In light of the global financial crisis of 2008 which raised a lot of questions and concerns about ethical issues and practices in a financial world littered with Ponzi schemes and frauds, leading business schools are actively changing their curricula with more emphasis on business ethics. As a result, a better understanding of the growing trend in business ethics research becomes increasingly important and relevant in today's world.

We have several objectives. First, we analyze the business ethics research contributing institutions and authors in Asia–Pacific, Europe, and North America. We measure the research contribution by the total number of articles weighted by coauthors and coaffiliations in major business ethics journals over a 10-year period (1999–2008). We then assess and compare the progress made over time in business ethics research in the Asia–Pacific, European, and North American regions.

Second, we document institutional rankings of business ethics research based on the number of articles published in the business ethics literature. Chan et al. (2005) show that internal and external constituencies have widely used school rankings. For example, administrators use rankings for resource allocation and personnel decisions, while job applicants and employers use them for employment decisions, and students for enrollment decisions. At the same time, mass media use rankings to attract public attention. Thus, rankings give us some idea as to how well schools fare in business ethics research. Sabrin (2002) ranks institutions by their business ethics research over a 5-year period. In contrast, our study examines the contributing institutions and authors in business ethics research across regions over a 10-year period. By using a longer period, we

ABSTRACT. Using 10 years of publication data (1999–2008) from 10 leading business ethics journals, we examine global patterns of business ethics research and contributing institutions and scholars. Although U.S. academic institutions continue to lead in the contributions toward business ethics research, Asian and European institutions have made significant progress. Our study shows that business ethics research output is closely linked to the missions of the institutions driven by their values or religious belief. An additional analysis of the productivity of each highly ranked institution suggests that business ethics research is highly concentrated in a limited number of eminent scholars within each institution.

KEY WORDS: business ethics research, global ranking, contributing institutions and authors

Introduction

For the past decade, it seems that U.S. academic institutions, as a group, have played a leading role in business ethics research. In particular, AACSB International (The Association to Advance Collegiate Schools of Business) in the U.S. has recommended a business ethics component in the business school curriculum to highlight the importance of business ethics in teaching and research. Similarly, many academic institutions in Asia and Europe recently also come along to strengthen their business ethics programs and research. Paul (2004) analyzes the impact and citation of the top three business ethics journals. Although several studies compare publication records of faculty in several business disciplines from schools on different continents, none looks at business ethics research in a global context over a long period of time.

Kam C. Chan Hung-Gay Fung Jot Yau are able to provide a different perspective of business ethics research from that in Sabrin (2002). Moreover, a number of recent ranking studies focus on Asia-Pacific and European rankings in different business discipline: accounting, finance, economics, and marketing. Evidence indicates that academic institutions in both regions have demonstrated tremendous growth and improvement, which is likely due to the growing interest and awareness of the relevance in ethical business decisions. These ranking studies include Jin and Yau (1999) in Asian economics; Kalaitzidakis et al. (1999) in European economics; Cheng et al. (2003) in Asian marketing; Chan et al. (2004) in European finance; Chan et al. (2005) in Asian finance; and Carmona et al. (1999) and Chan et al. (2006) in European accounting.

Third, Sabrin (2002) identifies the most productive business ethics scholars using a 5-year study period. We update and extend the Sabrin study by identifying the most prolific authors of business ethics research and their affiliations over the most recent 10-year period. In addition, we analyze the nature of the business ethics research productivity by examining the leading scholars within their affiliated institutions that are ranked top in business ethics research. The result enables us to understand more about the nature and concentration of business ethics research.

Finally, Statman (2007) suggests that local ethics are influenced by culture, education, and legal environment in a global context. It is apparent that business ethics is closely linked to a value system or religious belief. The efforts devoted to business ethics research could be largely driven by the mission of an institution. Thus, we examine whether universities with religious affiliations in general tend to produce more business ethics research publications as compared to institutions without religious affiliations because of the lack of influence by their missions.

The rest of the article is organized as follows. First, we discuss the methodology and data in "Data and methodology" section. In "Results and discussions" section, we document the empirical results related to (1) the global pattern of business ethics research and its trend, (2) school ranking based on business ethics research, and (3) leading scholars in business ethics research. The implications of the findings are discussed. The final section is the "Summary and concluding remarks".

Data and methodology

We collected the institutional and author information from each article published in Business and Society, Business Ethics: European Review, Business Ethics Quarterly, Business and Society Review, Ethics and Information Technology, Ethical Theory and Moral Practice, International Journal of Value Based Management, Journal of Business Ethics, Journal of Markets and Morality, and Teaching Business Ethics during 1999-2008.¹ While Paul (2004) suggests that Business and Society, Business Ethics Quarterly, and Journal of Business Ethics are the leading journals in business ethics, we include several other well-known business ethics journals as well. The 10-year data enable us to offer a new perspective different from that of the Sabrin study. Specifically, we are able to identify changes of business ethics research patterns and regional trends in business ethics research output over a longer period of time.

During the 10-year sample period, the 10 business ethics journals published a total of 4,200 articles.² These articles were written by 4,435 authors from 1,451 institutions. In many cases, we proofread the names and affiliations of authors by studying respective websites and searchable databases on the literature, such as ABI/INFORM and Google Scholar.

Given the recent interests in Asian and European research pattern and productivity studies in accounting, economics, and finance, we also examine the regional publishing patterns among the Asian and European business ethics scholars. Based on the geographical location of an author's affiliation, we categorize authors as well as their research output by geographic regions [i.e., North America, Europe, Asia–Pacific, and others (Africa and South America)] and all others in the non-academic category, and examine the yearly regional research productivity during the sample period.

Results and discussions

Table I presents the basic information of the 10 business ethics journals and the regional contributions to each journal during 1999–2008. As the authors from South American and African institutions make up only a small percentage, we do not

Journal: Full name	Abbreviated names	Total articles published	North America % share	Europe % share	Asia–Pacific % share
Business and Society	B&S	205	78.6	13.4	3.1
Business Ethics: European Review	BEER	299	11.4	61.3	6.4
Business Ethics Quarterly	BEQ	418	79.1	10.7	2.6
Business and Society Review	BSR	271	65.5	12.3	3.0
Ethics and Information Technology	EIT	273	54.7	30.1	9.9
Ethical Theory and Moral Practice	ETMP	264	35.0	54.1	4.4
International Journal of Value Based Management	IJVBM	88	58.0	18.2	4.2
Journal of Business Ethics	JBE	2069	56.7	23.7	10.6
Journal of Markets and Morality	JMM	161	49.1	14.0	4.7
Teaching Business Ethics	TBE	152	66.1	12.6	15.2
-	Total	4200	55.9	25.3	8.0

TABLE I

Business ethics research distribution by journal and by region (1999-2008)

This table presents the total number of articles published in the 10 business ethics journals and the regional contributions to each journal during 1999–2008. Both IJVBM and TBE rolled into JBE in January, 2004. We do not report the numbers for South America and Africa regions and non-academic institutions in the table. Thus, the shares of North America, Europe, and Asia–Pacific regions do not add up to 100% in the table.

report them in our study for brevity. We also exclude authors from non-academic institutions. Journal of Business Ethics has published 2,069 articles, which provides the largest number of articles published among all the 10 journals. About 56.7% of the articles published in the journal come from North America, 23.7% from Europe, and 10.6% from Asia-Pacific regions. Regarding regional contributions, about 79.1% of their authors (the largest number of authors) of articles published in Business Ethics Quarterly, ranked second in terms of number of articles publications, come from the North America region. About 61.3% of authors of articles published in Business Ethics: European Review, the third journal in terms of number of articles publication, come from the European region, while 78.6% of authors in Business and Society come from North America. These journals reflect some regional preference in publications. Besides these journals, other journals in the sample indicate a regional pattern similar to the overall total. Interestingly, Asia-Pacific authors have 15.2 and 10.6% shares in Teaching Business Ethics and Journal of Business Ethics publications, which are much higher than other business ethics journals. The results indicate that the Asia-Pacific scholars focus more on research on business ethics teaching.

Table II presents the yearly percentage share of the North American, European, and Asia-Pacific regions in the business ethics research during 1999-2008. The regional classification is based on the geographical location of an author's institution.³ Among the 4,200 articles, the North American scholars account for 55.9%, European scholars 25.3%, and Asia-Pacific scholars 8.0% of the total articles. While the North American scholars continue to be very productive and dominate their counterparts from other regions during the sample period, the yearly trend suggests that their dominance is decreasing. In 1999, the North American scholars published 61.4% of all articles, whereas in 2008, the percentage share dropped to 51.1%. On the other hand, the share of the European and Asia-Pacific scholars gradually increased during the sample period. For instance, the European scholars, as a group, only published 20.6% of all articles in 1999, but the percentage share surged to 30.4% in 2008. Similarly, Asia-Pacific scholars published 6.5% of all articles in 1999 and 11.0% in 2008. It appears that the drop in share by the North America region is gained by the European and Asia-Pacific regions, implying a growing interest in business ethics research in these regions.

TABLE II

Long-term trend of yearly business ethics research by region (1999-2008)

Year	Total articles published	North America % share	Europe % share	Asia–Pacific % share
1999	426	61.4%	20.6%	6.5%
2000	427	61.5%	18.2%	7.6%
2001	393	57.7%	21.1%	7.8%
2002	453	57.7%	23.4%	7.2%
2003	412	54.2%	24.4%	8.6%
2004	376	58.1%	21.7%	6.8%
2005	410	53.3%	29.8%	6.6%
2006	376	52.0%	31.1%	9.6%
2007	393	52.8%	31.5%	7.8%
2008	534	51.1%	30.4%	11.0%
Total	4200	55.9%	25.3%	8.0%
Number of institutions represented	1451	608	359	123

This table presents the yearly percentage share of North America, Europe, and Asia–Pacific regions in the business ethics research during 1999–2008. We do not report the percentages for South America and Africa regions and non-academic institutions in the table. Thus, the shares of North America, Europe, and Asia–Pacific regions do not add up to 100%. Likewise, the numbers of institutions represented do not add up to 1451.

Table III provides a business ethics research distribution by country/area. There are a total of 67 contributing countries. As expected, the US has the largest number of contributing academic institutions of 567 and followed by the UK with 109 contributing academic institutions. Spain is ranked third (45 institutions), surpassing Germany (35) and France (17). In the Asia–Pacific region, Australia (31), Taiwan (23), China (12), and South Korea (12) are the top four economies with the largest number of institutions engaging in business ethics research. Interestingly, authors from 303 non-academic institutions have made contributions to the sample journals, reflecting the widespread interest of business ethics research.

Table IV presents the top 100 institutional ranking of business research. We use the weighted number of articles as the metric for ranking authors and institutions, where the weights are the numbers of coauthors and coaffiliations. Specifically, we divide the credit among N authors and M coaffiliations accordingly. For instance, if two scholars (A and B) wrote an article with A affiliated with Institution X and B with Institutions Y and Z, we assign 0.5 credit to Institution X and 0.25 credit each to Institutions Y and Z for the article. With respect to co-authorship, both A and B receive 0.5 credit. Thus, scholars A and B will be credited with 0.5 weighted number of article each. Similarly, Institutions X, Y, and Z will be, respectively, credited with 0.5, 0.25, and 0.25 weighted number of articles. We also present the total number of appearances and the country of the institutions in Table IV. The total number of appearances does not use any weights. In our example, scholars A and B have one appearance each and Institutions X, Y, and Z have one appearance each. Table IV shows that the top five institutions are the University of Pennsylvania, Erasmus University of Rotterdam, the University of Virginia, Boston College, and the University of Notre Dame.

Several interesting points are noteworthy in Table IV. First, among the top 100 institutions, 22 (i.e., 22%) of them are affiliated with a religious denomination.⁴ Religious affiliations include Orthodox Protestants (28th Free University of Amsterdam); the Church of Jesus Christ of Latter-day Saints (55th Brigham Young University); Baptist (72nd Baylor University); Jewish (94th Yeshiva University); and Roman-Catholic (e.g., 4th Boston College, 5th the University of Notre Dame, 6th the

Number of Total weighted Country/area Mean weighted different institutions number of articles number of articles 5 0.97 4.83 Argentina Australia 31 5.27 163.48 Austria 6 1.78 10.67 Belgium 6 4.85 29.08 0.25 Bosnia 1 0.25 Brazil 4 5.50 1.38 Canada 41 5.06 207.27 China 12 0.89 10.67 Croatia 1 1.33 1.33 Cyprus 4 1.63 6.50 Czech Republic 1 1.00 1.00 Denmark 8 3.04 24.33 5 Egypt 0.70 3.50 2 Estonia 4.00 8.00 Fiji 1 1.00 1.00 Finland 11 2.76 30.33 17 France 1.15 19.58 35 1.32 46.05 Germany Greece 5 0.87 4.33 Guatemala 1 3.00 3.00 Hong Kong 8 5.48 43.83 2 1.50 3.00 Hungary 7 India 1.17 8.17 Indonesia 3 0.61 1.83 Ireland 9 1.40 12.58 Israel 11 2.97 32.67 Italy 14 1.27 17.73 10 1.22 12.17 Japan Kenya 1 3.00 3.00 Korea 12 0.67 8.04 Kuwait 1 3.00 3.00 Lebanon 1 5.50 5.50 Lithuania 1 1.00 1.00 Luxembourg 1 0.33 0.33 2 2.33 Macau 1.17 6 4.00 Malaysia 0.67 Mauritius 1 2.00 2.002 2.25 Mexico 1.13 Netherlands 16 9.79 156.66 Norway 11 2.93 32.20 New Zealand 8 3.50 28.00 0.33 Oman 1 0.33 Pakistan 1 1.00 1.00Papua New Guinea 1 3.00 3.00

0.50

0.50

1

The Philippines

TABLE III

Business ethics research distribution by country/area (1999-2008)

TABLE II	I
----------	---

continued

Country/area	Number of different institutions	Mean weighted number of articles	Total weighted number of articles	
Poland	4	0.99	3.95	
Portugal	6	1.28	7.67	
Russia	3	0.56	1.67	
Saudi Arabia	1	1.00	1.00	
Singapore	3	5.44	16.33	
Slovakia	2	0.75	1.50	
Slovenia	1	1.00	1.00	
South Africa	9	2.41	21.67	
Spain	45	2.46	110.55	
Sweden	14	2.88	40.37	
Switzerland	8	1.84	14.73	
Taiwan	23	1.72	39.58	
Thailand	2	1.06	2.13	
Trinidad and Tobago	1	6.00	6.00	
Turkey	14	1.16	16.25	
United Arab Emirates	4	1.48	5.92	
Uganda	1	1.00	1.00	
UK	109	4.20	457.45	
Ukraine	1	0.25	0.25	
US	567	3.77	2140.26	
Vatican	1	1.50	1.50	
Yemen	1	0.20	0.20	
Non-academic	303	0.79	240.70	
Total	1451	2.81	4082.66	

This table presents a business ethics research distribution by country/area. The total weighted number of articles is equal to the number of different institutions multiplied by the mean weighted number of articles. The total weighted number of articles in the last column (4082.66) does not add to the total 4200 articles, because some authors do not indicate any affiliations.

University of Navarra, 8th Loyola University of Chicago, 9th St. John's University, 10th DePaul University, among others). In fact, among the top 10 ranked institutions, six of them are Roman Catholic. Our findings echo Statman's (2007) argument that local ethics are influenced by culture, education, and legal environment in a global context. The level of business ethics research appears to be positively correlated with a value system or belief. In order to further examine the relation between religious affiliation and business ethics research productivity, we examine the correlations between religious affiliation, weighted number of articles, and total appearance for the top 100 institutions in Table IV.⁵ The results, presented in Appendix A, indicate that religious affiliation is significantly correlated with the weighted

number of articles (r = 0.24, p < 0.05) but not with the number of total appearances (r = 0.16, p > 0.10).

Second, among the top 100 institutions, 43 are non-U.S. institutions. The 43 non-U.S. institutions account for 619.56 articles (or 40.53% of the total weighted number of articles published by the top 100 institutions). This evidence of sizable presence of non-U.S. institutions among the leading business ethics research institutions suggests that business ethics research in the last 10 years has become a global phenomenon and its importance has received world-wide recognition.

Third, the research productivity distribution among institutions is highly skewed. For instance, to move up from the 75th (averaged 10.50 articles) to the 50th rank (averaged 12.87 articles), it takes on

TABLE IV

A global research productivity of business ethics (1999-2008)

Rank	Institution	Weighted number of articles	Total appearances	Country/area
1	U Penn	43.20	58	US
2	Erasmus U Rotterdam	39.44	67	Netherlands
3	U Virginia	39.37	61	US
4	Boston College*	38.83	56	US
5	U Notre Dame*	37.83	47	US
6	U Navarra*	35.58	48	Spain
7	York U	35.00	55	Canada
8	Loyola U Chicago*	30.75	33	US
9	St John's U (NY)*	28.33	51	US
10	DePaul U*	23.62	40	US
11	Baruch College	23.33	29	US
12	U Pittsburgh	23.28	34	US
13	Bentley U	22.82	46	US
14	Tilburg U	22.50	38	Netherlands
15	Virginia Tech	21.35	49	US
16	Florida International U	20.70	45	US
17	Oxford U	20.67	30	UK
18	Curtin U Tech	19.83	27	Australia
19	U Michigan (Ann Arbor)	19.42	28	US
20	U New Mexico	19.33	28	US
21	George Washington U	18.50	22	US
22	Loyola U New Orleans*	18.42	39	US
23	U Calgary	18.17	34	Canada
24	Nottingham U	18.12	39	UK
25	Marquette U*	18.00	23	US
26	Santa Clara U*	17.83	25	US
27	U Twente	17.67	34	Netherlands
28	Free U Amsterdam*	17.50	29	Netherlands
29	U Georgia	17.17	31	US
30	Georgetown U*	17.08	24	US
31	U St Thomas (Texas)*	16.70	20	US
32	U Wyoming	16.67	36	US
33	Rivier College*	16.33	20	US
34	U Melbourne	16.25	24	Australia
35	U Mississippi	16.02	42	US
36	U Amsterdam	15.88	25	Netherlands
37	U Bath	15.58	34	UK
38	Ghent U	15.17	31	Belgium
39	Iona College*	15.00	29	US
40	U Cambridge	14.83	29	UK
40	Harvard U	14.78	27	US
42	Arizona State U	14.58	27	US
43	Rutgers U	13.83	17	US
44	Norwegian School Management	13.70	19	Norway
45	U Richmond	13.50	19	US

Kam	C	Chan	ρt	<i>a</i> 1
1 Cum	U .	Gnun	υı	ui.

TABLE IV

continued

Rank	Institution	Weighted number of articles	Total appearances	Country/area	
46	U Minnesota (Twin Cities)	13.50	17	US	
47	Niagara U*	13.00	23	US	
48	U South Australia	13.00	13	Australia	
49	Brunel U	12.90	23	UK	
50	U St Thomas (Minnesota)*	12.87	20	US	
51	U Leicester	12.87	19	UK	
52	U Washington	12.75	20	US	
53	Northumbria U	12.50	20	UK	
54	U Tennessee	12.20	15	US	
55	Brigham Young U*	12.17	20	US	
56	Bowling Green State U	12.08	14	US	
57	U Toronto	12.00	17	Canada	
58	College William and Mary	12.00	16	US	
59	U Durham	11.83	13	UK	
60	Hong Kong Baptist U	11.75	21	Hong Kong	
61	U Texas-Austin	11.67	16	US	
62	Duquesne U*	11.50	25	US	
63	National U Singapore	11.50	18	Singapore	
64	U Northern Iowa	11.42	20	US	
65	Indiana U	11.12	24	US	
66	Penn State U	11.08	24	US	
67	Wayne State U	11.00	15	US	
68	U Warwick	10.92	18	UK	
69	U Plymouth	10.87	14	UK	
70	U Jyvaskyla, Finland	10.83	20	Finland	
71	U Manchester	10.83	18	UK	
72	Baylor U*	10.75	25	US	
73	Old Dominion U	10.67	36	US	
74	Dartmouth College	10.67	12	US	
75	John Carroll U*	10.50	14	US	
76	U Western Ontario	10.33	18	Canada	
77	Monash U	10.33	15	Australia	
78	George Mason U	10.28	15	US	
79	Nova Southeastern U	10.10	17	US	
80	U Central Florida	10.08	25	US	
81	Australian National U	10.00	23	Australia	
82	U North Carolina- Charlotte	10.00	19	US	
83 (t)	NYU	10.00	12	US	
83 (t) 83 (t)	U Kansas	10.00	12	US	
85 (t)	U Groningen	9.92	12	Netherlands	
86	U Oklahoma	9.92 9.87	25	US	
80 87	Fairleigh Dickinson U	9.83	13	US	
87 88	6	9.83 9.70	13		
	U London-King's College			UK	
89 00	Fairfield U*	9.67	15	US Dammarik	
90	Copenhagen Business School	9.50	14	Denmark	

TABLE IV	V
----------	---

continued

Rank	Institution	Weighted number of articles	Total appearances	Country/area
91	Middlesex U	9.50	13	UK
92	U Technology, Sydney	9.33	20	Australia
93	Massey U	9.33	10	New Zealand
94	Yeshiva U*	9.17	11	US
95	Cranfield U	9.00	20	UK
96	U Gothenburg	9.00	12	Sweden
97	Lancaster U	9.00	11	UK
98 (t)	Royal Institute Technology	9.00	10	Sweden
98 (t)	U Hull	9.00	10	UK
100	City U Hong Kong	8.93	22	Hong Kong

This table presents the top 100 institutional ranking of business ethics research, weighted number of articles, total number of appearances, and country/area location of the institutions. We use the weighted number of articles as the metric for ranking institutions. The weights are the numbers of coauthors and coaffiliations. We divide the credit among N authors and M coaffiliations accordingly. If two scholars (A and B) wrote an article with A affiliated with Institution X and B with Institutions Y and Z, we assign 0.5 credit to Institution X and 0.25 credit each to Institutions Y and Z for the article. With respect to co-authorship, both A and B receive 0.5 credit. Thus, scholars A and B will be credited with 0.5 weighted number of articles. The number of total appearances is not weighted. Thus, scholars A and B have one appearance each and Institutions X, Y, and Z have one appearance each. When there is a tie, we use the number of total appearances as a tie-breaker.

*Indicates institutions with religious affiliations.

average an additional 2.37 articles (12.87-10.50). The same 25-spot upward move from the 50th to 25th rank (18.00 articles) takes 5.13 articles (18.00–12.87). In order to illustrate the skewness, we plot the cumulative weighted number of articles against the cumulative number of institutions in Figure 1. If the research productivity of contributing institutions is evenly distributed, the cumulative weighted number of articles (in the vertical axis) should increase proportionally with the total number of contributing institutions (in the horizontal axis). That is, we should expect to see an upward-sloping straight line in Figure 1. However, Figure 1 depicts a concave curve suggesting an uneven distribution of research productivity among the top 100 institutions.

With a 10-year data, we are able to compare the progress of business ethics research over time. We divide the 10 years of data into two 5-year periods and make a comparison. Table V shows the two 5-year results of publications and the ranking of the

two periods. In order to conserve space, we present only the top 25 institutions and report the change in ranking in each subperiod in the last column.⁶ The University of Calgary achieved the most improvement by moving up from a low 224th rank during 1999–2003 to a remarkably high 7th rank in 2004– 2008. In contrast, the University of Pittsburgh (ranked 12th for the entire period) dropped from the 3rd rank in the first period (1999–2003) to the 147th rank in the second period (2004–2008). The results in Table V show that some institutions have experienced a dramatic swing in business ethics research output, indicating that a critical mass of business ethics research has not been secured within these institutions.

Table VI presents a list of leading business ethics scholars among the 10 selected journals during 1999–2008. Consistent with the earlier results, a majority of leading business ethics scholars come from the U.S. institutions. Professors Herman Tavani, Daryl Koehn, Antonio Argandona, Geoff

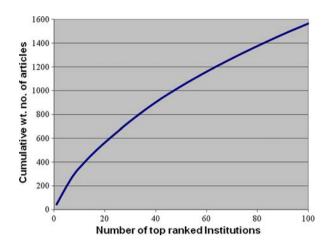


Figure 1. Cumulative weighted number of articles in business ethics research for the top 100 institutions (1999–2008) reports the cumulative weighted number of articles of the top 100 institutions. The curve is concave suggesting skewness in the distribution of business ethics research output. For example, the top 10 ranked institutions account for 351.95 weighted number of articles, the top 20 ranked institutions account for 565.18 weighted number of articles, and the top 34 ranked institutions for 809.59 weighted number of articles, which is just over 50% of all articles.

Moore, and Thomas Hemphill make up the top five most productive scholars in business ethics research across the globe.

Table VII shows the leading scholars from respective institutions during the sample period. In order to conserve space, we only report the top two scholars from each of the top 25 institutions. The last column reports the percentage share of business ethics research for the top two scholars, which gives a crude measure of the research dependency of each institution on their eminent scholars. Among the top 25 institutions, the University of Navarra, the University of New Mexico, George Washington University, and Loyola University of New Orleans all have well over 50% of their total business ethics research output by their top two scholars. The lowest dependency on eminent scholars is the University of Notre Dame, which has about 18% of its total output by its top two scholars. These results indicate that business ethics research is highly concentrated on a limited number of scholars within each institution. We contend that the reason for this high concentration may be due to a small number of faculties specializing in teaching business ethics. It would be an interesting extension to examine the reasons behind such phenomenon.

Summary and concluding remarks

We use articles published in 10 leading business ethics journals covering a 10-year period from 1999 to 2008 to identify changes in business ethics research patterns over time and examine business ethics productivity among authors and institutions across the globe.

Several interesting findings are noted. First, journals publish the most business ethics articles are Journal of Business Ethics, Business Ethics Quarterly, and Business Ethics: European Review. Among the 4,200 articles published in the 10 selected journals, the North American scholars have published 55.9%, European scholars 25.3%, and Asia–Pacific scholars 8.0% of the total articles. Scholars from the North America region appear to dominant other regions in terms of publication share, but this regional dominance seems to be strongly influenced by the region in which the journals are published.

Second, scholars publishing in the selected business ethics journals come from 67 countries. The US, as a country, has the largest number of contributing academic institutions of 567 and is followed by the UK with 109 contributing academic institutions. Other European countries include Spain (45), Germany (35), and France (17). In the Asia– Pacific region, Australia (31), Taiwan (23), China (12), and South Korea (12) are the top four economies with the largest number of institutions engaging in business ethics research.

Third, among the top 100 institutions, 22 (i.e., 22%) of them are affiliated with a religious denomination. The religious affiliations include Orthodox Protestants, the Church of Jesus Christ of Latter-day Saints, Baptist, Jewish, and Roman Catholic. Interestingly, among the top 10 ranked institution, six of them are Roman Catholic universities. Our findings are consistent with the argument of Statman (2007) that business ethics are influenced by culture, education, and legal environment in a global context. Business ethics research is significantly driven by the mission of the institution that is based on a value system or religious belief.

TABL	ΕV
------	----

Changes in ranking during 1999-2008 using weighted number of articles in a set of business ethics journals

Rank (1999–2008)	Institution	Country	Weighted number of articles		Ranking in the subperiods		Change in ranking
			1999–2003	2004–2008	1999–2003	2004–2008	
1	U Penn	US	21.50	21.70	2	2	0
2	Erasmus U Rotterdam	Netherlands	18.17	21.28	8	3	5
3	U Virginia	US	19.25	20.12	5	4	1
4	Boston College	US	26.00	12.83	1	12	-11
5	U Notre Dame	US	7.33	30.50	44	1	43
6	U Navarra	Spain	19.58	16.00	4	6	-2
7	York U	Canada	18.50	16.50	7	5	2
8	Loyola U Chicago	US	18.75	12.00	6	15	-9
9	St John's U	US	16.92	11.42	9	19	-10
10	DePaul U	US	14.00	9.62	12	21	-9
11	Baruch College	US	10.50	12.83	23	13	10
12	U Pittsburgh	US	19.75	3.53	3	147	-144
13	Bentley U	US	15.58	7.23	10	43	-33
14	Tilburg U	Netherlands	9.50	13.00	28	11	17
15	Virginia Tech	US	12.45	8.90	15	27	-12
16	Florida International U	US	8.95	11.75	33	16	17
17	Oxford U	UK	7.50	13.17	43	10	33
18	Curtin U Tech	Australia	11.33	8.50	19	29	-10
19	U Michigan	US	7.75	11.67	42	17	25
20	U New Mexico	US	11.33	8.00	20	32	-12
21	George Washington U	US	13.50	5.00	13	83	-70
22	Loyola U New Orleans	US	9.00	9.42	30	23	7
23	U Calgary	Canada	2.50	15.67	224	7	217
24	Nottingham U	UK	4.00	14.12	114	9	105
25	Marquette U	US	13.17	4.83	14	100	-86

This table shows the two 5-year results of publications and the ranking of the institutions for the two sub-periods. In order to conserve space, we present only the top 25 institutions and report changes in ranking in each subperiod in the last column.

Finally, we document a ranking of the top business ethics research scholars and institutions. It is noted that among the top 25 institutions, which include the University of Navarra, the University of New Mexico, George Washington University, and Loyola University of New Orleans, well over 50% of their total business ethics research output is produced by their top two scholars. The results indicate that business ethics research is highly concentrated on a limited number of scholars within each institution.

Our study contributes to the business ethics research by providing a broad view of the trends and patterns of business ethics research across the globe. These results enable us to understand better the nature of business ethics research. Our study shows "who" does "what" and in "where," but we do not show the absolute increase or interest in business ethics research in light of the 2008 global financial crisis. In addition, while showing an increase in business ethics research in the European and Asia– Pacific regions, our study does not address the differences in research interests in these regions. Future research efforts should further shed light on the reasons behind the high concentration of research output by eminent scholars within each institution, the total amount of interest in business ethics research, and the regional interests among the European and Asia–Pacific scholars.

Kam C. Chan et al.

TABLE VI

Leading authors in business ethics research (1999-2008)

Rank	Author	Weighted number of articles	Total appearances	Institution
1	Tavani, Herman T	16.00	19	Rivier College
2	Koehn, Daryl	14.00	15	U St Thomas (Texas)
3	Argandona, Antonio	13.00	13	U Navarra
4	Moore, Geoff	12.83	14	U Durham
5	Hemphill, Thomas A	12.00	12	U Michigan-Flint
6	Spinello, Richard A	11.67	13	Boston College
7	Brinkmann, Johannes	10.00	14	Norwegian School Management
8	Dunfee, Thomas W	9.67	15	U Penn
9	Kaler, John	9.20	10	U Plymouth
10	Moberg, Dennis J	9.00	11	Santa Clara U
11	Carroll, Archie B	8.83	12	U Georgia
12	Pava, Moses L	8.83	10	Yeshiva U
13	Van Buren III, Harry J	8.75	11	U New Mexico
14	Schwartz, Mark S	8.67	12	York U
15	Mele, Domenec	8.67	11	U Navarra
16	Werhane, Patricia H	8.50	10	U Virginia
17	Vitell, Scott J	8.20	20	U Mississippi
18	Spence, Laura J	8.00	12	Brunel U
19	Cowton, Christopher J	8.00	11	U East Anglia
20 (t)	Arnold, Denis G	8.00	10	U Tennessee
20 (t)	Floridi, Luciano	8.00	10	U Hertfordshire/Oxford U
20 (t)	Husted, Bryan W	8.00	10	York U
23	Sethi, S Prakash	8.00	9	Baruch College
24 (t)	Boatright, John R	8.00	8	Loyola U Chicago
24 (t)	Collins, Denis	8.00	8	Edgewood College
24 (t)	Spurgin, Earl W	8.00	8	John Carroll U
27	Valentine, Sean R	7.92	17	U Wyoming
28	Bowie, Norman E	7.50	10	U Minnesota
29	Sims, Ronald R	7.00	10	College William and Mary
30	Scott, Elizabeth D	7.00	9	Eastern Conn State U
31 (t)	Cooley, Dennis R	7.00	7	North Dakota State U
31 (t)	De George, Richard T	7.00	7	U Kansas
31 (t)	Hsieh, Nien-He	7.00	, 7	U Penn
31 (t)	Schwartz, Michael	7.00	7	RMIT U
35	Block, Walter	6.83	13	Loyola U New Orleans
36	Phillips, Robert A	6.83	10	U Richmond
37	Rossouw, Gedeon J	6.83	9	U Pretoria, South Africa
38	Marens, Richard S	6.83	8	CSU-Sacramento
38 39		6.58	12	Duquesne U
39 40	Weber, James Geva, Aviva	6.50	7	Open U Israel
40 41	Kaptein, Muel	6.33	11	Erasmus U Rotterdam
41 42	Donaldson, Thomas	6.20	8	U Penn
42 43		6.03		York U
	Crane, Andrew		12	
44 45	Graafland, Johan J Sima Dandi J	6.00	10	Tilburg U Nava South costorn U
45	Sims, Randi L	6.00	8	Nova Southeastern U

continued							
Rank	Author	Weighted number of articles	Total appearances	Institution			
46	Nielsen, Richard P	6.00	7	Boston College			
47 (t)	Arjoon, Surendra	6.00	6	U the West Indies			
47 (t)	Hartman, Edwin M	6.00	6	Rutgers U			
47 (t)	McDonald, Gael M	6.00	6	UNITEC Institute Technology			
47 (t)	Michaelson, Christopher	6.00	6	U St Thomas (Minnesota)			
47 (t)	Wu, Chen-Fong	6.00	6	Providence U			

TABLE VI

This table presents a list of leading business ethics scholars among the 10 selected journals during 1999–2008. The institution affiliation reflects the author's most recent affiliation as shown in the database. We use the weighted number of articles as the metric for ranking institutions. The weights are the numbers of coauthors and coaffiliations. We also present the total number of appearances and the country of the institutions. If there is a tie, we use the total number of appearances as a tie-breaker.

Rank	Institution	Country	Number of distinct authors	Leading authors in respective academic institution					
				Leading author 1	Wt	Leading author 2	Wt	Top 2 author percentage of total	
1	U Penn	US	23	Dunfee, Thomas W	9.67	Hsieh, Nien-He	7.00	38.58	
2	Erasmus U Rotterdam	Netherlands	39	Kaptein, Muel	<mark>5.83</mark>	Wempe, Ben	4.33	25.77	
3	U Virginia	US	32	Werhane, Patricia H	7.50	Freeman, R Edward	4.03	29.30	
4	Boston College	US	19	Spinello, Richard A	11.33	Nielsen, Richard P	6.00	44.64	
5	U Notre Dame		30	Audi, Robert	3.50	Tenbrunsel, Ann E	3.25	17.84	
6	U Navarra	Spain	19	Argandona, Antonio	13.00	Mele, Domenec	8.17	59.48	
7	York U	Canada	28	Schwartz, Mark S	5.67	Reed, Darryl	4.50	29.05	
8	Loyola U Chicago	US	15	Boatright, John R	8.00	Marcoux, Alexei M; McMahon, Thomas F	4.00	39.02	
9	St John's U	US	28	Finn, Daniel Rush	3.00	Forte, Almerinda	3.00	21.18	
10	DePaul U	US	22	Painter-Morland, Mollie		Hartman, Laura Pincus	3.42	29.29	
11	Baruch College	US	15	Sethi, S Prakash	8.00	Schepers, Donald H	4.50	53.57	
12	U Pittsburgh	US	17	Frederick, William C	5.50	Wood, Donna J	3.25	37.58	
13	Bentley U	US	28	Hoffman, W Michael		Abdolmohammadi, Mohammad J	2.33	21.91	
14	Tilburg U	Netherlands	17	Graafland, Johan J	6.00	Dubbink, Wim	4.33	45.93	

TABLE VII

Leading researchers in business ethics research in respective leading academic institutions (1999-2008)

Kam	C	Chan	ρt	<i>a</i> 1
1 Cum	U .	Gnun	υı	ui.

TABLE VII

continued

Rank	Institution	Country	Number of distinct authors	Leading authors in respective academic institution				
				Leading author 1	Wt	Leading author 2	Wt	Top 2 author percentage of total
15	Virginia Tech	US	23	Sirgy, M Joseph	4.83	Wokutch, Richard E	2.17	32.79
16	Florida International U	US	20	Seaton, Bruce	3.83	Tsalikis, John	3.83	37.04
17	Oxford U	UK	20	Floridi, Luciano	5.50	12 different authors tied	1.00	31.45
18	Curtin U Tech	Australia	18	Small, Michael W	5.00	Dickie, Laurence; Woodbine, Gordon F	2.50	37.82
19	U Michigan	US	14	Hosmer, LaRue Tone	4.25	Hess, David	4.00	42.49
20	U New Mexico	US	10	Van Buren III, Harry J	6.00	Logsdon, Jeanne M	4.50	54.31
21	George Washington U	US	10	Hemphill, Thomas A	8.00	Griffin, Jennifer J	2.50	56.76
22	Loyola U New Orleans	US	14	Block, Walter	6.00	Buchholz, Rogene A; Rosenthal, Sandra B	4.00	54.30
23	U Calgary	Canada	22	Hudson, Simon	1.83	Everett, Jeff S; Neu, Dean	1.67	19.27
24	Nottingham U	UK	22	Crane, Andrew	2.70	Moon, Jeremy	2.50	28.70
25	Marquette U	US	15	Gibson, Kevin	5.33	Gustafson, Andrew	2.00	40.74

This table presents the two leading authors in each of the top 25 academic institution in terms of weighted number of articles. We only count the weighted number of articles when the respective author published their articles with the listed affiliations. We also present the percentage share of the total weighted number of articles by these two leading authors. When there is a tie, we list alphabetically.

Notes

¹ International Journal of Value Based Management and Teaching Business Ethics rolled into Journal of Business Ethics in January 2004.

² We exclude comments, replies, book reviews, and guest editor introductions.

³ Under this classification, for example, a North American scholar working for an institution in Japan would be classified as an Asia–Pacific scholar and his/ her publications as Asia–Pacific articles.

⁴ Despite the fact that the Hong Kong Baptist University was established by the American Baptists, it is not included in our sample as an institution with religious affiliation, because it is currently a government-funded higher institution in Hong Kong with no current church affiliation.

⁵ We thank a reviewer for suggesting this additional statistical test.

⁶ Results for other institutions are available from the authors upon request.

Acknowledgments

Helpful comments from two anonymous reviewers are gratefully acknowledged. We also thank Christine Lai for programming assistance. We are responsible for any remaining errors.

Appendix A

See Table VIII.

TABLE VIII

A correlation matrix of religious and non-religious institutions in business ethics research among the top 100 institutions

	Weighted number of articles	Total appearance		
Institution Weighted number of articles	0.2408 (0.0158)**	0.1595 (0.1130) 0.8816 (0.0000)***		

Appendix A reports the Pearson correlation coefficients among the type of institutions (1 for religious institutions and 0 for non-religious institutions), weighted number of articles, and total appearances for the top 100 institutions in Table IV. *p*-values are in parentheses.

Significant at the 5% level; *significant at the 1% level.

References

- Carmona, S., I. Cutiérrez and M. Cámara: 1999,
 'A Profile of European Accounting Research: Evidence from Leading Research Journals', *European* Accounting Review 8, 463–480.
- Chan, K. C., C. R. Chen and T. L. Steiner: 2004, 'Research Productivity of the Finance Profession in Europe', *Journal of Business Finance and Accounting* **312**, 177–213.
- Chan, K. C., C. R. Chen and L. Cheng: 2006, 'A Ranking of Accounting Research Output in the European Region Ranking', *Accounting and Business Research* **36**, 3–17.
- Chan, K. C., C. R. Chen and P. Lung: 2005, 'A Ranking of Finance Programs in the Asia–Pacific Region: An Update', *Pacific-Basin Finance Journal* **13**, 584–600.
- Chan, K. C., H. G. Fung and P. Lai: 2005, 'Membership on Editorial Boards and Rankings of Schools with International Business Orientation', *Journal of International Business Studies* 36, 452–469.
- Cheng, L., K. C. Chan and R. Chan: 2003, 'Publications in Major Marketing Journals: An Analysis of Research Productivity of Asia–Pacific Universities', *Journal of Marketing Education* 25, 163–176.
- Jin, J. C. and L. Yau: 1999, 'Research Productivity of the Economics Profession in East Asia', *Economic Inquiry* 37, 706–710.
- Kalaitzidakis, P., T. P. Mamuneas and T. Stengos: 1999, 'European Economics: An Analysis Based on Publi-

cations in Core Journals', *European Economic Review* **43**, 1150–1168.

- Paul, K.: 2004, 'Business and Society and Business Ethics Journals: A Citation and Impact Analysis', *Journal of Scholarly Publishing*, January, 103–117.
- Sabrin, M.: 2002, 'A Ranking of the Most Productive Business Ethics Scholars: A Five-Year Study', *Journal of Business Ethics* 36, 355–379.
- Statman, M.: 2007, 'Local Ethics in a Global World', *Financial Analysts Journal* 63, 32–41.

Kam C. Chan

Department of Finance, Gordon Ford College of Business, Western Kentucky University, Bowling Green, KY 42101, U.S.A. E-mail: Johnny.Chan@wku.edu

Hung-Gay Fung College of Business Administration, University of Missouri-St. Louis, One University Blvd, St. Louis, MO 63121, U.S.A. E-mail: fungh@msx.umsl.edu

Jot Yau

Albers School of Business and Economics, Seattle University, 901 12th Avenue, Seattle, WA 98122-1090, U.S.A. E-mail: jyau@seattleu.edu