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Affiliation of Authors in Production and Operations Management Journals

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THE CARL AND WINIFRED LEE HONORS COLLEGE

CERTIFICATE OF ORAL EXAMINATION

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Affiliation of Authors in Production and Operations Management Journals

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AFFILIATION OF AUTHORS IN PRODUCTION AND OPERATIONS MANAGEMENT JOURNALS

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1.0 Introduction

After having grown rapidly during the United States' industrial problems within the 1980's, the academic discipline of production and operations management (POM) has continued to derive itself a niche within universities and other organizations both nationwide and internationally. This was initiated in the United States as the American Assembly of Collegiate Schools of Business (AACSB) required schools to include a course in POM. The academic discipline of POM, and other disciplines similar, has continued to step further into the spotlight as it takes on an ever-increasing role within industry.

This article will represent an update of the first two POM research productivity rankings published seven years ago (Young, Baird, Pullman, 1996; Malhotra, Kher, 1996). Studies such as these serve several purposes, the most prominent to give recognition to universities and organizations excelling in the discipline of POM. Researchers in the POM field can also view the results to determine who's who and what universities or organizations are demonstrating an increased focus on POM.

2.0 Methodology

This study will seek to rank business schools and other organizations, both internationally and within the domestic United States, rather than excluding either group. It was carried out utilizing an elite grouping of the most highly regarded POM professional trade journals (Barman, Hanna, LaForge, 2001), all of relatively equal size in regards to their number of pages. This eliminates the possibility of any organization being benefited as a result of a particular journal being favored by a particular organization. The number of articles published over the seven-year time span of 1996 - 2002 by each author, and their organization affiliation, was recorded. The ranking did not incorporate the size of the university or organization assuming the goal was to solely highlight the highest producing institutions in the field of POM research.

2.1 Journal Selection

Five of the top six journals as regarded by members of the Production and Operations Management Society (POMS) (Barman, Hanna, LaForge, 2001) were used to ensure a representation of the highest quality research was included. The five journals used included

approximately the same number of articles annually, eliminating any potential variance between quality, relevancy, or amount of research input per article. Thus the top five journals, utilized were *Journal of Operations Management, Production and Operations Management, Decision Sciences, Operations Research,* and *IIE Transactions.* The selection of the above five journals is appropriate given that they have proven longevity and the continued respect by their peers. Including too many journals would result in the dilution of the ranking and subject it to criticism.

2.2 Research productivity measurements

Each article within each journal was individually viewed and the author and his or her organization affiliation was noted according to the article text. In the event of an author or journal failing to provide an organization affiliation, the author was listed without an organization and filed as an author with an unknown affiliation. Each time an author was noted in any of the five journals, they were credited as having one article, regardless of any participating co-authors. Thus, if any article was authored by two members of the same university or organization, that university or organization was given credit for two articles. Though there is double-, triple-, or more, counting of many articles due to numerous authors, there is no reason to believe that this methodology favors any one organization over another in terms of productivity (Carter, Vellenga, Allen, Gentry, 2001). Universities maintaining two or more distinct campuses were kept separate assuming that little routine interaction occurred between the faculty members. The length of an article does not determine its impact to the discipline of POM, as a topic of great significance may be divulged over only a few, or over many pages, and the vice versa is also true. Given this premise, the page lengths' of authors' articles were not included in the analysis.

2.3 Time period

The period of time the ranking was to include was chosen to match with the general length of previous professional rankings (Carter, Vellenga, Allen, Gentry, 2001; Gentry, Allen, Vellenga, 1995; Young, Baird, Pullman, 1996) as well as to allot the researchers adequate cycle time for several research projects. A longer period of time would not provide any added consistency or accuracy, but would result only in the loss of the ability to track changes of trends in future rankings.

3.0 Limitations of the ranking

Limitations to the article include the over counting of authors, the inclusion of non-POM topic articles, and the potential to include additional journals.

3.1 Multiple article counting

The multiple counting of articles due to two or more coauthors will in fact result in some articles crediting a single university or organization with numerous articles. There is no reason to believe, however, that this will benefit any university or organization over another. It is common practice to utilize co-authorships, and an article with multiple authors is presumed to require the research effort of multiple authors.

3.2 Non-POM articles

Despite the POM focus of the journals selected, they do include a small number of articles which do not hold a purely POM research topic. These articles not focusing upon POM research often stem from an engineering or mathematical background. These few articles are included within this study as they are not projected to skew the data towards the benefit of any university or organization and are not expected to skew the data of any significance given the focus of all the journals included are that of POM research. The act of clearly defining articles in regards to their research focus would result in additional questioning and thus a loss of faith in the resulting rankings.

3.3 Limited number of journals

Though the journals included within the rankings are five of the top six journals according to POMS (Barman, Hanna, LaForge, 2001), the inclusion of additional journals to the ranking would offer the opportunity to ensure a greater deal of accuracy in the rates of author production in the field of POM. The number of journals must however be limited to maintain a reasonably manageable number of journals.

4.0 Results

During the 1996 – 2002 seven-year time period, 2,634 authors represented 795 universities/organizations by publishing POM research articles in at least one of the five

journals reviewed. A total of 4,247 article authorships were counted. Authors without affiliation numbered 324, and accounted for only 343 of the articles included in the article. Academia continues to dominate the realm of POM research, as only two private organizations claim a rank within the top 100 POM research institutions worldwide. As shown on Table 1, the number one institution in POM research is the Georgia Institute of Technology with 92 articles. The Massachusetts Institute of Technology followed, ranking second with 73 articles, and Michigan State University is ranked third with 64 articles. The top ten universities published a total of 14.3% of the articles counted in the ranking. The highest-ranking international institutions are the Tel-Aviv University of Israel with 47 articles and ranked tenth overall, the Hong Kong University of Science and Technology and the University of Toronto, each with 41 articles and ranked twelfth overall, and the National University of Singapore with 39 articles ranked sixteenth overall.

The leading non-academia institutions fall much lower on the ranking. IBM is the leader of this group, though ranking 39th overall, with 21 articles authored, AT&T Labs followed in second with 11 articles authored, and i2 corporation was third amongst this group with 10 articles authored respectively. Table 2 notes the eighteen organizations having a minimum of three article authorships.

According to Table 3, the top researcher over the seven-year period holding a single position was Ram Narisimhan of Michigan State University, who participated in the research of 12 articles. The second ranked individual was T. C. Edwin Chang of the Hong Kong Polytechnic University who participated in the research of 11 articles. With 10 articles, Dimitris Bertsimas of Massachusetts Institute of Technology, is ranked third respectively.

5.0 Discussion

This article provides another attempt to offer recognition to those organizations and individuals who have excelled within the field of POM. This article has demonstrated what universities and organizations are publishing the most significant POM research as well as which specific researchers are participating in the most authorships over the chosen time span. It would be expected given the growing global advances in POM, an increasing number of international universities and organizations will take on the task of POM

research. Individual researchers are likely to take on different roles as they progress through different cycles within their career. Assistant professors are likely to pursue tenure by tackling a great deal of authorships while tenured professors may turn to other forms of service to their university such as textbook authorships, consulting, mentoring or curriculum development. With this understanding, many of the prominent figures within the academic discipline of POM may not be included at the top of our rankings. This creates another weakness of the ranking, due to its inability to provide an accurate evaluation of the impact of the work done by individuals/organizations either through article publishing or through other efforts. However this article does offer an accurate snapshot of who is performing the most quality authorships over the seven-year time span, and should be beneficial in ranking the performance of universities, organizations, and individuals in the field of POM.

Despite this and other article's solely measuring the performance of POM researchers utilizing the number of authorships, administrators should use great caution in the evaluation of their faculty, as it should also include immeasurable factors that will equally affect their utility within a university or organization.

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Top POM Research Institutions

Rank	University/Organization	Total
1	Georgia Institute of Technology	92
2	Massachusetts Institute of Technology	73
3	Michigan State University	64
4	North Carolina State University	59
5	University of Michigan	58
6	Columbia University	55
6	University of Texas	55
8	Purdue University	53
9	Texas A&M University	52
10	Tel-Aviv University - Israel	47
11	Arizona State University	46
12	Hong Kong University of Science and Technology	41
12	Ohio State University	41
12	University of Minnesota	41
12	University of Toronto - Canada	41
16	National University of Singapore	39
17	Carnegie Mellon University	37
18	University of Wisconsin - Madison	36
19	Northwestern University	35
19	University of California - Berkley	35
19	University of Pittsburgh	35
22	Virginia Polytechnic Institute and State University	34
23	Indiana University	32
24	Case Western Reserve University	31
24	Pennsylvania State University	31
24	Rutgers University	31
24	University of Pennsylvania	31
28	Stanford University	30
28	Washington University - St. Louis	30
30	University of South Carolina	28
31	Technion - Israel Institute of Technology - Israel	26
32	Syracuse University	25
32	University of Southern California	25
32	University of Washington	25
35	Iowa State University	24
35	University of Illinois - UrbanaChampaign	24
37	Auburn University	23
37	McMaster University - Canada	23
39	Duke University	21
39	IBM	21
41	New York University	20
41	University of North Carolina - Chapel Hill	20
43	Chinese University of Hong Kong	19
43	Korea Advanced Institute of Science and Technology	19
43	Lehigh University	19
43	University of Arizona	19
43	University of Florida	19
48	Cornell University	18
48	Hong Kong Polytechnic University	18
48	Universite de Montreal	18
48	University of British Columbia - Canada	18
52	Eindhoven University of Technology - Netherlands	17

52	Erasmus University - Netherlands	17
52	State University of New York - Buffalo	17
52	University of California - Los Angeles	17
52	University of Waterloo - Canada	17
57	Clemson University	16
57	Florida State University	16
57	Middle East Technical University - Turkey	16
57	Oklahoma State University	16
57	Rensselaer Polytechnic Institute	16
62	Florida International University	15
62	Louisiana State University	15
62	University of Arkansas	15
62	University of Bologna - Italy	15
62	University of Maryland	15
67	Bilkent University - Turkey	14
67	Naval Postgraduate School	14
67	University of Cincinnati	14
67	University of Maryland - College Park	14
71	Dartmouth College	13
71	Kent State University	13
71	London Business School	13
71	National Tsing Hua University - Taiwan	13
71	University of Wisconsin - Milwaukee	13
71	Vanderbilt University	13
71	Wake Forest University	13
78	Pohang University of Science and Technology - Korea	12
78	Santa Clara University	12
78	University of Texas - Dallas	12
78	Yale University	12
82	Air Force Institute of Technology	11
82	AT&T Labs	11
82	Boston College	11
82	Ecole des Hautes Erudes Commerciales - Canada	11
82	Harvard University	11
82	INSEAD - France	11
82	Kansas State University	11
82	University of California	11
82	University of Chicago	11
82	University of Connecticut	11
82	University of Rochester	11
93	Boston University	10
93	College of Willaim and Mary	10
93	DePaul University	10
93	Katholieke Universiteit Leuven - Belgium	10
93	Mississippi State University	10
93	Notre Dame	10
93	Southern Methodist University	10
93	University of Iowa	10
93	University of Oklahoma	10
93	University of Western Ontario	10
93	University of Iowa	10
93	University of Oklahoma	10
93	University of Western Ontario	10

Top Ten Non-Academic Institutions

Rank	Overall Rank	Organization	Total
1	39	IBM	21
2	82	AT&T Labs	11
3	106	i2 Technologies	9
4	121	General Motors	7
5	138	Hewlett-Packard Co.	6
6	160	Bell Laboratories	5
6	160	Booz Allen & Hamilton Consultants	5
6	160	International Institute for Management Development	5
6	160	SABRE Decision Technologies	5
10	226	First USA Bank	3
10	226	Ford Motor Company	3
10	226	Lucent Technologies	3
10	226	Motorola Inc.	3
10	226	Positive Prototype	3
10	226	Rocky Mountain Forest and Range Experiment Station - Fort Collins, CO	3
10	226	SABRE Group	3
10	226	Toshiba Corporation - Japan	3
10	226	Xerox Corporation	3

Table 2 - Top 10 Private

Individuals with Greater than 3 Article Authorships

Rank	Author	University/Organization	Total
1	Ram Narasimhan	Michigan State University	12
2	T. C. Edwin Cheng	Hong Kong Polytechnic University	11
3	Dimitris Bertsimas	Massachusetts Institute of Technology	10
4	David Simchi-Levi	Northwestern University	9
4	J. George Shanthikumar	University of California - Berkley	9
4	Lawrence M. Wein	Massachusetts Institute of Technology	9
4	Manoj K. Malhotra	University of South Carolina	9
8	Cornelia Droge	Michigan State University	8
8	Fangruo Chen	Columbia University	8
8	James R. Wilson	North Carolina State University	8
8	Nicholas G. Hall	Ohio State University	8
8	Wallace J. Hopp	Northwestern University	8
13	Arthur V. Hill	University of Minnesota	7
13	Awi Federgruen	Columbia University	7
13	Izak Duenyas	University of Michigan	7
13	Mark A. Vonderembse	University of Toronto - Canada	7
13	Roger G. Schroeder	University of Minnesota	7
13	Thom J. Hodgson	North Carolina State University	7
13	Varun Grover	University of South Carolina	7
20	Ajay Das	Baruch College	6
20	Candace Arai Yano	University of California - Berkley	6
20	David A. Collier	Ohio State University	6
20	David D. Yao	Columbia University	6
20	Gang Yu	University of Texas	6
20	Garrett Van Ryzin	Columbia University	6
20	George L. Nemhauser	Georgia Institute of Technology	6
20	Gilbert Laporte	Ecole des Hautes Erudes Commerciales - Canada	6
20	James B. Orlin	Massachusetts Institute of Technology	6
20	John J. Bartholdi III	Georgia Institute of Technology	6
20	Kamran Moinzadeh	University of Washington	6
20	Morris A. Cohen	University of Pennsylvania	6
20	Robert D. Klassen	University of Western Ontario	6
20	Roger W. Schmenner	Indiana University	6
20	Ronald G. Askin	University of Arizona	6
20	Russell E. King	North Carolina State University	6
20	S. David Wu	Lehigh University	6
20	Shawnee Vickery	Michigan State University	6
20	Sridhar Tayur	Carnegie Mellon University	6
20	Udatta S. Palekar	University of Illinois - UrbanaChampaign	6
20	Yigal Gerchak	University of Waterloo - Canada	6
20	Yves Dallery	Universite Pierre et Marie Curie (France)	6
42	Alain Hertz	Ecole Polytechniques Federale de Lausanne (Switzerland)	5
42	Cecil Bozarth	North Carolina State University	5
42	Charles J. Corbett	University of California - Los Angeles	5
42	Cynthia Barnhart	Massachusetts Institute of Technology	5
42	Daniel R. Krause	Arizona State University	5
42	David Sinriech	Technion - Israel Institute of Technology - Israel	5
42	G. Keong Leong	Ohio State University	5
42	George O. Wesolowsky	McMaster University - Canada	5

Table 3 - Individuals

42 Hanif D. Sherali	Virginia Polytechnic Institute and State University	5
42 Herbert Moskowitz	Purdue University	5
42 Jing-Sheng Song	University of California - Irvine	5
42 Jonathan F. Bard	University of Texas	5
42 Julien Bramel	Columbia University	5
42 Kathleen E. McKone	Babson College	5
42 Kenneth K. Boyer	DePaul University	5
42 Kevin F. McCardle	Duke University	5
42 Larry P. Ritzman	Boston College	5
42 Luk N. Van Wassenhove	INSEAD - France	5
42 Manus Rungtusanatham	University of Wisconsin - Madison	5
42 Margaret L. Brandeau	Stanford University	5
42 Markham T. Frohlich	London Business School	5
42 Michael C. Fu	University of Maryland - College Park	5
42 Michel Gendreau	Universite de Montreal	5
42 Panagiotis Kouvelis	Washington University - St. Louis	5
42 Paolo Toth	University of Bologna - Italy	5
42 Paul Glasserman	Columbia University	5
42 Peter T. Ward	Ohio State University	5
42 Richard Metters	Vanderbilt University	5
42 Robert B. Handfield	Michigan State University	5
42 Saifallah Benjaafar	University of Minnesota	5
42 Sridhar Seshadri	New York University	5
42 Tapas K. Das	University of South Florida	5
42 Utpal Roy	Syracuse University	5
42 Vicente Vargas	Emory University	5
42 Yu-Sheng Zheng	University of Pennsylvania	5
42 Z. Kevin Weng	University of Wisconsin - Madison	5
78 Ajay Joneja	Hong Kong University of Science and Technology	4
78 Anantaram Balakrishnan	Pennsylvania State University	4
78 Andreas C. Soteriou	University of Cyprus	4
78 Antonio Arreola-Risa	Texas A&M University	4
78 Barbara B. Flynn	Wake Forest University	4
78 Cheri Speier	Michigan State University	4
78 Chris Voss	London Business School	4
78 Christopher M. McDermott	Rensselaer Polytechnic Institute	4
78 Chung-Lun Li	Washington University - St. Louis	4
78 Danny Samson	University of Melbourne - Parkville (Australia)	4
78 David P. Morton	University of Texas	4
78 Dharmaraj Veeramani	University of Wisconsin - Madison	4
78 Donald D. Eisenstein	University of Chicago	4
78 Edward G. Anderson Jr.	University of Texas	4
78 Gilbert Laporte	Universite de Montreal	4
78 Guillermo Gallego	Columbia University	4
78 Heungsoon Felix Lee	Southern Illinois University	4
78 Irad Ben-Gal	Tel-Aviv University - Israel	4
78 J. G. Dai	Georgia Institute of Technology	4
78 Jack Brimberg	University of Prince Edward Island - Canada	4
78 Jack R. Meredith	Wake Forest University	4
78 James D. Blocher	Indiana University	4
78 Jayanth Jayaram	Michigan State University	4
78 Jerry C. Wei	Notre Dame	4

78 John W. Fowler	Arizona State University	4
78 Joseph Bukchin	Tel-Aviv University - Israel	4
78 Julie M. Hays	University of St. Thomas	4
78 Kalyan Singhal	University of Baltimore	4
78 Karen A. Brown	Seattle University	4
78 Kenneth K. Boyer	Michigan State University	4
78 Konstantin Kogan	Bar-Ilan University - Israel	4
78 M. Eric Johnson	Vanderbilt University	4
78 Mahmut Parlar	McMaster University - Canada	4
78 Marc E. Posner	Ohio State University	4
78 Mark Pagell	Oregon State University	4
78 Mark S. Hillier	University of Washington	4
78 Martin Savelsbergh	Georgia Institute of Technology	4
78 Meir J. Rosenblatt	Technion - Israel Institute of Technology - Israel	4
78 Morgan Swink	Michigan State University	4
78 Moshe Dror	University of Arizona	4
78 Pamela H. Vance	Auburn University	4
78 Panos Kouvelis	Washington University - St. Louis	4
78 Pierre L'Ecuyer	Universite de Montreal	4
78 Pius J. Egbelu	Iowa State University	4
78 Rajit Gadh	University of Wisconsin - Madison	4
78 Rakesh Nagi	State University of New York - Buffalo	4
78 Ravi Anupindi	Northwestern University	4
78 Ravi Kathuria	Saint Joseph's University	4
78 Rhonda Righter	Santa Clara University	4
78 Robert B. Handfield	North Carolina State University	4
78 Robert J. Vokurka	Texas A&M University	4
78 Robert Plante	Purdue University	4
78 Rohit Verma	DePaul University	4
78 Scott Webster	Syracuse University	4
78 Selcuk Karabati	Koc University - Turkey	4
78 Shaohui Zheng	Hong Kong University of Science and Technology	4
78 Shmuel Gal	Haifa University - Israel	4
78 Steve Alpern	London School of Economics	4
78 Susan H. Xu	Pennsylvania State University	4
78 Sven Axsater	Lund University - Sweden	4
78 Tayfur Altiok	Rutgers University	4
78 Thomas L. Magnanti	Massachusetts Institute of Technology	4
78 Thomas Y. Choi	Bowling Green State University	4
78 Tzvi Raz	Tel-Aviv University - Israel	4
78 Ward Whitt	AT&T Labs	4
78 William J. Doll	University of Toronto - Canada	4
78 William L. Berry	Ohio State University	4
78 Xenophon A. Koufteros		4
78 Yeong-Dae Kim	Korea Advanced Institute of Science and Technology	4
78 Zvi Drezner	California State University - Fullerton	4