

Service Operations Management Research in Operations Management Journals – An Update

Gamini Gunawardane*
California State University, Fullerton, USA

In 2008, we published in the predecessor to this journal, the California Journal of Operations Management, findings of a survey of research on Service Operations Management (SOM) in three leading Operations Management (OM) journals, namely the Journal of Operations Management (JOM), Production and Operations Management (POM) and the International Journal of Operations and production Management (IJOPM) during the period 2002-2007. Despite the growth of the area of SOM within OM, these findings showed that the percentage of SOM articles in these three journals during this period was only 8.56%. We also reported the distribution of these SOM articles within twelve topic areas. This paper updates these findings for the period 2008-2013 to ascertain whether the emphasis on SOM in these same OM journals, and the interest in topics studied, have changed. Our findings indicate a significant increase in SOM related research by OM researchers and an increase in the attention paid to supply chain management in services, global issues facing services such as off shoring services, and strategic and service design issues relating to servitization.

* Corresponding Author. E-mail address: ggunawardane@exchange.fullerton.edu

I. INTRODUCTION

Every major OM textbook includes services as part of operations that are to be managed. For example, the well known book by Stevenson defines OM as “The management of processes or systems that create goods and/or services” (Stevenson, 2008). Every OM conference has SOM as a recognized track. However, emphasis on SOM research in OM has been a controversial subject.

Our previous study on the focus on SOM in leading OM journals, presented in Gunawardane (2008), surveyed three leading OM journals, namely JOM, POM and IJOPM to ascertain the percentage of articles on SOM topics published in these journals over the period 2002-2007. We also presented the topical distribution of SOM articles published.

We then compared our findings with comparable findings for the period 1992-1997 by Pannirselvam (1999).

Extending this work to the next period, 2008-2013, appeared to be a natural and useful task which we then undertook. We studied all articles published in JOM, POM and IJOPM during the period 2008-2013 identifying articles on SOM topics or applications. As in the previous study, we ascertained the percentage of articles on SOM topics published in these journals and the topical distribution of SOM articles published. We felt that JSCOM was the correct forum to present the findings of this extended study covering 2008-2013 as the original work covering the period 2002-2007 was presented in JSCOM’s predecessor CJOM.

II. PREVIOUS RESEARCH

Several researchers have examined the content of SOM research in OM journals over the past several decades. These studies cover the periods 1982-1987 (Amoako-Gyampah and Meredith, 1989), 1992-1997 (Pannirselvam et al., 1999), 1997-2002 (Machuca et al., 2007) and our previous study covering the period 2002-2007 (Gunawardane, 2008). We refer the reader to our previous publication (Gunawardane, 2008) for details of these studies.

However, it is worth mentioning our reason for selecting the findings of Pannirselvam (2009) as the benchmark in both our studies. This was because the other authors had included many Operations Research (OR) journals in their studies and Pannirselvam's findings related to the true OM journals (JOM, POM and IJOPM) could be clearly identified.

The 12 categories in to which the SOM papers in our previous study were classified were selected from an extensive literature search on issue reported as important to real life service managers. We refer the reader to our previous study (Gunawardane, 2008) for citations and details of this research.

III. METHODOLOGY OF THIS EXTENDED STUDY

In this extended study, we again focused on research in the three leading OM journals JOM, POM and IJOPM, over the extended period 2008-2013; more specifically for JOM up to and including Volume 31, issue 7-8, November 2013, for POM up to and including Volume 22, issue 6, November/December 2013 and for IJOPM up to and including Volume 33, issue 11/12, November 2013. The total number of research papers in the three journals for the period 2009-2013, excluding editorials, calls for papers, announcements and non-research notes, was 936.

As in our first study, we read the summaries of each of the 1137 papers

published in the four journals during the above stated periods. If the summary did not provide sufficient clarity, we read the complete paper. Two independent reviewers, one an academician teaching SOM at a university and the other an experienced service manager with an MBA, assisted by giving a second opinion in the case of 48 papers that were somewhat difficult to classify. Papers on service activities in manufacturing companies were included only if a significant portion of the paper addressed service issues. Articles on techniques (such as queuing theory and scheduling) were included only if they were clearly related to specific service operations or were based on empirical research in service environments.

In the next step, to classify papers identified as relating to SOM, by topic, we extended our previous 12 topic classification to 13. The reason for this was our observations in more recent publications on service issues facing real world service managers an increased interest in the following issues:

- (1) Supply Chain Management in Services (Sengupta et al., 2006; Casson, 2013; Sampson and Spring, 2012). Therefore, we renamed "Supplier Issues" as "Supply Chain Management".
- (2) Managing the service component in manufacturing organizations leading to the concept called "Servitization" (Lightfoot et al., 2013; Baines and Lightfoot, 2014). Servitization is a complex management issue involving Service Strategy, Service Design and Services Marketing. Therefore, we introduced a separate category for Servitization.
- (3) Offshoring services (Palugod and Palugod, 2011). Therefore, Offshoring was included in the Global Service Issues category.
- (4) Online services (Jin and Oriaku, 2013; Hung, et al., 2014; Levy, 2014). In the context of services, terminology has changed from E-Commerce to Online

Services. Therefore, we renamed this category as Online Services.

This resulted in our using the 13 topic classification shown in Table 2 to classify SOM papers identified by us in the three OM journals.

IV. FINDINGS

The percentage of SOM articles in OM

journals in our survey compared with the findings of previous studies by Pannirselvam et al. (1999) and our own previous study (Gunawardane, 2008) are shown in Table 1 below.

Table 2 below shows the classification of SOM articles in OM journals in our new study among the 13 topics discussed above, and a comparison with the similar classification by topic in our previous study.

TABLE 1. ARTICLES IN OM JOURNALS FOCUSING ON SOM

	1992-1997 Pannirselvam et al. (1999)	2002-2007 Gunawardane (2008)	2008-2013 This Study
OM journals in study	JOM, POM, IJOPM	JOM, POM, IJOPM	JOM, POM, IJOPM
Total OM papers	700	876	936
Total SOM papers	27	75	170
Percentage SOM/OM	3.86 %	8.56 %	18.16%

TABLE 2. SERVICE MANAGEMENT RESEARCH BY TOPIC IN OM JOURNALS

Topic Area	Number of Articles 2002-2007	%	Rank	Number of articles 2008-2013	%	Rank
1. Service strategy	10	13 %	3	22	13 %	2
2. Servitization				9	5 %	5
3. Service design	13	17 %	2	8	5 %	5
4. Service employee management	4	5 %	6	6	4 %	9
5. Services marketing and communication	2	3 %	9	6	4 %	9
6. Customer behavior and expectations in service	3	4 %	8	8	5 %	5
7. Service quality measurement and improvement	6	8 %	4	9	5 %	5
8. On line services	4	5 %	6	7	4 %	9
9. IT and SST in services	0	0 %	11	5	3 %	12
10.. Service failures & recovery	5	7 %	5	4	2 %	13
11. Service operations /process improvement	19	25 %	1	44	26 %	1
12. Global service issues /off shoring	0	0 %	11	17	10 %	3
13. Supply chain management /outsourcing	2	3 %	9	12	7 %	4
Miscellaneous	7	9 %		13	8 %	
Total	75			170		

V. ANALYSIS

Table 1 shows that the focus of OM researchers on SOM issues and environments in the three OM journals JOM, POM and IJOPM has significantly increased during the period 2008-2013 over the previous period of 2002-2007. The percentage of SOM articles in these three leading OM journals had increased from 8.56% (2002-2007) to 18.16% (2008-2013).

While the focus of OM researchers on SOM issues has significantly increased, it is still less than 20%, and not commensurate with the growth rate of the service sector. One possible reason for this is the possible movement of research on soft SOM issues such as service strategy, services marketing, service employee management, and service customer behavior to journals that focus on broader service management (SM) issues. Notable among them are Journal of Service Management (JSM), Journal of Service Research (JSR) and Managing Service Quality (MSQ).

Service operations / process improvement remains the topic drawing the greatest attention. Nearly a quarter of the papers in the three leading OM journals focused on this topic. The most frequent applications of service operations/process improvement were in the retail industry and health care operations. The next most attractive topics of research are supply chain management (SCM) in services and global services including offshoring services. Together, they account for 17% of the articles in the three leading OM journals. The issue in SCM that seems to draw much attention is evaluation of coordinating mechanisms between buyers and single or multiple service suppliers.

The most notable finding was the increased attention (from 0% in the period 2002-2007 to 5% in the period 2008-2013) to servitization in the leading OM journals.

Baines, et al. (200&) describe servitization as the “innovation of a manufacturing organization’s capabilities and processes to shift from selling product to selling an integrated product and service offering that delivers value in use”. We found that OM researchers have identified a rich array of servitization scenarios such as provision of services to the customer before and after the sale of the product, leasing and financing services of a product not owned by the buyer, and maintenance and repair services of products. The interest by OM researchers into servitization is significant because it indicates the long awaited marriage between the production and service components of manufacturing organizations.

Supply chain management in services and global service issues/off shoring also showed significant increase in interest from 3% in the period 2002-2007 to 7% in the period 2008-2013. Supply chain management issues frequently studied were the dual and triad supplier-buyer relationships, e.g., pharmaceutical suppliers to a hospital (two levels) and use of subcontractors to directly provide services to customers (triads). Research in supply chain management journals also report the increased presence of triads in service supply chains. While there seems to be, in recent times, an overall economic and political interest in bringing back off shore operations in manufacturing, off shoring services has been on the increase and is expected to continue (Palugod and Palugod, 2011).

The decrease in attention to research on service design (from 17% in the period 2002-2007 to 5% in the period 2008-2013) is also notable. This can be explained from the fact that research on servitization seems to have shifted the focus from a pure service design e.g. service employee issues, to issues involving service – operations - marketing interrelationships.

VI. CONCLUSIONS

Attention of OM researchers on SOM issues in articles published in the three main OM journals (JOM, POM and IJOPM) has significantly increased over the recent period 2008-2013. While service process improvement and service strategy appears to continue to be leading areas for future research, areas such as servitization, service employee management, global/offshore service management, and service supply chain management are also likely to be attractive research areas.

The focus on SOM issues in these three OM journals is still low compared to the reported growth of the service sector. The main reason for this appears to be the increase in journals focusing primarily on service management issues such as Journal of Service Management (formerly International Journal of Service Industry Management), Journal of Service Research, and Managing Service Quality. We reported in our previous paper that during the period 2002-2007, these three journals published 553 articles on service management issues compared to the 75 SOM articles published in the three OM journals reviewed here. Furthermore, marketing journals that have traditionally been the forum of much service management/service marketing research such as Journal of Retailing, Journal of Marketing, Journal of Services Marketing, Financial Services Marketing, and Marketing Health Services also continue to publish service management research. The limited scope of this paper (i.e., extending and updating findings of our previous paper to current times) does not permit us to survey, in detail, research in the broader SM journals.

It is interesting to note that the percentage of SOM related articles in this journal (CJOM/JSCOM) over the same period 2008-2013 is comparable to the percentage of SOM articles in the three OM journals

reviewed here. During this period CJOM/JSCOM published 19 SOM related papers out of a total of 107 papers, that is 17.76% compared to 18.16% in the three OM journals reviewed here. The topic of highest interest in CJOM/JSCOM has also been service operations/process improvement (33%). Supply chain management issues in services also accounted for 23% of research work in CJOM/JSCOM. Servitization appears to be a promising area for SOM researchers seeking publication in JSCOM in the future.

REFERENCES

- Amoako-Gyampah, K. and Meredith, J.R. (1989) "The Operations Management Research Agenda: An Update", *Journal of Operations Management*, 8, 3:250-262.
- Baines, T and Lightfoot, H.W. (2014) "Servitization of the Manufacturing Firm" *International Journal of Operations and Production Management*, 34, 1: 2-35.
- Casson, M. (2013). "Economic Analysis of International Supply Chains: An Internationalization Perspective", *Journal of Supply Chain Management*, 49, 2: 8-13.
- Gunawardane, G. (2008) "A Comparison of Service Management Research in Operations Management and Service Management Journals", *California Journal of Operations Management*, 6, 1: 79-86.
- Hung, S., Chen, C.C. and Huang, N. (2014) "An Integrative Approach to Understanding Customer Satisfaction with Service of Online Stores", *Journal of Electronic Commerce Research*, 15, 1, 40-57.
- Jin, Y. and Oriaku, N. (2013) "E-service Flexibility: Meeting New Customer Demands Online", *Management Research Review*, 36, 11: 1123-1136.
- Levy, S. (2014) "Does Usage Level of Online Services Matter to Customers' Bank

- Loyalty?” Journal of Services marketing, 28, 4: 292-299.
- Lightfoot, H., Baines, T. and Smart, P. (2013) “The Servitization of Manufacturing”, International Journal of Operations and Production Management, 33, 11/12, 1408-1434.
- Palugod, N. and Palugod, P.A... (2011) “Global Trends in Offshoring and Outsourcing”, International Journal of Business and Social Science, 2, 16: 13-19.
- Pannirselvam, G.P., Ferguson, L.A., Ash, R.C. and Siferd, S.P. (1999) “Operations Management Research: an update for the 1990s”. Journal of Operations Management, 18, 1: 95-112.
- Sampson, S.E. and Spring, M. (2012) “Service Supply Chains: Introducing the Special Topic Forum”, Journal of Supply Chain Management, 48, 4: 3-7.
- Sengupta, K., Heiser, D.R. and Cook, L.S. (2006) “Manufacturing and Service Supply Chain Performance: A Comparative Analysis”, The Journal of Supply Chain Management, Fall: 4-15.
- Stevenson, W.J. (2008) Operations Management, 10th ed. McGraw-Hill.