

The Journal of the Academy of Marketing Science at 50: A Historical Analysis

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Abstract

The *Journal of the Academy of Marketing Science (JAMS)* is completing 50 years of publication in 2022. This paper attempts to pay homage to this milestone, demonstrating that *JAMS* has remained true to its mission, while simultaneously staying current by adapting to the rapidly changing times. Using a multi-method approach (Latent Dirichlet Allocation, Semantic Analysis, and Bibliometric Analysis), we analyze topics and thematic areas, research communities, and their evolution. We identify fifteen main research topics over time (including *Firm Performance*, *Survey Research*, *Models and Analytical Approaches*, *Marketing Theory*, *Sales Management*, *Marketing Mix*, *Customer Service*, *Firm Strategy*, *Branding*, *Social Issues and Ethics*, *Customer Relationship Management*, *Shopping and Distribution*, *Channels*, *Consumer Behavior*, and *Marketing Communications*), along with three central research communities (Advertising, Marketing Strategy, and Customer Satisfaction), which characterize the intellectual structure of the journal. Our analysis also looks at both declining and emerging research interests, suggesting where *JAMS* could be heading in the future.

Keywords: bibliometric analysis, historical analysis, literature review, Latent Dirichlet Allocation (LDA), NVivo, SciMat, network analysis

Introduction

The *Journal of the Academy of Marketing Science (JAMS)* published its first issue in March 1973, and is completing 50 years of scholarship in 2022. Ever since its inception, the journal's focus — “the study and improvement of marketing and serves as a vital link between scholarly research and practice” (Springer, 2021, p.1) — has been pivotal to the intellectual development of the marketing discipline. This paper provides a retrospective piece on *JAMS*' 50 years of publication, demonstrating that *JAMS* has indeed remained true to its mission, while staying relevant, adapting to the current times.

Our analyses reveals key insights across topics, contributions, and relevance to both marketing theory and practice. Based on our analyses, the following are the fifteen most important topics that *JAMS* has focused on over time. They include *Firm Performance*, *Survey Research*, *Models and Analytical Approaches*, *Marketing Theory*, *Sales Management*, *Marketing Mix*, *Customer Service*, *Firm Strategy*, *Branding*, *Social Issues and Ethics*, *Customer Relationship Management*, *Shopping and Distribution*, *Channels*, *Consumer Behavior*, and *Marketing Communications*.

We begin by briefly reviewing *JAMS*' relative position against some of the other journals in marketing, in order to understand its context and the disciplinary field it has been participating in. Table 1 provides key academic impact indicators for top marketing journals. *JAMS*' Scimago Journal Ranking (SJR) and *h*-index in 2020 are 4.433 and 183, respectively (Scimago Lab, 2021), which portray the journal's strong influence within the marketing discipline. Importantly, *JAMS* has enjoyed its SJR Q1 position since 1999; moreover, the 5-year JIF of *JAMS* in 2021 was 17.993 (Clarivate Analytics, 2022), outperforming all other marketing journals. Also, *JAMS*' impact has been global. For example, *JAMS* maintains its A* rank in both the Association of Business Schools 2019 and the Australian Business Deans Council 2021 rankings (Harzing, 2021). Thus, *JAMS*' presence as an academic journal has been steady, strong, and impactful, maintaining thereby its global reach.

[Table 1 here]

JAMS' strong global reputation has been possible due to its enthusiasm in identifying and publishing articles that address substantive and topical issues in marketing, going on to impact both academia and practice. Thus, it is important to take stock of its history to date, and examine if it has remained true to its mission. Research topics do evolve over time and their evolution helps us understand the trends. We attempt to reveal not only *JAMS*' commitment to marketing research and practice in the past, but also where the marketing discipline is heading.

To address this goal, we focus on the following research questions:

RQ1: What are the main topics covered by *JAMS*' articles?

RQ2: How have themes evolved in *JAMS* over time?

RQ3: What are the established, declining, and developing themes in *JAMS*?

RQ4: Which communities are researching topics published in *JAMS*?

These research questions help us highlight not only areas of interest fostered by the journal, but also provide an in-depth understanding of *JAMS*' intellectual structure and contribution to both marketing theory and practice.

The remainder of this paper is as follows; first, we outline various methods and their rationale. Then, we outline the results of our analyses, highlighting important research topics and their trends, across the journal's life span. Finally, we discuss the findings under the conclusion section, outlining key issues, while drawing implications.

Methodology

We analyzed all published articles in *JAMS* for its first 49 years, using three different databases to retrieve data; they include Scopus, EBSCOHOST, and Web of Science (WoS). We utilized the titles, abstracts, keywords, authors, and citations as units of analysis.

We utilized different analyses to fulfil our goal, as each method spurs different insights, which we later outline. It is important to note that we used different terminologies across analyses, depending on the specific terminology of each. For instance, Latent Dirichlet allocation (LDA) analysis utilizes “topics”, NVivo analysis utilizes “topics”, SciMat analysis utilizes “themes”, and Community analysis utilizes “communities” (Kumu) or “clusters” (VOSviewer). LDA is a probabilistic topic modelling procedure that uncovers the hidden or latent structure of both finite and discrete data, such as text documents (see Blei et al. 2003; Borah et al. 2018; Wedel and Kannan 2016). We used it to reveal major topics covered in the last 49 years in *JAMS*. SciMat is a science mapping tool that allows detecting, quantifying, and visualizing the thematic evolution of a research field (Cobo et al. 2011). We used it to map and track conceptual sub-domains (themes) over time, and measure the impact of themes. We used NVivo to obtain further insights into the topics, uncovered by the LDA analysis. Our NVivo analysis focused on some recurring topics that include marketing concepts and theories over time (Leech and Onwuegbuzie 2011). Further, we used Kumu and VOSviewer to understand the communities are embedded within *JAMS* (see Kumu 2021; VOSviewer 2021). Notably, both are visualization tools for large data and were analyzed separately for network community analysis. While technically Kumu uses “elements” and VOSviewer uses “items” to build communities or clusters respectively, they both refer to keywords in *JAMS*’ articles. Appendix A provides a detailed explanation of each method.

Results

In this section, we present the results by structuring them around our research questions. In doing so, we indicate the analysis (or multiple analyses) that were used. We also provide a summary of each answer for each research question before moving to the discussion section.

RQ1: What are the main topics covered by *JAMS*’ articles?

To answer RQ1, we used a probabilistic topic modeling procedure, i.e. a LDA approach across years. As we were interested in the breadth of *JAMS*’ coverage, our topic model assumed a fixed number of hidden topics across abstracts. We identified each abstract as a weighted blend of each topic. Initially, we used the perplexity score (i.e. a fit criteria) to determine the optimal number of topics and arrived at 20 topics. On manual inspection, we found that some topics were redundant and overlapped with one another. Thus, instead of relying on the perplexity score, we explored a number of topics, ranging from 10 to 19. Based on our manual inspection, using a smaller number of topics, such as 10, omits a few major topics that *JAMS* covers. On the other hand, using a higher number, such as 18, effectively led to the same scenario as 20 topics. After extensive discussion amongst the authors, we ultimately settled on 15 topics as the most appropriate number to study. This selection enabled us to determine specific topics that were collectively exhaustive and mutually independent. We do recognize that at times, the topics did overlap in part with each other. This is due to the inevitable linkage of key topics in the marketing discipline. Herein, it’s important to note that based on the abstracts, we obtained the posterior topic distribution (for the distribution of topics across articles). Further, we used these posterior topic probabilities for the 15 topics to represent the

relative prevalence of each topic. We assigned each article to the topic for which it had the highest posterior topic distribution. For example, if there were three topics and the posterior distribution was 50% for topic A, 33% for topic B, and 17% for topic C for a particular abstract, the article would be assigned to topic A. We used this assignment to calculate the topic coverage across all years, and prepared trend charts to analyze each topic's trend over time.

Table 2 displays the fifteen topics that we identify as seminal marketing topics that have been covered in *JAMS*. The table presents the topics in descending order of importance. For each topic, the table provides the definition, selection of its top keywords, and exemplar articles.

[Table 2 here]

For each topic below, we next examine its coverage across years, discuss trends related to each topic, and finally speculate a reason or reasons for the trend (see Appendix B for the trend charts that show the evolution of coverage for each topic).

The topic of *Firm Performance* has the highest coverage (9.87%) in *JAMS*. In fact, its coverage started rising from the mid-90s, with peaks in early 2000s and 2010s. The peaks reflect the aims of scholars to measure the performance of marketing strategies and tactics for dealing with the digital revolution that emerged during these periods.

Survey Research is the second most frequently studied topic in *JAMS* (9.82%). Hulland et al. (2018) found evidence of the high usage of survey methods in published articles in *JAMS*. The topic's coverage had a strong start in the 1970s, with a steep increase in the mid-1970s, followed by a few spikes in the 1980s. It witnessed a large decrease in the late 1980s, and a paucity of articles since the early 2000s. This decrease may be due to the following reasons: (1) the journal's focus on surveys as an instrument to answer substantive and relevant questions, rather than surveys being the main topic of study. (2) Emergence of new datasets, such as scanner and panel data for marketing scholars in the 90s. (3) Emergence of digital media with the related online and mobile data since the 2000s. (4) The analyses being mostly cross-sectional, thereby limiting researchers to infer causality.

Another topic we identify is *Models and Analytical Approaches*. Several papers (8.33%) have been published on this topic across all years. The topic's coverage was high in the 1970s and 1980s; it witnessed a steep peak in the late 1980s, followed by some spikes in the early 90s. From late 1990s, there has been a gradual decrease. Notably, the high interest in this topic in the early years of the journal could possibly be attributed to the excitement and interest of marketing scholars to use new analytical models and approaches for solving emerging questions. We assume that the reason for the gradual decrease in the topic's coverage is due to scholars focusing more on substantive questions than methods.

The fourth topic we identify is *Marketing Theory*. Several papers (8.16%) have been published on this topic across all years, with peaks in the 1980s and late 1990s. Overall, as a key topic, it has maintained a strong presence throughout the years due to a strong orientation of the journal on theory development and conceptual frameworks.

The next topic we find is *Sales Management*. Several papers (7.89%) have been published on this topic across all years with an increasing number in the late 1990s, followed by several peaks in the early 2000s and 2010s. We assume that the steady and continued interest for this topic is due to the wide range of issues in sales management that influence practice. Some of these issues include sales control systems, sales teams' customer knowledge creation capability, and customer-oriented selling strategies, etc.

The next topic we uncover is *Marketing Mix*. Several papers have been published across all years (6.67%). Characterized by several peaks across years, the consistent interest for this topic may be attributed to the variety of marketing mix elements that scholars have been examining. In fact, they relate to current issues, such as the rise of digitization, internet marketing and social media, along with ethical issues regarding production and supply chain, as well as various means of distribution channels.

Next, we identify the topic of *Customer Service*. Papers addressing this topic account for 6.34% of articles in *JAMS*. The topic shows a take-off in the late 1980s, with a sharp increase in the mid-1990s, followed by several peaks in 2000s. In the 1980s, service research became important due to the delivery of high service quality, representing a single strategy for business success (Parasuraman et al. 1988). Notably, the importance of the topic in the 2000s is related to an increasingly sharper focus on businesses' provision of customer service to build sustainable competitive advantage.

Firm Strategy is the next topic. Several papers (6.23%) have been published on this topic across all years, reflecting thereby the journal's focus on this area. In particular, we note a steep increase in the early 2000s followed by a strong, continued presence. This increase may be attributed to key factors, including the diffusion of new technologies that became available for commercial use in the same years; new digital media; new business models; interest in marketing-finance interface; new issues emerging from the rise of new channels making marketing spending more complex (Borah and Skiera 2021).

Another topic that emerges is *Branding*. An ample number of papers have been published across all years that focus on this topic (6.07%). Notably, this topic witnessed growth in the 1990s, followed by several steep peaks in the mid-2000s and between 2010 and 2020. The increasing interest in the last decade perhaps signals an increasing importance of firms in distinguishing themselves from entrants and other brands in the same or congruent markets.

The next topic we identify is *Social Issues and Ethics*. The coverage of papers published on this topic across all years is 5.63%. The topic witnessed a steep start in the 1970s, followed by several peaks across decades, with a focus in the mid- to late-1980s on sustainability and environmental issues, along with healthcare policies related to life-threatening diseases, such as AIDS and Hepatitis. Notably, since the late 2010s, the topic witnessed a decrease.

The subsequent topic is *Customer Relationship Management*; it has been covered well across all years (5.46%), with an increasing number of publications in the 1980s, followed by a steep increase in the late 1990s. This increase is related to a sharper focus within this period on the market, as well as the consumer (Kohli and Jaworski 1990). It could be also attributed to advances in technology that allow for mechanisms to emphasize customer focus (Stout 1980). In particular, this period is characterized by the introduction and usage of database systems that enabled capturing customer data.

The next topic is *Shopping and Distribution*; several papers have been published (5.30%) pertaining to this topic across all years. It witnessed several peaks across the years, followed by a flat period between the late 1980s and early 2000s. There is a rise in this topic from 2002-2007, followed by some spikes during 2011-2015, possibly due to the changes in the manner of shopping, owing to a rise of online and hybrid channels.

Another topic we identify is *Channels*. It has seen a decent amount of papers published across all years (4.85%), with peaks from the late 1980s to early 2000s and a decrease from the 2000s. Notably, the decrease in focus on this specific topic may be related to distribution channels being investigated in combination with other topics, such as the internet and innovative technologies, social media, and other marketing mix elements.

Another topic we uncover through the analysis, deals with *Consumer Behavior*. This topic's coverage in *JAMS* stands at 4.74%, with several peaks and drops over time, and is the second lowest. A possible reason for this low coverage is because of *JAMS*' higher focus on managerial issues than consumer psychology.

The final topic emerging from our analysis deals with *Marketing Communications*. This topic has the least coverage in *JAMS*. The first two decades witnessed a focus on advertising and various forms of marketing communications. Over time, the topic's evolution shows an increase in the mid 1990s, followed by a lowered interest in the late 1990s with some peaks in the 2000s. The peaks reflect the internet boom in the 1990s, and the emergence of online advertising and social media platforms, ever since the turn of the millennium.

From these results, we provide a snapshot of the set of seminal marketing topics that have been covered in *JAMS*. The topics are in line with *JAMS*' mission and scope, while suggesting a relevant consumer-related and managerial orientation of the same. In other words, articles in *JAMS* developed theories and models of marketing strategy that examined how customers respond to various marketing strategies and marketing mix, and assessed the impact of these activities on firm performance.

RQ2: How have themes evolved in *JAMS* over time?

To address RQ2, we used SciMat and NVivo analyses. As a reminder to the reader, we utilized the following terminologies "themes" for SciMat analysis, and "topics" and "sub-topics" for NVivo analysis. We analyzed the articles published in *JAMS* by each decade, encompassing Decade 1 (1973-1980), Decade 2 (1981-1990), Decade 3 (1991-2000), Decade 4 (2001-2010) and Decade 5 (2011-2021). We briefly explain the SciMat analysis before delving into the results.

SciMat longitudinal analysis. SciMat allows identifying different keywords-based themes, using measures of centrality and density. Centrality is determined by the degree of interaction of a network with other networks; it is understood as an external cohesion of the network. It is defined as $c = 10 * \sum e_{uv}$, with u being an item belonging to the cluster, and v being an item belonging to other clusters. Density measures the internal strength of the network. It is defined as $d = 100(\sum e_{ij} / n)$, with i and j items belonging to the cluster and n as the number of items in the topic. Using these two measures, SciMat identifies four different types of themes:

- a) Core themes: the themes within this quadrant are relevant for developing and structuring the field of research, given that they present strong centrality and high density.
- b) Related themes: these themes are relevant for a field of research, but are often not well developed (strong centrality and low density).
- c) Developing/declining themes: these themes are relatively weak, and exhibit weak centrality and low density.
- d) Specialized themes: these highly developed and isolated themes are peripheral and strongly related, but they do not have the appropriate background or importance for the field (weak centrality and high density).

Below, we briefly elaborate on how we operationalized the themes:

As core and specialized themes have high density (core themes also have a strong centrality), we can consider them as established themes in the field. In fact, core themes can be

considered as ones structuring the journal, while specialized themes can be considered as being peripheral to the journal.

Related themes, although important for the field, are not well developed (low density), so they can be considered as general and transversal themes.

Developing and declining themes on the other hand, are both weakly developed and marginal. That is, they show weak centrality and low density. Both themes share a low external cohesion with the rest of the themes (centrality), along with low internal strength (density). Therefore, the rationale to identify which type a theme belongs to (developing or declining) is based on the following premises: a) if a theme is present in an earlier period in any other quadrant (i.e. showing a higher density and/or centrality), the theme is assumed to be declining. b) if a theme is present in the following period in any other quadrant, the theme is assumed to be developing; c) if a theme remains in the developing/declining quadrant of the previous and/or the following period, the theme is assumed to be developing; and d) if a theme does not appear in the previous or the following period a priori, we can only infer that the theme is weak. Importantly, it has been receiving scarce attention from the larger community. Note that additional information, such as the keywords belonging to a theme can provide a valuable clue to characterize the theme as developing or declining. Table 3 elucidates the breakdown of themes by typology per decade.

[Table 3 here]

Decade 1 (1973-1980)

Decade 1 marks the entry of the Third Industrial Revolution, with digitization of manufacturing, leading to partial automation (The Economist 2012), coupled with an increased use of Information and Communication Technology (ICT) (Taalbi 2019). One core theme within this decade is related to *sales management*, as uncovered by our LDA analysis across years.

Within this decade, increasing information and automatic purchasing opened up a new vista for sales managers, with implications for negotiation, promotion, and the firms' internal computer information systems. For example, Mathews and Wilson (1974) analyzed how electronic data processing changed the buyer-seller relationship in industrial marketing. At the salesforce level, Anderson, Jerman, and Constantin (1979) analyzed the determinants of career satisfaction for salespersons in terms of perceived financial rewards, intrinsic rewards, and organizational environment. Importantly, this theme played a pivotal role in *JAMS* in its first decade, and is still both relevant and prominent today. This is proven by some recent papers in *JAMS* that include studies from Vadakkepatt et al. (2021), who examined if firms should invest more in marketing or R&D in order to maintain sales leadership.

Decade 2 (1981-1990)

This decade is marked by a sharp focus on the market and the consumer (Kohli and Jaworski 1990). It also features socio-economic changes due to continual advances in technology, which in effect, changed the process of manufacturing consumer goods (Stout 1980). There are six core themes within the decade (see Table 3), which witnessed an increasing interest in *sales* research relating to *sales personnel* and *forecasting*. For example, Tyagi (1985) examined the effects of stressful organizational conditions on salesperson's work motivation while Cummings, Jackson, and Ostrom (1989) examined product managers' job satisfaction and performance, using different organizational behavior variables.

Notably, research on sales forecasting was attended to with research related to planning, inventory control, and costs. Importantly, this theme aligns with *Firm Performance* and *Sales Management* topics that were uncovered in our LDA analysis.

Decade 3 (1991-2000)

Core themes within this decade include *consumer behavior*, *marketing strategy*, and *customer satisfaction*. Notably, these themes align with the LDA topics of *Firm Strategy*, *Customer Relationship Management*, *Customer Service*, and *Marketing Theory*. Research related to market orientation, buyer-seller relationships, and inter-organizational relations is also addressed within this decade. For example, Baker and Sinkula (1999) analyzed organizational learning orientation and market orientation in relation to organizational performance. Maignan, Ferrell, and Hult (1999) found that market-oriented and humanistic cultures, effectively lead to proactive corporate citizenship, which in turn is associated with improved levels of employee commitment, customer loyalty, and business performance.

Decade 4 (2001-2010)

This decade sees a surge in innovation with the introduction of new technologies like the internet driving the global economy. Moreover, the growth of China and India as financial powers is another pivotal event, which witnessed a proliferation of talent for innovation in high-tech fields (Khanna 2007). This eventful decade has various articles in *JAMS* that cover the issues mentioned above.

For example, Luo, Sivakumar, and Liu (2005) analyzed the moderating role of globalization activities (global product sourcing, global market seeking, and global partnership), and the relationship between marketing resources (market orientation, entrepreneurial orientation, and innovative capability) and firm performance in China. Luo, Hsu, and Liu (2008) explored the role of institutional environment for marketing strategy and customer relationship management, using a sample of Chinese firms. Specifically, the core themes herein include *brands*, *products*, *price*, and *customer services*; they harmonize well with the LDA topics of *Customer Relationship Management*, *Customer Service*, *Branding*, and *Marketing Mix*, which in turn, have been consistently addressed in *JAMS* across all the years. Importantly, within this period, the following developments led to burgeoning research on the four topics uncovered by LDA: a) the growth of CRM systems, b) the rise of individual data such as clickstream data, c) newer and varied forms of products and services coupled with creative and swifter means of pricing, and d) new forms and means of communicating and delivering products and services.

Decade 5 (2011-2021)

This decade has seen an increasing use of automation, digitization, and sustainable-oriented business. It has been a witness to the emergence of core themes like *relationship marketing*, *dynamic capabilities*, *shareholder value*, *performance*, and *satisfaction*. These themes in turn, align well with *Customer Relationship Management* and *Firm Performance* uncovered by the LDA analysis. Indeed, research on *customer satisfaction*, and its association with firm performance measures, such as sales, stock market returns and risk, did become dominant within this decade, and still continue to be addressed. For example, Rubera and Kirca (2017) studied the effects of firm innovation on customer satisfaction and firm value.

Figure 1 provides a visualization of the evolution of themes across decades, related to three selected topics (i.e. *Firm Performance*, *Consumer Behavior*, and *Firm Strategy*). We chose these topics to cover one of the most widely covered topics, i.e. *Firm Performance*, a topic with average coverage, i.e., *Firm Strategy*, and a topic with low coverage, i.e., *Consumer Behavior*.

[Figure 1 here]

NVivo analysis. To complement our evaluation of the journal's 50-year history, we used NVivo analysis to take a closer look at abstracts, and examine what additional insights could be drawn from them. The resulting analysis reflects many, if not all, of the topics identified in LDA and SciMat analyses, as discussed previously. That is, NVivo analysis confirms *Firm Performance*, *Models and Analytical Approaches*, *Marketing Theory*, *Customer Service*, *Firm Strategy*, *Branding*, and *Sales Management* as the central topics, having received the most number of coded references (cf. Table 2 LDA and Table 3 SciMat results).

Firm Performance is a key finding in both LDA (top topic) and SciMat analysis (Decades 3 and 5 core themes, Decade 4 developing theme), presumably because it is a topic central to all businesses, even in studies outside of, but related to the marketing discipline (e.g., Calma and Suder, 2020). We wanted to closely examine the abstracts and find which specific sub-topics *Firm Performance* relates to. This crude categorization applies to Figure 2a. We find the sub-topics as *firm performance*, *product or service performance*, and *salesperson performance*.

Interestingly, *product or service performance* dominate extant research (55% of top performance-related sub-topics), followed by *firm performance* (31%), and *salesperson performance* (14%). Notably, *product or service performance* shows increasing growth in the past decades, as compared to the latter (i.e. *firm performance* and *salesperson performance* (Figure 2a). Importantly, this is an arbitrary categorization, whereby all three sub-topics should ideally be seen as a part of the topic of *Firm Performance*, uncovered in the LDA across years analysis. However, it is useful to differentiate some notable terms that relate to one another more than others to provide specific patterns of movements over time within JAMS. This is one example that complements information in Figure 2, when taking the topic of *Firm Performance*, as noted in the abstracts. Additionally, it may be noted that firm performance, along with *Customer Relationship Management* and *Branding* are three examples drawn from a larger set worth highlighting. We focused on them, as they are interesting and compelling. In fact, they strongly align with the previous analyses, and account for a significant contribution to the topics.

[Figure 2 here]

Customer Relationship Management is another strong topic that emerges in the abstracts-based NVivo analysis shared with LDA (*Customer Relationship Management* topic) and SciMat (Decade 5 core theme). It has been a dominant topic over the past decades; especially, more so in the two recent ones. Four sub-topics characterize relationship marketing within abstracts: *relationship management*, *quality*, *type*, and *performance*. Notably, *relationship performance* has been less of a feature in JAMS than investigations relating to *relationship types*, *management*, and *quality* (Figure 2b).

The final topic we wish to highlight is *Branding* related topics, which were uncovered earlier in the LDA (*Branding*) and SciMat (Decade 4) analyses. It illustrates four important sub-topics: *brand information*, *equity*, *evaluation*, and *management*. Brand equity for example, includes articles on brand reputation, name, and personality appeal. Brand information includes innovative brands, brand biographies, brand preferences, and corporate branding. Articles

related to brand equity are the most referenced, followed by those related to brand information (see Figure 2c).

Overall, our multiple analyses to answer RQ2 reveal the richness of the themes, topics and sub-topics of investigation under the main topics over time. Congruent with the LDA analysis earlier, SciMat and NVivo highlight the continued interest in firm strategy and performance; specifically, how branding and customer relationship management relate to overall business performance. This suggests how *JAMS* has been responding with new streams of research to the increasing complexity of the market environment.

RQ3: What are the established, declining, and developing themes in *JAMS*?

Next, we explored the established, declining, as well as developing themes in *JAMS*. We primarily used the SciMat analysis, and marginally used the LDA analysis to complement the earlier analysis. It must be noted that for this analysis, we focused on papers in *JAMS* from 2011 onwards to the present, i.e., the last decade in our empirical analysis. We did this, as we believe scholars might be less interested in which themes declined in the past, and rather be more interested in themes that are currently (last decade) declining or emerging. As a reminder to the reader, we utilized the terminology “themes” for the SciMat analysis, and “topics” for the LDA analysis. Table 4 provides all core, specialized, declining, and developing themes in decade 5 (2011-2021) along with their h-index and related keywords.

[Table 4 here]

Established themes

Most of the core themes already appear when we answered previous research questions related to topics that have contributed to shaping the journal’s intellectual structure over time (e.g. *Firm Performance*). Within core themes, *marketing strategy* has the highest rank, both in document count and h-index within this last decade. When we take a deeper look, three primary keywords emerge: organizational performance, orientation, and knowledge. We see that *firm performance* ranks second as a core theme with all keywords similarly weighted within the theme itself (e.g. organizational ambidexterity, customer value, resource management, marketing management, etc.).

Within specialized themes, *consumer preference* has the highest rank, based on h-index (41). Three main keywords emerge within this theme: perceptions, consumer preferences, and product. We find *service-dominant Logic* ranks second (h-index 35) with three main keywords: value-creation, innovations in business, and customer co-creation.

Declining themes

Some declining themes that be conjectured based on both the SciMat and LDA analyses include *customer satisfaction* and *firm and product quality*. Interestingly, we do note a downtrend for the topic of *Customer Relationship Management* in the last decade, using the LDA analysis. Notably, several meta-analyses have been published on both quality and customer satisfaction showing the topic’s saturation. For instance, Völckner and Hofmann (2007) studied the price-quality relationship in a meta-analysis, while more recently, Otto et al. (2020) examined the relationship between customer satisfaction and firm performance, based on empirical research from over a quarter-century.

Developing themes

The primary keywords related to the themes of *new media* and *consumer behavior* in this decade range from artificial intelligence, internet, social presence, electronic commerce, retail stores, shopping, brand communities, and brand personality to social influence, customer experience, and customer journey. Kuehnl, Jozic, and Homburg (2019) for example, analyzed the effectiveness of customer journey. They provided evidence of the positive effect of an effective customer journey design on customer loyalty through brand attitude. More recently, Becker and Jaakkola (2020) conducted a systematic review identifying eight literature fields that addressed customer experience, and derived four fundamental premises that could be generalizable across settings and contexts.

A keyword of particular interest in this decade is social influence. For example, Zhang, Li, and Burke (2018) used a video tracking and transaction dataset from a specialty apparel store to find that group conversations do have a significant impact on the shopper's department or "zone" choice, purchase likelihood, and spending over time. Mu et al. (2018) on the other hand, used the context of listening to music online to provide insights into the role of online group influence in the growing market of digital products and changing consumer behavior.

We conjecture that more research related to understanding the processes of how consumers behave, i.e. the theme of *consumer behavior*, using experimental data or lab data would possibly become more prevalent in *JAMS* (Hulland and Houston 2021). More and more studies today, are using experiments (e.g. Meyer et al. 2020) to answer substantive questions that align with *JAMS'* mission. Additionally, the application of Neuroscience and Neurophysiology in marketing, which emerged in 2012 (e.g. Achrol and Kotler 2012; Bagozzi et al., 2012; Arens and Rust 2012), suggests a fruitful stream of research in the near future. Some of the other emerging keywords include food (e.g. Maesen et al. 2021), social platforms, such as online review sites (e.g. Hoskins et al. 2021), firm-induced messages, such as paid ads, and/or social media posts in social media platforms (e.g. Unnava and Aravindakshan 2021).

We assume that research related to *consumer behavior* using various media, be it offline, online, and mobile, using highly granular data from the field would be another avenue for future researchers working towards rigorous and relevant publications in *JAMS*.

Finally, when we analyze themes' evolution based on theme count, the journal shows an increasing number of themes over time (from 12 themes in decade 1 to 26 themes in decade 5). This reflects an increasing aim to cover newer topics that have emerged in the marketing discipline over time. Moreover, specialized themes also increased over time, especially in the last decade (from two themes in decade 1 to nine themes in decade 5). This provides a clue for specific groups of interest in the journal addressing new issues in marketing. The increasing number of keywords included in the last two decades, as shown by keywords evolution analysis, using an overlapping map (See Appendix C), suggests a dynamic research environment in *JAMS* with the need to use new terminology to better explain new research problems.

Overall, in the last decade, we do find four well-established themes (i.e. *marketing strategy*, *firm performance*, *consumer preference*, and *service-dominant Logic*); two declining themes (*customer satisfaction* and *firm and product quality*); and two developing themes (*new media* and *consumer behavior*). Additionally, the increasing number of themes and keywords over the last decade suggests a vivid research environment addressing emerging challenges in both marketing theory and practice.

RQ4: Which communities are researching topics published in *JAMS*?

To address RQ4, we used Kumu and VOSviewer to detect communities of keywords and illustrate key topics. As a reminder to the reader, we utilized the following terminologies “communities” (Kumu) or “clusters” (VOSviewer) for the community analysis. Our analysis in Kumu confirms the communities that were found by Calma et al. (2019). These include (1) Firm Capability and Performance, (2) Brand and Value Co-creation, and (3) Customer Service. The authors discussed the three communities with a strong reference to customer value, loyalty, and satisfaction; They also talked about the contribution of advertising and marketing strategy to enhance firm capability and performance. Notably, all these three communities have continued to feature in *JAMS*. We also observe further growth in the importance of Advertising, Customer Satisfaction, and Marketing Strategy.

Advertising (akin to *Marketing Communications* in LDA analysis) for example, includes keywords, such as memory, expectancy, divergent and convergent thinking, and models used in analyses. This proves that advertising has indeed been studied with a more granular and psychological perspective.

Customer Satisfaction, on the other hand, seems to have remained as one of the most important topics in *JAMS*, encompassing keywords like product, market strategy and service revenue for enhancing customer satisfaction.

Lastly, Marketing Strategy also has had a significant number of interrelated keywords with the same strength of association value of .99. In fact, many of these keywords relate to various strategies around segmentation, customer relationships, and value creation (mostly in relation to firm performance). Recent examples include Balducci and Marinova’s (2018) study on the rise of unstructured data, and their potential in directing marketing activities; Tong et al.’s (2020) study on personalized mobile marketing strategies in designing targeted campaigns; and Li et al.’s (2021) conceptualization of social media marketing strategies.

We also analyzed the source keywords of communities, and compared them with the author keywords’ communities (as described above). Herein, we find Customer Satisfaction has the highest number of keywords (1,185) belonging to this community, while 834 has stronger ties with other communities. Notably, the second community relates to Firm Performance, and the third, to Marketing Strategy. Thus, either using author or source keywords, strong communities in *JAMS* consistently include Firm Performance, Marketing Strategy, and Customer Satisfaction, similar to the topics identified in LDA and themes in SciMat.

Based on our findings thus far, we observe that Kumu’s communities are overlapping. In other words, a keyword in one community can also belong to another. This means that customer satisfaction as a keyword for example, may be found in a large community, where it belongs; however it can also be found in other smaller ones. This prompted us to check if the results would be similar in case communities were non-overlapping (i.e. keywords or authors are placed only in one cluster); and thus, we used VOSviewer.

Figure 3 illustrates a co-occurrence network of author keywords containing a number of clusters. The figure shows that Clusters 1, 2, 4 and 6 lie at the core of the network, indicating their prominence and wider connections with other items (i.e. keywords) in other clusters. Higher total link strengths, a measure of co-occurrence strength, are more observed in the following cluster items: customer satisfaction (36) and meta-analysis (32). Notably, both belong to Cluster 2, and are the most prominent items even in other clusters. Marketing strategy, meta-analysis, customer satisfaction, and relationship marketing exhibit more connections with each other and other clusters than key items in other clusters. As expected,

firm performance strongly connects with these four prominent items, but not with advertising from Cluster 1.

Cluster 2 is distinct from Cluster 3, with the former focused on the consumer, and the latter on the firm. Clusters 7, 8 and 9 are on the periphery, but they are more isolated than others. Using density visualization, the lower bottom clusters, specifically Clusters 1-5, are denser than those on the periphery. This indicates a larger number of items in their neighborhood and higher weights.

When compared with the Kumu communities above, the results are congruent. Using VOSviewer, when author keywords were placed only in a single cluster within a community, they show that Customer Satisfaction, Marketing Strategy and Advertising are three of the most prominent clusters. In this diagram, Advertising, Creation of Brand and Customer Value comprise the largest cluster (red), followed by Customer Experience and Satisfaction (green), Corporate Social Responsibility and Market Orientation (blue) and Marketing Strategy (gold). A dynamic version of this co-occurrence network is available via <https://app.vosviewer.com/> by opening the supplementary JSON file ‘Co-occurrence author keywords full counting map.json’.

[Figure 3 here]

The communities in Kumu or clusters in VOSviewer based on author keywords—Advertising, Customer Satisfaction, and Marketing Strategy—correspond well with the LDA across years topics of *Marketing Mix* and *Customer Relationship Management*. So do the source keywords of customer satisfaction, value and performance, and advertising, which correspond to *Customer Relationship Management*, *Customer Service*, *Firm Performance*, *Branding* and *Marketing Mix*. Adopting a similar approach presented by de Ruyter et al. (2022), Table 5 presents the clusters identified in Figure 3, including some of the most influential contributions.

[Table 5 here]

Overall, our analysis, whether using Kumu’s overlapping communities or VOSviewer’s non-overlapping communities, reveals that brand and value co-creation, firm performance, advertising, customer satisfaction, and marketing strategy do remain some of the most visually prominent in networks of author keywords, showing their connectedness with many other research topics in *JAMS*.

Discussion

This study sought to ascertain if *JAMS* has remained true to its mission of studying and advancing the discipline of marketing and serving as a vital link between scholarly research and practice. We show that *JAMS* has indeed fulfilled its mission by remaining firmly current and adapting to the times. We examined the main topics covered by *JAMS*’ publications, using abstracts and keywords, to understand how the topics have evolved in the journal over time; which topics have structured marketing theory and practice; what were the themes that have been established, have been on the decline, and/or developing; what are the communities in *JAMS*. All this information contributed to identifying the intellectual structure of the journal.

This section summarizes the main findings, outlining in the process, some salient contributions and key issues, while drawing the path for future developments. The main findings of this study are as follows:

1. Fifteen major topics addressed by the *JAMS* over time include *Firm Performance*, *Survey Research*, *Models and Analytical Approaches*, *Marketing Theory*, *Sales Management*, *Marketing Mix*, *Customer Service*, *Firm Strategy*, *Branding*, *Social Issues and Ethics*, *Customer Relationship Management*, *Shopping and Distribution*, *Channels*, *Consumer Behavior*, *Marketing Communications*.
2. The topics of *Firm Performance*, *Firm Strategy*, *Marketing Mix* and *Marketing Theory* have received significant attention in recent times, with a possibility of continued interest in the future. At the same time, interest on *Channels*, *Customer Relationship Management* and *Survey Research* seems to be on the decline.
3. Well-developed themes over the last decade include *marketing strategy*, *firm performance*, and *relationship marketing* (core themes); along with *consumer preference*, *service-dominant logic*, and *branding* (specialized themes). Declining themes include *customer satisfaction*, along with *firm* and *product quality*. Developing themes include *new media* and *consumer behavior*.
4. The biggest and most connected communities in *JAMS* include Advertising, Customer Satisfaction, and Marketing Strategy.

Our multi-method analysis of *JAMS*' 50-year history reveals the richness and complexity of the topics addressed by the journal vis-à-vis their evolution over time. Interestingly, the methods of analysis adopted complement each other. They allowed us to analyze multiple aspects of the metadata we utilized and respond to each of the study's research questions.

LDA analysis across years reveals fifteen topical areas, while NVivo analysis confirms and complements many of these topics, analyzing titles, abstracts, keywords, authors, and citations. SciMat provides an analysis of the keywords, which enabled us to understand the breadth of the different research themes within the discipline vis-à-vis their evolution over time. Finally, the network/community analysis adds one more layer to our understanding by helping detect communities of keywords within networks, and thereby illustrate the elements that belong to specific communities.

In summary, our multiple analyses confirms that *JAMS* stayed true to its mission of being a journal focused on answering substantive marketing issues and topics, like *Firm Performance*, *Firm Strategy*, *Customer Relationship Management*, *Marketing Theory*, *Consumer Behavior*, and *Marketing Mix*. Articles in *JAMS* have used an array of methods from SEM to lab experiments to address substantive problems. Using keywords as a proxy to identify methodological approaches, we found a wide range of techniques. For example, mathematical models were used in consumer preferences research, and econometric models in advertising research. Other salient methodological approaches include Bayesian analysis, Monte-Carlo simulation, and meta-analysis among others. Moreover, to address topical substantive marketing problems, the journal has been dynamic, with new topics emerging and old topics withering. The journal truly engages with novel, relevant, and interesting problems that affect marketing practice today. There is already a steady stream of papers in recent years on topics, such as mobile platforms (i.e. mobile as channels of service, communication, and distribution), sustainability (i.e., corporate social responsibility, green marketing, environmental issues), equality, diversity, and inclusion (i.e. race and gender, discrimination, policies and regulations), and business to government.

Conclusion

In this commemorative and reflective piece on nearly 50 years of publication, we establish that *JAMS* has stayed true to its mission of examining important, substantive, and relevant questions linking marketing theory and practice. The journal has been a leading contributor of knowledge on key topics and themes in the marketing discipline. This piece provides both an opportunity and a challenge for *JAMS*. While there is an opportunity to grow specific marketing practice fields to further strengthen *JAMS*' positioning, presence, and development in the international marketing community, serving both scholars and practitioners alike, it also gives its readership both the reassurance on topics and themes that matter for policy and practice that *JAMS* has been known for. We believe this would drive the journal's policy, scope and direction beyond 50 years.

There is also the challenge of maintaining *JAMS* as a truly international journal—a primary source of marketing ideas with cross-border applications. This not only means attracting suitable submissions that meet its aims and scope, but also building a network of established authors and reviewers, attracting newer ones, and perhaps even offering opportunities, where special issues are needed on specific or contemporary interests.

Based on what we describe in this paper, we provide *JAMS* scholars with an opportunity to reflect on the half a century of scholarship that has passed. Beyond asking “What is *JAMS*' contribution to the field from the combined works of the articles published over 50 years?”, we also hope to add these questions to *JAMS*: “What is *JAMS*' impact in terms of scientific marketing advancement?”, “Where else could it deliver further advancement, development or impact?”, “What future innovations in research, in both topics and methodologies, would excite *JAMS*?” and generally, “Where to next?”

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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Table 1. SJR and JCR performance indicators for selected top marketing journals

Journal (in alphabetical order)	SJR (2021)	<i>h</i> - index	2-year JIF (2021)	5-year JIF (2021)
International Journal of Research in Marketing	2.530	109	8.047	7.595
Journal of the Academy of Marketing Science	4.433	183	14.904	17.993
Journal of Consumer Psychology	3.054	122	4.551	5.989

Journal of Consumer Research	7.117	194	8.612	11.116
Journal of Marketing	7.461	253	15.360	17.741
Journal of Marketing Research	5.372	182	6.664	8.638
Marketing Science	6.584	1135	5.411	6.137

Notes:

SJR=Scimago Journal and Country Rank, source: scimagojr.com, date accessed: June 8, 2022

JCR=Refers to the 2-year and 5-year JIFs

JIF=Journal Impact Factor, source: jcr.clarivate.com, using Journal Citation Reports (JCR),
date accessed: July 2, 2022

Table 2. Main research topics covered by *JAMS'* publications using LDA analysis, 1973-2021

Topic	Definition	Emergent Top Keywords	Selected Examples
<i>Firm Performance</i>	Firm performance principally focuses on the capability and ability of an organization to efficiently exploit the available resources to achieve accomplishments consistent with the set objectives of the organization, and their relevance to its users.	Firms, market, performance, product, innovation, strategy, orientation, organizational, development, effects	Feng et al. (2017); Josephson et al. (2016); Katsikeas et al. (2016); Kim et al. (2006); Kirka et al. (2011); Wilden and Gudergan (2015); Zhou et al. (2014)
<i>Survey Research</i>	The process of conducting research using surveys send to survey respondents. The data collected is then statistically analyzed to draw meaningful research conclusions.	Response, behavior, survey, respondents, groups, consumers, attitudes, market, characteristics, sample	Berkman et al. (1982); Cook (1979); Hawes (1987); O'Reilly (1984); Paksoy (1979); Roberts (1980); Skinner et al. (1984); Tan and Dolich (1983)
<i>Models and Analytical Approaches</i>	Relates to building models to examine the relationship between constructs / variables, and analytical approaches adopted to solve problems.	Model, data, analysis, measures, approach, validity, scale, method, measurement, variance	Diamantopoulos et al. (2012); Green et al. (1993); Henseler (2012); Mentzer and Gomes (1994); Shipchandler and Moore (1988); Steenkamp and Maydeu-Olivares (2021)
<i>Marketing Theory</i>	Focuses on theory building, conceptual, and review articles to answer and understand strategic and substantive marketing questions.	Literature, theory, issues, review, framework, field, theoretical, development, concept, field	Davis et al. (2011); Hibbert and Wilkinson (1994); Hult (2015); Hyman and Mathur (2005); Malhotra (1996); Malhotra et al. (1999); Sheth and Sisodia (1999)
<i>Sales Management</i>	Concerns sales strategy and sales operations to execute the strategy, with the aim of boosting growth and generating profit.	Sales, performance, role, salespeople, salesperson, selling, managers, job, organizational, conflict	Ahearne et al. (2013); Auh et al. (2014); Fang et al. (2004); Martin and Bush (2006); MacKenzie et al. (2001); Menguc et al. (2013); Miao and Evans (2013); Piercy et al. (2006)

Topic	Definition	Emergent Top Keywords	Selected Examples
<i>Marketing Mix</i>	Studies dealing with one of the four fundamental elements of marketing (i.e. product, price, place, and promotion) that an organization uses to pursue its marketing objectives in the target market.	Product, price, quality, information, perceived, consumer, effects, risk, purchase, categories	Berry et al. (2017); Burton et al. (2015); Choi et al. (2014); Hamilton and Koukova (2008); Kelting et al. (2017); Labrecque et al. (2017); Maesen et al. (2021); Suher et al. (2021)
<i>Customer Service</i>	The provision of service to customers before, during, and after a purchase, while ensuring that the customers' needs and wants are met, thus reflecting positively on the company.	Customer, service, satisfaction, loyalty, quality, employee, recovery, value, experience, failure	Gallan et al. (2015); Gelbrich (2010); Heidenreich et al. (2015); Hult et al. (2017); Voorhees et al. (2006); Wolter et al. (2019)
<i>Firm Strategy</i>	Concerns the formulation and implementation of the firm's vision and set objectives to improve the company's performance and long-term competitiveness.	Value, framework, strategy, customer, develop, theory, firms, knowledge, understanding, process	Agarwal et al. (2020); De Luca et al. (2021); Grönroos and Voima (2013); Hollebeek et al. (2019); Huang and Rust (2021); Keeling et al. (2021); Kopalle et al. (2020)
<i>Branding</i>	The use of key intangible elements, including name, term, design, symbol or any other feature that identify and distinguish one company's product or service from those of others.	Brand, negative, corporate, consumer, effects, positive, reputation, affect, attitude, extension	Brasel and Hagtvedt (2016); Grappi et al. (2013); Heinberg et al. (2020); Hildebrand and Bergner (2021); Lee et al. (2018); Mazodier and Merunka (2012); Miniard et al. (2018); Tezer et al. (2020)
<i>Social Issues and Ethics</i>	Concerns marketers' efforts to market their goods and services to meet and suit the needs of their customers, business partners and suppliers in order to create sustainable relationships.	Social, business, ethical, systems, problems, organizations, marketers, practices, responsibility, policy	Donaldson (2009); Downs and Behrman (1986); Hensel and Dubinsky (1985); Hunt et al. (1990); Murphy et al (1978); Singhapakdi et al. (1995); Visvabharathy and Rink (1985)

Topic	Definition	Emergent Top Keywords	Selected Examples
<i>Customer Relationship Management</i>	Refers to practices, strategies, and technologies that organizations use to manage customer interactions and data throughout the customers' lifecycle.	Relationship, model, effects, influence, trust, commitment, intentions, perceived, antecedents, impact	Bansal et al. (2005); Brown et al. (2005); De Matos and Rossi (2008); Joshi and Mao (2012); Melancon et al. (2011); Nicholson et al. (2001); Pick and Eisend (2014); Verhoef et al. (2002)
<i>Shopping and Distribution</i>	The activity in which customers browse available products or services with the potential intent to purchase suitable one(s) for their needs or wants, in an online, offline, or mixed context, as well as the activity of getting goods or services into stores (online or offline).	Retail, retailers, shopping, store, sales, time, image, planning, returns, purchase	Ancarani and Shankar (2004); Auer and Papies (2020); Balasubramanian et al. (2005); Koukova et al. (2012); Mahajan et al. (2002); Mahar et al. (2014); Maronick and Stiff (1985); Millis and Zamudio (2018)
<i>Channels</i>	Consists of the people, organizations, and activities necessary to transfer, or distribute, the ownership of goods (products and services) from the point of production to the point of consumption.	Channel, power, countries, distribution, relationships, cultural, exchange, relational, legal, suppliers	Cannon et al. (2000); Dant et al. (2013); Hirschman et al. (2011); Sheng et al. (2018); Steenkamp and Geyskens (2012)
<i>Consumer Behavior</i>	Topic concerns studies examining 1) design and measurement issues for measuring myriad effects of consumer behavior and 2) how consumers choose, purchase, consume and dispose of goods, ideas and services.	Consumer, decision, behavior, information, influence, process, purchase, consumption, buying, behavioral	Bagga et al. (2019); Haws et al. (2012); Hoyer and Stokburger-Sauer (2012); Jiang and Punj (2010); Lim et al. (2021); Mende et al. (2019); Trujillo and DeBerry-Spence (2019)
<i>Marketing Communications</i>	Involves marketing communication efforts directed at consumers. Forms of communication include advertising, public relations, direct marketing, internet marketing, social media marketing, etc. It also concerns	Advertisingg, online, media, social, effectiveness, effects, information, content, message, communication	Chandrasekaran et al. (2017); Chen et al. (2019); Fossen and Bleier (2021); Gretz et al. (2019); Guitart et al. (2020); Luna et al. (2002); Wang et al. (2019)

Topic	Definition	Emergent Top Keywords	Selected Examples
	user-generated content in social media and internet.		

Table 3. Themes typology by decade using SciMat analysis

Decade	Core themes	Related themes	Developing themes	Declining themes	Specialized themes
1 (1973-1980)	<i>Sales management, consumer goods, consumers, marketing management, consumer preferences</i>	<i>Advertising, consumer behavior</i>	<i>Management, brand name products, statistical hypothesis testing</i>	-	<i>Purchasing, markets</i>
2 (1981-1990)	<i>Sales personnel, forecasting, marketing management, sales, consumers, consumer behavior</i>	<i>Advertising, marketing channels, decision making, retail industry</i>	<i>Market segmentation, attitudes, mail surveys, international trade</i>	<i>Consumer goods</i>	<i>Computers in education, problem solving, multidimensional scaling</i>
3 (1991-2000)	<i>Consumer behavior, marketing strategy, customer satisfaction, behavior, performance</i>	<i>Price, industrial management, consumer attitudes, quality, decision making, customer services</i>	<i>Consumers, marketing channels, organizational commitment</i>	<i>Advertising</i>	<i>Sales personnel, orientation, export marketing, marketing laws, conjoint analysis, education</i>
4 (2001-2010)	<i>Brands, products, capabilities, price, customer services, strategy</i>	<i>Trust, customer satisfaction, behavior, information, satisfaction, consumers</i>	<i>Performance, consumer behavior, electronic commerce</i>	<i>Consumer attitudes</i>	<i>Supply chains, job satisfaction, new product development, marketing channels, values</i>
5 (2011-2021)	<i>Relationship marketing, dynamic capabilities, shareholder value, performance, satisfaction</i>	<i>Consumption, market orientation, strategy, trust, sales, innovation, marketing strategy, behavior</i>	<i>New media, consumer behavior,</i>	<i>Firm and product quality, customer satisfaction</i>	<i>Service-dominant logic, corporate social responsibility, sales personnel, word-of-mouth, brand name products, price, involvement, structural equation models, marketing channels</i>

Table 4. Core, specialized, declining, and developing themes in decade 5 (2011-2021) using SciMat analysis*

Theme (<i>h-index</i>)	Type	Keywords
<i>Marketing strategy</i> (47)	Core	Economic competition, international business enterprises, strategic planning, marketing capabilities, orientation, knowledge, product development, resource-based view, organizational learning, organizational performance, grounded theory
<i>Firm performance</i> (43)	Core	Ambidexterity, organizational ambidexterity, fit indexes, goal orientation, new products, formal contracts, customer value, resource management, marketing management, regulatory focus, self-esteem
<i>Relationship marketing</i> (41)	Core	Customer loyalty programs, loyalty, business-to-business transactions, customer, experience, loyalty program, rewards programs, service, customer relationship management, customer loyalty
<i>Satisfaction</i> (35)	Core	Self-efficacy, relationship management, marketing in service industries, service failure, service providers, switching costs, retention, service quality, expectations, share, recovery
<i>Shareholder value</i> (34)	Core	Stock returns, firm value, strategic alliances, event, risk, financial performance, event study, stockholder wealth, rate of return on stocks, upper echelons, equity
<i>Structural equation models</i> (46)	Specialized	PLS-SEM, test validity, partial least squares, firm, customer relations, confirmatory factor analysis, measurement invariance, meta-analysis, measurement error, Monte Carlo simulation, goodness of fit
<i>Consumer preference</i> (41)	Specialized	Fairness, brand loyalty, product quality, consumer preferences, perceptions, preference, product, promotions, willingness to pay, conjoint analysis, consumer goods
<i>Service-dominant logic</i> (35)	Specialized	Service industries, participation, markets, value creation, innovations in business, value co-creation, customer co-creation, co-creation, co-production, customer participation
<i>Branding</i> (30)	Specialized	Diversification, identity, branding, attributions, brand extension, line extensions, categorization, memory, brand equity, commercial products, consumer psychology
<i>Corporate social responsibility</i> (29)	Specialized	Philanthropy, stakeholder theory, green marketing, stakeholders, supply chains, sustainability, social responsibility of business, social marketing, cause-related marketing, green, associations

<i>Word-of-mouth</i> (26)	Specialized	Word-of-mouth advertising, social media in business, internet marketing, reviews, social media, user-generated-content, customer reviews, product reviews, customer engagement, social media in marketing, communication
<i>Sales personnel</i> (22)	Specialized	Sales executives, sales force, role conflict, sales management, salespeople, personal selling, salesperson performance, sales performance, working smart, competitive intelligence, selling
<i>Customer involvement</i> (16)	Specialized	Source credibility, persuasion
<i>Marketing channels</i> (11)	Specialized	Channels, influence strategies
<i>Customer satisfaction</i> (40)	Declining	Satisfied customers, panel data, marketing-finance interface, control systems, encounters, failure, returns, heterogeneity, service recovery, user acceptance, productivity
<i>Firm and product quality</i> (24)	Declining	Economics, employees
<i>New media</i> (44)	Developing	Discount prices, advertisements, marketing theory, artificial intelligence, internet, social presence, electronic commerce, consumption, food labelling, brand image, online shopping
<i>Consumer behavior</i> (37)	Developing	Retail stores, brand personality, shopping, brand community, customer journey, dimensions, intentions, variety seeking, social influence, customer experience, affect

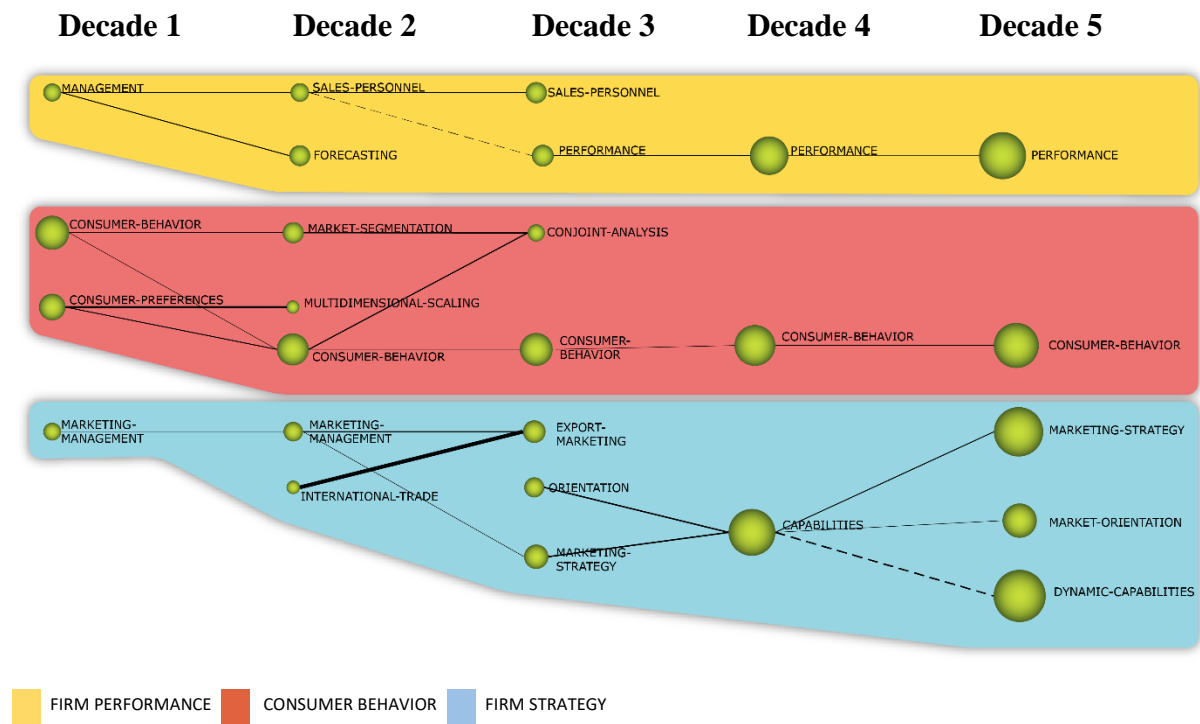
*Although SciMat suggests the names of the theme, we slightly modify some of the names as for consistency and to better reflect the overall theme.

Table 5. JAMS topic clusters and influential authors/ articles

Cluster	Cluster focus	Cluster items	Examples of influential authors/articles	
			Title	Cites
<i>Cluster 1 Red 12 items</i>	Advertising and the creation of brand and customer value	Advertising, brand equity, B2B marketing, customer loyalty, customer orientation, customer value, incentives, motivation, personal selling, promotions, sales management, sales performance	Woodruff R.B. (1997). Customer value: The next source for competitive advantage	2,295
<i>Cluster 2 Green 11 items</i>	Customer experience and satisfaction	Competition, culture, customer experience, customer satisfaction, e-commerce, international marketing, meta-analysis, pricing, service quality, social media, willingness to pay	Szymanski D.M., Henard D.H. (2001). Customer satisfaction: A meta-analysis of the empirical evidence	1,173
<i>Cluster 3 Blue 10 items</i>	Corporate social responsibility and market orientation as a sustainability strategy	Cause-related marketing, China, consumer behavior, corporate social responsibility, ethics, institutional theory, market orientation, marketing, strategy, sustainability	Maignan I., Ferrell O.C. (2004). Corporate Social Responsibility and Marketing: An Integrative Framework	849
<i>Cluster 4 Gold 10 items</i>	Marketing strategy, particularly innovation and new product development and its relationship with performance	Dynamic capabilities, financial performance, grounded theory, innovation, marketing capabilities, marketing strategy, new product development organizational learning, performance, supply chain management	Menon A., Bharadwaj S.G., Howell R. (1996). The quality and effectiveness of marketing strategy: Effects of functional and dysfunctional conflict in intraorganizational relationships	325
<i>Cluster 5 Purple 10 items</i>	Relationship marketing and the importance of trust and loyalty in customer satisfaction	Brand personality, customer acquisition, customer retention, loyalty, relationship marketing, scale development, service marketing, services, trust, word of mouth	Dick A.S., Basu K. (1994). Customer loyalty: Toward an integrated conceptual framework	3,022

<i>Cluster 6 Aqua Blue 9 items</i>	Firm performance and shareholder value particularly in emerging markets	Branding, customer engagement, emerging markets, event study, firm performance, new products, retailing, service innovation, shareholder value	Pelham A.M., Wilson D.T. (1996). A longitudinal study of the impact of market structure, firm structure, strategy, and market orientation culture on dimensions of small-firm performance	558
<i>Cluster 7 Orange 8 items</i>	Service-dominant logic and its relationship with service recovery and failure	Co-creation, co-production, service failure, service recovery, service-dominant logic, services marketing, value, value co-creation	Vargo S.L., Lusch R.F. (2008). Service-dominant logic: Continuing the evolution	3,413
<i>Cluster 8 Brown 7 items</i>	Customer relationship management and analytical models and approaches used	Customer relationship management, partial least squares, salesperson performance, structural equation modelling, survey research	Bagozzi R.P., Yi Y. (1988). On the evaluation of structural equation models	12,950
<i>Cluster 9 Pink 4 items</i>	Job satisfaction and salespeople performance	Decision making, salespeople, satisfaction, social influence	Rich G.A. (1997). The sales manager as a role model: Effects on trust, job satisfaction, and performance of salespeople	271

Figure 1. Across decades evolution of selected themes



Note: Sphere size represents the number of documents. Solid lines represent conceptual nexus while dotted lines represent component nexus. Lines thickness is proportional to inclusion index (0.2 to 1.0).

Figure 2. Related sub-topics trends using NVivo (based on abstracts)

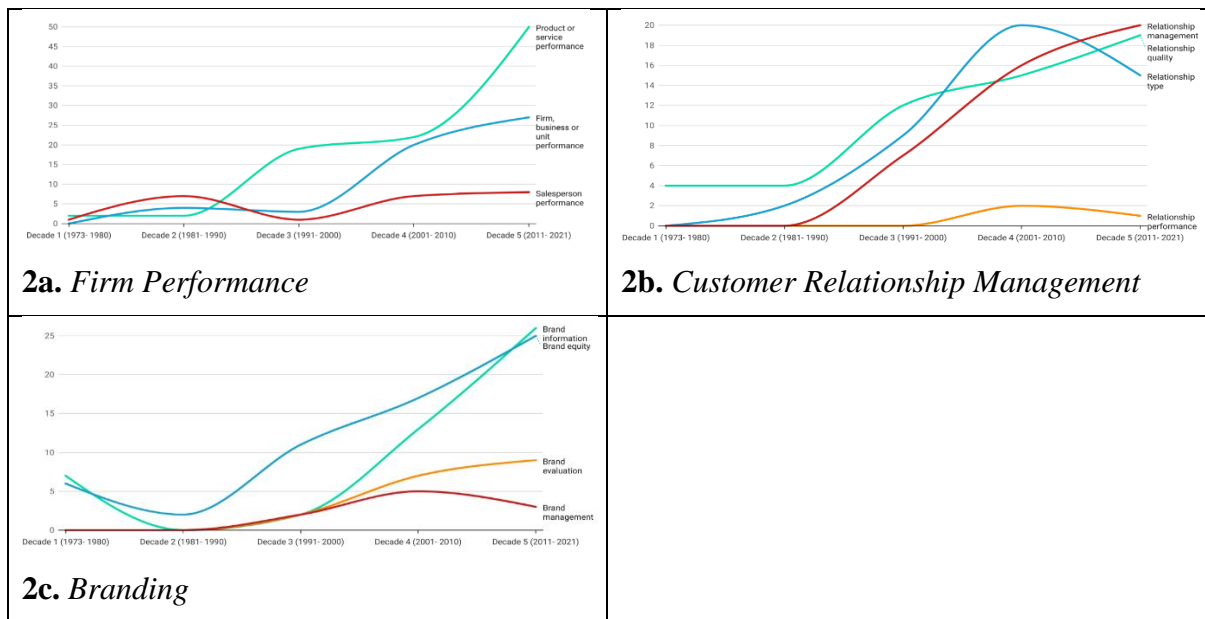
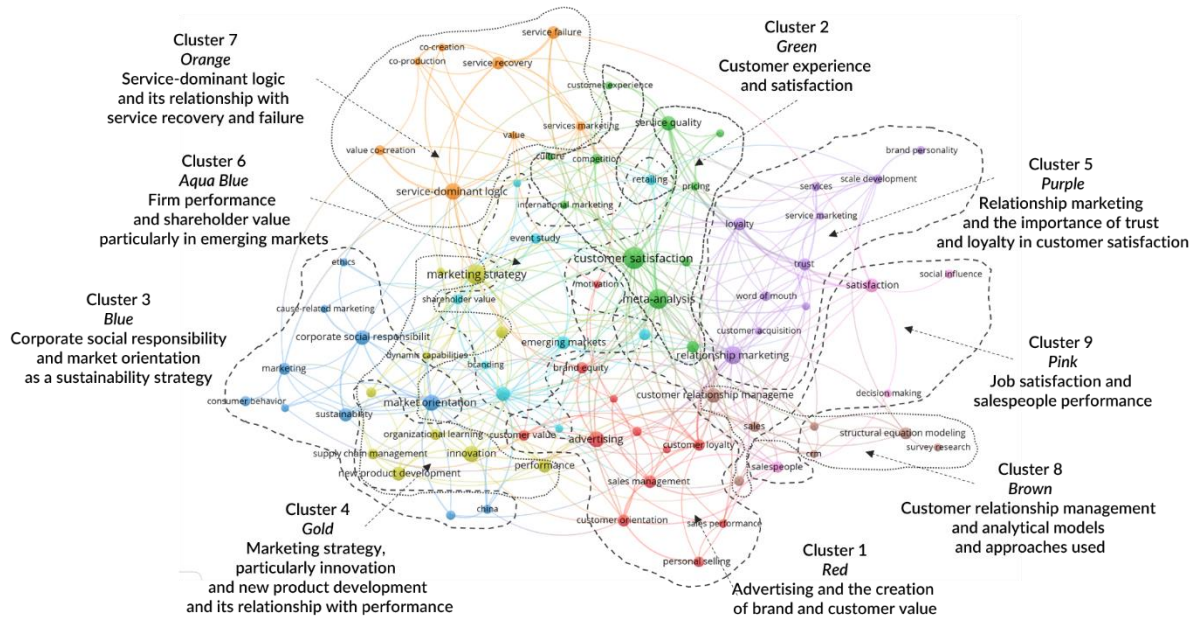


Figure 3. VOSviewer author keywords co-occurrence network with nine major clusters



Appendix A: Overview of Methods

Latent Dirichlet allocation (LDA) approach

Specifically, we considered three parts to the hidden structure; at first, we looked for a representative set of topics. Because we were interested in the breadth of JAMS' coverage, our topic model assumed a fixed number of hidden topics across the abstracts, and identified each abstract as a weighted blend of each topic. We noted that each article effectively contained a weighted blend of the topics, which the LDA model uncovered as 'optimal'. For example, an article could have high weights for topics, such as *Marketing Mix* and *Branding*, and in the process, belong to multiple topics. Then, we noted that the model generated an assignment of specific words from each featured topic to the article (e.g. articles dealing with the topic *Customer Relationship Management* use the words *customer*, *relationship*, and *satisfaction* with much higher frequency than articles that focus on other topics). Importantly herein, our topic model assumed a fixed number of hidden topics across abstracts, and identified each abstract as a weighted blend of each topic. The model specifically used the *Dirichlet* distribution to estimate each of the abstracts' precise weights, and thereby derived the distribution of words belonging to each topic. We named the topic manually after discovery as *Marketing Mix*.

Initially, we used the perplexity score (i.e., a fit criteria) to determine the optimal number of topics, and arrived at 20 topics. On manual inspection, we found that some topics were redundant, overlapping with one another. Thus, instead of relying on the perplexity score, we explored a number of topics, ranging from 10 to 19. Further, using a smaller number of topics, such as 10 omitted some of the major topics that *JAMS* covered based on our manual inspection. On the other hand, using a higher number, such as 18 leads to the same scenario as 20 topics. Thus, we used 15 topics as the fixed number of topics. Below, we provide the mathematical description of the LDA model. The following generative process has been used for each document w in a corpus D (Blei, Ng, and Jordan 2003):

1. Choose $N \sim \text{Poisson}(\varepsilon)$
2. Choose $\theta \sim \text{Dir}(\alpha)$
3. For each of the N words w_n :
 - a. Choose a topic $z_n \sim \text{Multinomial}(\theta)$
 - b. Choose a word w_n from $p(w_n | z_n, \beta)$

Given some parameters α and β , the joint distribution of a topic mixture θ , set of N topics z , and a set of N words w is given by:

$$p(\theta, z, w | \alpha, \beta) = p(\theta | \alpha) \prod_{n=1}^N p(z_n | \theta) p(w_n | z_n, \beta)$$

The LDA method must solve the following to compute the posterior distribution of the latent variables in a document. We use the Gibbs sampling method in this paper.

$$p(\theta, z | w, \alpha, \beta) = \frac{p(\theta, z, w | \alpha, \beta)}{p(w | \alpha, \beta)}$$

SciMat analysis

SciMat uses co-word analysis, citations, and several bibliometric measures, including the h-index (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011) to map and track

conceptual sub-domains (themes and thematic areas) over time from a selected sample of documents. We only used ‘articles’ in our analysis, removing any other document type (e.g. editorials, letters, erratum, book reviews, etc.) from our dataset. The methodology involved five main steps (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011): 1) collection of raw data, 2) selection of the type of item for analysis, 3) extraction of relevant information from the raw data, 4) calculation of similarities between items based on the extracted information, and 5) use of a clustering algorithm to detect the topics. The clustering algorithm used, comprised simple centers algorithm, while the association strength was chosen as the normalization measure. Notably, we used both the Inclusion and Jaccard’s index to create the evolution map and overlapping map respectively.

NVivo analysis

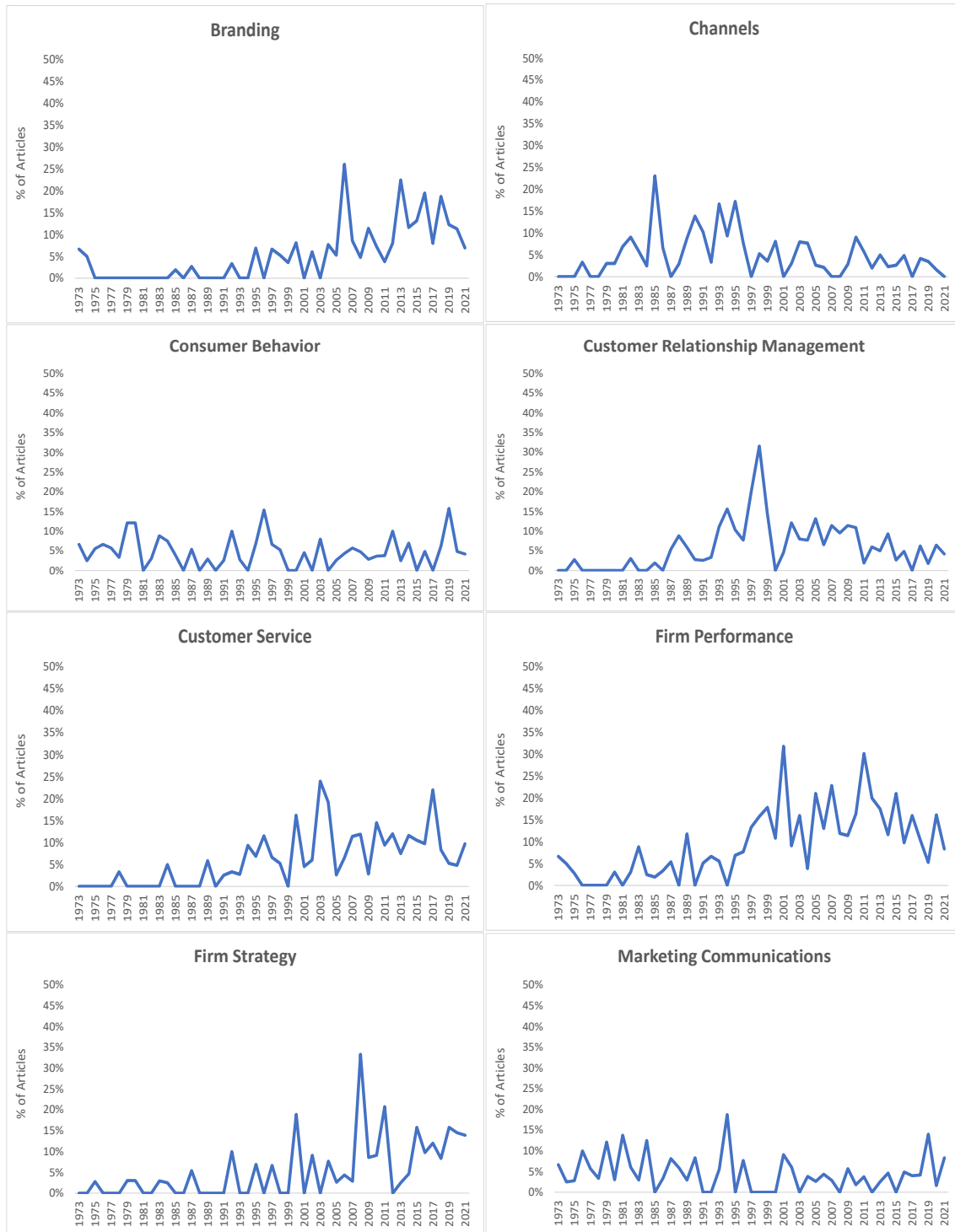
NVivo consists of a qualitative data analysis tool, used in both small and large datasets (QSR International 2019). Because of the large amount of data, NVivo does have an advantage over manual coding. This coding resulted in topics, which we teased out according to the level of analysis that we wanted (please refer to the Results section). Then, we compared the same with the results of the LDA analysis to check for consistency. It may be noted herein that each topic was attributed to a ‘reference’; a high number of references does indicate a stronger topic. A topic can be considered as a category, and NVivo also results in a number of sub-topics under each major topic.

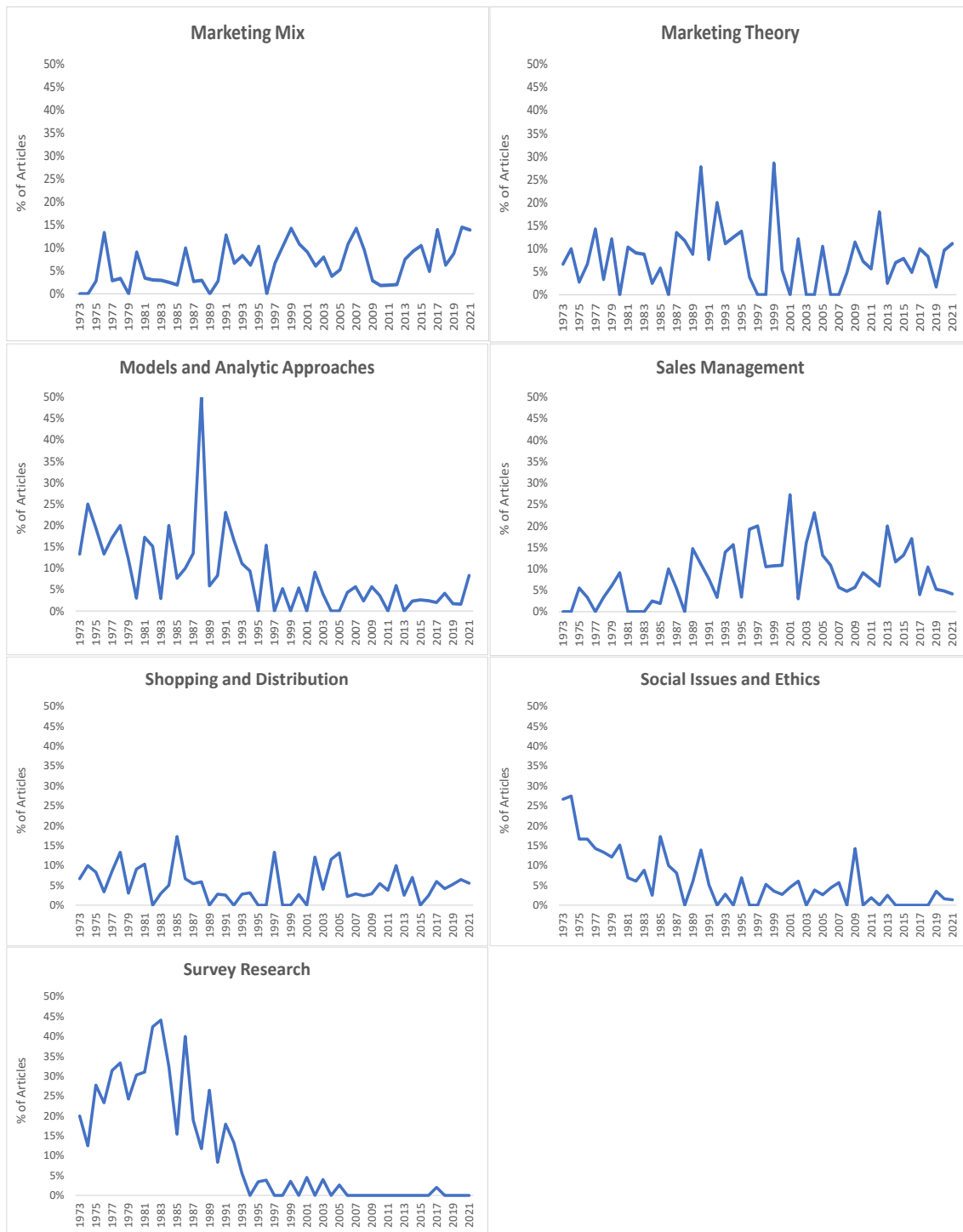
Network/ Community analysis

Kumu specifically incorporates both social network analysis and community detection, which enable the use of the Speaker-listener Label Propagation Algorithm (SLPA) in detecting overlapping communities. Specifically, the SLPA algorithm uses strength of association values (1 being highest); while other algorithms are used to detect communities (e.g. Chen, Fu and Shang 2009; Emmons et al., 2016; Liu and Murata 2009). SLPA is regarded as being more powerful (Kumu, 2021; Xie, Szymanski and Liu 2011), particularly in detecting overlapping communities, which in turn, reveal the associations with one community and other distant communities (Kumu, 2021; Yang & Leskovec, 2012), often regarded as being more true about community membership (e.g. authors do not simply work on a single topic or keywords are used often with others). We focused our analysis on the strength of association values, no lower than an arbitrary cutoff of .95. We also used the authors, author keywords and source keywords for network analysis.

VOSviewer on the other hand, defines clusters as non-overlapping within its community maps (VOSviewer, 2021). We thereby chose to use both *Kumu* and *VOSviewer* to evaluate any differences between algorithms that possibly detect overlapping and non-overlapping communities or clusters. Similar to *Kumu*, we assigned weights to the items in *VOSviewer*, whereby those with higher weights were shown more prominently in the network map, as compared with those with lower weights. Importantly, *VOSviewer* does recognize Scopus data, and there is no need to prepare the data unlike in *Kumu*. Thus, *VOSviewer* can identify authors and author keywords within a Scopus extracted file. Keyword topics and authors belonging to the same community seem to be more similar to each other than to those in other communities. Their strength of association may be likened to a probability of belonging to a community (Kumu, 2021). Thus, a community indicates topics that closely relate to each other (e.g. used together in an article or investigated simultaneously), and authors that tend to work on the same topics (e.g. being in a ‘club’ together).

Appendix B: Evolution of Major Topics in *JAMS* (LDA analysis)





Appendix C: Keywords evolution analysis

We also present a keywords evolution analysis, using an overlapping map (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011). It serves as a proxy of how dynamic the journal has been in incorporating new topics. Figure 4 depicts four different pieces of information, wherein each circle represents each of the five decades analyzed with the corresponding number of keywords inside the circle. The horizontal arrows represent the keywords shared between each decade (with the similarity index in parentheses). Notably, the similarity index is a measure calculated, based on frequencies of keywords' co-occurrences (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011). The upper-incoming arrows represent the number of new keywords incorporated in the following decade, while the upper-outcoming arrows represent discontinued keywords. The increasing number of keywords included in the last two decades (Decade 4 and Decade 5), along with the high number of keywords being discontinued in Decade 4, despite consolidation in terminology does suggest a dynamic research environment with the need to use new terminology to explain new research problems better. Importantly, this is not surprising, given that there have been changes both to technology and consumer behavior, especially within the last two decades, which have challenged the marketing discipline and society at large.

Figure 4. Keywords overlapping map

