketing, this study conducts a bibliometric retrospection of a premier journal dedicated to the application of psychological theories and techniques to marketing: Psychology & Marketing (P&M). To do so, this study employs bibliometrics to unpack the publication trends and the intellectual structure of P&M. In doing so, this study reveals several interesting findings. First, P&M's publications grew by 71.9 times, authorships grew by 82.1 times, and citations grew by 150.8 times between 1984 and 2020, indicating a healthy growth of marketing research informed by psychology. Second, P&M's contributions manifest through eight intellectual clusters—namely, marketing environment; consumer engagement; online consumer behavior and marketing; luxury consumption and marketing; sustainable consumption and marketing; influencer and international marketing; customer relationship, satisfaction, and loyalty; and marketing futures. Finally, P&M's emerging and promising areas for future exploration include aesthetics and consumer impressions; celebrity endorsement; conspicuous consumption and hedonic adaptation; climate change; choice likelihood; consumer engagement; consumer psychology; marketing communication; sensory marketing; sharing economy; and social media marketing. As a whole, these findings should provide readers with a state-of-the-art overview of marketing from psychology through the scientific contributions from P&M.

KEYWORDS

bibliometric, citations analysis, marketing, P&M, psychology

1 | INTRODUCTION

"The vast majority of marketers are not psychologists, but successful marketers regularly employ psychology legally, ethically, and respectfully to attract and engage customers, and compel them to take action"

- Rosenthal (2014).

Though marketing was born out of economics, its growth has largely been driven by psychology. Indeed, the exploration of

marketing phenomena has more often than not involved the scrutiny of individual and collective psyche of consumers (Cohen, 2020; Khan et al., 2020), which highlights the significant and invaluable contributions of psychology to marketing. Such contributions can be found most prominently in journals dedicated to the application of psychological theories and techniques to marketing.

Psychology & Marketing (P&M) is a premier, international, interdisciplinary, and peer-reviewed journal that leads as a curator of bold and courageous ideas and a sentinel of good science for marketing research informed by psychology. Since commencing publication in

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1984, P&M has evolved into a highly respected and popular outlet for cutting-edge psychology and marketing research, as a result of the commendable stewardship of leading scientists in the field, such as Ronald Jay Cohen, Rajan Nataraajan, and more recently, Giampaolo Viglia.

P&M's stature in leading journal ranking outlets is noteworthy. Google Scholar ranks P&M among the top 20 journals in "marketing," whereas Scimago, which is powered by Scopus, ranks P&M as a "Q1" journal in the categories of "applied psychology" and "marketing." P&M also ranks favorably in discipline-based journal ranking lists (JRLs), with a rating of "3" in the Chartered Association of Business Schools (CABS) Academic Journal Guide (AJG) 2018 and a rank of "A" in the Australian Business Deans Council (ABDC) JRL 2019. Such high-quality rankings reflect the importance and impact of novel and rigorous research published by P&M, which began with 24 articles in 1984 to 1941 articles by the end of 2020.

Indeed, *P&M* has led and pioneered in many respects. From 1984 to 2020, *P&M* has published 58 special issues with 374 articles that have gained an average of 46.23 citations per article and a total of 17,289 citations according to bibliometric data from Scopus (Khan et al., 2020). Seminal articles in *P&M* include Nevid's (1984) article on neuroscience, which ignited interest in neuromarketing, Cohen's (1999) reflections on qualitative research, which spurred a slew of studies using the "dimensional qualitative research" methodology, and Zavestoski's (2002) special issue on anticonsumption, which pave the way for research on consumer resistance to, distaste of, and resentment or rejection of consumption (see complete list of special issues in Appendix 1).

To gain a comprehensive understanding of P&M's scientific contributions emerging from the intersection of psychology and marketing, this study employs bibliometrics to unpack the publication trends and the intellectual structure of P&M since its inception in 1984 to the end of 2020. Such a retrospection using bibliometrics is common among premier journals and useful for their readers. For example, Martínez-López et al. (2018) reviewed the contributions of the European Journal of Marketing over 50 years. Martorell Cunill et al. (2019) provided a retrospective overview of the same for the International Journal of Hospitality Management on its 35th anniversary. Similarly, Donthu, Kumar, et al. (2020) offered an in-depth retrospect of the 45 years of the Journal of Business Research, whereas Donthu, Reinartz, et al. (2020) reviewed the same but for the first 35 years of the International Journal of Research in Marketing. More recently, Khan et al. (2020) presented a bibliometric overview of the special issues in P&M. However, unlike Khan et al. (2020), this study offers a deeper analysis of P&M between 1984 and 2020 irrespective of special issues. Such an endeavor can provide a more accurate overview of the scientific contributions of marketing research informed by psychology through P&M. It is also important and urgent that this endeavor is undertaken so that contributors to P&M will be able to locate their contributions in the extant psychology and marketing literature published by the journal, and to deliver on courageous and promising research that will advance our understanding of marketing from the psychological perspective. To this

end, we endeavor to address four research questions (RQs) that can and will be answered through a bibliometric study of P&M between 1984 and 2020:

RQ1. What are the publication trends in P&M?

RQ2. What is the impact of publications in *P&M*—namely which are the most cited *P&M* articles and where has *P&M* been cited the most?

RQ3. What is the intellectual structure of P&M?

RQ4. What are the emerging and promising topics in P&M?

Addressing these RQs enable this study to contribute in several major ways, namely by (1) delineating the publication trajectory of P&M (RQ1), (2) highlighting the impact of P&M in scholarly research (RQ2), and (3) revealing the intellectual association of the literal corpus of P&M (RQ3 and RQ4). As a whole, this study contributes to a holistic understanding of P&M and its scientific contributions to marketing through the lens of psychology.

The remainder of this article is structured as follows. Section 2 outlines the study methods. Section 3 provides descriptive summaries and offers visualizations of trends in *P&M*. Section 4 presents insights into the intellectual structure of *P&M*. Section 5 sheds light on the emerging and promising research avenues for psychology and marketing research at *P&M*. Finally, Section 6 offers key takeaways from the study and concludes the article.

2 | METHODS

Most journals are experiencing an increasing number of global submissions, driven by the ease of international collaborations via the Internet and digital-technological revolution (Acedo et al., 2006; Baker et al., 2020a). Currently, the biggest challenges that researchers face include not only the conceptualization of new theories and their empirical validation but also the meaningful synthesis of the big data of scientific literature through analytical methods free from the subjective bias of the researcher. In this context, bibliometrics has emerged as one of the most trusted, reliable, and unbiased study techniques for synthesizing a large volume of literature (Baker et al., 2020b; Hess, 1997; Nerur et al., 2008). Bibliometrics also offer researchers a free hand to formulate the appropriate variable(s) and/or quantitative method(s) to achieve study outcomes.

In this bibliometric study, we rely mainly on descriptive and network analyses. Our descriptive indicators elucidate P&M's publication trend, citation structure, and intellectual clusters. The descriptive variables include terms such as total articles (TA), sole-authored articles (SA), coauthored articles (CA), number of contributing authors (NCA), growth in authorship (GA), collaboration index (CI), proportion of cited articles (PCA), total citations (TC), and average citations per cited article (C/CA). In addition, we use the number of active years (NAY) in which P&M's intellectual clusters were active in contributing at least one article. The popularity or influence of P&M's articles and intellectual clusters are presented in the form of an h-index, defined as the number of P&M articles cited at least h times in Scopus. Impact is presented in the form of an g-index, defined as the g number of

highly-cited P&M articles that receive at least g^2 citations in Scopus (Donthu, Kumar et al., 2020). In addition, productivity is presented in the form of an m-index, defined as the ratio of TA to NAY. Conversely, among the descriptive indicators, GA is defined as the number of new authors contributing to P&M in a given year. It is calculated as the cumulative count of contributing authors of P&M in a given year less the count of authors up to the previous year.

The intellectual structure, which consists of themes, of P&M articles is unveiled using coword analysis (Callon et al., 1983). As per Börner et al. (2003) and Andersen (2019), frequent coappearance of scientific terms displays thematic convergence among scientific works. Such analysis is often carried out using author specified keywords. However, in the absence of such keywords in P&M articles, we apply the natural language processing (NLP) methodology in VOSviewer to derive key terms in P&M titles and abstracts. Using Gephi and VOSviewer, we create a number of conceptual maps to access the thematic diversity presented in P&M (Donthu, Gremler, et al., 2020). Such maps bear invaluable utility to scientific discourse (Andersen, 2019).

Further, network analysis, in the form of bibliographic coupling, is applied. Kessler (1963) introduced the term "bibliographic coupling" by demonstrating that scientific works exhibit intellectual convergence through identical referencing patterns. Such analysis has been widely used in recent studies—for example, Byington et al. (2019), Baker et al. (2020b), Donthu, Kumar, et al. (2020), Khan et al. (2020), and Kumar et al. (2021). We use bibliographic coupling to present the intellectual clusters of *P&M* over the short and long run (Byington et al., 2019). The descriptive analysis is carried out mostly using MS-Excel, whereas network analysis is conducted using Gephi and VOSviewer.

3 | RESULTS

The initial search for *P&M* bibliometric records between 1984 and 2020 on Scopus returned a result of 1993 documents, which include 1843 articles, 99 reviews, 40 editorials, nine errata, one conference note, and one general note. However, the application of filters, such as a minimum of a five-page length and only articles with valid author information, reduced the number to 1941 documents, which we consider and use in our analysis.

3.1 | Publication trends, authorship patterns, citation structure, influence, and impact of *P&M* articles

Our first research question (RQ1) concentrates on P&M's publication trend. Table 1 presents P&M's publication trends, including authorship patterns, citation structure, influence, and impact of P&M articles published between 1984 and 2020.

With an average of 52.46 articles per year, publications in *P&M* grew 71.9 times, from 27 articles in 1984 to 1941 by 2020.

The number of P&M authors increased 82.1 times, from 39 in 1984 to 3201 authors by 2020, and citations grew 150.8 times, from 474 in 1984 to 71.466 citations by 2020.

In terms of productivity, P&M experienced its most productive year in 2020, with a total of 147 articles contributed by 406 P&M authors, whereas its highest growth in authorship occurred in 2019 (GA: 217).

In terms of citations, P&M articles published in the year 2003 are among its most cited (TC: 5368). Each of the cited articles published during the year received a mean of 103.2 cites in Scopus (C/CA: 103.2). These indices demonstrate that some of the most influential articles in P&M are from 2003.

In terms of h- and g-index, 2008 was the most influential year in P&M publishing, as 35 P&M articles received at least 35 citations each and 55 highly-cited P&M articles received at least 3025 citations in Scopus (h: 35; g: 55).

In terms of authorship patterns of *P&M* articles, about 20% are sole-authored works, whereas 80% are coauthored. As depicted in Figure 1, 39% (760) of *P&M* articles are authored by two, 28% (551) by three, 9% (173) by four, and the remaining 4% (69) by five to 15 authors. As seen in Table 1, 2020 share the top rank in both sole-authored and coauthored *P&M* articles (SA: 21; CA: 126).

Conversely, despite being a specialized marketing journal, *P&M* is highly competitive in many parameters as compared to the top 10 general marketing journals reported in Table 2. Among the reported indicators, *P&M* ranks three in the total number of articles (including those sole-authored and coauthored), the number of authors contributing those articles, and the number of cited articles published between 1984 and 2020. Such considerable authorships, citations, and publications indicate the emergence of *P&M* as a prominent academic hub in marketing research as compared to its peers. We highlight some of the most influential *P&M* articles in the subsequent sections.

3.2 | The most influential articles in P&M

Our second research question (RQ2) focuses on the impact of publications in *P&M*, which is partially informed by the citations received by *P&M* articles. Table 3 provides a list of the top 35 most influential *P&M* articles, which received at least 221 citations between 1984 and 2020.

Anderson and Srinivasan's (2003) article entitled "E-satisfaction and e-loyalty: A contingency framework" is the most influential *P&M* article, with 1009 citations in Scopus. Their article is closely followed by Yang and Peterson's (2004) article entitled "Customer perceived value, satisfaction, and loyalty: The role of switching costs," which was cited 982 times.

Ashley and Tuten's (2015) article entitled "Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement" has the highest average citations per year among all of the top-cited publications in *P&M* (CPY: 73.60). Their article is closely followed by Yang and Peterson's (2004) article (CPY: 61.38).

TABLE 1 Publication trend, authorship pattern, citation structure, influence, and impact of *P&M* articles

| Year | TA | SA | CA | NCA | GA | CI | PCA | TC | C/CA | h | α |
|---------|----------|----------|------|----------|------|------|------|--------|--------|-----|----------------|
| 1984 | 27 | 16 | 11 | 43 | 39 | 0.59 | 0.74 | 474 | 23.70 | 11 | g 20 |
| | | | 15 | | 44 | | | | | | 20 |
| 1985 | 26 24 | 11 11 | 13 | 53 43 | 39 | 1.04 | 0.77 | 534 | 26.70 | 10 | 23 |
| 1986 | | | | | | 0.79 | 1.00 | 541 | 22.54 | 10 | |
| 1987 | 18 | 4 | 14 | 36 | 31 | 1.00 | 0.89 | 356 | 22.25 | 9 | 16 |
| 1988 | 16 | 5 | 11 | 28 | 22 | 0.75 | 1.00 | 369 | 23.06 | 11 | 16 |
| 1989 | 20 | 6 | 14 | 43 | 33 | 1.15 | 1.00 | 885 | 44.25 | 15 | 20 |
| 1990 | 19 | 6 | 13 | 40 | 32 | 1.11 | 1.00 | 774 | 40.74 | 13 | 19 |
| 1991 | 18 | 4 | 14 | 36 | 28 | 1.00 | 1.00 | 529 | 29.39 | 10 | 18 |
| 1992 | 32 | 4 | 28 | 72 | 59 | 1.25 | 0.94 | 1346 | 44.87 | 21 | 30 |
| 1993 | 35 | 12 | 23 | 67 | 51 | 0.91 | 1.00 | 1368 | 39.09 | 20 | 35 |
| 1994 | 33 | 10 | 23 | 62 | 49 | 0.88 | 1.00 | 1713 | 51.91 | 20 | 33 |
| 1995 | 47 | 15 | 32 | 94 | 76 | 1.00 | 0.91 | 1768 | 41.12 | 21 | 42 |
| 1996 | 42 | 12 | 30 | 82 | 69 | 0.95 | 1.00 | 1355 | 32.26 | 21 | 36 |
| 1997 | 41 | 13 | 28 | 79 | 64 | 0.93 | 1.00 | 3438 | 83.85 | 28 | 41 |
| 1998 | 41 | 11 | 30 | 87 | 77 | 1.12 | 0.98 | 2965 | 74.13 | 27 | 40 |
| 1999 | 36 | 9 | 27 | 75 | 57 | 1.08 | 1.00 | 1914 | 53.17 | 24 | 36 |
| 2000 | 50 | 19 | 31 | 99 | 71 | 0.98 | 1.00 | 3525 | 70.50 | 32 | 50 |
| 2001 | 50 | 20 | 30 | 91 | 59 | 0.82 | 1.00 | 3452 | 69.04 | 28 | 50 |
| 2002 | 53 | 19 | 34 | 100 | 72 | 0.89 | 0.98 | 3357 | 64.56 | 33 | 52 |
| 2003 | 52 | 12 | 40 | 109 | 71 | 1.10 | 1.00 | 5368 | 103.23 | 32 | 52 |
| 2004 | 49 | 11 | 38 | 110 | 81 | 1.24 | 1.00 | 4162 | 84.94 | 31 | 49 |
| 2005 | 48 | 6 | 42 | 105 | 76 | 1.19 | 1.00 | 2996 | 62.42 | 33 | 48 |
| 2006 | 51 | 8 | 43 | 124 | 97 | 1.43 | 1.00 | 2710 | 53.14 | 29 | 51 |
| 2007 | 48 | 11 | 37 | 113 | 78 | 1.35 | 1.00 | 3448 | 71.83 | 32 | 48 |
| 2008 | 55 | 7 | 48 | 139 | 97 | 1.53 | 1.00 | 3457 | 62.85 | 35 | 55 |
| 2009 | 54 | 13 | 41 | 130 | 92 | 1.41 | 1.00 | 2565 | 47.50 | 28 | 50 |
| 2010 | 58 | 9 | 49 | 134 | 97 | 1.31 | 0.98 | 2751 | 48.26 | 31 | 52 |
| 2011 | 53 | 6 | 47 | 128 | 91 | 1.42 | 1.00 | 1491 | 28.13 | 23 | 37 |
| 2012 | 81 | 12 | 69 | 229 | 162 | 1.83 | 0.98 | 2366 | 29.95 | 28 | 45 |
| 2013 | 84 | 14 | 70 | 201 | 148 | 1.39 | 1.00 | 2307 | 27.46 | 29 | 42 |
| 2014 | 87 | 9 | 78 | 235 | 175 | 1.70 | 0.99 | 1811 | 21.06 | 25 | 37 |
| 2015 | 83 | 5 | 78 | 235 | 168 | 1.83 | 1.00 | 2219 | 26.73 | 24 | 43 |
| 2016 | 90 | 9 | 81 | 243 | 180 | 1.70 | 0.98 | 1130 | 12.84 | 18 | 26 |
| 2017 | 80 | 5 | 75 | 236 | 165 | 1.95 | 0.98 | 1087 | 13.94 | 17 | 28 |
| 2018 | 74 | 7 | 67 | 218 | 157 | 1.95 | 0.96 | 510 | 7.18 | 11 | 15 |
| 2019 | 119 | 16 | 103 | 311 | 217 | 1.61 | 0.82 | 285 | 2.94 | 6 | 8 |
| 2020 | 147 | 21 | 126 | 406 | 77 | 1.76 | 0.46 | 140 | 2.06 | 4 | 5 |
| Overall | 1941 | 388 | 1553 | 4636 | 3201 | 1.39 | 0.93 | 71,466 | 39.57 | 121 | 184 |

Note: This table presents the publication trend, authorship pattern, citation structure, influence, and impact of *P&M* articles published between 1984 and 2020.

Abbreviations: C/CA, citations per cited article; CA, coauthored articles. CI, collaboration index; g, g-index; GA, growth in authorship; h, h-index; NCA, number of contributing authors; PCA, proportion of cited articles; SA, sole-authored articles; TA, total articles; TC, total citations.

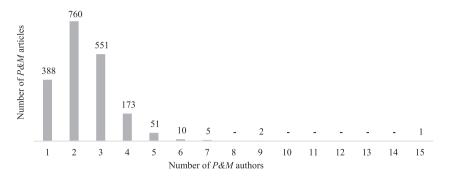


FIGURE 1 Distribution of *P&M* articles based on authorship patterns. This figure shows the distribution of *P&M* articles based on the number of contributing authors

An analysis of the most influential P&M article titles reveals that empirical research that involves factors and determinants, measurement and scale development, buying behavior in online environment, customer satisfaction, customer loyalty, consumer value, consumer involvement, consumer belief, consumer attitude, and green purchases attracted the most citations.

black (e.g., Marketing Intelligence and Planning) and bottle green (e.g., Journal of Advertising) clusters benefitted the most from influencer and international marketing research, and most journals in the purple cluster (e.g., International Journal of Retail and Distribution Management) reaped the most benefit from marketing environment research in P&M.

3.3 | The most frequent journals citing P&M

To provide a more holistic response to our RQ2, which focuses on the impact of publications in *P&M*, the journals citing *P&M* most frequently are examined. Table 4 provides a list of journals that cite *P&M* articles most often between 1984 and 2020. The table presents the journals for which *P&M* has been most influential over the years. Besides total citations, the table also depicts the ABDC JRL 2019 and CABS AJG 2018 journal ratings.

Articles published in *P&M* are often cited in *Journal of Business Research* (TC: 1325), followed by *P&M* itself (TC: 1261), and *Journal of Retailing and Consumer Services* (TC: 881). About 95% of the top citing journals (19 of 20) are ranked "A*" or "A" in the ABDC JRL 2019, while about 45% hold a rating of three or higher in the CABS AJG 2018 (i.e., nine of the top 20). Such indicators signal the quality of the intellectual output of *P&M* articles, as seen through citations originating from other premier journals.

In addition, the bibliographic coupling of journals citing *P&M* at least 200 times in Scopus reveal seven journal clusters on the basis of identical referencing patterns (see Figure 2). For example, *Journal of Brand Management*, *Journal of Product and Brand Management*, and *Journal of Marketing Management* collectively form a (red) cluster based on their similarity in referencing patterns, with *Journal of Brand Management* contributing the most citations in that cluster. The contributions of each journal cluster to each intellectual cluster in *P&M*, which will be discussed in greater detail in the next sections, are presented in Table 5. Specifically, most journals in the blue (e.g., *Journal of Business Research*), dark green (e.g., *Asia Pacific Journal of Marketing and Logistics*), orange (e.g., *P&M*), and red (e.g., *Journal of Brand Management*) clusters acquired the most benefit from luxury consumption and marketing research, whereas most journals in the

4 | INTELLECTUAL STRUCTURE OF P&M

Our third research question (RQ3) introspects the intellectual structure of *P&M* articles. Academic articles exhibit intellectual association through their patterns of referencing (Kessler, 1963). Articles with the common referencing patterns form bibliographic couples, and such couples converge to form a nexus of intellectual discussions involving similar academic or managerial concerns. Such an analysis is called bibliographic coupling, which is useful to reduce voluminous research content into smaller groups of intellectual clusters.

Past research has widely applied bibliographic coupling to infer semantic associations among academic sources, global researchers, and research domains (Baker et al., 2020a; 2020b; Donthu, Kumar, et al., 2020). Byington et al. (2019) adds that such analysis should be carried out on recent documents to arrive at the most current intellectual structure.

Following past research, we perform a bibliographic coupling analysis of *P&M* articles in two phases. We begin with a broad overview of *P&M's* literal corpus by analyzing *P&M* articles from 1984 to 2020, and then we present the most current intellectual structure by analyzing *P&M's* articles published in the last 5 years—that is, between 2016 and 2020.

Specifically, the bibliographic coupling analysis applied to P&M's literal corpus converged into eight intellectual clusters. Table 6 describes the characteristics of intellectual clusters, Figure 3 maps the evolution of intellectual clusters, and Table 7 presents an overview of content in intellectual clusters. The naming of intellectual clusters is based on a subjective but collectively agreed assessment, which is similar to the naming of factors in factor analysis (Baker et al., 2020b).

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| | JBR | M | IMM | JRCS | JCR | JMR | JAMS | Ж | MS | P&M |
|------|---------|---------|---------|--------|---------|---------|---------|--------|--------|--------|
| GSR | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
| NAY | 36 | 24 | 36 | 26 | 25 | 24 | 36 | 27 | 24 | 36 |
| TA | 6102 | 1004 | 2915 | 1641 | 1376 | 1220 | 1381 | 805 | 1205 | 1794 |
| РАҮ | 169.50 | 41.83 | 80.97 | 63.12 | 55.04 | 50.83 | 38.36 | 29.81 | 50.21 | 49.83 |
| SA | 851 | 82 | 563 | 268 | 192 | 116 | 243 | 91 | 242 | 367 |
| CA | 5251 | 922 | 2352 | 1373 | 1184 | 1104 | 1138 | 714 | 896 | 1427 |
| NCA | 16,178 | 2750 | 7052 | 4125 | 3239 | 3143 | 3438 | 2119 | 2854 | 4230 |
| NAA | 10,405 | 1534 | 3903 | 3011 | 1425 | 1688 | 2145 | 1383 | 1312 | 3124 |
| Ū | 1.65 | 1.74 | 1.42 | 1.51 | 1.35 | 1.58 | 1.49 | 1.63 | 1.37 | 1.36 |
| NoCA | 5748 | 866 | 2780 | 1566 | 1364 | 1211 | 1335 | 783 | 1127 | 1648 |
| PCA | 0.94 | 0.99 | 0.95 | 0.95 | 0.99 | 0.99 | 0.97 | 0.97 | 0.94 | 0.92 |
| TC | 231,483 | 201,523 | 108,155 | 35,784 | 136,310 | 115,186 | 144,644 | 79,609 | 64,430 | 62,307 |
| C/CA | 40.27 | 202.94 | 38.90 | 22.85 | 99.93 | 36.65 | 42.07 | 101.67 | 22.58 | 37.81 |
| I | 192 | 236 | 130 | 80 | 171 | 164 | 179 | 139 | 122 | 112 |
| ט | 291 | 419 | 204 | 110 | 300 | 286 | 342 | 256 | 201 | 170 |

Note: This table compares the publication trend, authorship pattern, citation structure, influence, and impact of the top marketing journals as per Google Scholar as of April 2020. The top 10 journals include: Journal of Business Research (JBR), Journal of Marketing (JM), Industrial Marketing Management (IMM), Journal of Retailing and Consumer Services (JRCS), Journal of Consumer Research (JCR), Journal of Marketing Research (JMR), Journal of the Academy of Marketing Science (JAMS), Journal of Retailing (JR), Marketing Science (MS), and Psychology and Marketing (P&M).

Abbreviations: C/CA, citations per cited article; CA, coauthored articles; CI, collaboration index; g, g-index; h, h-index; NAA, number of affiliated authors; NCA, number of contributing authors; NoCA, number of cited articles; PCA, proportion of cited articles; SA, sole-authored articles; TA, total articles; TC, total citations.

TABLE 3 Top cited articles in P&M

| TC | Title | Authors | PY CPY | |
|------|--|---|------------|----|
| 1009 | "E-satisfaction and e-loyalty: A contingency framework" | Anderson R. E., Srinivasan S. S. | 2003 59.35 | 2 |
| 982 | "Customer perceived value, satisfaction, and loyalty: The role of switching costs" | Yang Z., Peterson R. T. | 2004 61.38 | 00 |
| 645 | "The impact of customer satisfaction and relationship quality on customer retention: A critical reassessment and model development" | Hennig-Thurau T., Klee A. | 1997 28.04 | 4 |
| 592 | "Personal characteristics as moderators of the relationship between customer satisfaction and loyalty – An empirical analysis" | Homburg C., Giering A. | 2001 31.16 | 9. |
| 561 | "Empirical testing of a model of online store atmospherics and shopper responses" | Eroglu S. A., Machleit K. A., Davis L. M. | 2003 33.00 | 0 |
| 549 | "Personal taste and family face: Luxury consumption in Confucian and western societies" | Wong N. Y., Ahuvia A. C. | 1998 24.95 | ۲Č |
| 516 | "A conceptual model of perceived customer value in e-commerce: A preliminary investigation" | Chen Z., Dubinsky A. J. | 2003 30.35 | 5 |
| 456 | "Determinants of Chinese consumers' green purchase behavior" | Chan R. Y. K. | 2001 24.00 | 0 |
| 456 | "Social desirability bias: A neglected aspect of validity testing" | King M. F., Bruner G. C. | 2000 22.80 | 0 |
| 452 | "Promoting sustainable consumption: Determinants of green purchases by Swiss consumers" | Tanner C., Kast S. W. | 2003 26.59 | 6 |
| 422 | "Store environment and consumer purchase behavior: Mediating role of consumer emotions" | Sherman E., Mathur A., Smith R. B. | 1997 18.35 | 5 |
| 368 | "Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement" | Ashley C., Tuten T. | 2015 73.60 | Q |
| 360 | "Value-based segmentation of luxury consumption behavior" | Wiedmann K. P., Hennigs N., Siebels A. | 2009 32.72 | Ŋ |
| 359 | "Environmental color, consumer feelings, and purchase likelihood" | Bellizzi J. A., Hite R. E. | 1992 12.82 | Ŋ |
| 330 | "A comparative analysis of four scales of consumer involvement" | Mittal B. | 1995 13.20 | 0 |
| 325 | "Congruence between spokesperson and product type: A matchup hypothesis perspective" | Kamins M. A., Gupta K. | 1994 12.50 | 0 |
| 312 | "What influences the relationship between customer satisfaction and repurchase intention? Investigating the effects of adjusted expectations and customer loyalty" | Yi Y., La S. | 2004 17.18 | ∞. |
| 306 | "Consumer concern, knowledge, belief, and attitude toward renewable energy: An application of the reasoned action theory" | Bang HK., Ellinger A. E., Hadjimarcou J., Traichal P. A. | 2000 15.30 | 0 |
| 305 | "Fear appeals in social marketing: Strategic and ethical reasons for concern" | Hastings G., Stead M., Webb J. | 2004 19.06 | 9 |
| 304 | "Understanding sponsorship effects" | Meenaghan T. | 2001 16.00 | 0 |
| 298 | "Factors leading to group identification: A field study of winners and losers" | Fisher R. J., Wakefield K. | 1998 12.00 | 0 |

TABLE 3 (Continued)

| 70 | Title | Authors | ΡΥ | СРУ |
|-----|---|---|------|-------|
| 292 | "Customer response to intangible and tangible service factors" | Wakefield K. L., Blodgett J. G. | 1999 | 13.90 |
| 263 | "Buyer-seller relationships: Similarity, relationship management, and quality" | Smith J. B. | 1998 | 11.95 |
| 278 | "Scarcity effects on value: A quantitative review of the commodity theory literature" | Lynn M. | 1991 | 9.59 |
| 272 | "Integrating technology readiness into technology acceptance: The TRAM model" | Lin CH., Shih HY., Sher P. J. | 2007 | 20.92 |
| 257 | "Perceived risk: The concept and its measurement" | Dowling G. R. | 1986 | 7.56 |
| 255 | "Consumer information search behavior and the internet" | Peterson R. A., Merino M. C. | 2003 | 15.00 |
| 252 | "For fun and profit: Hedonic value from image interactivity and responses toward an online store" | Fiore A. M., Jin HJ., Kim J. | 2005 | 16.80 |
| 249 | "Measuring purchase-decision involvement" | Mittal B. | 1989 | 8.03 |
| 248 | "Voluntary simplicity and the ethics of consumption" | Shaw D., Newholm T. | 2002 | 13.78 |
| 246 | "Social identity effects in a belief-attitude-intentions hierarchy: Implications for corporate sponsorship" | Madrigal R. | 2001 | 12.95 |
| 246 | "Why people (don't) shop online: A lifestyle study of the internet consumer" | Swinyard W. R., Smith S. M. | 2003 | 14.47 |
| 240 | "The impact of the alliance on the partners: A look at cause-brand alliances" | Lafferty B. A., Goldsmith R. E., Hult G. T. M. | 2004 | 15.00 |
| 226 | "Alternative measurement approaches to consumer values: The list of values and the rokeach value survey" | Beatty S. E., Kahle L. R., Homer P., Misra S. | 1985 | 6.46 |
| 221 | "Materialism as an attempt to cope with uncertainty" | Chang L., Arkin R. M. | 2002 | 12.28 |

Note: This table lists the top-cited articles published in P&M between 1984 and 2020. Abbreviations: CPY, citations per year; PY, publication year; TC, total citations.

TABLE 4 Most frequent journals citing P&M

| R | Journal | TC | ABDC | CABS |
|----|--|------|------|------|
| 1 | Journal of Business Research | 1325 | Α | 3 |
| 2 | Psychology & Marketing | 1261 | Α | 3 |
| 3 | Journal of Retailing and Consumer Services | 881 | Α | 2 |
| 4 | European Journal of Marketing | 532 | A* | 3 |
| 5 | Sustainability | 496 | NA | NA |
| 6 | Journal of Consumer Marketing | 392 | Α | 1 |
| 7 | Computers in Human Behavior | 386 | Α | 3 |
| 8 | Journal of Advertising | 371 | Α | 3 |
| 9 | International Journal of Advertising | 362 | Α | 2 |
| 10 | Journal of Product and Brand Management | 360 | Α | 1 |
| 11 | Journal of Services Marketing | 359 | Α | 2 |
| 12 | International Journal of Hospitality Management | 350 | A* | 3 |
| 13 | Journal of Marketing Management | 328 | Α | 2 |
| 14 | Journal of Business Ethics | 297 | Α | 3 |
| 15 | Journal of Consumer Behaviour | 296 | Α | 2 |
| 16 | Asia Pacific Journal of Marketing and Logistics | 276 | Α | NA |
| 17 | International Journal of Retail and Distribution Management | 264 | А | 2 |
| 18 | International Journal of Consumer Studies | 257 | Α | 2 |
| 19 | Journal of Consumer Psychology | 241 | A* | 4* |
| 20 | Journal of the Academy of Marketing Science | 236 | A* | 4* |

Note: This table ranks the top journals citing P&M most frequently between 1984 and 2020.

Abbreviations: ABDC, Australian Business Deans Council Journal Ranking List 2019; CABS, Chartered Association of Business School Academic Journal Guide 2018; NA, not available; R, rank; TC, total citations.

4.1 | Cluster 1: Marketing environment

The first cluster, which reflects *marketing environment*, consists of 283 *P&M* articles (TA: 283) that were contributed by 683 *P&M* authors (NCA: 683) and cited 10,415 times in Scopus (TC: 10,415) (see Table 6). The cluster is active in 36 years of the journal (NAY: 36). Figure 3 depicts an evolving trend in the cluster toward the later years while the average productivity indicator in Table 6 shows that *P&M* contributes a mean of 7.86 articles each year to this cluster (*m*: 7.86). Such indications make the cluster a potential avenue to target a future research.

Some of the most influential terms in the cluster include *online* stores, environment, consumer purchase behavior, purchase likelihood, and social marketing. The top five influential articles in the cluster are authored by Eroglu et al. (2003), Sherman et al. (1997), Bellizzi and

Hite (1992), Hastings et al. (2004), and Wakefield and Blodgett (1999), which have been cited 561, 422, 359, 305, and 292 times at a mean of 33.00, 18.35, 12.82, 19.06, and 13.90 annual citations per year, respectively.

Eroglu et al. (2003) empirically validated a model that proposed the impact of atmospheric cues on shoppers' cognitive state and emotional status. Sherman et al. (1997) conducted a large crosssectional study that examined the impact of store environment on consumers' emotions that drive their shopping behavior. Bellizzi and Hite's (1992) experimental study investigated the effects of red and blue colors on consumers' shopping behavior. The authors concluded that, in contrast to earlier findings, the predominance of blue rather than red in the context of consumers' shopping yields a more positive outcome. Hastings et al. (2004) provided a critique of the use of fear appeals in social marketing, and Wakefield and Blodgett (1999) found evidence of the influence of physical environment on the post-service consumption behavior of customers. All of the top-five articles in the cluster are among the most influential research, as presented in Table 7. Notably, some of the most recent articles in this cluster have concentrated on information behavior and communication theory (Balabanis & Chatzopoulou, 2019) and construal level theory (Lo et al., 2019), which highlights the importance of online and social settings in the marketing environment in recent times.

4.2 | Cluster 2: Consumer engagement

The second cluster, which reflects *consumer engagement*, comprises of 87 *P&M* articles that were contributed by 183 authors and cited 3640 times in Scopus (see Table 6). Although this cluster is active in the 30 years of *P&M* publishing, its productivity indicator shows that only a mean of 2.90 articles have been contributed in each of the active years of the cluster (*m*: 2.90). In addition, Figure 3 reveals a declining trend of publications, which may indicate that only the most original and state-of-the-art research in the domain may qualify for publication in *P&M*.

Some of the most influential terms in the cluster are consumer involvement, consumer engagement, group identification, and purchase decision. The top five most influential articles in the cluster are authored by Ashley and Tuten (2015), Mittal (1995), Fisher and Wakefield (1998), Mittal (1989), and Christensen and Olson (2002), which have been cited 368, 330, 298, 249, and 165 times at a mean of 73.60, 13.20, 13.55, 8.03, and 9.17 citations per year, respectively.

Ashley and Tuten (2015) investigated the factors that drive higher participation of brand consumers in social media. In keeping with earlier research, the authors confirmed that frequent updates and more creative content led to higher consumer engagements in social media. Mittal (1995) conducted a comparative analysis of four scales that measure consumer involvement. Fisher and Wakefield's (1998) empirical investigation revealed the factors that led to group supportive behaviors or higher patronage among fans and patrons of losing brands, service, teams, and so forth. Mittal (1989) developed a parsimonious scale to measure consumers' purchase-decision



FIGURE 2 Bibliographic coupling of journals citing *P&M*. This figure illustrates the intellectual association among the top journals citing *P&M*. The coupling threshold is set at a minimum of one document and 200 citations between 1984 and 2020 [Color figure can be viewed at wileyonlinelibrary.com]

TABLE 5 Proportion of journal cluster's citations to *P&M's* intellectual clusters

| | Intel | lectua | l cluste | r (%) | | | | |
|-----------------|-------|--------|----------|-------|----|----|----|---|
| Journal cluster | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Black | 8 | 5 | 12 | 21 | 7 | 34 | 12 | 1 |
| Blue | 18 | 3 | 5 | 30 | 5 | 14 | 25 | 0 |
| Bottle green | 18 | 4 | 5 | 25 | 4 | 30 | 13 | 1 |
| Dark green | 15 | 3 | 7 | 39 | 6 | 14 | 14 | 1 |
| Orange | 15 | 3 | 4 | 31 | 12 | 16 | 18 | 1 |
| Purple | 31 | 3 | 9 | 20 | 11 | 6 | 18 | 2 |
| Red | 12 | 5 | 3 | 37 | 4 | 21 | 19 | 0 |

Note: This table shows the proportion of citations between the journal and intellectual clusters of P&M articles published between 1984 and 2020.

Abbreviations: 1, marketing environment; 2, consumer engagement; 3, online consumer behavior and marketing; 4, luxury consumption and marketing; 5, sustainable consumption and marketing; 6, influencer and international marketing; 7, customer relationship, satisfaction, and loyalty; 8, marketing futures.

involvement. Christensen and Olson (2002) determined the constituents of consumers' mental models that drive their involvement in a product. Their study found that both cognitive and emotional components drive consumers' involvement. These top four articles are among the most influential works of *P&M*, as depicted in Table 7. Notably, some of the examples on the theoretical advancements accomplished in this cluster are in the areas of family decision making (Lackman & Lanasa, 1993) and nonverbal communication theory (Puccinelli et al., 2010), among others.

4.3 | Cluster 3: Online consumer behavior and marketing

The third cluster, which reflects online consumer behavior and marketing, consists of 243 P&M articles that were contributed by 546 authors and cited 6560 times in Scopus (see Table 6). The activity indicator of the cluster shows consistent contributions (NAY: 36). In addition, this cluster contributes a mean of 6.75 articles in each of its active years (m: 6.75). However, Figure 3 reveals the cluster's growth

| | Cluster | | | | | | | |
|------|---------|-------|-------|--------|-------|-------|--------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| TA | 283 | 87 | 243 | 392 | 152 | 301 | 279 | 23 |
| SA | 53 | 19 | 51 | 86 | 33 | 64 | 36 | 2 |
| CA | 230 | 68 | 192 | 306 | 119 | 237 | 243 | 21 |
| NCA | 683 | 183 | 546 | 916 | 380 | 693 | 714 | 67 |
| CI | 1.41 | 1.10 | 1.25 | 1.34 | 1.50 | 1.30 | 1.56 | 1.91 |
| NoCA | 261 | 84 | 228 | 357 | 139 | 283 | 254 | 22 |
| PCA | 0.92 | 0.97 | 0.94 | 0.91 | 0.91 | 0.94 | 0.91 | 0.96 |
| TC | 10,415 | 3640 | 6560 | 13,386 | 6635 | 9255 | 11,983 | 273 |
| C/A | 36.80 | 41.84 | 27.00 | 34.15 | 43.65 | 30.75 | 42.95 | 11.87 |
| C/CA | 39.90 | 43.33 | 28.77 | 37.50 | 47.73 | 32.70 | 47.18 | 12.41 |
| NAY | 36 | 30 | 36 | 36 | 33 | 36 | 29 | 7 |
| h | 53 | 32 | 39 | 61 | 46 | 51 | 55 | 8 |
| g | 90 | 59 | 68 | 98 | 78 | 80 | 100 | 16 |
| m | 7.86 | 2.90 | 6.75 | 10.89 | 4.61 | 8.36 | 9.62 | 3.29 |

TABLE 6 Characteristics of intellectual clusters in *P&M*

Note: This table presents the characteristics of intellectual clusters in P&M.

Abbreviations: C/A, citations per article; C/CA, citations per cited article; CA, coauthored articles; CI, collaboration index; *g*, *g*-index; *h*, *h*-index; *m*, m-index; NAY, number of active years between 1984 and 2020 (i.e., a journal is said to be active if it has published at least one article during the study period); NAY, number of active years; NCA, number of contributing authors; NoCA, number of cited articles; PCA, proportion of cited articles; SA, sole-authored articles; TA, total articles; TC, total citations.

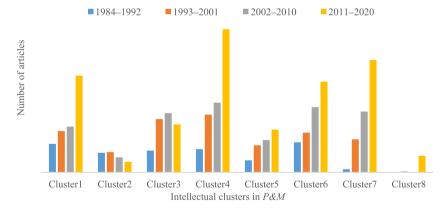


FIGURE 3 Evolution of intellectual clusters in *P&M*. This figure depicts the evolution of intellectual clusters in *P&M* based on articles published at different points in the history of the journal. Cluster 1, marketing environment; Cluster 2, consumer engagement; Cluster 3, online consumer behavior and marketing; Cluster 4, luxury consumption and marketing; Cluster 5, sustainable consumption and marketing; Cluster 6, influencer and international marketing; Cluster 7, customer relationship, satisfaction, and loyalty; Cluster 8, marketing futures [Color figure can be viewed at wileyonlinelibrary.com]

as having reached a plateau in 1993. Such an indication may warrant concern both for the journal as well as for the researchers who are targeting publications in this domain.

The results in Table 7 suggest that this cluster is primarily concerned about *electronic commerce*, with its influential content seen in terms such as *consumer information search behaviors*, *consumer value in e-commerce*, and *consumer risk perception*. The top five articles in the

cluster are authored by Chen and Dubinsky (2003), Lin et al. (2007), Dowling (1986), Peterson and Merino (2003), and Lee and Lee (2004), which have been cited 516, 272, 257, 255, and 212 times at a mean of 30.35, 20.92, 7.56, 15.00, and 13.25 annual citations, respectively.

Chen and Dubinsky (2003) developed a conceptual model by exploring the precursors of customer value in an electronic-

Lee B.-K., Lee W.-N.

"The effect of information overload on consumer choice quality in an on-line environment"

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|-----------|---|---|--|--|--------|-------|-------|
| Cluster | r Central focus | Influential areas explored | TA Title | Author(s) | Year T | 70 | СРУ |
| 1 | Marketing environment | umer purchase behavior, social marketing, service | 283 "Empirical testing of a model of online store atmospherics and shopper responses" | Eroglu S. A., Machleit K. A., Davis L. M. | 2003 | 561 3 | 33.00 |
| | | factors, and so forth | "Store environment and consumer purchase behavior: Sherman E., Mathur A., Mediating role of consumer emotions" Smith R. B. | Sherman E., Mathur A., Smith R. B. | 1997 4 | 422 1 | 18.35 |
| | | | "Environmental color, consumer feelings, and purchase likelihood" | Bellizzi J. A., Hite R. E. | 1992 3 | 359 1 | 12.82 |
| | | | "Fear appeals in social marketing: Strategic and ethical reasons for concern" | Hastings G., Stead M., Webb J. | 2004 3 | 305 1 | 19.06 |
| | | | "Customer response to intangible and tangible service $$ Wakefield K. L., Blodgett factors" $$ J. G. | Wakefield K. L., Blodgett J. G. | 1999 2 | 292 1 | 13.90 |
| 7 | Consumer engagement | Consumer involvement, consumer engagement, group 8 identification, purchase-decision, mental models, and so forth | "Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement" | Ashley C., Tuten T. | 2015 3 | 368 7 | 73.60 |
| | | | "A comparative analysis of four scales of consumer involvement" | Mittal B. | 1995 3 | 330 1 | 13.20 |
| | | | "Factors leading to group identification: A field study Fisher R. J., Wakefield K. of winners and losers" | Fisher R. J., Wakefield K. | 1998 2 | 298 1 | 13.55 |
| | | | "Measuring purchase-decision involvement" | Mittal B. | 1989 2 | 249 8 | 8.03 |
| | | | "Mapping consumers' mental models with ZMET" | Christensen G. L., Olson J. C. | 2002 1 | 165 9 | 9.17 |
| ო | Online consumer behavior and | ner tion, | 243 "A conceptual model of perceived customer value in e-commerce: A preliminary investigation" | Chen Z., Dubinsky A. J. | 2003 5 | 516 3 | 30.35 |
| | marketing | consumer technology readiness, technology acceptance, and so forth | "Integrating technology readiness into technology acceptance: The TRAM model" | Lin CH., Shih HY., Sher P. J. | 2007 2 | 272 2 | 20.92 |
| | | | "Perceived risk: The concept and its measurement" | Dowling G. R. | 1986 2 | 257 7 | 7.56 |
| | | | "Consumer information search behavior and the Internet" | Peterson R. A., Merino M. C. | 2003 2 | 255 1 | 15.00 |

| TABLE | TABLE 7 (Continued) | | | | | | | |
|---------|---------------------------------------|---|-----|---|--|----------|-------|-------|
| Cluster | Cluster Central focus | Influential areas explored | _ ₹ | Title | Author(s) | Year TC | | СРҮ |
| 4 | Luxury consumption and marketing | Luxury consumption and Luxury consumption, social desirability, value-based marketing segmentation, luxury consumption behavior, | 392 | "Personal taste and family face: Luxury consumption in Confucian and western societies" | Wong N. Y., Ahuvia A. C. | 1998 54 | 549 2 | 24.95 |
| | | consumption ethics, consumption value, and so forth | | "Social desirability bias: A neglected aspect of validity testing" | King M. F., Bruner G. C. | 2000 456 | | 22.80 |
| | | | | "Value-based segmentation of luxury consumption behavior" | Wiedmann K. P., Hennigs N., Siebels A. | 2009 36 | 360 3 | 32.72 |
| | | | | "Scarcity effects on value: A quantitative review of the commodity theory literature" | Lynn M. | 1991 27 | 278 9 | 9.59 |
| | | | • | "Voluntary simplicity and the ethics of consumption" | Shaw D., Newholm T. | 2002 24 | 248 1 | 13.78 |
| 2 | Sustainable consumption and marketing | Sustainable consumption Sustainable consumption, green purchase behavior, and marketing consumers' concerns, consumers' orientation | 152 | "Determinants of Chinese consumers' green purchase behavior" | Chan R. Y. K. | 2001 456 | | 24.00 |
| | | towards sustainable energy, cause-brand alliances, and so forth | | "Promoting sustainable consumption: Determinants of green purchases by Swiss consumers" | Tanner C., Kast S. W. | 2003 452 | | 26.59 |
| | | | | "Consumer concern, knowledge, belief, and attitude toward renewable energy: An application of the reasoned action theory" | Bang HK., Ellinger A. E., Hadjimarcou J., Traichal P. A. | 2000 30 | 306 1 | 15.30 |
| | | | | "Why people (don't) shop online: A lifestyle study of the internet consumer" | Swinyard W. R., Smith S. M. | 2003 246 | | 14.47 |
| | | | | "The impact of the alliance on the partners: A look at cause-brand alliances" | Lafferty B. A., Goldsmith R. E., Hult G. T. M. | 2004 240 | | 15.00 |
| 9 | Influencer and international | Matchup hypothesis, sponsorship effects, herding in the online environment, cultural contexts of | 301 | "Congruence between spokesperson and product type: A matchup hypothesis perspective" | Kamins M. A., Gupta K. | 1994 32 | 325 1 | 12.50 |
| | marketing | global marketing, and so forth | | "Understanding sponsorship effects" | Meenaghan T. | 2001 30 | 304 1 | 16.00 |
| | | | | "Herding in online product choice" | Huang JH., Chen YF. | 2006 212 | | 15.14 |
| | | | | "The matchup effect of spokesperson and product congruency: A schema theory interpretation" | Lynch J., Schuler D. | 1994 201 | | 7.73 |
| | | | | "High-versus low-context culture: A comparison of Chinese, Korean, and American cultures" | Kim D., Pan Y., Park H. S. | 1998 21 | 217 9 | 9.86 |

TABLE 7 (Continued)

| Cluster | Cluster Central focus | Influential areas explored | TA Title | | Author(s) | Year | 2 | CPY |
|---------|---|--|-----------------|--|--|----------|------|-------|
| 7 | Customer relationship, satisfaction, and | sed mer | 279 "E-sa fr | "E-satisfaction and e-loyalty: A contingency framework" | Anderson R. E., Srinivasan S. S. | 2003 | 1009 | 59.35 |
| | loyalty | retention, moderators and influencers of customer satisfaction and loyalty, factors influencing repurchase behaviors, and so forth | "Cust | "Customer perceived value, satisfaction, and loyalty: The role of switching costs" | Yang Z., Peterson R. T. | 2004 | 982 | 61.38 |
| | | | "The q | "The impact of customer satisfaction and relationship Hennig-Thurau T., Klee A. quality on customer retention: A critical reassessment and model development" | Hennig-Thurau T., Klee A. | 1997 645 | 645 | 28.04 |
| | | | "Pers | "Personal characteristics as moderators of the relationship between customer satisfaction and loyalty - An empirical analysis" | Homburg C., Giering A. | 2001 | 592 | 31.16 |
| | | | "Wha | "What Influences the relationship between customer satisfaction and repurchase intention? Investigating the effects of adjusted expectations and customer loyalty" | Yi Y., La S. | 2004 | 312 | 19.50 |
| ω | Marketing futures | Cultural diversities, context, application of complexity theory of marketing, exceptional customers, social media marketing, casino services, and so forth | 23 "Cult" w | "Cultural diversity and marketing transactions: Are market integration, large community size, and world religions necessary for fairness in ephemeral exchanges?" | Woodside A. G., Zhang M. | 2013 | 103 | 14.71 |
| | | | "Soci | "Social media marketing: A literature review and implications" | Alves H., Fernandes C., Raposo M. | 2016 | 53 | 13.25 |
| | | | "Revi | "Revisiting problem gamblers' harsh gaze on casino services: Applying complexity theory to identify exceptional customers" | Woodside A. G., Prentice C., Larsen A. | 2015 | 47 | 9.40 |
| | | | "Prok | "Problem gamblers' harsh gaze on casino services" | Prentice C., Woodside A. G. | 2013 | 22 | 3.14 |
| | | | snIII, | "Illustrating the power of fsQCA in explaining paradoxical consumer environmental orientations" | Schmitt A. K., Grawe A., Woodside A. G. | 2017 | 15 | 5.00 |

Note: This table presents an overview of intellectual clusters in P&M. Abbreviations: CPY, citations per year; TA, total articles; TC, total citations.

commerce setting. Lin et al. (2007) postulated an integrated model that unified consumers' technology readiness and technology acceptance as affecting consumers' adoption of e-service systems. Dowling (1986) developed a unified theory of customers' risk perception and risk-handling behavior. Peterson and Merino (2003) examined the conditions that affected consumers' information search behavior on the Internet. Lee and Lee (2004) examined the influence and impact of information overload in the electronic environment, with a focus on consumers' psychology and choices. Theoretically, the cluster deliberates in the areas of expected utility theory (Shiu et al., 2011), congruence theory (González-Benito et al., 2014), and signaling theory (Noh & Borges, 2015), among others.

4.4 | Cluster 4: Luxury consumption and marketing

The fourth cluster, which reflects *luxury consumption and marketing*, contributes to the highest number of *P&M* articles (TA: 392) by engaging the largest number of *P&M* authors (NCA: 916) (see Table 6). The cluster is also the most influential research domain, with the highest number of citations in Scopus (TC: 13,386). The cluster contributes at a mean of 10.89 articles per active year (*m-index*: 10.89). Figure 3 shows the rising trend in this study domain, thereby indicating that this cluster is one of the most promising avenues that authors can consider contributing to the journal.

Table 7 suggests that influential content in this cluster can be seen in terms such as *luxury consumption behavior*, *consumption ethics*, *consumption value*, and *social desirability*. The top five articles in this cluster are authored by Wong and Ahuvia (1998), King and Bruner (2000), Wiedmann et al. (2009), Lynn (1991), and Shaw and Newholm (2002), which have been cited 549, 456, 360, 278, and 248 times at a mean of 24.95, 22.80, 32.72, 9.59, and 13.78 yearly citations, respectively.

Wong and Ahuvia (1998) explored the cultural factors that affect the luxury consumption behavior of East Asian consumers. King and Bruner (2000) reviewed two decades of marketing research literature on multi-item scale development that have avoided incorporating the social-desirability bias of consumers as an elementary factor. The authors recommended its inclusion and models how this bias should be incorporated to enhance the validity of the resultant scales. Wiedmann et al. (2009) developed a multidimensional framework of factors that drive consumers' perceptions and motivations for a luxury brand. Lynn (1991) introduced the relevance and implications of commodity theory or theory of scarcity to marketing research. Shaw and Newholm (2002) revealed the factors that influence the attitude and consumption level of ethical consumers. All of the top five cited articles are among the most influential P&M titles, as indicated in Table 7. Most recent articles in this cluster have advanced the theoretical dimensions of self-discrepancy theory (Huber et al., 2018), approach-avoidance motivations theory (Fastoso et al., 2018), and value-basis theory (Kuanr et al., 2020), among others.

4.5 | Cluster 5: Sustainable consumption and marketing

The fifth cluster, which reflects sustainable consumption and marketing, contributes 152 P&M articles (TA: 152) by 380 authors (NCA: 380) that have been cited 6635 times in Scopus (see Table 6). The cluster is active in only 33 years of P&M publishing (NAY: 33), contributing a mean of 4.61 articles each active year (*m*: 4.61). Figure 3 depicts a very mild but progressive growth trend, indicating that this cluster is an emerging research domain in P&M.

Table 7 reveals that this cluster is primarily concerned about green consumption behavior, and some of its influential content include promotion of sustainable consumption, green purchase behavior, consumers concerns and determinants of green purchase behavior, and consumers' orientation toward sustainable energy. The top five most influential articles in this cluster are authored by Chan (2001), Tanner and Cast (2003), Bang et al. (2000), Swinyard and Smith (2003), and Lafferty et al. (2004), which have been cited 456, 452, 306, 246, and 240 times at a mean of 24.00, 26.59, 15.30, 14.47, and 15.00 citations per year, respectively.

Chan (2001) explored the various cultural and psychological factors that affect green purchase behavior of consumers in China. Tanner and Kast (2003) examined the personal and contextual barriers to consumers' sustainable consumption behavior. Bang et al. (2000) investigated the collective impact of consumers' concern for the environment, knowledge about the renewable sources of energy, and beliefs about its consequences on consumers' attitudes to pay a premium for renewable energy. Swinyard and Smith (2003) examined the impact of lifestyle characteristics on Internet shopping behavior among US customers. Lafferty et al. (2004) empirically explored the impact of cause-based alliances on consumers' attitudes toward a social cause and a brand. All of these articles constitute the most influential P&M articles, as indicated in Table 7. Notably, the theories discussed in articles constituting this cluster include goal-driven behavior theory (Zhang et al., 2018), theory of planned behavior (Guiot et al., 2019), and theory of reasonedaction (Sheng et al., 2019), among others.

4.6 | Cluster 6: Influencer and international marketing

The sixth cluster, which reflects *influencer and international marketing*, contributes the second-largest number of articles (TA: 301) in *P&M* through 693 authors (NCA: 693), and yields 9255 total citations in Scopus (TC: 9255) (see Table 6). The cluster contributes at a mean of 8.36 articles per active year (*m*: 8.36). Figure 3 indicates a rising trend toward the later years of the journal. Such features suggest that the cluster is a good avenue for researchers to target a publication in this cluster in the upcoming issues.

Table 7 shows that the central focus of this cluster is the *effects* of *sponsorship* and notable content or terms in this cluster include

match-up hypothesis, sponsorship, consumers, herding behavior in the online environment, and cultural context of global marketing. The top five most influential articles in this cluster include those authored by Kamins and Gupta (1994), Meenaghan (2001), Huang and Chen (2006), Lynch and Schuler (1994), and Kim et al. (1998), with 325, 304, 212, 201, and 217 citations at 12.50, 16.00, 15.14, 7.73, and 9.86 mean annual citations, respectively.

Kamins and Gupta (1994) tested the matchup hypothesis between celebrity image and product advertised. They found that higher congruence between the two leads to higher attractiveness and a more favorable attitude toward the brand. Meenaghan (2001) explored the impact of commercial sponsorship on consumers' responses. Huang and Chen (2006) showed that consumers are often influenced by others while making decisions and that such "herding" behavior is more prominent in the online environment. Lynch and Schuler (1994) extended the findings of Kamins and Gupta (1994) by suggesting that higher congruence between celebrity characteristics and product attributes significantly affects the perceived gender of

the product's consumer, evaluations, credibility, and other such measures of communication effectiveness. Kim at al. (1998) provided an empirical comparison of the impact of various cultures in international marketing. Most recent articles in this cluster have also elaborated on theories such as balance theory (Yun et al., 2019), attitude theory (Majid et al., 2019), image transfer theory (Alonso-Dos-Santos et al., 2019), and grand celebrity endorsement theories (Schimmelpfennig & Hunt, 2020), among others.

4.7 | Cluster 7: Customer relationship, satisfaction, and loyalty

The seventh cluster, which reflects *customer relationship, satisfaction*, and *loyalty*, consists of 279 P&M articles that were contributed by the second largest number of P&M researchers (NCA: 714) (see Table 6). The articles in this cluster also received the second highest number of total citations (TC: 11,983), suggesting that it is one of the most

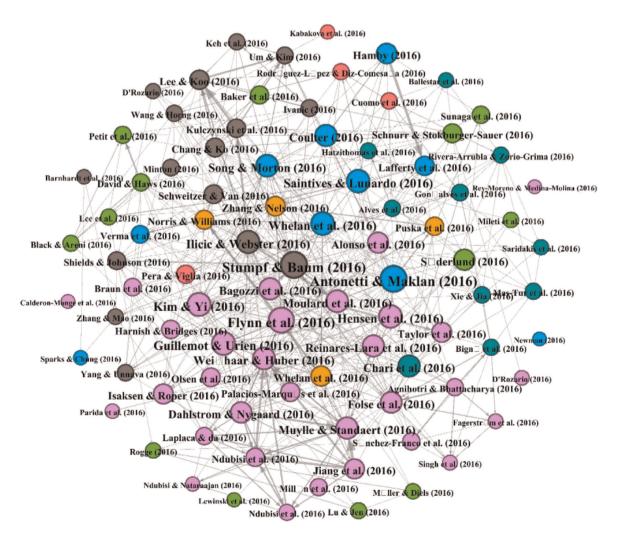


FIGURE 4 Bibliographic coupling of *P&M* articles published in 2016. This figure shows the bibliographic coupling of *P&M* articles published in 2016. Nodes depict *P&M* articles, color of the nodes suggests the intellectual cluster, and thickness of the link joining two nodes is an indicator of the degree of similarities in the referencing pattern of the articles [Color figure can be viewed at wileyonlinelibrary.com]

influential research domains in *P&M*. The activity indicator of the cluster indicates that the cluster emerged late and is active in only 29 years (NAY: 29). On average, the cluster contributes 9.62 articles (the second highest count) in each of its active years (*m*: 9.62). Figure 3 reveals a sharp and consistent growth trend at each of the time periods. Such indicators suggest that the cluster is one of the most valuable domains for targeting future research in the journal.

As seen in Table 7, this cluster centers on *customer relationship*, *satisfaction*, and *loyalty*. Some of the most influential content in this cluster involve *e-satisfaction*, *e-loyalty*, *moderators and influencers of customer satisfaction and loyalty*, and *factors that drive repurchase behavior*. The top five most influential articles in this cluster are authored by Anderson and Srinivasan (2003), Yang and Peterson (2004), Hennig-Thurau and Klee (1997), Homburg and Giering (2001), and Yi and La (2004), which have been cited 1009, 982, 645, 592, and 312 times at 59.35, 61.38, 28.04, 31.16, and 19.50 mean citations per year, respectively.

Anderson and Srinivasan (2003) investigated the impact of customer satisfaction on customer loyalty in the context of e-commerce. Their findings indicated that e-satisfaction influences e-loyalty and can be moderated by consumers' individual and firm's business-level factors. Yang and Peterson (2004) examined the moderating influence of switching costs on customer's loyalty and found that such enticements are valid only for customers with higher value perceptions for the brand. Hennig-Thurau and Klee (1997) investigated the process of customer retention through customer satisfaction and presented a comprehensive view of customer quality perception. As an extension of the research on customer satisfaction and customer retention. Homburg and Giering (2001) studied the moderator variables of the proposition of Hennig-Thurau and Klee (1997). Their empirical findings indicated that the characteristics of customers strongly influence the relationship between customer satisfaction and retention behavior. Yi and La (2004) demonstrated the influence of loyalty on customer satisfaction and repurchase intention.

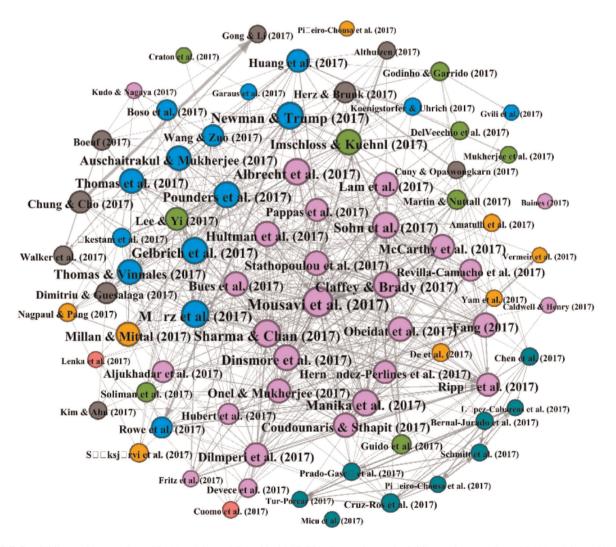


FIGURE 5 Bibliographic coupling of *P&M* articles published in 2017. This figure shows the bibliographic coupling of *P&M* articles published in 2017. Nodes depict *P&M* articles, color of the nodes suggests the intellectual cluster, and thickness of the link joining two nodes is an indicator of the degree of similarities in the referencing pattern of the articles [Color figure can be viewed at wileyonlinelibrary.com]

They found that adjusted customer expectations strongly moderate the impact of customer satisfaction on repurchase behavior. Some of the theories explored in this cluster include social capital theory (Rey-Moreno & Medina-Molina, 2016), social identity theory (Hultman et al., 2019), and deservingness theory (Meyer et al., 2019), among others.

4.8 | Cluster 8: Marketing futures

The eighth cluster, which reflects *marketing futures*, consists of only 23 *P&M* articles (NA: 23), which were contributed by 67 *P&M* authors (NCA: 67) and cited 273 times in Scopus (TC: 273) (see Table 6). The cluster is active in only seven years of *P&M* publishing (NAY: 7), contributing a mean of 3.29 articles in each of its active years (*m*: 3.29). Figure 3 reaffirms that the cluster emerged late and can be considered in development. Such indicators qualify the cluster as the most recent research domain and thus a valuable avenue for future research.

Table 7 reveals that this cluster focuses primarily on the challenges of marketing, and some of its most influential content involves cultural diversities, application of the complexity theory of marketing, exceptional customers, problem customers, and walkers and talkers. The top five most influential articles in this cluster are authored by Woodside and Zhang (2013), Alves et al. (2016), Woodside et al. (2015), Prentice and Woodside (2013), and Schmitt et al. (2017), which have been cited 103, 53, 47, 22, and 15 times at a mean of 14.71, 13.25, 9.40, 3.14, and 5.00 citations per year, respectively.

Woodside and Zhang (2013) investigated what makes a society act fairly and punish unfairness. Prentice and Woodside (2013) conducted the first study of its kind, which analyzes the profiles and perspectives of problem gamblers in casinos. They found evidence in favor of the harsh-view theory of problem gamblers. By applying fuzzy-set qualitative comparative analysis (fsQCA) to the responses of casino consumers in Macau, Woodside et al. (2015) found that problem gamblers do not necessarily perceive casino services harshly, which represent a highly valuable insight for casinos. Alves et al. (2016) reviewed the literature

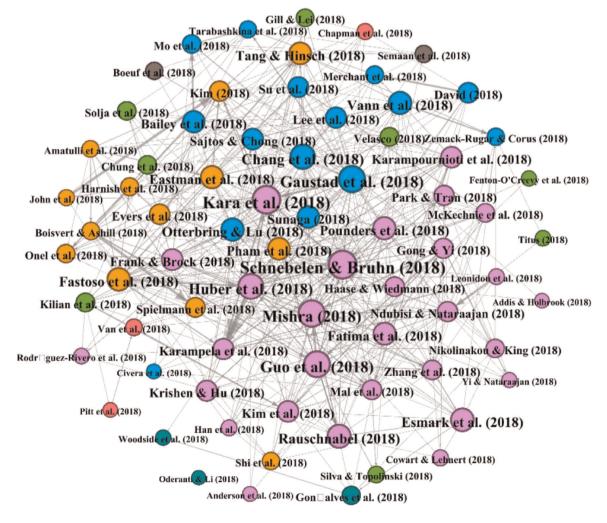


FIGURE 6 Bibliographic coupling of *P&M* articles published in 2018. This figure shows the bibliographic coupling of *P&M* articles published in 2018. Nodes depict *P&M* articles, color of the nodes suggests the intellectual cluster, and thickness of the link joining two nodes is an indicator of the degree of similarities in the referencing pattern of the articles [Color figure can be viewed at wileyonlinelibrary.com]

on social media marketing and present future research directions in the area, whereas Schmitt et al. (2017) provided the first application of fs-QCA in *P&M* to reveal the complex antecedents that differentiate the "walkers" versus the "talkers" of proenvironmental and prosocial behavior. Some of the recent works in this cluster advocate legitimacy theory, reputation risk management, and stakeholder theory (Rivera-Arrubla & Zorio-Grima, 2016).

5 | EMERGING AND PROMISING RESEARCH AVENUES IN P&M

5.1 | Research avenues revealed through bibliographic coupling

Our fourth and final research question (RQ4) endeavors to reveal emerging and promising research areas for future psychology and marketing research at P&M.

The bibliographic coupling analysis conducted to uncover the intellectual structure of *P&M* suggests that aspiring contributors should note that Clusters 1, 4, 5, 6, 7, and 8 on *marketing environment*, luxury consumption and marketing, sustainable consumption and marketing, influencer and international marketing, customer relationship, satisfaction, and loyalty, and marketing futures are evolving positively and bodes well for future research in these areas.

To stimulate additional research in these areas, we conduct bibliographic coupling on a yearly basis, where we focus on recent articles published in *P&M* within the last five years (2016–2020). The idea behind the analysis is to uncover contemporary topics that future research can consider to enrich the clusters where growth is most positive.

The results of the analysis, which are presented in Figures 4–8, indicate seven topical avenues that future research can pursue to enrich the intellectual clusters that are evolving positively in *P&M*. These topical avenues include *sharing economy* (pink nodes), *social media marketing* (deep green nodes), *celebrity endorsements*

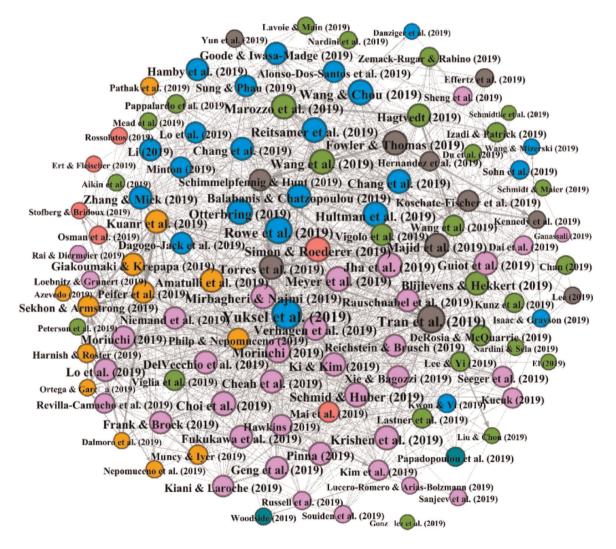


FIGURE 7 Bibliographic coupling of *P&M* articles published in 2019. This figure shows the bibliographic coupling of *P&M* articles published in 2019. Nodes depict *P&M* articles, color of the nodes suggests the intellectual cluster, and thickness of the link joining two nodes is an indicator of the degree of similarities in the referencing pattern of the articles [Color figure can be viewed at wileyonlinelibrary.com]

(black nodes), marketing communication (blue nodes), conspicuous consumption and hedonic adaptation (orange nodes), aesthetics and consumer impressions (green nodes), and consumer psychology (violet nodes). The dominance of consumer psychology in the past five years is especially noteworthy, and rightly so, as it represents the entire discipline of psychology that can be relied upon to curate enriching marketing insights in the most pertinent intellectual clusters in P&M.

5.2 | Research avenues revealed through NLP

Bibliometric studies often rely on authors' specified keywords to depict the major themes discussed in an academic source or a research domain. In the absence of keywords in the majority of the articles published in *P&M*, we rely on the NLP function in VOSviewer to mine frequently occurring title terms, which is a practice in line with Baker et al. (2020a). Using NLP, we discovered the top 100 topics in *P&M* that can be arranged according

to their average publication year (APY), which enables us to identify the most contemporary topics in the journal. Along with the APY, other parameters that can enrich our understanding of the hot topics in *P&M* include occurrence (OC), degree (DG), and average citations (AC). Specifically, APY indicates the degree of "hotness" or "coldness" of the topics, DG suggests the number of themes that coappears with the topic, while the average influence of the topic is denoted by AC (Byington et al., 2019; Donthu, Kumar, et al., 2020).

As indicated in Table 8, choice likelihood, sensory marketing, social media platform, climate change, intuition, and consumer engagement are among the hottest topics in the journal while research on consumption frequently feature in *P&M* articles.

Together with the research avenues revealed through bibliographic coupling, we encourage future research in the following areas: aesthetics and consumer impressions; celebrity endorsement; conspicuous consumption and hedonic adaptation; climate change; choice likelihood; consumer engagement; consumer psychology; marketing

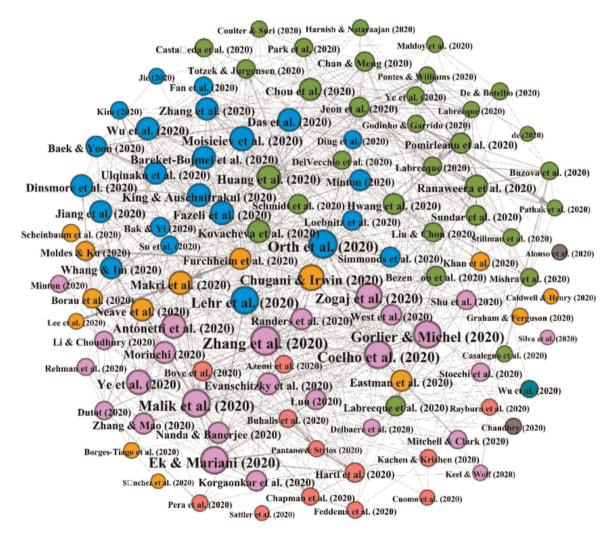


FIGURE 8 Bibliographic coupling of *P&M* articles published in 2020. This figure shows the bibliographic coupling of *P&M* articles published in 2020. Nodes depict *P&M* articles, color of the nodes suggests the intellectual cluster, and thickness of the link joining two nodes is an indicator of the degree of similarities in the referencing pattern of the articles [Color figure can be viewed at wileyonlinelibrary.com]

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|------------------|-------------------------|--------|----|----|------|----|-------------------------------|--------|----|-----|------|
| ~ | Term | APY | 00 | DG | AC | ~ | Term | APY | 00 | DG | AC |
| 1 | Choice likelihood | 2019.4 | 5 | 14 | 3.2 | 51 | Brand personification | 2014.0 | 2 | 18 | 25.6 |
| 7 | Sensory marketing | 2018.9 | œ | 22 | 25.1 | 52 | Young consumer | 2014.0 | 9 | 26 | 17.5 |
| က | Social media platform | 2018.7 | 9 | 23 | 11.5 | 53 | Online survey | 2013.9 | 20 | 71 | 35.3 |
| 4 | Climate change | 2018.5 | 9 | 17 | 5.0 | 54 | Utilitarian | 2013.8 | 46 | 120 | 21.5 |
| 2 | Intuition | 2018.4 | 2 | 15 | 0.9 | 55 | Self control | 2013.7 | 7 | 30 | 19.6 |
| 9 | Consumer engagement | 2018.4 | œ | 24 | 53.0 | 56 | Online shopping | 2013.7 | 15 | 49 | 46.7 |
| 7 | Construal level | 2017.9 | 11 | 38 | 4.8 | 57 | Word of mouth | 2013.6 | 54 | 112 | 35.1 |
| œ | Social media | 2017.8 | 52 | 66 | 18.9 | 58 | Psychological mechanism | 2013.6 | 7 | 34 | 24.1 |
| 6 | Social media marketing | 2017.4 | 7 | 22 | 61.3 | 59 | Mental simulation | 2013.4 | 2 | 15 | 15.4 |
| 10 | Embodied cognition | 2017.3 | 9 | 31 | 11.2 | 09 | Brand relationship | 2013.2 | 22 | 58 | 42.7 |
| 11 | Servicescape | 2017.2 | 5 | 21 | 11.2 | 61 | Customer citizenship behavior | 2013.2 | 5 | 16 | 49.0 |
| 12 | Engagement | 2017.1 | 38 | 94 | 23.8 | 62 | Individualism | 2013.1 | 14 | 45 | 26.1 |
| 13 | Online experiment | 2016.9 | 12 | 41 | 14.0 | 63 | Celebrity endorse | 2013.0 | 25 | 59 | 51.0 |
| 14 | fsQCA | 2016.7 | 6 | 26 | 13.6 | 64 | Positive influence | 2013.0 | 15 | 55 | 36.4 |
| 15 | Online social network | 2016.6 | 7 | 23 | 8.7 | 92 | Customer value | 2012.8 | 9 | 23 | 93.8 |
| 16 | QCA | 2016.5 | 18 | 36 | 16.0 | 99 | Interpersonal relationship | 2012.8 | 11 | 36 | 24.4 |
| 17 | Regulatory focus theory | 2016.4 | 2 | 21 | 10.8 | 29 | Charitable giving | 2012.8 | 2 | 22 | 44.2 |
| 18 | Touch | 2016.3 | 15 | 57 | 11.0 | 89 | Consumer culture | 2012.8 | 10 | 31 | 40.7 |
| 19 | Fluency | 2016.3 | 80 | 26 | 10.9 | 69 | Guilt | 2012.7 | 22 | 77 | 43.7 |
| 20 | Choice overload | 2016.0 | 5 | 14 | 27.8 | 70 | Brand equity | 2012.6 | 13 | 41 | 38.7 |
| 21 | Online review | 2015.9 | 6 | 21 | 23.1 | 71 | Brand personality | 2012.6 | 23 | 62 | 43.1 |
| 22 | Online retailer | 2015.9 | 80 | 30 | 18.9 | 72 | Health | 2012.5 | 87 | 141 | 17.8 |
| 23 | Organic food | 2015.8 | 9 | 19 | 24.5 | 73 | Food | 2012.5 | 64 | 109 | 27.3 |
| 24 | Consumption context | 2015.8 | 10 | 40 | 13.5 | 74 | Materialism | 2012.5 | 31 | 99 | 52.0 |
| 25 | Luxury | 2015.8 | 34 | 78 | 42.1 | 75 | Causal relationship | 2012.4 | 2 | 24 | 25.0 |
| 26 | Sustainability | 2015.8 | 17 | 54 | 29.3 | 76 | Service firm | 2012.3 | 7 | 27 | 22.4 |
| 27 | Branding | 2015.7 | 27 | 84 | 15.5 | 77 | Self esteem | 2012.3 | 22 | 09 | 34.4 |
| 28 | Morality | 2015.7 | 9 | 17 | 3.2 | 78 | Social identity | 2012.2 | 17 | 55 | 57.4 |
| | | | | | | | | | | | |

TABLE 8 (Continued)

| ~ | Term | APY | 00 | DG | AC | ~ | Term | APY | 00 | DG | AC |
|----|---------------------------|--------|----|----|------|-----|-----------------------------|--------|-----|-----|-------|
| 29 | Conspicuous consumption | 2015.6 | 7 | 25 | 93.7 | 79 | Food consumption | 2012.2 | 13 | 42 | 26.1 |
| 30 | Favorable evaluation | 2015.4 | 2 | 19 | 12.4 | 80 | Structural equation | 2012.2 | 74 | 139 | 57.2 |
| 31 | Product package | 2015.3 | 16 | 40 | 14.9 | 81 | Identity | 2012.0 | 76 | 131 | 31.3 |
| 32 | Positive emotion | 2015.3 | 15 | 57 | 14.7 | 82 | Behavioral loyalty | 2012.0 | 5 | 18 | 41.6 |
| 33 | Brand attachment | 2015.3 | œ | 34 | 33.6 | 83 | Planned behavior | 2011.8 | 29 | 29 | 37.0 |
| 34 | Happiness | 2015.2 | 14 | 46 | 24.8 | 84 | Negative information | 2011.7 | 13 | 35 | 24.5 |
| 35 | Consumer perspective | 2015.2 | 9 | 27 | 40.3 | 85 | Value perception | 2011.7 | 6 | 32 | 154.8 |
| 36 | Aesthetics | 2015.0 | 6 | 37 | 15.9 | 98 | Service failure | 2011.6 | 6 | 26 | 24.6 |
| 37 | Social network | 2014.9 | 27 | 73 | 19.3 | 87 | Altruism | 2011.5 | 9 | 24 | 22.2 |
| 38 | Packaging | 2014.9 | 24 | 09 | 14.6 | 88 | Personality trait | 2011.3 | 25 | 75 | 37.2 |
| 39 | Obesity | 2014.8 | 9 | 25 | 25.8 | 89 | Positive word | 2011.3 | 11 | 54 | 53.7 |
| 40 | Well being | 2014.7 | 20 | 58 | 24.2 | 06 | Social norm | 2011.2 | 6 | 34 | 55.7 |
| 41 | Mediation | 2014.7 | 28 | 77 | 17.0 | 91 | Assortment | 2011.2 | 5 | 18 | 24.0 |
| 42 | Regulatory focus | 2014.6 | 15 | 45 | 16.9 | 92 | Retail setting | 2011.2 | 10 | 35 | 50.7 |
| 43 | Brand management | 2014.5 | 13 | 46 | 15.7 | 93 | Technology acceptance model | 2011.2 | 15 | 38 | 86.2 |
| 44 | Negative emotion | 2014.5 | 22 | 77 | 24.5 | 94 | Consumption | 2011.2 | 271 | 228 | 37.7 |
| 45 | Product design | 2014.4 | 14 | 37 | 21.2 | 95 | Collectivism | 2011.2 | 11 | 35 | 0.79 |
| 46 | Brand communication | 2014.3 | 9 | 25 | 16.5 | 96 | Marketing context | 2011.2 | 12 | 40 | 8.8 |
| 47 | Ownership | 2014.3 | 13 | 46 | 13.8 | 26 | Self concept | 2011.1 | 25 | 73 | 59.2 |
| 48 | Cognitive load | 2014.3 | 7 | 26 | 21.1 | 86 | Consumer good | 2011.0 | 9 | 30 | 14.5 |
| 49 | Endorsement effectiveness | 2014.2 | 2 | 18 | 75.4 | 66 | Social comparison | 2011.0 | 10 | 34 | 30.6 |
| 50 | Attachment | 2014.1 | 26 | 73 | 25.5 | 100 | Purchase intent | 2011.0 | 116 | 179 | 47.8 |
| | | | | | | | | | | | |

Note: This table presents an overview of the top 100 terms in P&M. Abbreviations: AC, average citations; APV, average publication year; DG, degree; OC, occurrence.

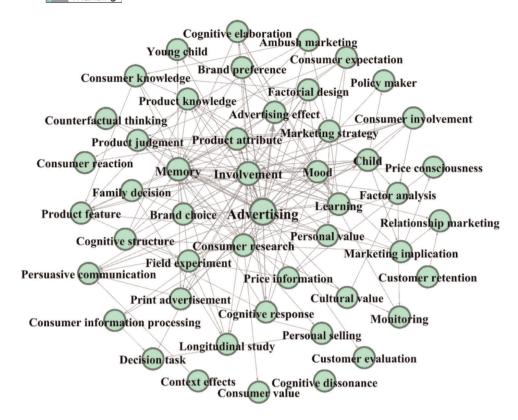


FIGURE 9 Topical map of P&M with APY between 1984.0 and 2005.0. Using VOSviewer and Gephi applications, the figure presents the top P&M themes frequently co-occurring with APY between 1984.0 and 2005.0. The nodes depict P&M themes. Size of the nodes depicts occurrences. Thickness of the arrows joining the nodes is an indicator of the frequency of co-occurrence between topics [Color figure can be viewed at wileyonlinelibrary.com]

communication; sensory marketing; sharing economy; and social media marketing.

To propel research in areas that may be overlooked by bibliographic coupling and NLP, we develop co-occurrence maps of the leading themes in P&M between 1984 and 2020. Figures 9-12 provide complex insights into the themes that have and have not been explored in P&M. The size of nodes denotes the occurrence of topics while the links between nodes indicate co-occurrence of topics in P&M. Thus, the nodes that appear bigger indicate that research in the area is rich and well developed, whereas missing links signal areas for future scientific exploration offering scope for publication (Donthu, Kumar, et al., 2020).

6 | CONCLUSION

This study provides the first comprehensive summary of P&M articles published between 1984 and 2020. Using bibliometric-based analyses, we provide a holistic retrospection of P&M through the examination of four research questions.

Our RQ1 sought to unpack the publication trends in P&M. From 27 articles published in 1984, P&M had amassed 1941 articles by 2020. Publications in P&M grew 71.9 times, and authorship increased 82.1 times, from 39 in 1984 to 3201 authors by 2020. In addition,

citations, which indicate the popularity and influence of P&M, grew 150.8 times, from 474 citations to the 27 articles published in 1984 to 71,466 citations to the 1941 articles published by 2020. Despite the COVID-19 pandemic, 2020 was the most productive year for P&M, during which 147 articles were published. The journal experienced its highest growth in authorship in 2019, with global contributors increasing to 217 authors. P&M articles published in 2003 are the most influential, as they are credited with the highest number of citations in Scopus (TC: 5368). Such remarkable growth in the number of articles, contributing authors, and citations positions P&M as one of the most prominent journals dedicated to the advancement of marketing science.

Our RQ2 sought to reveal the impact of publications in P&M. In terms of the most influential articles, Anderson and Srinivasan's (2003) article is the most cited publication, followed by that of Yang and Peterson (2004). An analysis of the most influential articles reveals that titles that include terms such as factors and determinants, development of scales, consumer behavior in the online environment, customer satisfaction, customer loyalty, customer value, consumer involvement, consumer belief, consumer attitude, and green purchases attracted the most citations in P&M. In terms of the most frequently citing journals, Journal of Business Research cited P&M the most, followed by P&M itself, and Journal of Retailing and Consumer Services. These journals cited P&M 1325, 1261, and 881 times, respectively.

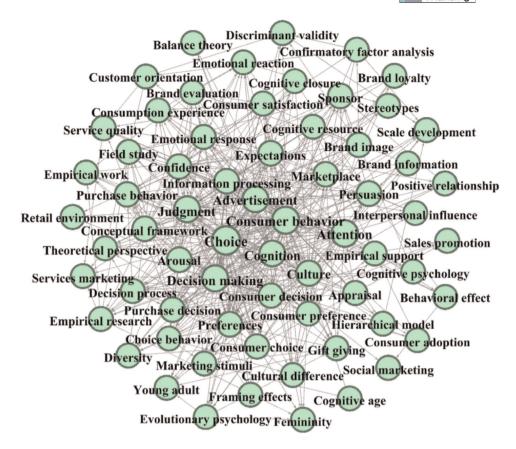


FIGURE 10 Topical map of *P*&M with APY between 2005.1 and 2010.0. Using VOSviewer and Gephi applications, the figure presents the top *P*&M themes frequently co-occurring with APY between 2005.1 and 2010.0. The nodes depict *P*&M themes. Size of the nodes depicts occurrences. Thickness of the arrows joining the nodes is an indicator of the frequency of co-occurrence between topics [Color figure can be viewed at wileyonlinelibrary.com]

Further, our study found that 85% of the top-citing journals of P&M are ranked "A*" or "A" in ABDC JRL 2019 and about 45% bear a rating of three and above in CABS AJG 2018. In addition, the clustering of journals citing P&M with at least 200 citations in Scopus revealed seven journal clusters, wherein four journal clusters acquired the most benefit from P&M's luxury consumption and marketing research, two journal clusters benefitted the most from P&M's influencer and international marketing research, and one journal cluster reaped the most benefit from P&M's marketing environment research. Such indicators demonstrate that the contributions of marketing research in P&M is highly popular and sought after among its peers who consider the journal as a highly-respected premier journal.

Our RQ3 sought to shed light on the intellectual structure in P&M. The bibliographic coupling analysis bifurcated 1941 articles in P&M into eight intellectual clusters—namely, marketing environment; consumer engagement; online consumer behavior and marketing; luxury consumption and marketing; sustainable consumption and marketing; influencer and international marketing; customer relationship, satisfaction, and loyalty; and marketing futures. Excluding the second and third clusters, all of the remaining clusters exhibit a positive growth between 1984 and 2020.

Our fourth and final research question (RQ4) sought to promote new research in *P&M*. Using bibliographic coupling, our study identified aesthetics and consumer impressions, celebrity endorsements, consumer psychology, conspicuous consumption and hedonic adaptation, marketing communication, sharing economy, and social media marketing as contemporary research avenues that have emerged within the last five years. Using NLP, our study revealed the hot trending topics that include choice likelihood, climate change, consumer engagement, sensory marketing, and social media. Finally, we presented a set of co-occurrence maps of the leading themes in *P&M* between 1984 and 2020, which will enable future scholars to avoid overly rich areas and to explore areas that remain underexplored and that beyond the suggestions curated through bibliographic coupling and NLP.

Overall, we observe evolutionary growth in *P&M*'s publication activity and citations, which in our view, reflects the journal's influence and impact in a specialized domain of research where psychology and marketing intersects to create new knowledge. *P&M* is a clear a leader in this domain and ranks among the best journals in the field of marketing. Our reading and review of articles published in *P&M* suggest that authors submitting to *P&M* must be able to demonstrate a high degree of originality, relevance, and rigor in their research.

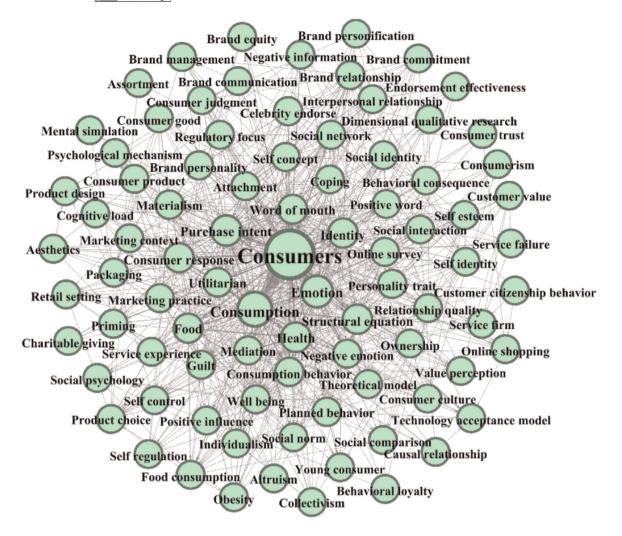


FIGURE 11 Topical map of P&M with APY between 2010.1 and 2015.0. Using VOSviewer and Gephi applications, the figure presents the top P&M themes frequently co-occurring with APY between 2010.1 and 2015.0. The nodes depict P&M themes. Size of the nodes depicts occurrences. Thickness of the arrows joining the nodes is an indicator of the frequency of co-occurrence between topics [Color figure can be viewed at wileyonlinelibrary.com]

We also noted the rich insights that avail in *P&M* through the eight clusters of knowledge in its intellectual structure. The clusters, in our view, cover a broad range of pertinent areas relevant to marketing in modern times. Yet, we believe that *P&M* can offer a lot more in unpacking the differences in impact that psychology could have on our understanding and practice of marketing. To stimulate additional discussion beyond the emerging and promising research avenues that were uncovered retrospectively using bibliometric data, we take this opportunity to introduce three broad-ranging but forward-looking research opportunities that we encourage prospective authors who are interested to send their work to *P&M* to also consider.

 Reimagining the augmentation of technology in marketing through the lens of psychology. P&M has always been at the forefront in the curation of the latest insights on the augmentation of technology in marketing (e.g., special issues on "Psychology, Marketing, and Computers" in 1991, "The Psychology of Pricing on the Internet" in 2003, "The Interaction of Online Technology on the Consumer Shopping Experience" in 2010, "Digital Social Media" in 2016, and "The Sharing Economy" in 2020—see Appendix 1). Yet, technology is arguably the most dramatic force in the marketing environment due to the agility of its emergence, proliferation, and obsolescence. More importantly, the future of marketing has been touted as one that is "agile" (Lewnes, 2021), wherein technology acts as an accelerator of marketing impact. In that sense, prospective authors of P&M are encouraged to keep abreast of the latest technologies, such as those brought by the fourth industrial revolution (IR 4.0), and to use psychological theories and techniques to advance our understanding of the implications of new technologies for marketing practice, which we believe is important to avoid potential pitfalls, such as those pertaining to consumer privacy and marketing ethics (Bleier et al., 2020). Artificial intelligence is a recent technological advancement that is widely touted to change the future of marketing due to its inherent capabilities and variety of manifestations (Davenport et al., 2020), and thus, offering ample

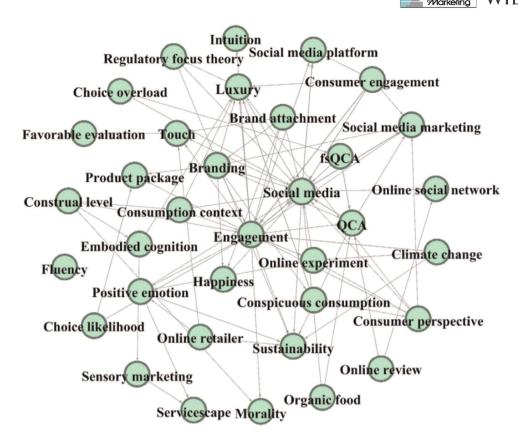


FIGURE 12 Topical map of *P&M* with APY between 2015.1 and 2020.0. Using VOSviewer and Gephi applications, the figure presents the top *P&M* themes frequently co-occurring with APY between 2015.1 and 2020.0. The nodes depict *P&M* themes. Size of the nodes depicts occurrences. Thickness of the arrows joining the nodes is an indicator of the frequency of co-occurrence between topics [Color figure can be viewed at wileyonlinelibrary.com]

opportunities for future research. Hence, we call on future research to curate studies around the following RQs: "how can marketers leverage on the advances in technology brought by artificial intelligence and IR 4.0 such as augmented, virtual, and mixed realities and the Internet of things, and how will consumers react to these new technologies when they are applied to marketing?"

- Reimagining cultural psychology in marketing. In essence, psychology and marketing have traditionally been employed in tandem to (1) help marketers understand how buyers behave, and following that, to (2) anticipate, personalize, streamline, and elevate customer experiences, (3) alleviate the anxiety and stress that consumers may encounter during shopping journeys, and (4) promote customer satisfaction and loyalty. Yet, consumer behavior is not straightforward, but in fact, very complex. Shavitt and Barnes (2020) argue that customer journeys are normatively infused and contextually embedded as consumer motivation in non-Western cultures are likely to emerge from prevailing norms and societal expectations rather than individual preferences and priorities like their Western counterparts. Yet, other scholars such Lim et al. (2019) observe emerging trends of acculturation and cultural pluralism in non-Western cultures, which led to the birth of new marketing concepts such as product brand crossover for new
- product development. Notwithstanding the ongoing debates and the recency of these contradictory findings, we note that cultural psychology is an area that has received little attention in *P&M*, as indicated by a Google Scholar search for "culture" in the title of *P&M* articles that returned with only eight articles—the last article was published in 2015 at the time of writing. More importantly, the evolution of culture and the potential of psychological theories and techniques to help marketers understand and shape the trajectory of that evolution hold tremendous promise for the future of marketing. Therefore, we call on future research to design explorations that speak to the following RQs: "how do customers and the efficacy of marketing strategies differ across cultures and regions, and how can these differences be explained and approached from a psychological point of view?"
- Reimagining consumerism and sustainability in marketing through the lens
 of psychology. Marketing has often shouldered the blame for consumption problems, such as overconsumption and unsustainable
 consumption (Lim, 2016, 2017). The rise of mass prestige products in
 the marketplace (or masstige marketing) (Kumar et al., 2020) and the
 irrational behavior that consumers exhibit during times of uncertainty, such as panic buying during the COVID-19 pandemic
 (Prentice et al., 2020), further exacerbate such problems. Global
 agendas such as the United Nations Sustainable Development Goals

and the World Economic Forum's Great Reset signal the need for marketers to produce and promote products for consumption in the marketplace responsibly. We believe that P&M is well positioned to address the longstanding issues of consumerism and to contribute to global agendas promoting greater sustainability. In this regard, we encourage future research to use marketing problems as a means to contribute back to psychology and to further our understanding and practice of marketing, wherein new psychological theories and techniques are developed and informed by marketing to solve psychological and marketing problems, such as the theory of behavioral control, which spins off from the theory of planned behavior to provide a refined lens for marketing studies to rely upon to address the intention-behavior gap (Lim & Weissmann, 2021). Thus, we call upon future research to embark on investigations that speak to the following RQs: "what new psychological theories and techniques can marketing contribute, and how can marketers employ them legally, ethically, and respectfully to nudge consumers to buy into and contribute to the sustainability agenda?"

To this end, we hope that the readers of *P&M* will appreciate the state-of-the-art retrospection of marketing from the lens of psychology that we have delivered herein. More importantly, we hope that prospective authors will find value in the concrete directions, open maps, and RQs that we curated herein to promote new research that would enrich and strengthen the intellectual structure of psychology and marketing research in *P&M*.

Notwithstanding the retrospective and prospective value that we endeavor to deliver, we acknowledge that our review may be limited to the data source that we relied upon, which was Scopus. We also concede that the overview of marketing informed by psychology that we offered is limited to the articles published in *P&M*, and that our review is limited to the type of analysis that we employed, which were mostly bibliometric in nature. Therefore, future reviews may wish to consider shedding light on psychology and marketing in *P&M* using other types of review methods, such as framework-based reviews (e.g., antecedents, decisions, outcomes), to unpack deeper insights into relationships underpinning the intellectual structure that we revealed herein (e.g., Lim et al., 2021), and to review beyond the contributions of *P&M* so as to provide a more holistic overview of the psychology-marketing intersection.

DATA AVAILABILITY STATEMENT

Data will be made available if requested.

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How to cite this article: Donthu, N., Kumar, S., Pattnaik, D., & Lim, W. M. (2021). A bibliometric retrospection of marketing from the lens of psychology: Insights from *Psychology & Marketing. Psychol Mark*, 38, 834–865.

https://doi.org/10.1002/mar.21472

APPENDIX 1: SPECIAL ISSUES PUBLISHED IN P&M BETWEEN 1984 AND 2020

| Year | Volume | Issue | Title/theme | Editor(s)/guest editor(s) |
|------|--------|-------|--|--|
| 1984 | 1 | 3&4 | Psychology, Marketing, & Television | Roger B. Fransecky |
| 1985 | 2 | 4 | Psychology, Marketing, & Values | Ronald Jay Cohen |
| 1986 | 3 | 4 | The Hispanic Subculture: SubculturalComplexity and Marketing | Robert E. Pitts |
| 1700 | 3 | 4 | Opportunity | ROBERT E. FILLS |
| 1988 | 5 | 4 | Subliminal Manipulation | Timothy E. Moore |
| 1989 | 6 | 4 | Black Consumer | Melvin T. Stith |
| 1991 | 8 | 4 | Psychology, Marketing, and Computers | Nicolaos E. Synodinos |
| 1993 | 10 | 2 | The Family as a Consumer | David J. Burns |
| 1993 | 10 | 4 | Involvement for Psychology and Marketing | Judy Zaichkowsky |
| 1993 | 10 | 6 | The Pursuit of Beauty | Ronald Jay Cohen and Justin P. Carey |
| 1994 | 11 | 4 | Psychology, Marketing & Recycling | H. Rao Unnava |
| 1995 | 12 | 4 | Psychological Research in Sales Problems | Harish Sujan and Venkatapparao Mummalaneni |
| 1996 | 13 | 2 | Psychology, Marketing, and Direct Mail: A Call for Theory | Paul M. Biner |
| 1996 | 13 | 4 | Experimental Economics | Richard O. Beil Jr. |
| 1996 | 13 | 8 | Aberrant Consumer Behavior | Ronald Jay Cohen and Rajan Natarajan |
| 1997 | 14 | 4&6 | Goal-Directed Behaviors in Marketing | Richard P. Bagozzi |
| 1998 | 15 | 4 | Ambush Marketing | Tony Meenaghan |
| 1998 | 15 | 6 | Marketing in East Asia: A Cross-Cultural Perspective | Youjae Yi |
| 1998 | 15 | 7 | Psychology, Marketing and Warnings Research | Michael S. Wogalter and Eli P. Cox III |
| 1998 | 15 | 8 | The Services Marketing System and Customer Psychology | Banwari Mittal and Julie Baker |
| 1999 | 16 | 2 | Persuasion and Marketing | Thomas F. Stafford |
| 1999 | 16 | 4 | Qualitative Research | Ronald Jay Cohen |
| 1999 | 16 | 8 | The Year 2000: Looking Back | Rajan Nataraajan and Richard P. Bagozzi |
| 2000 | 17 | 1 | The year 2000: Looking forward | Richard P. Bagozzi and Rajan Nataraajan |
| 2000 | 17 | 2 | Social Desirability Bias | Robert J. Fisher |
| 2000 | 17 | 4 | Counterfactual Thinking | Neal J. Roese |
| 2000 | 17 | 6 | Emerging Issues in Marketing | Charles R. Taylor |
| 2000 | 17 | 8 | Market Exit | Fahri Karakaya |
| 2001 | 18 | 2 | Commercial Sponsorship | Tony Meenaghan and Paul O'Sullivan |
| | | | | |

Robert A. Reeves

Tony Meenaghan

2012

2013

29

30

9

5

Psychology, Marketing, and Celebrities

Measuring Sponsorship Performance

| 2014 | 31 | 1 | Brand Personification | Ronald Jay Cohen |
|------|----|----|--|---|
| 2014 | 31 | 7 | Retail Atmospherics and In-store Nonverbal Cues | Dhruv Grewal, Anne L. Roggeveen, Nancy M. Puccinelli, and Charles Spence |
| 2014 | 31 | 8 | Marketing the Arts | François Colbert |
| 2015 | 32 | 3 | Online Consumption Communities | Nicola E. Stokburger-Sauer and Caroline Wiertz |
| 2015 | 32 | 5 | Changing Food Consumption Behaviors | Ben Lowe, Iain Fraser, Diogo M. Souza- Monteiro |
| 2016 | 33 | 4 | Marketing Relationships in the New Millennium B2B Sector | Ronald Jay Cohen and Rajan Natarajan |
| 2016 | 33 | 12 | The Role of Qualitative Research in Current Digital Social Media: Issues and Aspects | Helena Martins Gonçalves, Andrea Rey-Martí, Norat Roig-Tierno, and Morgan P. Miles |
| 2017 | 34 | 2 | Broadening the Perspective on Mobile Marketing: An Introduction | Ronald Jay Cohen and Rajan Natarajan |
| 2017 | 34 | 4 | Technological Impacts on Market Attitudes and Behaviors | Ronald Jay Cohen and Rajan Natarajan |
| 2018 | 35 | 6 | Customer Satisfaction in Asia | Youjae Yi and Rajan Natarajan |
| 2020 | 37 | 5 | The Sharing Economy: Psychological Mechanisms that Affect Collaboration Consumption | Giampaolo Viglia |
| 2020 | 37 | 7 | The Influence of Color (Part 1) | L. I. Labrecque |
| 2020 | 37 | 8 | The Influence of Color (Part 2) | L. I. Labrecque |
| 2020 | 37 | 12 | How Can Marketing Expertise be Applied to Stop Crime Against Wildlife? | Ronald Jay Cohen & Rajan Nataraajan |

Note: This table lists the special issues covered in P&M between 1984 and 2020.