LOCATION ANALYSIS OF EUROMA CONFERENCE CONTRIBUTIONS

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ABSTRACT

Operations Management journal rankings are frequently published. Information on Operations Management conferences is much harder to find. This may be due to the difficulties of ranking conferences as well as due to the different motives that contributors to conferences have. In this paper we perform exploratory analysis to determine for one specific conference (EurOMA) who has typically contributed to these conferences. Our analysis focus is on the location of contributors, i.e. country and affiliation. We found that the United Kingdom, Italy and Brazil contribute most authors and papers to the EurOMA conferences. Countries such as Belgium, Denmark, the Netherlands, Sweden are also important contributors. Highest contributing universities include the University of Sao Paulo, Cranfield University, the University of Cambridge and Politecnico di Milano. People who plan to attend the EurOMA conferences can, based on this, expect authors and papers from these countries and universities.

Keywords: Conference attendance, Location analysis, Conference ranking

INTRODUCTION

In the field of operations management, a number of publications have appeared which describe or rank operations management related journals, see e.g. (Ansari et al., 1991; Barman et al., 1991; Vokurka, 1996; Goh et al., 1997; Soteriou et al., 1999; Barman et al., 2001; Agrawal, 2002; Gorman and Kanet, 2005). These publications provide insight for researchers in determining where they can publish their findings. Many researchers also publish at conferences but to the best of our knowledge, research on conference rankings has not been published. Part of the reason may be that it is difficult to compare conferences because they may serve different purposes. Attendees may also have multiple motives to attend a conference. For example, they can be looking for: meeting colleagues in the area of production and operations management, learning about new developments in their area of interest, satisfying publishing requirements, identifying new scientific trends, having an interest in the specific conference theme, getting feedback and/or validation for their own research etc. In this paper, we take the viewpoint that the attractiveness of a conference may be largely determined by who attends the conference. A conference with several high-quality researchers who share and discuss their latest results may be more attractive than a conference with low-quality researchers. We explore this issue of who attends further for the EurOMA conferences. We do not look at individual authors but take a more global approach to determine authors' countries as well as their affiliation. This paper, therefore, analyzes several years of EurOMA conference papers to determine (1) the location of authors, (2) the location of contributions (each author may have multiple contributions and looking at contributions therefore gets at a productivity measure), (3) comparing university based with university based authors and finally (4) the university affiliation of authors (do certain universities contribute more to the EurOMA conference than other universities?).

EUROMA CONFERENCES

The analysis focuses on comparing the EurOMA conferences for several years on several characteristics such as location of authors. To conduct these analyses, we have used the proceedings. We have complete proceedings information for 1999, 2000, 2002 and 2005. We have partial information (one volume instead of two) for the years 2003 and 2004. Table 1 provides a broad overview of the conferences and information we analysed. For many of our analysis we use percentage distributions. This means that for 2003 and 2004, at least with random distribution of papers in the proceedings, these partial proceedings can still be considered representative.

Table 1 – EurOMA conference locations

	1999	2000	2001	2002	2003	2004	2005
Location	Italy	Belgium	United Kingdom	Denmark	Italy	France	Hungary
Number of authors	259	178	Not available	280	624	441	492
Countries represented	24	24	Not available	26	32	31	29
Number of papers	118	78	Not available	124	298	200	229
Total author contributions (average per author)	294 (1.14)	194 (1.09)	Not available	317 (1.13)	793 (1.27)	512 (1.16)	586 (1.19)

COUNTRY OF ORIGIN

The first item we analyzed was looking at the countries that authors originate from. Table 2 provides an overview. This overview includes the most prominent countries. The data is presented as percentages of the total number of authors at the conference to show relative importance of number of authors from a specific country. The list of countries in the table includes all of the countries that had a top-five occurrence in any of the six years of our analysis. The last column represents the average percentage over the years for each country. Although measuring averages of percentages has severe limitations, we applied it here merely to provide a mechanism of ordering the countries.

Table 2 – Country of origin of authors (as a percentage of total)

	1999	2000	2002	2003	2004	2005	Average
United Kingdom	48	30	29	23	26	27	30.5
Italy	10	13	9	9	11	12	10.7
Brazil	3	6	4	13	13	11	8.3
Spain	4	2	8	9	7	6	6.0
Netherlands	5	7	5	4	4	7	5.3
United States	6	2	3	7	5	2	4.2
Germany	5	3	3	4	4	5	4.0
Denmark	1	4	7	3	5	3	3.8
Sweden	5	3	2	5	3	3	3.5
Belgium	3	6	6	2	2	1	3.3
Australia	2	8	1	3	2	3	3.2

Table 3 illustrates that the highest percentage of authors at each of the EurOMA conferences came from the United Kingdom. This can easily be explained since EurOMA was originally formed as a UK organization. At quite a distance follow Italy and Brazil, further followed by several other European nations. It is interesting to note that France, Austria and Switzerland do not appear on this list. Neither do many of the Eastern European nations and for example large Asian countries such as China and India.

When we look at the countries that made this top-five occurrence, the UK and Italy are the only countries who ranked in the top-five each year. Spain made it four times, Brazil made the list three times, Belgium, Denmark, the Netherlands and the United States appeared twice in the top-five, and Australia, Sweden and Germany made the top-five just once for the years covered in the analysis. It is remarkable that the US only appeared in this list twice. One of those was for 2003, when a joint POMS and EurOMA conference was held.

Aside from looking at the origin of authors, we can also look at the total contributions from authors from a specific country. The difference with the previous analysis is that this takes into account the number of papers that authors have contributed to (but disregards whether they are first author or not). For example, one author may have contributed to three papers. Table 3 provides an overview of the origin of the contributions. Note that contribution is not the same as papers. For example let us assume that there are two papers. One paper has two authors, the other paper has three authors but two of those also appear on the first paper. In this instance we would have a total of two papers, three authors and five contributions.

Table 3 – Country of origin of contributions (as a percentage of total)

	1999	2000	2002	2003	2004	2005	Average
United Kingdom	51	30	29	25	27	27	31.5
Italy	9	14	9	9	11	13	10.8
Brazil	4	6	4	13	13	12	8.7
Spain	4	2	9	9	7	6	6.2
Netherlands	4	9	4	4	5	8	5.7
Denmark	1	4	8	4	7	3	4.5
Germany	5	3	3	4	4	4	3.8
United States	5	2	3	6	4	1	3.5
Belgium	3	6	6	2	2	1	3.3
Sweden	5	3	2	5	2	3	3.3
Australia	2	8	1	2	2	3	3.0

Table 3 illustrates a similar pattern as table two. The highest percentage of contributions at each of the EurOMA conferences came from the United Kingdom followed by Italy and Brazil. When we look at the countries that made this top-five occurrence, the UK and Italy are the only countries who ranked in the top-five each year. Brazil and Spain made it four times, Belgium, Denmark, the Netherlands and the United States appeared twice in the top-five, and Australia, Sweden and Germany made the top-five just once for the years covered in the analysis. It is interesting to note that smaller countries such as Belgium, Denmark and The Netherlands appear high in the rankings.

Based on table 2 and table 3, we conclude that most authors and most contributions to papers come from people located in the United Kingdom. Italy and Brazil follow at some distance.

COUNTRY 'PRODUCTIVITY'

All else being equal it is expected that large countries contribute more papers and more authors. To control for this size effect, in our next step of analysis we normalize the findings by the size of the population. In a sense, this provides a measure of country "productivity" meaning the number of authors per capita that a country 'produces' as well as the number of contributions per capita of authors in a particular country. Table 4 illustrates, similar to table 2, the authors per capita while table 5, similar to table 3, shows the contributions per capita. Both tables include countries that were in the top-five in any of the years.

*Table 4 – Country of origin of authors (per capita *100 million)*

	1999	2000	2002	2003	2004	2005	Average
Denmark	55.6	148.1	370.4	314.8	388.9	259.3	256.2
Finland	19.2	19.2	288.5	423.1	192.3	500.0	240.4
Cyprus	0	256.4	512.8	384.6	0	256.4	235.0
United Kingdom	210.8	91.1	138.3	246.2	195.6	220.9	183.8
Ireland	102.6	51.3	205.1	230.8	153.8	179.5	153.9
Sweden	155.6	55.6	55.6	366.7	133.3	144.4	151.9
Netherlands	74.1	80.2	80.2	148.1	117.3	203.7	117.3
Slovenia	100.0	100.0	50.0	0	250.0	150.0	108.3
Belgium	68.0	106.8	174.8	106.8	87.4	68.0	102.0
Norway	0	65.2	43.5	152.2	21.7	282.6	94.2

Table 5 illustrates that a number of small countries have a relatively high number of authors that participate in the EurOMA conferences when compared to the size of their population. Note that very small countries such as Cypress (population less than 1 million), Slovenia (roughly 2 million), Ireland (roughly 4 million), Norway (roughly 4.5 million), Finland (roughly 5.2 million) and Denmark (roughly 5.5 million) can easily fluctuate in this assessment. Numbers for slightly larger countries such as Sweden (roughly 9 million), Belgium (roughly 10.5 million) and the Netherlands (roughly 16 million) are influenced less by one additional author. The UK with a population of roughly 59 million people shows a remarkable number of authors per capita at the EurOMA conferences. Overall, Denmark, Finland and Cyprus contribute the most authors when corrected for population size.

When we look at the countries that made this top-five occurrence, Denmark and the UK ranked five times in the top-five. Cyprus and Finland appear four times. Ireland and Slovenia make the list three years, Belgium and Sweden twice, and the Netherlands and Norway appear once in the top-five list of number of authors per country capita.

*Table 5 – Country of origin of contributions (per capita *100 million)*

	1999	2000	2002	2003	2004	2005	Average
Denmark	55.6	148.1	463.0	574.1	629.6	333.3	367.3
Finland	19.2	19.2	326.9	442.3	211.5	519.2	256.4
Cyprus	0	256.4	512.8	384.6	0	256.4	235.0
United Kingdom	253.0	99.5	155.1	333.9	231.0	264.8	222.9
Ireland	128.2	51.3	256.4	461.5	179.5	179.5	209.4
Sweden	177.8	66.7	66.7	411.1	133.3	166.7	170.4
Netherlands	74.1	104.9	86.4	216.0	172.8	277.8	155.3
Norway	0	65.2	87.0	304.3	21.7	282.6	126.8
Belgium	87.4	106.8	174.8	126.2	97.1	68.0	110.1
Slovenia	100.0	100.0	50.0	0	250.0	150.0	108.3

Table 5 is similar to table 4 and shows that a number of small countries have a relatively high number of contributions to the EurOMA conferences when compared to the size of their population. Note again that the findings for countries such as Cypress, Slovenia, Ireland, Norway, Finland and Denmark can easily fluctuate due to population size. Denmark is leading this group of countries followed by Finland, Cyprus and the United Kingdom. When we look at the countries that made this top-five occurrence, Denmark ranked five times in the top-five. Finland and Ireland make the top-five list four times. Belgium, Cyprus, Slovenia and the United Kingdom make it three times. The Netherlands and Sweden make this list twice while Norway makes it once.

When we look at a combination of ‘absolute’ representation and ‘relative’ (per capita) representation, we find that the United Kingdom consistently ranks high. Other countries that appear in each of the table 2 thru 5 are: Belgium, Denmark, the Netherlands and Sweden. We conclude that these countries are

important contributors to the EurOMA conferences and also that these countries must have somewhat of a scholarly concentration in the field of Operations Management.

FIRST AUTHOR LOCATION

In the previous analysis we looked at the number of authors and the number of total contributions for a specific country. This did not take into account whether an author contributed to three papers as for example a first author or as for example a third author. Since generally speaking the first author is considered the most important contributor to a paper, in our next step of analysis we focus only on first authors. Table 6 provides an overview of the percentage of papers with a first author from a specific country. For example, 43.2 percent of the papers in 1999 had a first author from the United Kingdom.

Table 6 – Country of origin of first authors (as a percentage of total papers)

	1999	2000	2002	2003	2004	2005	Average
United Kingdom	43.2	34.6	25.8	25.8	25.5	29.3	30.7
Italy	9.3	11.5	8.9	7.0	7.0	9.6	8.9
Brazil	5.1	5.1	4.8	14.1	12.0	10.5	8.6
Spain	4.2	2.6	7.3	8.4	7.0	6.6	6.0
Netherlands	4.2	7.7	4.8	4.3	5.5	6.6	5.5
Denmark	1.7	5.1	10.5	2.7	5.5	2.6	4.7
Sweden	8.5	2.6	2.4	6.0	3.0	3.1	4.3
Germany	4.2	2.6	4.0	3.4	5.0	3.9	3.9
Australia	1.7	6.4	1.6	3.4	4.0	4.4	3.6
United States	4.2	1.3	3.2	5.7	4.0	1.7	3.4
Belgium	3.4	5.1	4.0	1.3	2.0	1.3	2.9
Finland	0.8	0	4.8	3.0	2.5	5.2	2.7
France	0	1.3	0	0	5.5	1.3	1.4

Table 6 shows, once again, the dominance of the UK authors. On average over the years, 30.7% of the papers have a UK located first author! Italy and Brazil follow at some distance with close to nine percent of the papers having first authors located in these countries. These findings are similar to the findings in tables 2 and 3. Table 6, compared to table 3 shows the same ranking for the highest six countries. After that there are small differences due to the order of the authors which may tell something about where contributions 'really' originate, i.e. with the first author. When we look at the countries that made this top-five occurrence, the United Kingdom ranked first for each of the years. Brazil and Italy ranked in the top-five for each of the years. The Netherlands and Spain ranked five of the six years as a top-five contributor of first authors. Denmark and Sweden have a top-five ranking in two of the years while Australia, Belgium, Finland, France, Germany and the US have such ranking in one of the years.

Similar to the earlier analysis, we adjust for population size as presented in table 7.

*Table 7 – Country of origin of first authors (per capita *100 million)*

	1999	2000	2002	2003	2004	2005	Average
Denmark	37.0	74.1	240.7	148.1	203.7	111.1	135.8
Finland	19.2	0	115.4	173.1	96.2	230.8	106.0
United Kingdom	86.0	45.5	54.0	129.8	86.0	113.0	85.7
Cyprus	0	128.2	128.2	256.4	0	0	85.5
Sweden	111.1	22.2	33.3	200.0	66.7	77.8	85.2
Netherlands	30.9	37.0	37.0	80.2	67.9	92.6	57.6
Ireland	25.6	25.6	51.3	102.6	76.9	51.3	55.6
Norway	0	43.5	43.5	87.0	21.7	130.4	54.4
Slovenia	50.0	50.0	50.0	0	100.0	50.0	50.0
Belgium	38.8	38.8	48.5	38.8	38.8	29.1	38.8

When we look at the countries that made this top-five occurrence, Denmark and the United Kingdom ranked six times in the top-five. Finland occurs four times, Cyprus and Slovenia appear three times. Ireland, Norway and Sweden appear twice in this top-five list while Belgium and the Netherlands appear once.

Comparing tables 2 through 7 illustrates the consistency of in particular the UK. Furthermore, Belgium, Denmark, the Netherlands and Sweden are important contributors. When looking purely at quantity, Italy and Brazil are very important contributors. Both of these countries drop in the relative rankings due to their population sizes, respectively roughly 60 million and 180 million.

AFFILIATION

For our next level of analysis, we look at how many authors come from universities versus how many are representing companies. The findings are presented in table 8.

Table 8 – Affiliation of authors (as a percentage of total)

	1999	2000	2002	2003	2004	2005
University	95%	96%	96%	94%	95%	91%
Industry	5%	4%	4%	6%	5%	9%

Table 8 shows that a large majority of the authors are affiliated with universities. This confirms studies that have examined Operations Management journals, see e.g. (Saladin, 1985; Swamidass, 1991). These studies conclude that there is a gap between practitioners and academics with regard to what they read and what they value. For example much of the research output in Operations Management is not highly valued by practitioners. Table 8 illustrates that the EurOMA conferences seem very much academic conferences with very limited practitioner participation.

Based on the earlier analysis we have gained some insight into the location of authors that contribute to the EurOMA conferences, or in other words, which countries contribute. We also found that most authors are affiliated with universities and not with industry. Another interesting question is whether there are particular universities that are significant contributors by the number of authors that are from these universities. Over the six years, over 200 universities were represented at the EurOMA conference. For each year, we selected a top-five of contributors, i.e. universities with a high number of authors. Sixteen universities appeared at least once in a top-five position. The results are presented in table 9.

Table 9 – Highest contributing universities by number of authors

	1999	2000	2002	2003	2004	2005	Average
U. of Sao Paulo (Brazil)	4	1	5	34	22	20	14.3
Cranfield U. (UK)	11	6	14	21	10	19	13.5
U. of Cambridge (UK)	12	9	16	20	10	9	12.7
Politecnico di Milano (Italy)	11	9	8	17	9	13	11.2
U. of Bath (UK)	15	0	3	10	9	14	8.5
Aalborg U. (Denmark)	1	2	11	12	10	10	7.7
Katholieke U. Leuven (Belgium)	7	6	10	7	7	5	7.0
U. of Strathclyde (UK)	5	3	6	13	5	4	6.0
U. of Warwick (UK)	9	6	3	4	6	4	5.3
U. of Liverpool (UK)	2	0	3	12	9	4	5.0
Trinity College (Ireland)	2	2	8	8	4	5	4.8
U. of Groningen	0	0	3	10	5	10	4.7

(Netherlands)							
U. of Palermo (Italy)	1	6	0	1	3	5	2.7
U. Federal de Sao Carlos (Brazil)	1	7	0	4	0	3	2.5
Tampere U. of Technology (Finland)	0	0	9	3	0	2	2.3
U. of Western Sydney (Australia)	0	7	0	0	0	3	1.7

Table 9 illustrates the importance of several UK universities. However, it also illustrates that the University of Sao Paulo is a major contributor to the EurOMA conferences. It should be noted that the U. of Sao Paulo has been in the top-five list only for the last three years. However, in these years, it appeared at the top spot for each of those years. Other high contributing universities are Cranfield University, the University of Cambridge and Politecnico di Milano. Overall, we can conclude that each of these universities must have somewhat of a concentration in the field of Operations Management that allows them to contribute to so many papers at the EurOMA conferences.
When we look at the universities that made this top-five occurrence; Cranfield U. and Politecnico di Milano appeared in the top-five for each of the years. U. of Cambridge appeared five times, Aalborg U. and the U. of Sao Paulo appeared three times. The U. of Bath appeared three times,and the U. of Warwick appeared twice. The other nine universities appeared on the list once.

CONFERENCE LOCATION IMPORTANCE

It is expected that if a conference is organized in a specific country, that the number of authors from that country is higher than for conferences organized in other countries. Table 10 provides an overview.

Table 10 – Conference location influence

		1999 (Italy)	2000 (Belgium)	2002 (Denmark)	2003 (Italy)	2004 (France)	2005 (Hungary)
Italy	Number of authors (%)	25 (9.6%)	24 (13.5%)	26 (9.3%)	58 (9.3%)	47 (10.7%)	61 (12.4%)
	Number of contributions (%)	26 (8.8%)	28 (14.4%)	28 (8.8%)	75 (9.5%)	55 (10.7%)	74 (12.6%)
Belgium	Number of authors (%)	7 (2.7%)	11 (6.2%)	18 (6.4%)	11 (1.8%)	9 (2.0%)	7 (1.4%)
	Number of contributions (%)	9 (3.1%)	11 (5.7%)	18 (5.7%)	13 (1.6%)	10 (2.0%)	7 (1.2%)
Denmark	Number of authors (%)	3 (1.1%)	8 (4.5%)	20 (7.1%)	17 (2.7%)	21 (4.8%)	14 (2.8%)
	Number of contributions (%)	3 (1.0%)	8 (4.1%)	25 (7.9%)	31 (3.9%)	34 (6.5%)	18 (3.1%)
France	Number of authors (%)	0	3 (1.7%)	1 (0.3%)	0	15 (3.4%)	7 (1.4%)
	Number of contributions (%)	0	3 (1.5%)	1 (0.4%)	0	17 (3.3%)	8 (1.4%)
Hungary	Number of authors (%)	0	0	2 (0.7%)	2 (0.3%)	3 (0.7%)	10 (2.0%)
	Number of contributions (%)	0	0	2 (0.6%)	2 (0.3%)	3 (0.6%)	10 (1.7%)

Table 10 shows that interestingly, the effect of location is not straight forward. Although Denmark, France and Hungary show improved performance for 'home' conferences, Italy seems to have scored

worse in the years when conferences were held in Italy. Belgium had a high score for 2000 but also for 2002 when the conference was held in Denmark.

CONCLUSION

We have provided several exploratory analysis of who contributes to the EurOMA conferences. Our analysis focussed on where the authors are located. These analyses are insightful in a sense that they demonstrate which countries or universities contribute most to EurOMA conferences. Roughly 25 to 30 countries are represented at each EurOMA conference but some countries contribute more than others. For *quantity* of authors, contributions and first authors, the UK, Brazil and Italy are the most important countries for EurOMA conferences. When we look at countries that seem to have somewhat of a concentration in Operations Management, that is they contribute the most authors, contributions and first authors on a *per capita* bases, then smaller countries dominate. The *combination* of quantity and 'relative' productivity of countries shows that five countries are important for EurOMA: Belgium, Denmark, the Netherlands, Sweden and the UK. Based on the past experience, people who plan to attend EurOMA conferences can expect a large number of papers, authors and contributions from the UK, Italy and Brazil. Furthermore, a potential EurOMA participant can also expect authors and contributions from Belgium, Denmark, the Netherlands and Sweden.

In our last step of analysis we found that there is a limited number of universities that contribute a lot to EurOMA. These universities are the University of Sao Paulo, Cranfield University, the University of Cambridge and Politecnico di Milano. Based on the past experience, people who plan to attend EurOMA conferences can therefore expect a large number of papers, authors and contributions from these universities.

This exploratory analysis provides insight into trends with regard to the location of scientific contributions in the field of Operations Management at one particular European conference. However, these insights may be beneficial for other purposes as well.

First, it is noteworthy that a number of European countries are missing from our tables. These countries include notably France, Austria, Switzerland and Portugal. It would be interesting to find out why these West-European countries have not contributed as much as some of the other countries. Additionally, the United States, although a major contributor to Operations Management journals is far from being prominent at EurOMA. Most East-European countries also provide limited contributions and Asian countries such as China and India are also underrepresented.

Second, and in addition to the first point made, it could be insightful to compare the EurOMA membership base with the countries that contribute to the conferences. For example, are the contributions aligned with where members are located? Furthermore, this may indicate opportunities for EurOMA to extend its member base. As mentioned, countries such as the United States, France, Portugal, China, India and a number of other countries are underrepresented in their contributions but this may also be an indication that EurOMA membership in these countries is limited as well.

Third, Gorman and Kanet (2005) provided a measure to rank journals based on the author affiliation and Malhotra and Kher (1996) and Young et al. (1996) provide a measure of OM productivity in U.S. business schools. Our analysis can be used in similar ways. Gorman and Kanet (2005) take certain affiliations as 'top OM performing universities' (US based) and based on this analyze the affiliation of authors in several OM journals (they rank affiliations based on Harless and Reilly (1998) but other options include for example frequently published (US-oriented) rankings in Business Week or U.S. News). In a similar fashion, a list of top OM universities (not just US but world based) could be used to rank conferences by looking at who contributes to conferences such as EurOMA.

Another method is to not accept the published ranking lists, which may be more general in nature instead of a specific focus on Operations Management, but to look at 'conference productivity' of universities in a similar way as Malhotra and Kher (1996) and Young et al. (1996). For EurOMA conferences we have already looked at universities that have many contributions. This can be compared with other conferences such as POMS and the Operations Management division of the Academy of Management conference, to construct a list that includes universities across the world that contribute most to different conferences in the OM field. Additionally, this type of analysis can be conducted at the country level to determine which countries are contributing most to the field of OM through conferences. This may provide an indicator of OM scientific activity level.

For these extended analyses it is important to add more data and to look at the effect of conference location (is there a 'home' advantage) as well as other factors that may influence conference participation (such as funding availability and travel distance). It is interesting to note that Australia and Brazil have both been important contributors indicating that distance may not be all that important.
Another potential area in which to extend our analysis is to track author country and/or affiliation with conference topic areas, i.e. tracks. It might be possible to identify tracks that grow over the course of several conferences and to back-track where initial conference publications came from. This may indicate affiliations that are most advanced in the field of Operations Management, i.e. introduce new topics. This is potentially a very valuable form of conference analysis since many authors publish findings or ideas initially at conferences before they submit an article to a journal.

REFERENCES

Agrawal, V.K. (2002), "Constituencies of journals in production and operations management: implications of reach and quality", *Production and Operations Management,* Vol. 11, No. 2, pp. 101-108.

Ansari, A., Lockwood, D. and Modarress, B. (1991), "Characteristics of periodicals for potential authors and readers in Production and Operations Management", *International Journal of Operations and Production Management,* Vol. 12, No. 6, pp. 56-65.

Barman, S., Hanna, M.D. and LaForge, R.L. (2001), "Perceived relevance and quality of POM journals: a decade later", *Journal of Operations Management,* Vol. 19, pp. 367-385.

Barman, S., Tersine, R.J. and Buckley, M.R. (1991), "An empirical assessment of the perceived relevance and quality of POM-related journals by academicians", *Journal of Operations Management,* Vol. 10, No. 2, pp. 194-212.

Goh, C.H., Holsapple, C.W., Johnson, L.E. and Tanner, J.R. (1997), "Evaluating and classifying POM journals", *Journal of Operations Management,* Vol. 15, pp. 123-138.

Gorman, M.F. and Kanet J.J. (2005), "Evaluating operations management-related journals via the author affiliation index", *Manufacturing & Service Operations Management,* Vol. 7, No. 1, pp. 3-19.

Harless, D. and Reilly, R. (1998), accessible at www.bus.vcu.edu/economics/harless.

Malhotra, M.K. and Kher, H.V. (1996), "Institutional research productivity in production and operations management", *Journal of Operations Management,* Vol. 14, pp. 55-77.

Soteriou, A.C., Hadjinicola, G.C. and Patsia, K. (1999), "Assessing production and operations management related journals: the European perspective", *Journal of Operations Management,* Vol. 17, pp. 225-238.

Vokurka, R.J. (1996), "The relative importance of journals used in operations management research, A citation analysis", *Journal of Operations Management,* Vol. 14, pp. 345-355.

Young, S.T., Baird, B.C. and Pullman, M.E. (1996), "POM research productivity in U.S. business schools", *Journal of Operations Management,* Vol. 14, pp. 41-53.