MAPPING WINE BUSINESS STUDIES: PART 1, THE INTERNATIONAL JOURNAL OF WINE BUSINESS RESEARCH

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Abstract

In 2007, the International Journal of Wine Marketing (IJWM) transitioned to the International Journal of Wine Business Research (IJWBR). The authors of the inaugural editorial in the newly minted journal described a 'roadmap' for wine business researchers; an invitation to fulfill a future research vision. The authors called upon researchers to expand their topical gaze and to broaden the areas of wine business they studied in a movement designed to explore beyond the marketing origins of the IJWM. This begs three questions: (1) what has been done since the inaugural editorial; (2) did we achieve the goals set out in that editorial; and (3) how does this compare to what was done in the IJWM era. The first part of our research answers questions 1 and 2. Here we use bibliometric and social network analyses to evaluate how well we have explored the terrain as called for over a decade ago. Our results lead us to three conclusions. First, the research published in the journal has, indeed, moved beyond marketing. Second, the field has matured and has become more international and 'professional' in its approach to research activities. Finally, research on marketing and consumer behaviour still predominates.

Introduction

In 2007, the International Journal of Wine Marketing (IJWM) underwent a significant and important change. A change which saw a switch in publishing house and the journal's transition to the International Journal of Wine Business Research (IJWBR). The inaugural editorial of the newly minted IJWBR sought to position the publication somewhat differently than that of its predecessor. In that editorial, the authors envisioned and described a different kind of wine research landscape and a future they intended for the journal; one with an expanded scope and mandate. To that end, they comprehensively sketched out the contours and specific features of the wine business terrain to encourage researchers to "focus on all business aspects of the wine industry" which they believed needed to be explored going forward. They saw this approach as both a "significant expansion compared to the narrow scope of 'wine marketing'" which dominated the journal prior to its re-launch and a necessary step for the "growth of the academic field of wine business (Orth, Lockshin, & d'Hauteville, 2007, p. 5).

With the IJWBR firmly into its second decade, we believe that we are perhaps now overdue in taking stock of – and reflecting upon – the collective research published within the journal. Accordingly, the objective of this paper is to systematically review, evaluate, and present an assessment of the journal since the transition in 2007. Specifically, our goal is to assess what progress has been made when comparing the research published within the journal against the features and benchmarks as outlined and described in that first editorial.

In the following sections, we first present a brief summary of the types of literature and journal reviews to be found within the broader wine studies domain. We then situate and describe our

own mixed approach which employs both narrative and quantitative methods to evaluate the contents of the IJWBR. We then present our results within the context of the roadmap as laid out in that first editorial while highlighting those areas that have been explored further and those which have not. We conclude with general observations on the implications of this evaluation of the overall progress and nature of the research in the journal.

Literature Review and Problem Studied

The Disparate Nature of Wine Studies Reviews

The review of prior research within a domain of interest is not only a form of scholarly reflection (Low & MacMillan, 1988) but also a critical part of the advancement of research in the social sciences (Tranfield, Denyer, & Smart, 2003). Journal reviews of research are intellectual maps (Soós, Vida, & Schubert, 2018) that serve to: inform both academic and non-academic audiences; identify and indicate new areas of potential enquiry; or help shape and improve academic and professional practices (Briner, Denyer, & Rousseau, 2009; Shepperd, Adams, Hill, Garner, & Dopson, 2013). While numerous strategies have been identified for conducting reviews (Grant & Booth, 2009) there are two broad forms of reviews published in journals: Narrative and Systematic reviews. While the objectives of each type are the same – a synthesis of work and thought within a field or sub-field – they each have distinct features and characteristics. Narrative reviews tend to be qualitative evaluations based upon a selection of literature from within a domain while Systematic reviews tend to be quantitative evaluations of a domain's entire corpus of literature.

Each of these approaches has its own methodological challenges. Narrative reviews are a synthesis of a sub-section of disciplinary literature and thus are open to assumptive or implicit selection biases (Fink, 1998; Hart, 1998). While more comprehensive, systematic reviews are challenged by an overreliance on electronic databases and the under-representation of disciplinary texts (Pittaway, Robertson, Munir, Denver, & Neely, 2004), and/or relevant grey literatures (Adams, Smart, & Sigismund Huff, 2017). Despite these shortcomings, the potential for transparency and reproducibility has meant that systematic reviews are rapidly becoming more dominant across various disciplinary domains. Drawing upon initial work on systematic reviews in the field of medicine, the concept of systematic reviews has been well adopted in the general management and business literatures (Denyer & Tranfield, 2009; Rousseau, Manning, & Denyer, 2008; Tranfield et al., 2003).

The study of wine and wine business – its production, trade, and consumption – is a subject which crosses many traditional disciplinary boundaries. Therefore, the academic corpus of wine studies is quite fragmented; published in a multitude of journals located across many disciplines (McIntyre, 2017). This has meant that reviews of wine research vary widely in both their scale and scope and have been largely topically focused.

The topical structuring of narrative wine reviews tend to: reflect the nature of the authors' research such as in their analysis of wine consumer behaviours (Lockshin & Corsi, 2012); be grounded in the disciplinary remit of the journal in which the review is published, such as the review tracing the evolution of performance evaluation of wineries as small businesses (Maurel, Ugaglia, & Del'homme, 2017); or serve both goals simultaneously (for example see Carlsen, 2004; Mitchell & Hall, 2006 and their wine tourism reviews). The inter-disciplinary nature and scattered corpus of the wine literature has meant that comprehensive, broad and structurally multi-topical, narrative reviews of wine research are almost non-existent. Bonn, Cho and Um's very recent three-decade review of wine studies topics and trends being the exception (2018).

Within both the science and social science literatures, bibliometric reviews of wine studies and wine business research are still a relatively new phenomenon; they tend to lag the narrative form in terms of their overall number. While quantitatively rather than qualitatively based, bibliometric reviews, like their narrative counterparts, may also topically map wine research in areas as varied as the wine-health research nexus (Aleixandre, Aleixandre-Tudó, Bolaños-Pizzaro, & Aleixandre-Benavent, 2013); or wine tourism (Durán-Sánchez, Álvarez-García, de la Cruz del Río-Rama, & González-Vázquez, 2016; Sánchez, de la Cruz Del Río Rama, & García, 2017).

However, unlike the narrative review, the focus of many of these bibliometric reviews remains focused on the mechanisms and processes through which wine research is conducted; rather than on wine or wine business as the subject of study. In this regard, these types of reviews investigate citation and co-citation, or author and co-author relationships or networks, in order to surface 'invisible colleges' (Cassi, Morrison, & Rabellotti, 2015; Cassi, Morrison, & Ter Wal, 2012); evaluate research productivity (Aleixandre, Aleixandre-Tudó, Bolaños-Pizzaro, & Aleixandre-Benavent, 2015); identify emerging trends (Santini, Cavicchi, & Casini, 2013); or investigate the relationship between the emergence of national wine markets and wine research (Glanzel & Veugelers, 2006).

Though the research published in IJWM and subsequently IIJWBR has been incorporated into both narrative and bibliometric reviews, these reviews have been topically rather than journal focused. Of the two wine studies journals with the longest academic pedigree; the IJWM/IJWBR and the Journal of Wine Research, only the latter has been the subject of a journal-level bibliometric analysis (Paschen, Wilson, Nehajowich, & Prpić, 2016). A gap this program of research is designed to address.

Research Objective

In this paper, our objective is to assess the topical structure and evolution of the published research featured in the IJWBR since its transition from the IJWM in 2007 and to evaluate the body of research against the call made in the inaugural editorial.

Research Methodology

In order to systematically review and evaluate a body of literature, a well thought-out analytical scheme is considered critical (Ginsberg & Venkatraman, 1985) as an explicit rule-based approach results in a transparent and reproducible procedure leading to enhanced fidelity of results and improved quality of synthesis (Tranfield et al., 2003). Fortunately, both the IJWBR itself and the inaugural editorial provide the foundation for just such an approach. In the case of the former, the journal serves to delineate the specific and relevant literature, that is, the entirety of research articles published in the IJWBR. In the case of the latter, in their inaugural editorial the authors provided a comprehensive pre-defined constellation of topics to measure progress against (see Table 1 for the topic areas outlined by Orth et. al.).

The data for this study were collected using the authors' university library subscription services. Access was gained via two separate databases: Emerald Management 120 and ProQuest ABI/INFORM Global. The citation data (i.e., Author(s), Title, Date, Volume/Issue, Pages, Keywords, and Abstract) were downloaded for each article published in the IJWBR from 2007 to 2017. The resulting data sets were then manually cross-checked to identify errors or omissions (e.g., ProQuest did not maintain editorial articles in its data records) and to ensure that the article set was as complete as possible. The data were imported into Microsoft Excel for further cleaning and processing.

Data cleaning consisted of checking to ensure all information elements had successfully been downloaded, that data fields were filled correctly, and missing data or spelling errors/inconsistencies were corrected. Once editorials, calls for papers, and publisher announcements were removed, the article data set included citation information on 224 articles representing all the research published in the IJWBR, Volumes 19 through 29. These data were then used to generate descriptive statistics of authorship (see Table 2), and article metrics including counts, keywords, and pages (see Table 3). The five topics that exhibited the greatest growth are shown as a trend analysis (see Figure 1).

Keywords selected by authors represent theories, concepts, subjects, and methods and are used to describe the work found in the contents of their submitted manuscripts (Abrahamson, 1996; Su & Lee, 2010; Yi & Choi, 2012). As this research is exploratory in nature, keywords rather than full articles were used to map the IJWBR research by using co-word analysis techniques (Salton & McGill, 1986; Wang, Zhao, & Wang, 2015). This approach represents a pragmatic balance between having a comprehensive sample – all keywords for all articles in the IJWBR since 2007 – while avoiding the pitfalls of potentially detailed coding of a non-representative sample.

Keyword data were used for two purposes in this research. First, they were used to evaluate how well the research published in the IJWBR has explored the topical landscape as desired by Orth, Lockshin and d'Hauteville (2007). To do this, the keywords were re-coded into the topic areas as described in their editorial. Coding of keywords was carried out until a consensus mapping of keywords to topics had been achieved.

Second, the keywords were then used as data for a network analysis to map the core-periphery relationships in the structure of research topics published in the IJWBR. This was done by exporting the data from Excel, constructing a keyword adjacency matrix, and then processing the matrix using network analysis software; Gephi version 0.9.2. Gephi is an open source software application commonly used for network analysis exploration and visualization in bibliometric studies (https://gephi.org/). This process allows us to surface the topical structure (Zupic & Čater, 2014) of research activity which has been published within the IJWBR (see Table 4 and Figure 2).

Results/Findings

The IJWBR Keyword Network

Table 4 presents the network statistics for the entire IJWBR keyword network. Between 2007 and 2017 authors submitted some 494 unique keywords to describe their submitted research (keyword frequency tables are not presented here for reasons of brevity). Figure 2 is a network visualization calculated from the keyword adjacency matrix. It is a representation of the network attributes for the 45 most frequently used keywords; the core of the keyword network structure found in the IJWBR article data set. Each node in the visualization represents a keyword.

The size of a node represents the degree centrality of the keyword within the network. The larger the node, the more interconnected it is within the network and therefore the greater importance it has for the structuring of the network. Edges (lines) in the network topology represent the relationships found between the keywords within the data set. The greater the number of articles which use the same keywords in their citation data means a stronger relationship between keywords in the network topology. The strength of this relationship is

depicted by the variation in the thickness of the edges. The thicker the edges the stronger the relationship. Therefore, the larger the node, the more importance a keyword has to the structure of the entire network of keywords. The thicker the edges, the stronger the relationships between keywords within the structure. When taken together, nodes and edges allow us to classify sets of keywords into communities that share similar structural attributes. These communities are indicated by the variations in the colour of the nodes and edges. In other words, if the author-selected keywords for the articles published in the IJWBR are representative of the content of the published manuscripts, Figure 2 reflects the weighted topical structure of research published in the journal.

The quantitative conclusions which may be drawn from the network statistics indicate that the keyword nodes dominating the core structure of the network center on Consumer Behaviour, Survey Research, United States of America, and Marketing Strategy. These are the primary nodes around which the structure of separate topical communities is formed. The Consumer Behaviour node commands a central position in the network and thus serves as a critical connection to the other nodes and topical communities. Marketing and Marketing Strategy topical communities are also prominent central structural features. Tourism, research sites (countries), and research methods/analysis comprise the other communities surrounding the core. Overall, then, marketing and related topics dominate the network.

Trend Analysis

While qualitative inferences may be drawn from a static visualization of a network structure (Boyack & Klavans, 2014), a more refined qualitative interpretation (Schmiedel, Müller, & vom Brocke, 2018) is possible when topic analysis over time, or trends, are also taken into consideration.

Articles, authorship and collaboration

There has been an increase in the number of keywords per article and the average article page length. The increase in unique keywords indicates that the content of research articles now includes a more diverse range of topics than previously published. The trend in the author/article statistics also shows more variety in multi-authored collaborations.

Trend analysis of inaugural topics

Research in four inaugural topic areas has seen greater rates of inclusion within the journal: Methods, Internationalization, Marketing, and Consumer Behaviour. One additional coded topic area which was not identified as an inaugural topic – but which is a positive and complementary trend nonetheless – was in the 'Other or New' category. This was the category used to code those keywords that did not fit within any of the inaugural topic areas but were included as keywords by submitting authors (e.g., sustainability, climate change, etc.). While these trends would seem to indicate that progress has been made in meeting the call for increased diversity in the study of wine business as published in the journal, marketing and consumer behaviour-oriented research has still managed to maintain a core position at the heart of the journal.

Taken together, the IJWBR is seeing more complex methods of analysis being used in research; a general movement beyond the presentation of descriptive or univariate statistics towards more complex methods such as multivariate regression and modeling. The IJWBR is also seeing greater levels of internationalization – in terms of both research sites and author nationality - with more research being conducted in more countries than was previous. The increase in keyword diversity, page length, collaboration and new topic areas can be interpreted as

indicators that the journal continues to publish a greater and more diverse range of research in wine business studies.

The pattern of these trends was similarly observed in the analysis of research published in the Journal of Wine Business Research (Paschen et al., 2016) and in the closely related domains of wine tourism (Gomez, Pratt, & Molina, 2018) and in the hospitality, leisure and tourism literature (Henriksen, 2016). These indicators also trend in parallel with broader movements observed in journals across the social sciences as a whole. Increased collaboration is attributed to factors such as increased specialization and division of labour within research collaboration (e.g., a preferred strategy for dealing with more complex methodological requirements). Improved inter-researcher communication infrastructure and technologies (e.g., email, skype, etc.) has further facilitated collaboration. Moreover, global growth in graduate programs (e.g., supervisor-student co-authorship) inter-institutional collaboration and internationalization or globalization of research projects) are on the rise in both science and the social sciences in general (Cronin, Shaw, & LaBarre, 2004).

Conclusion

Journals are the primary mechanism through which members of disciplines, fields, and subfields of the academy communicate with one another about their research areas, their subjects, and their results (Baumgartner & Pieters, 2003). While bibliographic metrics of journals are grounded solidly in quantitative analysis, their use can also be applied within a qualitative and interpretative framework. Together this approach allows us to evaluate and interpret the various dimensions of the scholarly work taking place within wine business studies; such as topical structures, their forms and relations, and their emergence, decline, or obsolescence (Narin, Olivastro, & Stevens, 1994). In other words, these methods allow us to surface and make visible, in part, our collective "intellectual heritage and evolution" (Herubel, 1999, p. 381).

This study provides us a small retrospective window into the IJWBR's academic endeavours in wine business. It aids in our overall understanding of the nature and topical structure of the research published in the journal over the last decade. The results show that collectively we have addressed many of the concerns expressed in the inaugural call for a broader and more diverse range of topics "that address those areas outside marketing where wine-related research has traditionally remained less prominent" (Orth et al., 2007, p. 10). However, the results should spur us to acknowledge that more needs to be done in several topic areas (see Table 1). Either because we have not turned our research gaze to them or because they are new and emergent. Most importantly, however, we take the trends we have observed as positive signs of the maturation of wine business studies as a field as called for a decade ago. A hypothesis we will be testing in the next phase of our research.

References

Abrahamson, E. (1996). Management Fashion. *Academy of Management Review, 21*(1), 254-285.

Adams, R., Smart, P., & Sigismund Huff, A. (2017). Shades of Grey: Guidelines for working with the grey literature in Systematic reviews for management and organization studies. International Journal of Management Reviews, 19(4), 432-454.

Aleixandre, J., Aleixandre-Tudó, J., Bolaños-Pizzaro, M., & Aleixandre-Benavent, R. (2013). Mapping the Scientific Research on Wine and Health (2001–2011). Journal of Agricultural and Food Chemistry, 61(49), 11871-11880. doi:10.1021/jf404394e

Aleixandre, J., Aleixandre-Tudó, J., Bolaños-Pizzaro, M., & Aleixandre-Benavent, R. (2015). Global trends in scientific production in enology and viticulture in selected emerging economies (BRIC). Scientometrics, 103(2), 649-668. doi:10.1007/s11192-015-1543-4

Baumgartner, H., & Pieters, R. (2003). The Structural Influence of Marketing Journals: A Citation Analysis of the Discipline and Its Subareas Over Time. Journal of Marketing, 67(2), 123-139.

Bonn, M., Cho, M., & Um, H. (2018). The Evolution of Wine Research: A 26 Year Historical Examination of Topics, Trends and Future Direction. International Journal of Contemporary Hospitality Management, 30(1), 286-312.

Boyack, K., & Klavans, R. (2014). Creation of a highly detailed, dynamic, global model and map of science. Journal of the Association for Information Science and Technology, 65(4), 670-685. doi:doi:10.1002/asi.22990

Briner, R., Denyer, D., & Rousseau, D. (2009). Evidence-based management: concept cleanup time? Academy of Management Perspectives, 23, 19-32.

Carlsen, J. (2004). A Review of Global Wine Tourism Research. Journal of Wine Research, 15(1), 5-13. doi:10.1080/0957126042000300281

Cassi, L., Morrison, A., & Rabellotti, R. (2015). Proximity and Scientific Collaboration: Evidence from the Global Wine Industry. Tijdschrift voor economische en sociale geografie, 106(2), 205-219. doi:doi:10.1111/tesg.12137

Cassi, L., Morrison, A., & Ter Wal, A. (2012). The Evolution of Trade and Scientific Collaboration Networks in the Global Wine Sector: A Longitudinal Study Using Network Analysis. Economic Geography, 88(3), 311-334. doi:doi:10.1111/j.1944-8287.2012.01154.x

Cronin, B., Shaw, D., & LaBarre, K. (2004). Visible, Less Visible, and Invisible Work: Patterns of Collaboration in Twentieth-century Chemistry. Journal of the American Society for Information Science and Technology, 55(2), 160-168.

Denyer, D., & Tranfield, D. (2009). Producing a Systematic Review. In D. Buchanan & A. Bryman (Eds.), The Sage Handbook of Organizational Research Methods (pp. 671-689). London: Sage.

Durán-Sánchez, A., Álvarez-García, J., de la Cruz del Río-Rama, M., & González-Vázquez, E. (2016). Literature Review of Wine Tourism Research: Bibliometric Analysis (1984–2014). In M. Peris-Ortiz, M. Del Río Rama, & C. Rueda-Armengot (Eds.), Wine and Tourism: A Strategic Segment for Sustainable Economic Development (pp. 257-273). Cham: Springer International Publishing.

Fink, A. (1998). Conducting Research Literature Reviews: From paper to the internet (Vol. Sage Publications): London.

Ginsberg, A., & Venkatraman, N. (1985). Contingency Perspective of organizational strategy: a critical review of empirical research. Academy of Management Review, 10, 421-434.

Glanzel, W., & Veugelers, R. (2006). Science for Wine: A Bibliometric Assessment of WIne and Grape Research for Wine-Producing and Consuming Countries. American Journal of Enology and Viticulture, 57(1), 23-32.

Gomez, M., Pratt, M., & Molina, A. (2018). Wine Tourism Research: A Systematic Review of 20 Vintages from 1995-2014. Current Issues in Tourism. doi:doi.org/10.1080/13683500.2018.1441267

Grant, M., & Booth, A. (2009). A Typology of Reviews: An Analysis of 14 Review Types and Associated Methodolgy. Health Information and Libraries Journal, 26, 91-108

Hart, C. (1998). Doing a literature review: Releasing the social science research imagination. London: Sage Publication.

Henriksen, D. (2016). The rise in co-authorship in the social sciences (1980–2013). Scientometrics, 107(2), 455-476. doi:10.1007/s11192-016-1849-x

Herubel, J. (1999). Historical Bibliometrics: Its Purpose and Significance to the History of Disciplines. Libraries and Culture, 34(4), 380-388.

Lockshin, L., & Corsi, A. (2012). Consumer behaviour for wine 2.0: A review since 2003 and future directions. Wine Economics and Policy, 1(1), 2-23. doi:https://doi.org/10.1016/j.wep.2012.11.003

Low, M., & MacMillan, I. (1988). Entrepreneurship: Past Research and Future Challenges. Journal of Management, 14(2), 139-161.

Maurel, C., Ugaglia, A., & Del'homme, B. (2017). Evolution of the concept of performance in the wine industry: a literature review. International Journal of Entrepreneurship and Small Business, 32(1-2), 254-279. doi:10.1504/ijesb.2017.086004

McIntyre, J. (2017). WIne Studies in the Humanities and the Social Sciences: A Report on Symposia and the State of the Field. Journal of Wine Research, 28(2), 159-164.

Mitchell, R., & Hall, C. (2006). Wine Tourism Research: The State of Play. Tourism Review International, 9(4), 307-332.

Narin, F., Olivastro, D., & Stevens, K. (1994). Bibliometrics: Theory, Practice and Problems. Evaluation Review, 18(1), 65-76.

Orth, U., Lockshin, L., & d'Hauteville, F. (2007). The global wine business as a research field. International Journal of Wine Business Research, 19(1), 5-13. doi:doi:10.1108/17511060710740316

Paschen, J., Wilson, M., Nehajowich, J., & Prpić, J. (2016). Fine wine through time: a review of the Journal of Wine Research. Journal of Wine Research, 27(2), 91-104. doi:10.1080/09571264.2016.1173534

- Pittaway, L., Robertson, M., Munir, K., Denver, D., & Neely, A. (2004). Networking and innovation: a systematic review of the evidence. International Journal of Management Reviews, 5(6), 137-168.
- Rousseau, D., Manning, J., & Denyer, D. (2008). Evidence in management and organizational science: assembling the field's full weight of scientific knowledge through syntheses. Academy of Management Annals, 2, 475-515.
- Salton, G., & McGill, M. (1986). Introduction to Modern Information Retrieval: McGraw-Hill, Inc.
- Sánchez, A., de la Cruz Del Río Rama, M., & García, J. (2017). Bibliometric analysis of publications on wine tourism in the databases Scopus and WoS. European Research on Management and Business Economics, 23(1), 8-15. doi:https://doi.org/10.1016/j.iedeen.2016.02.001
- Santini, C., Cavicchi, A., & Casini, L. (2013). Sustainability in the wine industry: key questions and research trendsa. Agricultural and Food Economics, 1(1), 9. doi:10.1186/2193-7532-1-9
- Schmiedel, T., Müller, O., & vom Brocke, J. (2018). Topic Modeling as a Strategy of Inquiry in Organizational Research: A Tutorial With an Application Example on Organizational Culture. Organizational Research Methods, 1094428118773858. doi:10.1177/1094428118773858
- Shepperd, S., Adams, R., Hill, A., Garner, S., & Dopson, S. (2013). Challenges to using evidence from systematic reviews to stop ineffective practice: an interview study. Journal of Health Services Research and Policy, 18, 160-166.
- Soós, S., Vida, Z., & Schubert, A. (2018). Long-term trends in the multidisciplinarity of some typical natural and social sciences, and its implications on the SSH versus STM distinction. Scientometrics, 114(3), 795-822. doi:10.1007/s11192-017-2589-2
- Su, H., & Lee, P. (2010). Mapping Knowledge Structures by Keyword Co-occurrence: A First Look at Journal Papers in Technology Foresight. Scientometrics, 85(1), 65-79.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for developing evidence-informed management knowledge by means of systematic review. British Journal of Management, 14, 207-222.
- Wang, Z., Zhao, H., & Wang, Y. (2015). Social networks in marketing research 2001–2014: a co-word analysis. Scientometrics, 105(1), 65-82. doi:10.1007/s11192-015-1672-9
- Yi, S., & Choi, J. (2012). The Organization of Scientific Knowledge: The Structural Characteristics of Keyword Networks. Scientometrics, 90(2), 1015-1026.
- Zupic, I., & Čater, T. (2014). Bibliometric Methods in Management and Organization. Organizational Research Methods, 18(3), 429-472. doi:10.1177/1094428114562629

Table 1. Frequency of Coded Inaugural Editorial Terms ¹

Inaugural Term	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
Other or New ²	13	3	9	15	36	35	36	24	12	17	29	229
Consumer Behaviour	9	6	7	4	8	9	16	7	10	12	14	102
Methods	2	5	4	2	5	5	3	17	17	18	22	100
Country Code	9	4	10	9	10	6	8	6	6	8	11	87
Marketing	9	1	9	9	6	11	7	7	5	10	7	81
Brand Mgt	1	3	2	4	2	5	0	2	2	1	4	26
Strategic Mgt	2	2	1	3	1	5	4	0	1	3	3	25
Technology	1	1	0	2	1	10	0	2	0	0	5	22
International	1	1	3	1	3	1	2	0	3	3	2	20
Performance	1	1	0	4	1	0	2	0	0	0	3	12
Finance	0	1	0	8	0	0	0	0	0	0	1	10
Law	1	1	0	0	0	3	3	0	0	0	1	9
Non-Wine ³	2	2	0	0	0	0	1	0	0	3	1	9
Business	0	2	0	0	1	3	1	0	0	0	1	8
Family Business	0	2	0	0	0	1	2	0	0	0	2	7
Innovation	0	2	0	0	0	0	3	0	1	0	1	7
Retail	1	1	1	1	1	1	0	1	0	0	0	7
HR Mgt	0	1	0	2	0	1	0	0	1	1	0	6
Entrepreneurship	0	1	0	1	0	0	0	1	0	0	2	5
Advertising	0	1	1	1	0	0	1	0	0	0	0	4
Sector	0	1	0	0	0	0	0	2	0	1	0	4
Operations Mgt	0	1	0	2	0	0	0	0	0	0	0	3
Governance	0	1	0	0	1	0	0	0	0	0	0	2
Org Behaviour	0	1	0	0	0	0	0	0	0	0	1	2
Psychology	0	1	1	0	0	0	0	0	0	0	0	2

¹ These terms are taken from the inaugural editorial, though some have been abbreviated for reasons of space.

² Topic areas not described in inaugural editorial (e.g., viticulture).

³ Studies on other products (e.g., fruit wine, beer, spirits) whose results can be applied to wine business.

Table 2. IJWBR Article Authorship Trend

	Number published per year											
Number of authors/article	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total %
1	3	3	6	5	3	6	1	2	3	5	7	20
2	6	11	8	9	9	5	7	7	4	3	4	33
3	11	4	4	7	4	5	5	2	6	10	9	30
4	0	1	3	3	4	0	3	5	1	3	4	12
5	0	2	0	0	1	2	0	1	1	0	1	4
6	0	0	0	0	0	1	0	0	1	0	1	1
7	0	0	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	1	0	0	0	0	0	0	0
Total articles Average authors/article	20 2.40	21 2.43	21 2.19	24 2.33	22 2.86	19 2.47	16 2.63	17 2.76	17 3.00	21 2.52	26 2.65	224 2.56

Table 3. IJWBR Article Metrics

Year	Keywords/Volume	Keywords/Volume KW/Article		Articles 4	
2007	84	3.36	15.65	20	
2008	96	3.56	16.23	21	
2009	93	3.58	16.48	21	
2010	126	4.20	17.42	24	
2011	131	4.85	16.59	22	
2012	136	5.67	15.84	19	
2013	114	6.00	19.19	16	
2014	109	5.45	18.00	17	
2015	95	4.52	18.47	17	
2016	135	5.87	18.00	21	
2017	171	6.33	19.00	26	
Mean	117.27	4.85	17.35	24.4	

Table 4. IJWBR Keyword Network Statistics

Number of Nodes	494
Number of Edges	2663
Average Degree	10.78
Density	0.02
Average Path Length	2.41

-

⁴ Articles minus editorials

Figure 1. Top 5 Topic Publication Trends

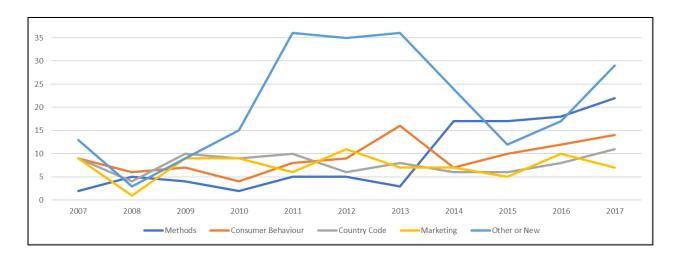


Figure 2. IJWBR Keyword Network Visualization

