

An Examination of Academic-Practitioner Co-Authorship Trends in Supply Chain Management Journals

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Abstract -The purpose of this research is to explore the extent that academics and practitioners collaborate to publish research in academic journals as evidenced by co-authorship. Using journal rankings studies, fourteen top-ranked peer reviewed academic journals that publish supply chain management (SCM) research are identified. Each article within our journal sample is examined over an eleven year period beginning in 2000 for academic-practitioner co-authorship. Results indicate that approximately nine percent of a near census of 5,064 articles are co-authored between academics and practitioners. Finally, practitioner authors are classified into five different groups in order to have a more fine-grain view of the distribution of author-type by journal. Analysis shows that some journals are more inclined to publish certain types of academic-practitioner co-authored articles over others. Implications for future supply chain management research are discussed, advocating for more collaborative research between academics and practitioners within the field.

Keywords: *supply chain, academic journal, practitioner, collaboration*

1. Introduction

The scope and depth of the supply chain management (SCM) concept has grown tremendously. Originating from studies of military transportation efficiency [1], SCM has become complex because of increased domestic and international competition, compressed product life cycles, rapid communication systems, and the geographical dispersion of supply chain partners.

In the face of these environmental changes, SCM has evolved into a boundary spanning discipline that can deliver a strategic competitive advantage [17] for businesses. Given

the rapid development of the discipline, issues in the field seem to be emerging faster than either practitioners or academics can keep up with. Typically, academics help practitioners by researching key issues to create new insights and publish these findings to broaden a field's knowledge domain. The more moderated pace of academic research, however, brings into question how the academic community can keep up with the burgeoning domain of SCM. That is, in this accelerated environment of change, how can academics leverage their specialties to best serve practitioners?

We suggest that one way to keep pace is for academics and practitioners to increase their collaboration. While both parties share a core understanding of SCM, each brings special expertise, resources, perspective, and experiential evidence to the question at hand. Collaboration may accelerate the ability of both sides to appreciate the information they are seeing and hearing, leading to new ideas that could not have been generated by either side independently [7], [19]. As a starting point, our paper explores the extent to which collaboration already exists in the SCM literature.

2. Background

The rapid growth of the SCM field has caused many academics to stop and take stock of the current state of the discipline. This cataloging of research achievements is an important stage in the development of a field. For example, Carter and Ellram [6] tracked the frequency of types of articles published in the *Journal of Supply Chain Management* across 35 years. Liao-Troth et al. [20], similarly, traced changes in articles in the *International Journal of Logistics Management* over a 20 year history.

Both of these articles looked at multiple years of a single journal's research to provide insights on the content, research methodologies, and contribution by authors, institutions, and research country, to name a few. Other researchers have examined the evolution of SCM articles using a representative sample of journals (see [4], [13], [14]). These generalist articles have confirmed our sense that the extant literature has grown in size and breadth.

Going to a more detailed level of analysis, others have documented specific characteristics of SCM academic articles including *methods* [11], *theory* [9], and *action research usage* [23]. Continuing in this vein, many have explored the research trajectory of specific SCM topics such as *inventory management* [31], *personnel issues* [16], *behavioral research* [29], and *logistics innovation* [15]. Each of these literature review articles has helped build a more holistic view of the SCM field.

Our research extends previous work that examines academic publishing in SCM by exploring collaboration between academics and practitioners as expressed by authorship. Co-authorship trends have been examined in previous research in terms of the diversity of author country and institution affiliations [5], [13] and the impact of collaboration on article citation counts [5]. However, to our knowledge, the extant literature does not contain studies that explore collaboration between academics and practitioners as evidenced by co-authorship in SCM journals.

3. Academic and Practitioner Co-Authorship

We believe a research review of academic and practitioner co-authorship sheds light on a qualitatively different form of inquiry in the literature. Authorship is the most prominent way to convey those individuals involved with and responsible for the content within a manuscript [30], [28]. It is a public and prominent way to communicate those individuals that are engaged in a conversation.

When the two different types of professionals indicate via co-authorship that they worked together on a SCM issue, it is reasonable to expect that they drew on distinct skill sets that may have leveraged the project in creative directions. Thus, both practitioner and academic communities benefit when they work together. For example, by collaborating with academics, practitioners gain access to highly trained individuals who have different discipline-specific skill sets, knowledge, perspectives and ideas. Partnering with a well-respected academic institution may also enhance the reputation and image of the practice organization.

A significant advantage to SCM academics is the potential to remain connected to the world of practice. When academics have access to practitioners, they are exposed to richer, cutting-edge complexities that challenge existing theories, or simplistic models (e.g., [10]). SCM academics should aim to balance theory and practice in their

research especially since such research tends to be well received by their peers. According to a recent survey of the editorial board of the *Academy of Management Journal* (AMJ), arguably one of the most well-respected management academic journals, scholarly work that has authentic practical implications is viewed as interesting [2]. Such work often gets published in high quality journals and stimulates others to generate related work. Thus, via co-authorship, we suggest that both parties have greater access to knowledge networks, potentially accelerating knowledge creation, and leading to important publications that could confer firm competitive advantage [25], [26].

While our primary objective in this work is to understand the extent that academics and practitioners collaborate to publish research in refereed SCM-oriented academic journals, we also dig deeper to discriminate the type of practitioner typically connected with academic research. Although the primary non-academic co-author is often assumed to be associated with an individual business, this is not always the case. Other practitioner-type co-authors include those from consultant firms, foundations or institutions, and other not-for-profit types of organizations. Each of these practitioner categories may represent unique skills, different motivations, different strategic issues, and/or different parts of the supply chain. Therefore, we differentiate these subcategories to further distinguish the academic-practitioner co-authorship dyad relationship, acknowledging that wide variety may exist in the co-authorship implications. To our knowledge, there is no articulation of such a potentially critical frequency of SCM publications in the SCM literature to date.

4. Methodology

4.1 Publication Selection

As an emerging discipline, a fundamental problem of the SCM literature is a lack of consensus around a SCM definition [11], [27]. Despite numerous efforts to construct and/or bring agreement to a definition for SCM [3], [12] [22], [24], some definitions are more narrow in focus and tend to emphasize a functionally-based perspective, whereas other definitions view the discipline as having a broader, strategic emphasis.

To guide our publication selection, we adopt the definition of SCM developed by the Council of Supply Chain Professionals (CSCMP). Founded in 1963 with over 8,500 members representing nearly all industry sectors, government, and academia, CSCMP markets itself as "*the world's leading source for the supply chain profession*" (www.cscmp.org). The official definition of CSCMP resulted from a year-long effort that brought together representatives from the academic and practice communities [8] to create the following definition:

Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies (www.cscmp.org).

CSCMP provides further clarity by describing SCM boundaries and relationships stating that it “*includes all of the Logistics Management activities noted above, as well as manufacturing operations, and it drives coordination of processes and activities with and across marketing, sales, product design, finance, and information technology*” (www.cscmp.org).

This definition showcases the multi-disciplinary nature of SCM and thus highlights the wide range of academic journal publication outlets for SCM research. However, we restrict our journal exploration to those primarily focused on publishing research related to the keywords *sourcing and procurement, conversion, and logistics management* in the first sentence of the CSCMP definition. Journals in marketing, finance, information technology, etc., are essential to SCM but fall outside of this scope and thus are not considered for inclusion in our analysis. In the immediate subsequent sections, we discuss our strategy to select a set of academic journal publications. Future use of the term journal refers to peer-reviewed academic journals.

Next, to isolate top journals that primarily publish SCM research addressing sourcing, operations, and logistics issues, we analyzed ten recent research studies (see appendix 1) that rank peer-reviewed academic journals in SCM. In total 62 journals were identified from the ten journal ranking studies. In an effort to further capture a journal’s standing in the SCM community, we isolated the remaining journals that appeared on at least three of the 12 distinct journal ranking lists. This criterion reduces the journal list to 21 different publications.

Eliminating publications targeted toward practitioners and outside of the sourcing, operations, and logistics focus yielded a total of 15 publications. Because most research in earlier decades focuses on logistics management [14] and our aim is to explore the literature that represents the current evolution of the field, we selected a timeframe of 2000 to 2010. Two journals were eliminated from this set due to incomplete public access to data or a change in the journal’s focus during our research timeline. In addition, although the *Journal of Purchasing and Supply Management* (JSPM) did not appear on three or more of the journal ranking lists, we included this publication given its coverage of research related to purchasing and supply management. Thus, we examined a total of 14 distinct journals over the 11 year time

span. The journals included in our study are listed in Table 1 below.

Table 1: Journals identified for examination of academic practitioner co-authorship

Journal Title
Decision Sciences
International Journal of Logistics Management
International Journal of Logistics: Research and Applications
International Journal of Physical Distribution and Logistics Management
International Journal of Production and Operations Management
Journal of Business Logistics
Journal of Operations Management
Journal of Purchasing and Supply Management
Journal of Supply Chain Management
Production and Operations Management
Supply Chain Management: An International Journal
Transportation Journal
Transportation Research Part E
Transportation Science

4.2 Data Collection

Given this journal set, we examined each article in each journal over the span of 2000 to 2010 to identify articles which were co-authored by academics and practitioners, and articles that were only authored by academics. First we catalogued each article, resulting in a near census of 5,064 articles (note: articles that were not subject to the traditional blind review process such as editorial essays were omitted). In the article catalogue, for each article, we itemized the article’s year, volume number, issue, title, and authors. We also recorded each author’s employment affiliation and denote them as academic or practitioner. We defined an academic to be an individual with stated employment at an institution of higher education. Authors whose primary employment indicated that they were actively engaged in a non-academic profession were classified as practitioners. Practitioners included those working in for profit and non-profit, private, public, and government sector environments.

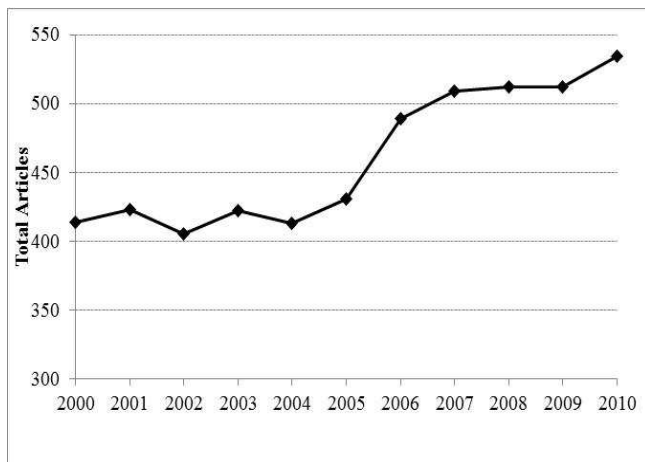
We further break down the non-academic into broad practitioner categories: individual company representatives; consultant representatives; government, city, or county representatives; institutions or foundations; and miscellaneous (e.g., not for profit organizations and multiple affiliations that are not academic). Using this population breakdown, we can get a sense of the types of collaborations that are currently being used in the field. To determine accurately the appropriate classification of practitioner authors, the website of each practitioner author was

analyzed for key words associated with one of the four aforementioned categories. If the website did not exist or did not contain enough information to make a decision, it was omitted from our set of academic-practitioner co-author papers. This process yielded the *population* of 453 articles that was written collaboratively with an academic and a non-academic in the identified journals across the eleven years.

5. Results

The total number of all articles published each year across all journals increased fairly steadily from 2000 to 2010 (see Figure 1). This confirms the overall sense that the SCM field is growing quickly. However, yearly totals of academic-practitioner articles across all journals had no discernible pattern over the 11 year period (see Figure 2), with the totals ranging from a low of 37 to a high of 47. Thus, the pace of academic-practitioner co-authored papers has not kept up with annual journal publication totals. Further, only 453 academic-practitioner co-authored articles were identified out of slightly more than 5000 published articles, meaning that over the study timeframe, co-authoring with practitioners represented only 9% of the top tier academic publications in the SCM field.

Figure 1: All Articles in All Journals by Year (n = 5064)



We also wanted to look at the co-authorship frequency for each of the journals individually. The best way to compare the frequencies across the journals is to convert the data to percentages, because some journals simply publish more articles in total than others. Therefore, for each journal we calculated the percentage of co-authored papers relative to the population of co-authored papers across the 11 year study horizon. Unlike our first result, where we found no pattern in co-authored publication frequency across time, there are distinct differences across journals that are inclined to publish articles that have academic and

practitioner co-authorship versus those that seem to be disinclined to publish this type of article. The percentage of co-authored papers within each journal is displayed in Figure 3.

Figure 2: Co-Authored Articles in All Journals by Year (n = 453)

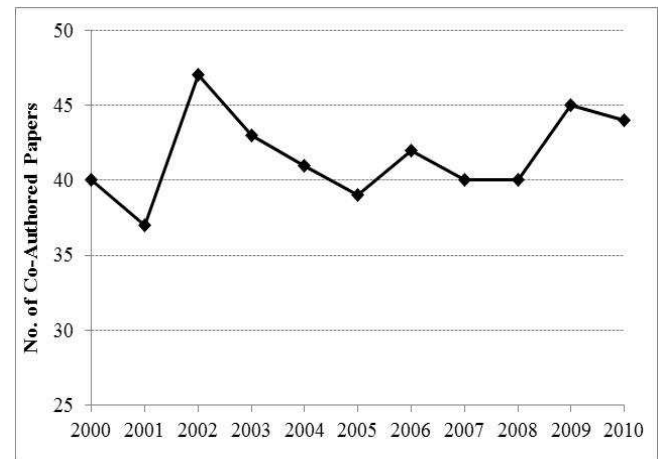
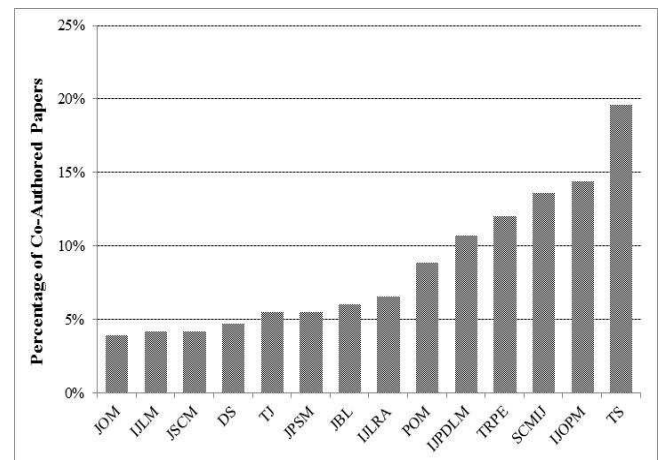


Figure 3: Academic Practitioner Co-Authored Papers by Journal



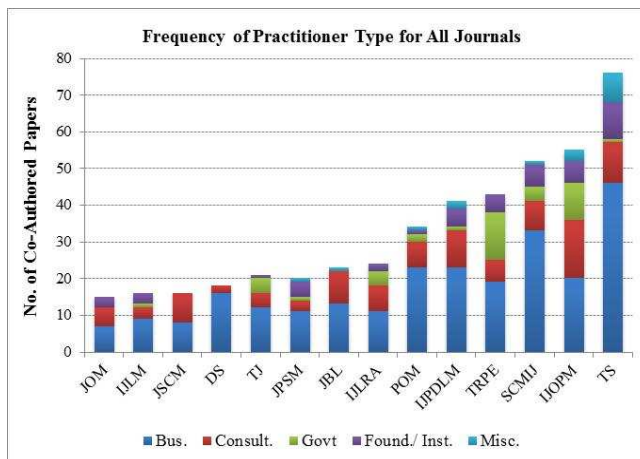
We observed that *Transportation Science (TS)* clearly has the largest number of academic-practitioner collaborations (17% of the population) followed by the *International Journal of Operations and Production Management (IJOPM)* at 12% and *Supply Chain Management: An International Journal (SCMIJ)* at 11%. The *Journal of Operations Management (JOM)* had the lowest occurrence of academic-practitioner collaborations at 3% of the total population followed by *International Journal of Logistics Management (IJLM)*, *Journal of Supply*

Chain Management (JSCM), and *Decision Science* (DS) all at 4%.

We further discriminated each practitioner co-author by employment affiliation. As expected, most of the practitioner co-authors were from business affiliations, making up more than half of the population at 55%. Co-authors representing consulting firms were also active in co-authoring, representing 22% of the collaborations. Foundation/institution representatives, at 10%, and government co-authors, at 9%, were not as prevalent in the practitioner co-author population. Finally, a remaining 4% of the practitioners were categorized as miscellaneous.

We next looked at the practitioner-type by journal in order to have a more fine-grain view of the distribution of author-type (see Figure 4).

Figure 4: Frequency of Practitioner Type for All Journals



Although not all journals are equally participating in publishing articles with practitioner co-authors, it is interesting to note that practitioner co-author type is reasonably distributed across the journals. It is especially interesting that consultant co-authors seem to be fairly evenly distributed across the journals. Having said this, a few journals, *Journal of Supply Chain Management* (JSCM), *Decision Sciences* (DS), and the *Journal of Business Logistics* (JBL), have virtually no practitioner co-authors other than business and consulting. Interestingly, these three journals could arguably be ranked among the most rigorous journals, academically.

Finally, we examine how our results compare with the target audience(s) and readership each journal seeks to attract based on their webpage declaration. Certainly it is logical to expect that if a journal does not specify that the practitioner audience is sought, that it will have fewer academic-practitioner co-authored papers and vice versa. From our search of each journal's webpage, we found that

seven of the 14 journals target both academics and practitioners as both authors and readers.

We were unable to find information about the intended audience for four journals. Interestingly, *Transportation Science* (TS), which had the highest number of academic-practitioner co-authored papers, did not specify their intended audience. *Transportation Research Part E* (TRPE) and the *Journal of Business Logistics* (JBL) also did not explicitly state their intended audience, and yet TRPE had relatively high percentage of academic-practitioner co-authored papers at 9% while JBL only had 5%. Both DS and JSCM explicitly state their preference for academic authors, and they are clearly on the lower tail. The *Journal of Operations Management* (JOM), on the other hand, indicates that academics and practitioners are targeted as authors, and yet it has the lowest percentage of practitioner co-authors at 3%. Taken together, the journals' stated target authors and audiences are not clearly consistent with their publication records of academic-practitioner co-authored works.

6. Conclusions, Limitations and Future Research Directions

In this project, we contribute to the current stream of SCM literature reviews that have begun to assess and catalogue the SCM research literature. We investigated the extent to which the published academic research included co-authorship between academics and practitioners, with the belief that this pairing of investigators bridges critical dimensions of problem-solving approaches. By identifying the entire population of academic-practitioner co-authored articles across 11 years of 14 top academic SCM journals, we were able to identify distinctive patterns in the field. Further, we identified the type of practitioner associated with this population to see if any trends emerged.

6.1 Conclusions from the Findings

Although it is encouraging to see so much academic work being done in SCM overall, we were surprised to find a low prevalence of co-authorship within our journal sample of the top academic journals, averaging only 9%. Because of the rapid growth of this environment, it would seem that more inclusion of substantive partnership with practitioners would bring a multifaceted lens to academic inquiry. Further, we observe a proportional decline in co-authorship over the timeframe of the study. This may be simply a function of the unique characteristics of academic research that are often difficult to penetrate quickly for practitioners who have immediate needs for implementable solutions.

We looked more closely at the types of practitioners participating in these co-authorship collaborations. We

found four major categories of practitioners (and a fifth group we labeled “miscellaneous”): business; consultants; government; and foundations/institutes. Not surprisingly, the majority of the practitioners represented a business. This makes sense simply from the base rate of businesses in the world, versus the number of consulting companies, governments, or foundations/institutes. We suspect, however, that the prevalence of businesses represented is more than simply an expected occurrence.

Academic-business practitioner partnerships may serve more purposes than other collaborations. One dominant methodological technique in SCM has always been mathematical modeling. This specialized type of research is embedded within a business context because it needs to capture the uniqueness of the problem environment to construct a realistic model formulation. Business practitioners are often crucial to this process by explaining nuances, restrictions, complications, and overall implications of the process. These practitioners become de facto partners in the model creation, and therefore are often included as co-authors. It would be interesting to see what percentage of business collaborators was included in research that used mathematical modeling. Presumably, certain journals in our list would be more predisposed to use this method and this could account, to some extent, for the high representation of business practitioners in these journals.

Another interesting observation is that consultant co-authors are fairly evenly represented across all journals, despite the fact that these journals do not all have similar niches in the SCM field. Academics tend to frame issues within their theoretical expertise which is both a help and a hindrance when trying to chase quickly evolving situations. It is possible that consultants bring strong skills in practitioner problem-framing that are unencumbered with tight theoretical rigor. This gives the consultants more latitude to push questions broadly and beyond the boundaries of extant theory. Further, consultants may bring rich networking relationships to the research project. These networking relationships are created when consultants spend considerable time on a day to day basis with SCM managers helping to solve current issues. The consultants’ intimate involvement within the network may introduce new knowledge sources to the academics’ perspective.

On the other hand, it is unclear why so few of the already small number of co-authored articles have government, foundation or institutional co-authoring partnerships. It is possible that these organizations have their own research capacities and are publishing in these outlets without academic co-authors. It is also possible that in some instances, there is not an incentive in these organizations to publish their research findings. However, it is disappointing to see such a low participation rate, given the assumption that such partners would also be strong

external funding resources for a critical area of business development such as SCM, arguably a key lever in GDP accelerators or industry wealth creation.

The majority of journals included in this study indicate from their websites an interest in having both academics and practitioners as both authors and readers. This suggests a desire on behalf of editorial boards for their publication to function as a vehicle of engagement between academics and practitioners. We applaud this motivation. Unfortunately, our findings show that although yearly publication totals have increased, co-authored collaborations have remained relatively stable in absolute numbers and actually declined as a proportion of the top tier academic SCM literature.

6.2 Limitations

Our study is limited in that research co-authored between academics and practitioners is not representative of all research completed collaboratively between these two entities in refereed academic journals. Practitioners are generally not required or rewarded for publication activities and thus the end of collaborative projects may motivate different activities for academics versus practitioners. In addition, we acknowledge that acceptable practices of authorial credit can vary widely by discipline and thus present challenges for boundary spanning disciplines such as SCM.

6.3 Future Directions

There are interesting research opportunities to expand our knowledge of academics and practitioners collaborating to publish research. For example, the set of academic practitioner co-authored articles can be further examined to uncover their pertinent characteristics in terms of primary subject area, research design, and analysis techniques employed. SCM professionals can use this information to gauge topics that are important to practice and to gain awareness of methodologies producing useful results. Further mining of this set of articles to understand the depth of academic practitioner engagement may also prove to be insightful. Specifically, articles could be classified as having a high, medium, or low level of engagement between industry and practice. High levels of engagement would have evidence of practitioner involvement throughout the research project – topic selection, methodology, testing of findings, etc. Medium and low levels would indicate a progressive reduction in the involvement from practice at various stages of the research project.

An important future question for researchers is why is there so little co-authorship between academics and practitioners? A qualitative investigation would be beneficial here. Are certain academic institutions more amenable to academic engagement with practitioners for the

extended periods of time that would be required to establish co-author level relationships? Are there institutional or professional disincentives for academics to work with practitioners, such as tenure pressures, different methods of inquiry, different standards of data collection and analysis, etc.? Is collaborative research more difficult to fund? Are practitioners reluctant to commit time to efforts that result in top tier academic publications, when, arguably, there is more motivation and reward for the academic side of the relationship than the practitioner side? It would be a great next step forward in the SCM discipline if we could understand more about the fundamental incentives and disincentives that underlie production of excellent research from academic and practitioner partnerships.

In sum, academic journal publications exist to be read and serve as an instrument of knowledge dissemination. The best way to ensure that knowledge has rigor and relevance in fast-paced domains may be to create tight bonds between practitioners and academics, as demonstrated by co-authorship. Our data suggest that the trend is in the other direction. Special efforts should be made by journal editorial boards, academics, and practitioners to ensure that SCM academic journals reflect a close partnering. The long-term health of the field is dependent on the generation of research that advances scientific knowledge, improves current practice, and provides valuable relationships between the ivory tower and the field.

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