Management Journals and the Celebrity Researcher Effect on Tiers

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I used two-way analysis of variance, with a 4 x 3 factorial design, to compare the means of 420 articles published in 21 reputable management journals—20 articles per journal. The independent variables were a corroborated list of 1st, 2nd, 3rd, and 4th tier management journals and three publication periods were 1989 and before, 1990 to 1999 and 2000 and after. The dependent variable was the 617,299 citations of articles found in a Google Scholar citations search. I ascertained means differed on the main effects of tier ($p < .001$) and publication period ($p < .05$). The measure of the magnitude of decreases in citations among journal tiers did not differ across the three publication periods, with a non-significant interaction effect of $p = .794$. Super-cited articles published in 1st tier management journals give them a competitive advantage over lower tier journals when journals are ranked by counting citations. This celebrity researcher effect, however, is negated over time.

INTRODUCTION

In an early study that solicited expert opinion, Durand (1974, p. 580) ranked the *Administrative Science Quarterly, Management Science, The Harvard Business Review, The Academy of Management Journal,* and *Journal of Business* as 1st, 2nd, 3rd, 4th and 5th respectively, in a study where journals were "ranked as influential to management theory and management practice by academic respondents." Comparing journals by citation counts and ranking them is not a new approach (Baird & Oppenheim, 1994; Oppenheim, 1996). Journal rankings and journal citations studies continue to intrigue faculties at the various schools of business around the globe. And journals continue to publish the results of these studies. Opinions of experts are important indicators of journal rankings, internationally too (Caligiuri, 1999; DuBois, & Reeb, 2000; Mingers & Harzig, 2007; Thongpapanl, 2012). Leung (2007) showed through a citation analysis that East Asian researchers are following the trend of Western researchers rather than establishing their own path. Researchers in the specialty fields of management, such as strategic management, operations management, technology and innovation management and even management accounting have joined in on the perpetual search (or continual re-affirmation) for the top journals in their fields.

For example, researchers have ranked strategic management journals based on the articles that are cited by other journals over a period between 1991 to 2006, looking for the per article impact of an article to affirm a journal's rank among journals (Azar & Brock, 2008). Researchers have examined 186 articles published in a single journal, *The Journal of Management Accounting Research*, from 1989 to 2008, and discovered there is a group of "most-cited authors" in that journal (Lindquist & Smith, 2009). Chong and Bell (2012) found differences in the relative frequency of published articles, whereby, highly regarded accounting journals favored the articles of Carnegie classified research extensive and foreign institutions

over the Carnegie classified master level and liberal arts schools. Another group of researchers used three different methods: the overall score, the normalized method, and the weighted-score method and ascertained that six innovation and technology management journals continue to appear as the top journals (Cheng, Kumar, Motwani, Reisman, Madan, & Manu, 1999). Another study found that based on total citations, citations per article, and citations per words published, for the period between 1992 and1994, the most important operations management journals were *Management Science, Decisions Sciences* and *Operations Research* (Vokurka, 1996). There is a variety of research methods on citations analysis of management journals.

Podsakoff, Mackenzie, Bachrach, and Podsakoff (2005) found seven journals accounted for 61 percent of the citations of 28 leading business journals over two decades, and in the past 20 years the most influential journals were *the Academy of Management Journal, the Academy of Management Review,* and *the Strategic Management Journal.* Li and Parker (2013) used Thomson Reuters' Journal Citation Reports database to derive three basic relationships that influence theory building: the numbers of articles citing a journal, articles cited by a journal, and a journal's self-citation rate. Stochastic models have been used to show the obsolescence and decline in the rate of citations of an article over time (Mingers & Burrell, 2006). Raut, Sahu, and Ganguly (2008) found the top ranked journals in strategic management were *Strategic Management Journal, Academy of Management Journal* and *Administrative Science Quarterly*, which combined represented 32% of literature coverage; moreover, authors they examined cited journals more frequently than books, magazines, newspapers, and other information sources. The key driver of citations in management journals is the journal itself, and other factors are length of the paper, the number of references, number of coauthors, Carnegie Classification and the status of the first author's institution (Bell, 2010; Bell & Chong, 2010; Mingers & Xu, 2010).

The majority of citations in management journals continue to be concentrated with a handful of journals; Geary, Marriott, and Liz (2004) found that 126 journals out of 562 journals accounted for 50% of the total citations of all 562 journals they examined. Linton and Thongpapanl (2004) found that based on ranking journals by the number of citations the top 10 technology and innovation management journals out of 50 were *Journal of Product Innovation Management, Research Policy, Research-Technology Management, Harvard Business Review, Strategic Management Journal, Management Science, Administrative Science Quarterly, R&D Management, IEEE Transactions on Engineering Management,* and *Academy of Management Review*. Bell (2012, p. 29) referred to any article that has been cited more than 2,429 times, that spawns a generation of research, as a "super-cited" article. A super-cited article can create citations momentum for the journal in which it is published, taking on a life of its own. Authors of such papers become celebrity researchers. A paper that is cited often will likely be cited even more often in the literature (Baird & Oppenheim, 1994; Oppenheim, 1996).

Harris (2008) in an article entitled "Ranking the Management Journals" developed a list of journals that would aid researchers in the selection of a management journal appropriate for publishing their research results. Harris found results consistent with other researchers' findings in terms of deciding what management journals are top tier management journals. Yuyuenyongwatana and Carraher (2008) also found a consensus in 50 management journals they ranked by means. They also argue that institutions are reasonable in using such rankings as a basis for evaluating the quality of a faculty member's research. Conversely, the notion of journal quality is not without controversy.

Journal Quality, the Elusive Concept

Empirical research has shown evidence there is bias in the relative frequency of Carnegie classified research extensive institutions over lesser institutions being published in the top business journals (Bell, 2010; Bell & Chong, 2010). Editors' perceptions of the submitting author's institution, editorial gate keeping, and other types of bias can determine who gets published in what types of journals. Brand named institutions crowd out other institutions; a lesser known researcher from a lesser known institution submitting his or her work to a highly regarded journal will be lucky to have it read by a staff editor, and the manuscript might never be sent out for peer review (Macdoanld & Kam, 2008).

It is hard to construe a journal's true quality from the hodgepodge of published research findings that deal specifically with journal quality question. A journal, when scientifically tested, is not a proxy for the quality of its articles and articles are not a proxy for the quality of the journal in which they are published (Chow, Haddad, Singh & Wu, 2007; Smith, 2004). Mediocre research is often granted the endorsement of high visibility when published in top journals but might also impede the development of knowledge (Starbuck, 2005). Journal quality is still a vague and elusive concept.

Most arguments of journal quality are circular; moreover, the indicator of quality has become the target for performance. In other words, the belief in quality of a journal has negated its being substantiated with objective evidence needed for universal acceptance of a "journal quality" definition. The notion of management journal quality appears to benefit members of the club merely because they are club members. Macdonald and Kam (2008, p. 596) wrote the following:

> *Academics are notoriously poor at identifying quality journals not known to be quality journals. They tend to be very familiar with very few journals, and very ignorant of the vast majority…Once a journal is on one list of quality journals, it is fairly likely to appear on other lists of quality journals. It is a quality journal because it is on a list of quality journals. Conversely, journals not on the lists are likely to remain excluded…One characteristic of quality journals in Management Studies is that authors from top business schools publish in them, but then, which are top business schools is often determined by publication in quality journals.*

Therefore, I am not arguing in this study that just because a management journal has a huge number of citations that this in turn is an indicator of that journal's quality. Top journals, on the other hand, do have influence when people cite the articles they publish. Bell (2012, p. 26) found a list of 61 management journals, listed by tiers, posted on the Bauer College of Business website:

> *Scholars at the University of Houston's Bauer College of Business (a U.S. News & World Report "Top 50" Business School) created a list of 61 management journals in 2009 and ranked them by tiers from 1 to 4, with 1 being highest…The Bauer list adheres to the consensus of what management professors perceive to be top management journals that has been substantiated in the literature.*

Research Purpose

Albeit the quality argument is still unresolved, there is some inconsistency in the methods used to determine a management journals' influence because most studies focus on a single sub area (Podsakoff, Mackenzie, Bachrach, & Podsakoff, 2005). Nonetheless, the literature suggests that the more an article is cited the greater is its influence on theory building (Li & Parker, 2013); therefore, 1st and 2nd tier management journals should be more influential in knowledge development than 3rd and 4th tier management journals and time should not negate this influence. Moreover, since super-cited articles have a momentum producing characteristic, the publication period should not diminish the established management journal hierarchy. Some journals decline in popularity while top journals maintain or even accelerate in popularity (Johnson, & Podsakoff, 1994). The journals believed to be most influential should produce heavily cited articles consistently. That is to say, regardless of the publication period, citations for top tier journals should be significantly higher than those from lower tier journals. The magnitude of the interaction effect should be significant. Even if citations for all tiers increase or decrease, 1st tier journals should increase significantly more than 2nd , 3rd, and 4th tiers or decrease significantly less than 2nd , 3rd, and 4th tiers.

My research purpose is to test three hypotheses related to pre-established lists of management journal tiers corroborated in the literature and the citations of articles published in those journals to ascertain if differences exist over time. My purpose is furthered by conducting this study to test whether a list of 21management journals corroborated to be highly regarded management journals differ by tier regarding

citations (main effect), whether there is a difference in publication periods regarding citations (main effect), and if the magnitude of citations increases or decreases across publication periods is different for 1st, 2nd, 3rd and 4th tier journals (the interaction effect).

METHODOLOGY

Despite the mixture of meaning on recent researchers' attempts to demonstrate an acceptable framework for what exactly is management journal "quality," institutions continue to create lists of management journals they deem influential. Many of these lists use citations as the main criterion, and based on the magnitudes of citations increases journals produce over time journal hierarchies are determined. The same journals seem to keep showing up on lists of top management journals decade after decade. Citations are construed as a journal's influence on theory building (Tahai & Meyer, 1999). It is hard to argue against citations influencing the work researchers do. Journal articles I cited in this paper, for example, certainly influenced my data collection methods as well as how I interpreted my results, especially using Google Scholar as a resource for evaluating management journals' impact (Bell, 2012; Harzing, & van der Wal, 2009). Table 1 illustrates two management journal lists from two independent studies, both published in 2008, where authors' ranked journals by means or classified them into categories of "A" "B" or "C" based on expert opinion and citations counts.

TABLE 1
TWO INDEPENDENT LISTS OF TOP MANAGEMENT JOURNALS

Yuyuenyongwatana, R. P., & Carraher, S. M. (2008, p. 4) 50 Management journals they ranked by means	**Harris, C. (2008) Management journals she ranked as A, B, or C**
1. Academy of Management Journal	**Management Journals Ranked 'A'**
2. Journal of Applied Psychology	Academy of Management Journal*
3. Academy of Management Review	Academy of Management Review*
4. Strategic Management Journal	Administrative Science Quarterly*
5. Management Science	Sloan Management Review
6. Journal of International Business Studies	Strategic Management Journal*
7. Journal of Management	**Management Journals Ranked 'B'**
8. Administrative Science Quarterly	Academy of Management Perspectives/Executive*
9. Organization Science	British Journal of Industrial Relations
10. International Journal of Family Business	British Journal of Management
11. Case Research Journal	California Management Review*
12. Journal of Business Strategies	Human Resource Management (US)
13. AOM Learning & Education	IEEE Transactions on Engineering Management
14. Journal of Management History	Industrial & Labor Relations Review
15. AOM Perspectives	International Journal of Human Resource Management
16. Journal of Management Studies	Journal of Human Resources
17. Public Administration Quarterly	Journal of Management*
18. California Management Review	Journal of Management Inquiry
19. International Journal of Sustainable Strategic Management	Journal of Management Studies*
20. Personnel Review	Journal of Organizational Behavior
21. Journal of International Entrepreneurship	Leadership Quarterly
22. International Journal of Production Research	Management Learning
23. International Journal of Information Technology and Management	**Management Journals Ranked 'C'**
24. Journal of International Business and Entrepreneurship	European Journal of Industrial Relations
25. Journal of Technology Management in China	International Journal of Management Reviews
26. Organizational Dynamics	International Review of Administrative Sciences
27. Management Decision	Journal of Leisure Research
28. International Journal of Technological Innovation and Entrepreneurship	Personnel Review*
29. Baltic Journal of Management	Research in Organizational Behavior

30. International Journal of Entrepreneurship	Research in Personnel & Human Resource Management
31. Journal of Managerial Issues	
32. Journal of Strategic Information Systems	
33. Organization Studies	
34. Cornell Hotel and Restaurant Administration Quarterly	
35. Journal of International Business and Enterprise Development	
36. Personnel	
37. Business Horizons	
38. International Journal of Entrepreneurship Development, Education & Training	
39. Journal of Asia Entrepreneurship and Sustainability	
40. Management Studies	
41. Planning Review	
42. Long Range Planning	
43. International Indigenous Journal of Entrepreneurship Advancement, Strategy, & Education	
44. Small Business and Enterprise Development	
45. Journal of Enterprising Culture	
46. Asian Journal of Business & Entrepreneurship	
47. International Journal of Commerce and Management	
48. Public Personnel Management	
49. Business Journal for Entrepreneurs Quarterly	
50. Central Business Journal	
*Denotes that journal is on both lists.	

Table 2 shows the original Bauer School of Business (2009) list of 61 management journals by tier with a cross-comparison of the two other lists of top management journals from Yuyuenyongwatana and Carraher (2008) and Harris (2008). This cross-comparison lends face validity that scholarly researchers in the field of management perceive these as top journals. Therefore, several of the management journals appeared on two of the three lists; some appeared on all three lists. I considered the three lists of journals, therefore, corroborated on their face value as top journals. I selected 21 management journals for comparison purposes and used the Bauer list to place them into respective tiers. The only exception was the *Journal of Business Strategies*, not on the original Bauer list, but I assigned it to the tier 4 group.

TABLE 2
A CROSS-COMPARISON OF THREE INDEPENDENT LISTS OF TOP MANAGEMENT JOURNALS

List A[a]	Bauer Tiers	List B[b]	List C[c]
1. Academy of Management Journal*	1	y	y
2. Academy of Management Review*	1	y	y
3. Administrative Science Quarterly*	1	y	y
4. Strategic Management Journal*	1	y	y
5. Journal of International Business Studies#	2	y	
6. Journal of Management*	2	y	y
7. Journal of Management Studies*	2	y	y
8. Leadership Quarterly#	2		y
9. Personnel Psychology	2		
10. Academy of Management Perspectives*	3	y	y
11. Corporate Governance	3		
12. Human Relations	3		
13. IEEE Transactions on Engineering Management#	3		y
14. International Journal of Human Resource Management#	3		y
15. Journal of Occupational and Organizational Psychology	3		

16. Journal of Managerial Issues #	3	y	
17. Journal of Organizational Behavior#	3		y
18. Organizational Dynamics	3	y	
19. Personality and Social Psychology Bulletin	3		
20. Academy of Management Learning and Education#	4	y	
21. Advances in Strategic Management	4		
22. Asia Pacific Journal of Management	4		
23. British Journal of Management	4		
24. Business and Society	4		
25. California Management Review*	4	y	y
26. Decision Sciences Journal of Innovative Education	4		
27. Group and Organization Studies	4		
28. Human Performance	4		
29. Human Resources Management#	4		y
30. Human Resource Management Review	4		
31. International Business Review	4		
32. International Journal of Innovation and Technology Management	4		
33. International Journal of Innovation Management	4		
34. International Journal of Management Reviews#	4		y
35. Journal of Applied Behavioral Science	4		
36. Journal of Applied Social Psychology	4		
37. Journal of Behavioral Decision Making	4		
38. Journal of Business Ethics	4		
39. Journal of Business Strategy (different than Journal of Business Strategies)	4	y	
40. Journal of Business Venturing	4		
41. Journal of Conflict Resolution	4		
42. Journal of Education for Business	4		
43. Journal of Engineering & Technology Management	4		
44. Journal of High Technology Management Research	4		
45. Journal of International Management	4		
46. Journal of Management Education	4		
47. Journal of Small Business Management	4		
48. Journal of Vocational Behavior	4		
49. Journal of World Business	4		
50. Law and Human Behavior	4		
51. Long Range Planning	4		
52. Management and Organization Review	4		
53. Management International Review	4		
54. Management Learning	4		y
55. Organization Studies#	4	y	
56. Public Personnel Management*	4	y	
57. Research Policy	4		
58. Research-Technology Management	4		
59. Sex Roles	4		
60. Thunderbird International Business Review	4		
61. World at Work Journal	4		

a. Source for List A: University of Houston's Bauer College of Business for 2009.
b. Source for List B: Yuyuenyongwatana, R. P., & Carraher, S. M. (2008).
c. Source: for List C: Harris (2008).
*Denotes a journal that appears in all three lists; #Denotes a journal that appears on two lists.

Google Scholar allows for a citation search simply by typing in the journal title in the search engine. I collected all the data on May 26, 2013 from a Google Scholar citation search, and recorded the information from the first two pages of the search results of each journal in an Excel spread sheet. I coded for publication date, period of publication, number of citations of an article, tier, and number of authors. I recorded the first 20 articles that appeared in the first two pages of the Google Scholar citations search results for each of the 21 management journals. It took a couple of days to input the coded data into an

Excel file. I later exported the file with 420 rows of data to SPSS 18.0 for statistical analysis. The frequency and percent of independent variables (publication period, tier, and number of authors) are shown in Table 3.

TABLE 3
FREQUENCY AND PERCENTS OF DEMOGRAPHIC VARIABLES

Variables		Frequency	Percent	Cumulative Percent
Journal Tiers	1st	80	19.0	19.0
	2nd	80	19.0	38.1
	3rd	120	28.6	66.7
	4th	140	33.3	100.0
	Total	420	100.0	
Publication Period	1989 and before	77	18.3	18.3
	1990 to 1999	165	39.3	57.6
	2000 and after	178	42.4	100.0
	Total	420	100.0	
Authors	One	157	37.4	37.4
	Two	180	42.9	80.2
	Three or more	83	19.8	100.0
	Total	420	100.0	

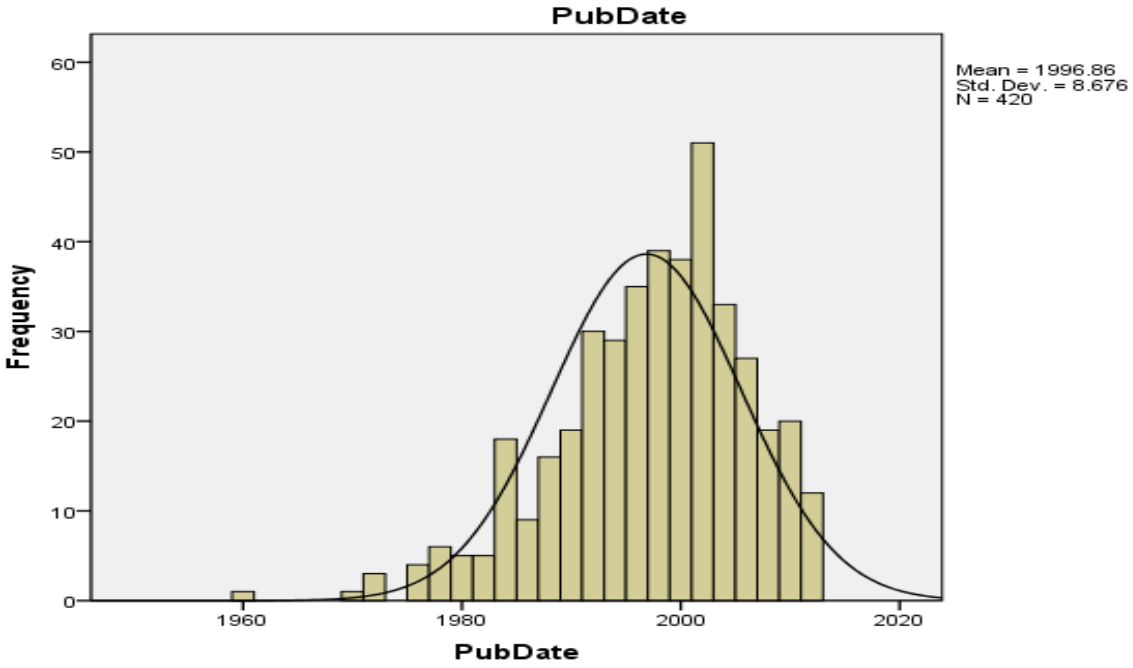
The publication period was determined based on an article being published 1989 and before, 1990 to 1999, and 2000 and after. Figure 1 shows a histogram of the pattern of the actual publication dates for all 420 articles, ranging from 1960 to 2012.The actual publication dates for the 420 articles appears to be a pretty good normal distribution of data. This gives me confidence in the randomness of the data. There were a very small number of articles that were published in 1960's and 1970's that I combined into the 1989 and before group to ensure there were adequate cell sizes for data analysis purposes.

Research Hypotheses

To further investigate the differences in independent variables and differences in the dependent variable, the following three null hypotheses were written and tested.

> *H_1: Means for citations do not differ among the publication periods of 1989 and before, 1990 to 1999, and 2000 and after.*
>
> *H_2: Means for citations do not differ among the management journal tiers of 1^{st}, 2^{nd}, 3^{rd}, and 4^{th}.*
>
> *H_3: Means for the magnitude of citations increases or decreases do not differ among management journal tiers of 1^{st}, 2^{nd}, 3^{rd}, and 4^{th} regardless of the publication periods of 1989 and before, 1990 to 1999, and 2000 and after.*

FIGURE 1
PUBLICATION DATES FOR 420ARTICLES AND FREQUENCY, 1960 TO 2012



TWO-WAY ANOVA RESULTS

I used a two-way analysis of variance with a 4 x 3 factorial design to compare the means of 420 articles that were published in 21 reputable management journals—20 articles per journal. The independent variables were 1st, 2nd, 3rd, and 4th tier management journals and the three publication periods of 1989 and before, 1990 to 1999 and 2000 and after. The dependent variable was the number of citations for each of the 420 articles. There were 617, 299 total citations. I tested for main effects and interaction effects. The means and standards deviations for the three publication periods, the four tiers and the Test of Between-Subjects Effects are shown in Table 4. Estimated Marginal Means for Period, Tier, and Period * Tier are presented in Tables A, B and C in the Appendix.

I rejected Hypothesis$_1$: Means for citations differ among the publication periods of 1989 and before, 1990 to 1999, and 2000 and after, with F(2, 408), 3.637, p= .027. The LSD Post-Hoc tests show a negative mean difference of -943.128 between publication periods 2000 and after and 1989 and before (P= .009); it shows a negative mean difference of -629.298 between periods 2000 and after and1990-1999 (p= .041). Partial Eta Squared accounted for a small effect size, meaning publication period accounted for only 1.8 percent of the variance in citations. Clearly technology is the best explanation for the fact that more articles were published for the more recent publication periods. Personal computers, statistical software packages, subscriptions to library databases that include PDF full-text research articles have all contributed to this difference. The speed in which researchers can publish their articles has increased exponentially because of computing technologies. It does not explain why more citations occur in the period when fewer articles were published.

I rejected Hypothesis$_2$: Means for citations differ among the management journal tiers of 1st, 2nd, 3rd, and 4th, with F(3, 408), 37.812, p= .000. Given that tiers are already pre-established, based on citation differences this finding is not unexpected. The LSD Post-Hoc test reveals all the mean differences are significant, with a p= .000 on all comparisons of tiers 2, 3, and 4 to tier 1which shows a continual decline in citations as journals decline in tiers. Mean differences were -2823.626, -3834.438, and -3994.422,

respectively. Partial Eta Squared accounted for a large effect size, meaning tier accounted for 21.8 percent of the variance in citations when using the Cohen (1988) rule that .01 ~ small, .06 ~ medium and .14 ~ large. This finding substantiates the literature in this regard; the lower the journal tier significantly fewer is the citations.

I did not reject Hypothesis$_3$: Means for the magnitude of citations decreases do not differ among management journal tiers of 1st , 2nd , 3rd , and 4th regardless of the publication periods of 1989 and before, 1990 to 1999, and 2000 and after, with F(6, 408), 0.519, p= .794. This is surprising given the fact 1st tier management journals have published the most super-cited articles. Although, 1st tier journals have higher means across the three publication periods they are not statistically different across the three publication periods. The magnitude of the interaction effect was non-significant. The 1st tier journals' citations did not increase significantly more than 2nd, 3rd, and 4th tiers nor did citations decrease significantly less than 2nd, 3rd, and 4th tiers. In fact, all four tiers decreased in citations over the three publication periods.

TABLE 4
UNIVARIATE ANALYSIS OF VARIANCE WITH MEANS AND STD. DEVIATIONS

Period	Tier	Mean	Std. Deviation	Articles
1989 and before	1	5123.88	4208.125	26
	2	2176.77	1752.328	13
	3	1081.71	1007.655	21
	4	493.82	318.689	17
	Total	2501.69	3229.211	77
1990 to 1999	1	4561.67	3336.540	48
	2	1885.13	4466.102	40
	3	603.58	449.814	31
	4	570.50	524.729	46
	Total	2056.48	3302.824	165
2000 and after	1	3704.00	1562.518	6
	2	856.78	475.000	27
	3	200.94	271.564	68
	4	341.96	348.852	77
	Total	479.51	771.030	178
Total	1	4680.06	3539.386	80
	2	1585.45	3266.796	80
	3	459.09	612.462	120
	4	435.49	422.687	140
	Total	1469.76	2675.843	420

Dependent Variable: Citations **Tests of Between-Subjects Effects**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1.147E9	11	1.043E8	22.950	.000	.382
Intercept	8.437E8	1	8.437E8	185.727	.000	.313
Period	3.304E7	2	1.652E7	3.637	***.027**	.018
Tier	5.153E8	3	1.718E8	37.812	****.000**	.218
Period * Tier	1.414E7	6	2356259.282	.519	.794	.008
Error	1.853E9	408	4542490.204			
Total	3.907E9	420				
Corrected Total	3.000E9	419				

*Denotes p< .05; ***Denotes p< .001.

DISCUSSION AND SUMMARY

What is the most logical explanation for the fact that fewer articles were published in the period of 1989 and before (77 articles, citations mean= 2219), compared to 1990-1999 (165 articles, citations mean= 1905) and 2000 and after (178 articles, citations mean= 1276) but there were more citations in the earlier period? Why is the citations trend downward for all four of the management journals tiers across the three publication periods? The most logical explanation is that there were more super-cited articles published in the earlier period than in the more recent periods. I will refer to this phenomenon hereafter as the Celebrity Researcher Effect.

The literature review revealed that various studies have been conducted regarding journal rankings, journal quality and citations of articles published by journals included on lists of top management journals. This study's contribution to the literature is derived from a random, and pretty good representative sample of 21 management journals citations compared against pre-established tiers and three publication periods for 420 articles. The plot shown in Figure 2 is the best way to understand the dynamics of my findings; the 4x3 factorial design is plotted by tier (1= first, 2= second, 3= third, and 4= fourth) and publication period (8= 1989 and before, 9= 1990 to 1999, and 10= 2000 and after) and makes it clear as to why the interaction effect was non-significant, with a p = .794. There is a downward trend in the citations patterns for all four tiers across the three publication periods. None of the tiers pull significantly in the opposite direction of any of the other journal tiers. This is telling.

I surmise that the Celebrity Researcher Effect is negated over time. Thus, super-cited articles have no significant effect in the interaction because they decline in popularity and utility in theory building as knowledge develops. Moreover, celebrity researchers producing articles of this quality decline over time as they retire. And even though older articles have more time to be cited than newer articles, super-cited articles eventually exhaust their applicability to modern approaches. Popularity of the super-cited articles fade, even when there is perfunctory citations of such articles, because of knowledge development. My findings support the conclusion that articles become obsolete and decline in the rate of citations of an article over time (Mingers & Burrell, 2006).

FIGURE 2
PROFILE PLOTS FOR TIER * PUBLICATION PERIOD

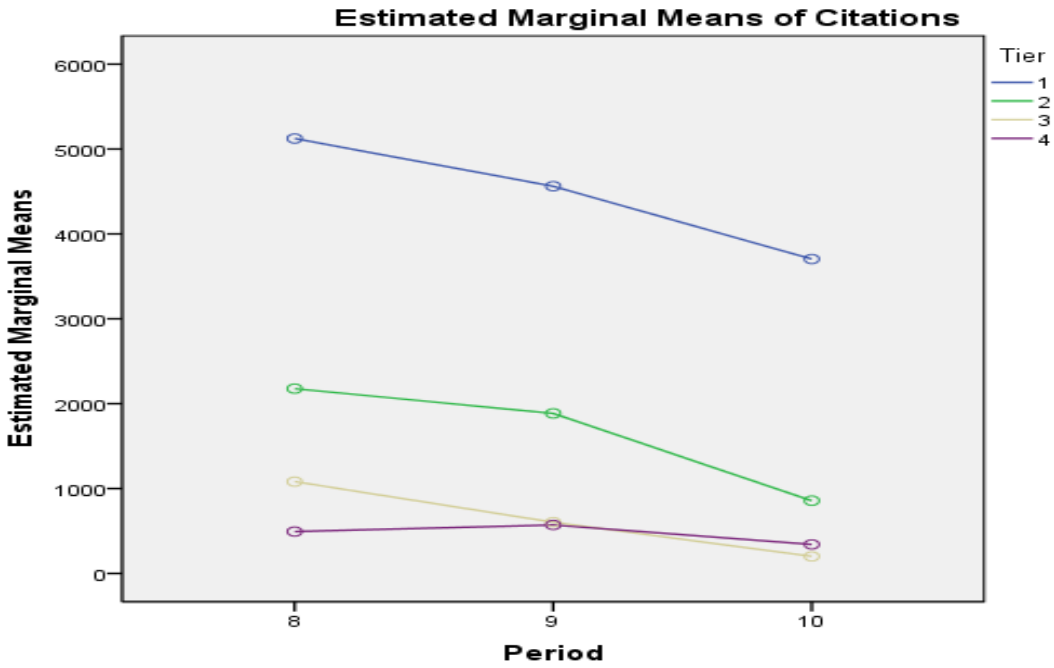


Table 5 shows the 21 management journals that I ranked by citations means. Table 5 also includes the original Bauer School of Business (2009) management journals tiers. Even though the Levene's Test of Equality of Error Variance was significant (p = .000), I am not concerned about a Type I error, because the p-value for tier was significant well below p< .000 on tiers. Also, the sampling frame for publication dates of the 420 articles is fixed; fewer articles were published in the period of 1989 and before than in the periods of 1990-1999 and 2000 and after, but more citations occurred in the earlier period.

Despite this fact, my findings appear to show a non-significant downward trend of the magnitude of decreases in citations of all four tiers of management journals across three publication periods. This is why tiers are not reflective of the citation means that I ascertained in this study. For example, *Organization studies* has a mean of 899.75 citations, and is ranked 10th by me but has a Bauer rating of 4th tier, and is 33/50 on List B[b]. *California Management Review* has a mean of 651.45 citations, and is ranked 12th by me, but has a Bauer rating of 4th tier; Harris (2008) gave it a "B" rating. Each of these journals' means is well above the means for 3rd and 4th tier as seen in Table 5. Also, super-cited articles seem to inflate the means for some journals, especially when journal comparisons don't account for publication period.

TABLE 5
MANAGEMENT JOURNALS RANKED BY MEANS WITH STD. DEVIATION

Management Journal List by Ranked by Means	Rank	Means	Articles	Std. Deviation
Academy of Management Review	1	5876.75	20	3917.882
Strategic Management Journal	2	5468.85	20	3848.251
Administrative Science Quarterly	3	4920.85	20	3754.938
Journal of Management	4	3143.90	20	6199.954
Academy of Management Journal	5	2453.80	20	622.994
Journal of International Business Studies	6	1351.70	20	1402.160
Journal of Organizational Behavior	7	1018.10	20	754.756
Journal of Management Studies	8	980.75	20	365.125
Organizational Dynamics	9	971.05	20	756.540
Organization Studies	10	899.75	20	558.134
Leadership Quarterly	11	865.45	20	537.925
California Management Review	12	651.45	20	504.782
IEEE Transactions on Engineering Management	13	461.75	20	414.122
Human Resources Management	14	452.00	20	284.321
Academy of Management Learning and Education	15	352.25	20	400.083
International Journal of Management Reviews	16	348.30	20	182.195
Management Learning	17	254.90	20	88.926
Academy of Management Perspectives	18	167.70	20	69.744
International Journal of Human Resource Management	19	134.15	20	74.213
Journal of Business Strategies	20	89.80	20	84.041
Journal of Managerial Issues	21	1.80	20	2.931
Total		**1469.76**	**420**	**2675.843**
	Tiers	**Means**	**Articles**	**Std. Deviation**
	1ST	4680.06	80	3539.386
	2nd	1585.45	80	3266.796
	3rd	459.09	120	612.462
	4th	435.49	140	422.687
Total		**1469.76**	**420**	**2675.843**

Most of the super-cited articles appeared as first article on the first page of the Google Scholar search. I can argue a normal distribution of the sample and the fact that I used the first 20 articles in a Google Scholar search for each of the 21 management journals is a fair comparison. The 420 articles were normally distributed in the results pages (See Figure 1). Table 6 shows 15 of these super-cited seminal

articles, written by celebrity researchers, and they are a competitive advantage for these journals when citations are the measure of influence. I also found that few authors accounted for the bulk of citations in this study which is consistent with Lindquist and Smith (2009). Several of the celebrity researchers' citations in this study are many times above the population mean of 1469.

Celebrity researcher articles represent an enormous advantage for 1st tier journals, especially in the earlier period, which creates an overwhelming disadvantage for the lower tier management journals to overcome. Table 6 shows Kathleen M. Eisenhardt appears six times and has a total of 41,592 citations and four of her articles are published in Bauer 1st tier journals. Kathleen M. Eisenhardt is currently Professor of Strategy and Organization at Stanford University. Therefore, celebrity researchers' articles are extremely important in citation counts because citations of the celebrity researcher articles can become perfunctory in nature. Authors sometime cite an article for its popularity and not necessarily because the article makes any real or germane addition to an author's research. When an article is cited often it is likely to be cited more often (MacDonald & Kam, 2008; Baird & Oppenheim, 1994; Oppenheim, 1996).
When citations are the measure of a management journal's influence on theory building 1st tier journals have an enormous advantage. The citations momentum 1st tier management journals have over lower tier journals creates an overwhelming disadvantage for the lower tier journals hoping to someday be classified as 1st tier journals, judged by their citations count. Table 6 shows a search of the 420 articles used in this study revealed that 15 articles written by celebrity researchers (3.57%) accounted for 18.96% of the total citations. Most of these are two or three standard deviations above the mean citations for their respective tiers, and many times larger than the population mean. The citations mean for these 15 super-cited articles was 7802. Recall the population citations mean for 420 articles was 1469. The citations mean for the 405 articles without the super-cited articles was 1235.

Management journal tiers are statistically the same across the three publication periods. And time diminishes the magnitude of the Celebrity Researcher Effect. Differences across the four management journal tiers diminish over time. The large standard deviations for some of the management journals reveal that there are a lot of super-cited articles among some journals and explains why tiers differed at such a high level of significance. Based on the examination of the Google Scholar citations search results for 20 articles each from 21 management journals, popularity of super-cited articles appears to decline over time. It does, however, make sense that older articles are cited more often than newer articles.
Nevertheless, publication period diminishes the influence of The Celebrity Researcher Effect across the four tiers. It is my opinion that when time is accounted for it makes no sense to place the 21 management journals into tiers because they are statistically equal in terms of the magnitude of decreases in citations of the articles they have published. Citations decline in the same pattern for all the tiers and no tier is pulling in the opposite direction (increasing while others decrease, vice versa) of any of the others.

TABLE 6
CELEBRITY RESEARCHERS' TOTAL CITATIONS AS A PERCENT OF ALL CITATIONS

Celebrity Researchers' Total Citations = 117025 **Celebrity Researchers' Percent of All Citations= 117025/617299 * 100 = 18.96%** **Celebrity Researchers' Percent of All Papers = 15/420 papers * 100 = 3.57%** **Celebrity Researchers' Citations Mean = 117025/15 = 7802**		
Building theories from case study research KM **Eisenhardt** - Academy of management review, 1989 - JSTOR **Cited by 21269**	Social capital, intellectual capital, and the organizational advantage J Nahapiet, S **Ghoshal** - Academy of management review, 1998 - JSTOR **Cited by 8297**	Absorptive capacity: a new perspective on learning and innovation WM Cohen, **DA Levinthal** - Administrative science quarterly, 1990 - JSTOR **Cited by 19420**
Agency theory: An assessment and review KM **Eisenhardt** - Academy of management review, 1989 - JSTOR **Cited by 5950**	Social capital and value creation: The role of intrafirm networks W Tsai, S **Ghoshal** - Academy of management Journal, 1998 - JSTOR **Cited by 3091**	The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations SL Brown, KM **Eisenhardt** - Administrative science quarterly, 1997 - JSTOR **Cited by 2725**
Theory building from cases: Opportunities and challenges. KM **Eisenhardt**, ME Graebner - Academy of management journal, 2007 - amj.aom.org **Cited by 2666**	Bad Management Theories Are Destroying Good Management Practices. S **Ghoshal** - Academy of Management Learning & Education, 2005 - amle.aom.org **Cited by 1724**	The internationalization of the firm—four swedish cases 1 **J Johanson,** F Wiedersheim-Paul - Journal of management …, 1975 - Wiley Online Library **Cited by 2252**
Making fast strategic decisions in high-velocity environments KM **Eisenhardt** - Academy of Management journal, 1989 - JSTOR **Cited by 2539**	The resource-based view of the firm: Ten years after 1991 **J Barney**, M Wright, DJ Ketchen - Journal of management, 2001 - jom.sagepub.com **Cited by 1304**	The myopia of learning **DA Levinthal**, JG March - Strategic management journal, 1993 - Wiley Online Library **Cited by 4091**
Dynamic capabilities: what are they? KM **Eisenhardt,** JA Martin - Strategic management journal, 2000 - noppa.aalto.fi **Cited by 6443**	Firm resources and sustained competitive advantage **J Barney** - Journal of management, 1991 - jom.sagepub.com **Cited by 29140**	The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments **J Johanson,** JE Vahlne - Journal of international business studies, 1977 - JSTOR **Cited by 6114**
KM Eisenhardt = 41592 or 41592/617299 * 100 = **6.74%**	**Ghoshal = 13112** or 13112/617299 * 100 = **2.12%**	**J Johanson = 8366** or 8366 /617299 * 100 = **1.36%**
J. Barney = 30444 or 30444/617299 * 100 = **4.93%**	**DA Levinthal = 23511** or 23511/617299 * 100 = **3.81%**	

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APPENDIX

Estimated Marginal Means

Table A: Period

Estimates

Dependent Variable:Citations

Period		Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
dimension1	8	2219.048	250.954	1725.723	2712.372
	9	1905.218	168.352	1574.272	2236.164
	10	1275.920	256.310	772.067	1779.773

Pairwise Comparisons

Dependent Variable:Citations

(I) Period	(J) Period		Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
						Lower Bound	Upper Bound
dimension1	8	dimension2 9	313.830	302.193	.300	-280.219	907.879
		dimension2 10	943.128*	358.710	.009	237.978	1648.278
	9	dimension2 8	-313.830	302.193	.300	-907.879	280.219
		dimension2 10	629.298*	306.655	.041	26.477	1232.119
	10	dimension2 8	-943.128*	358.710	.009	-1648.278	-237.978
		dimension2 9	-629.298*	306.655	.041	-1232.119	-26.477

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

*. The mean difference is significant at the .05 level.

Note: 8= 1989 and before, 9= 1990 to 1999, and 10= 2000 and after.

Univariate Tests

Dependent Variable:Citations

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	3.304E7	2	1.652E7	3.637	.027	.018
Error	1.853E9	408	4542490.204			

The F tests the effect of Period. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Table B: Tier

Estimates

Dependent Variable:Citations

Tier	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1st	4463.184	337.709	3799.316	5127.051
2nd	1639.557	264.832	1118.951	2160.163
3rd	628.745	218.490	199.238	1058.253
4th	468.762	217.294	41.607	895.916

Pairwise Comparisons

Dependent Variable:Citations

(I) Tier		(J) Tier	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
						Lower Bound	Upper Bound
dimension1	1	2	2823.626*	429.166	.000	1979.973	3667.279
		dimension2 3	3834.438*	402.226	.000	3043.745	4625.132
		4	3994.422*	401.577	.000	3205.004	4783.840
	2	1	-2823.626*	429.166	.000	-3667.279	-1979.973
		dimension2 3	1010.812*	343.328	.003	335.899	1685.725
		4	1170.796*	342.568	.001	497.378	1844.214
	3	1	-3834.438*	402.226	.000	-4625.132	-3043.745
		dimension2 2	-1010.812*	343.328	.003	-1685.725	-335.899
		4	159.984	308.147	.604	-445.770	765.738
	4	1	-3994.422*	401.577	.000	-4783.840	-3205.004
		dimension2 2	-1170.796*	342.568	.001	-1844.214	-497.378
		3	-159.984	308.147	.604	-765.738	445.770

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests

Dependent Variable:Citations

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	5.153E8	3	1.718E8	37.812	.000	.218
Error	1.853E9	408	4542490.204			

The F tests the effect of Tier. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Table C: Period * Tier

Dependent Variable:Citations

Period		Tier	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
dimension1	8	1	5123.885	417.985	4302.212	5945.557
		2	2176.769	591.120	1014.749	3338.789
		3	1081.714	465.090	167.442	1995.987
		4	493.824	516.919	-522.334	1509.981
	9	1	4561.667	307.628	3956.932	5166.401
		2	1885.125	336.990	1222.672	2547.578
		3	603.581	382.795	-148.916	1356.077
		4	570.500	314.245	-47.241	1188.241
	10	1	3704.000	870.104	1993.553	5414.447
		2	856.778	410.171	50.465	1663.090
		3	200.941	258.460	-307.137	709.020
		4	341.961	242.886	-135.502	819.424

Post Hoc Tests

Period

Multiple Comparisons

Citations

LSD

(I) Period		(J) Period		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
dimension2	8	dimension3	9	445.21	294.149	.131	-133.03	1023.45
			10	2022.18*	290.711	.000	1450.70	2593.66
	9	dimension3	8	-445.21	294.149	.131	-1023.45	133.03
			10	1576.97*	230.326	.000	1124.20	2029.75
	10	dimension3	8	-2022.18*	290.711	.000	-2593.66	-1450.70
			9	-1576.97*	230.326	.000	-2029.75	-1124.20

Based on observed means.

The error term is Mean Square(Error) = 4542490.204.

*. The mean difference is significant at the .05 level.

Note: 8= 1989 and before, 9= 1990 to 1999, and 10= 2000 and after.

Tier

Multiple Comparisons

Citations
LSD

(I) Tier		(J) Tier	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
dimension2	1	2	3094.61*	336.990	.000	2432.16	3757.07
		dimension3 3	4220.97*	307.628	.000	3616.24	4825.71
		4	4244.57*	298.710	.000	3657.37	4831.77
	2	1	-3094.61*	336.990	.000	-3757.07	-2432.16
		dimension3 3	1126.36*	307.628	.000	521.62	1731.09
		4	1149.96*	298.710	.000	562.75	1737.16
	3	1	-4220.97*	307.628	.000	-4825.71	-3616.24
		dimension3 2	-1126.36*	307.628	.000	-1731.09	-521.62
		4	23.60	265.142	.929	-497.62	544.81
	4	1	-4244.57*	298.710	.000	-4831.77	-3657.37
		dimension3 2	-1149.96*	298.710	.000	-1737.16	-562.75
		3	-23.60	265.142	.929	-544.81	497.62

Based on observed means.
The error term is Mean Square(Error) = 4542490.204.
*. The mean difference is significant at the .05 level.