

Citation Differences Between ABC Journals and Related, But Unaffiliated Quality Journals

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Abstract

This study sought to determine if the Association of Business Communication journal articles are influencing the business communication field more than articles published by related, but not affiliated journals. Since researchers have agreed that citations effectively measure impact on a field, analyzing citations could determine if ABC articles are leading or lagging in influence. We examined 172 articles (cited 4,624 times) listed in Google Scholar Metrics, published between 2009 and 2013. We found 36 articles published by ABC's two journals having the most influence when they were compared to 136 articles published in 10 related, but not affiliated journals. Using one-way analysis of variance revealed means differed between ABC journals and related, but not affiliated journals significantly when citations was the dependent variable. When time, as a factor, was added, the two-way ANOVA resulted in a non-significant interaction effect, which suggested the related, but not affiliated articles were gaining influence. Therefore, we have provided some recommendations for how ABC can offset these gains.

Rogers, Campbell, Louhiala-Salminen, Rentz, and Suchan (2007) established the fact that members of the Association of Business Communication (ABC) perceived several journals they read frequently to be high quality. Those journals included *International Journal of Business Communication* and *Business & Professional Communication Quarterly*, which are published by ABC as well as *Delta Pi Epsilon Journal*, *Technical Communication*, *Technical Communication Quarterly*, *Journal of Management Education*, *IEEE Transaction on Professional Communication*, *Management Communication Quarterly*, *Journal of Business and Technical Communication*, and the *Harvard Business Review*. Other noteworthy journals that publish business communication subjects include *Corporate Communication-an International Journal*, *Communications & Strategies*, and the *Journal of Technical Writing and Communication*. While these journals vary somewhat in scope and focus, all appear related to the business and managerial communication field. As Rentz (2009) stated these journals serve as an important niche to reputable business and management journals.

When determining journal quality, two primary ways are used to measure quality, which are expert surveys and citation journal ranking impact measures (Lowry, Humphreys, Malwitz, & Nix, 2007; Lowry, Romans, & Curtis, 2004; Truex, Cuellar, & Takeda, 2009; Vincent & Ross, 2011).

Expert Surveys

When expert surveys are used, a number of active field researchers, practitioners and students, rank each outlet based on specified factors. The journal's ranking position reflects a cumulative opinion of a representative group of its readers and contributors, but often those opinions are skewed by common sense approaches, perceptual sets, and selection biases that have historically plagued the social sciences. The reputation of a journal is perceived to be of high quality because of the scholars [expert opinions] publish articles in that journal, and vice versa, because the journal is considered high quality, scholars publish their work in that journal. 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 are 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.

In addition, circular reasoning and logic has occurred when experts determine a journal to be of high quality for anecdotal reasons only, which is often hard to prove. Such behavior among expert raters has been substantiated in numerous empirical studies (Bell & Chong, 2010; Chong & Bell, 2012). Even more so, scholarly journals are prone to have celebrity authors whose influence increases a journal's prestige and citations of its articles, just as casting a well liked and popular star can boost ticket sales when a mega-star is cast in the leading role (Bell, 2013; Fei, Chong & Bell, 2015).

Expert ratings of business and management journal quality through survey methods have been shown to be subjectively biased (Katerattanakul, Razi, Han, & Kam, 2005). Because of such bias, Carnegie classified research intensive institutions have received favorable treatment among the most selective journals (Bell & Chong, 2010).

Journal Citation Studies

The second primary method of judging quality is journal citation studies. This method produces impact scores that eliminate most of the subjectivity inherent in expert surveys. Citation studies assume a positive relationship between the independently reported indices and the journal's rank (Serenko & Dohan, 2011). The most popular journal impact measures include the Journal Impact Factor (JIF), eigenfactor and article influence factor reported in Thomson Reuters' Journal Citation Reports (Franceschet, 2010), as well as h-index (Hirsch, 2005), g-index (Egghe, 2006) and hc-index (Sidiropoulos, Katsaros, & Manolopoulos, 2007), which are typically obtained from Google Scholar (GS) (Harzing & Van Der Wal, 2009) or Scopus (Meho & Yang, 2007).

Longitudinal analysis of article citations is not new to business communication. In the past, researchers have found a core list of monographs, dissertations and most cited journals in business communication. Koch (1979) showed one of the earliest application of network-based content analysis by using citation analysis (Rice, & Danowski, 1993). Reinsch and Lewis (1993) investigated the "Citation Patterns for *The Journal of Business Communication* from 1978-1992 and found that rarely the same author published in the *Journal of Business Communication* (now *International Journal of Business Communication*). Reinsch

and Lewis (1993) discovered an interesting fact, which was periodicals cited in the articles published in *IJBC* rarely cited *IJBC* in return.

Smith (2000, p. 131) found from 1,600 serials and 25,000 plus citations that 99 serials accounted for most of the citations out of over 25,000 plus citations; technical communication subjects also correspond very well to outsider disciplines, including “the diversity of resources referred to from business, education, psychology, science, and technology-related sources.” Reinsch and Reinsch (1996) found favorable comparisons between business communication journals and ten other communication journals to which they were compared. Vincent and Ross (2011) reported that the *IJBC* was not considered in 1994 to be a research-based or hard-science journal but was moving in that direction. We now know that *IJBC* is, in fact, currently a research-based journal. Business and technical communication subjects are substantiated to be pertinent to research conducted in the social sciences (Reinsch & Reinsch, 1996; Reinsch & Lewis, 1993). Other longitudinal studies continued to show evidence of the relevancy of business and technical communication articles on the main topics of social science research (Moran & Tebeaux, 2011; Moran & Tebeaux, 2012).

It appears to take roughly 25-years to know the full impact of a scholarly article. Possibly the best summary of an article’s influence over a 25-year period comes from Walters (2011, p. 1629) who analyzed the annual citation counts for 1,172 articles published by 13 American Psychological Association journals:

When the sample was divided into four categories of impact using the total citation counts for each article—low impact (0–24 citations), moderate impact (25–99 citations), high impact (100–249 citations), and very high impact (250–1,763 citations) —the yearly citation counts of low to high-impact articles peaked earlier and displayed a steeper decline than the yearly citation counts of very high-impact articles. Using 5 or more citations a year, 10 or more citations a year, and 20 or more citations a year as markers of moderate-impact, high-impact, and very high-impact articles, respectively, and using the most cited articles in a journal during the first 5 years of the follow-up period as indicators of high impact and very high impact showed promise of predicting impact over the entire 25-year period.

Given this finding, we used these four categories of impact as a guidepost for determining the impact of the top articles published in the 12 journals examined in this study. Citation studies, which provides impact scores, are a better measure of a journal’s quality as the ratio level data (dependent variable having a true zero value) of article citations published by a journal can be determined. The true influence a journal has on the business communication field can be confirmed by the articles it publishes and measured by its impact factor or citations of the articles in a short window of time. Thus, citations are the best indication of the influence a research work is having on the field.

Citation databases remain the most viable methods for generating bibliometric data and for making accurate citation-based research assessments and large-scale comparisons between works, authors, journals, and departments (Meho & Yang, 2007); even when authors’ self-citations and journals’ self-citations are controlled. The individual merit of the article will determine, eventually, its citations tendency (Vincent & Ross, 2011). Rogers et al. (2007) used an expert survey to determine perceived journal ranking, however, they left one question unanswered, which is:

Question 1: Do articles published from 2009-2013 by the Association of Business Communication differ from articles published in related but not affiliated journals in terms of citation counts found in Google Scholar Metrics?

Google Scholar Metrics and Citation Statistics

Researchers have noted problems with using the ISI Web of Knowledge as a data source (Cameron, 2005; Seglen, 1997). Issues included the lack of coverage of citations in books, conference, and working papers as well as citations in journals not included in ISI; the lack of inclusion of journals in languages other than English in the ISI database; and United States bias in the journals included in the database (Harzing & Van Der Wal, 2008; Kousha & Thelwall, 2007; Sanderson, 2008).

Many scholars now perceive that Google Scholar as a worthy alternative for citation data and as a reliable and valid alternative to the traditional indexes when measuring a journal's impact (Delgado-López-Cózar & Cabezas-Clavijo, 2013; Harzing, & Van Der Wal, 2009). It does have some disadvantages, which include Google Scholar's inclusion of non-scholarly citations, double counting of citations, less frequent updating, uneven coverage across disciplines, and less comprehensive coverage of older publications/citations (Harzing & Van Der Wal, 2008). The problem of non-scholarly citations and double counting have been found to be fairly limited and attenuated by the use of robust citation metrics such as the h-index (Meho & Yang, 2007; Harzing & Van Der Wal, 2008; Vaughan & Shaw, 2008).

Hirsch (2005) created the citation metric called h-index, which was defined as "A scientist has index h if h of his/her N_p papers have at least h citations each, and the other (N_p-h) papers have no more than h citations each." Therefore, the h-index provides a combination of both quantitative (number of papers) and qualitative (impact, or citations to these papers) (Glänzel, 2006).

Since its creation, the h-index has resulted in a numerous articles in journals such as *Scientometrics* and *Journal of the American Society for Information Science and Technology*, where some articles have suggested ways to refine or improve it (Bornmann, Mutz & Daniel, 2008). However, the h-index has generally received a positive reception and has addressed some of the statistical limitations underlying the ISI. Harzing and Van Der Wall (2009) found it more suitable to measure of a journal's wider economic or social impact rather than its impact on an academic audience only. Google Scholar h-index provides a more accurate and comprehensive measure of a journal impact and should be considered as a supplement to ISI-based impact analyses (Harzing & Van Der Wal, 2009). Therefore, this study will build upon the work begun by Rogers et al. (2007) and examine if differences exist in citations between articles published in the two ABC journals and articles published in related, but not affiliated journals that ABC members perceived to be quality journals.

We, therefore, make the following hypotheses:

- Ho₁: *Means for articles published in the two ABC journals do not differ from articles published by related, but not affiliated journals when compared on the number of citations per article found in Google Scholar Metrics, using a one-factor model.*
- Ho₂: *Means for articles published in the two ABC journals do not differ from articles published by related, but not affiliated journals when compared on the number of citations per article found in Google Scholar Metrics, using a two-factor model.*

- Ho₃: *Means between two time periods (2009-2010 to 2011-2012) do not differ scientifically when compared on the number of citations per article found in Google Scholar Metrics, using a two-factor model.*
- Ho₄: *Means for articles published in the two ABC journals do not differ from articles published by related, but not affiliated journals compared between two time periods (2009-2010 to 2011-2012) when compared on the number of citations per article found in Google Scholar Metrics, using a two-factor model.*

Data Analysis

Google Scholar and the Hirsch “h5-index” citation metric were used to study the two ABC journals *International Journal of Business Communication (IJBC)* and *Business and Professional Communication Quarterly (BPCQ)* and 10 related, but not affiliated journals. The unaffiliated journals included *Journal of Business and Technical Communication (JBTC)*, *Journal of Technical Writing Communication, (JTWC)*, *Journal of Communication Management (JOCM)*, *Managerial Communication Quarterly (MCQ)*, *Communication and Strategies (CS)*, *IEEE Transactions on Professional Communication (IEEE-TPC)*, *Technical Communication Quarterly (TCCQ)*, *Technical Communication (TC)*, *Corporate Communications: An International Journal (CCIJ)*, and *Journal of Management Education (JME)*.

Only the articles that were reported in the Google Scholar Metrics database for the 5-year period 2009-2013 were used; thus, the group sizes were necessarily uneven. Google Scholar Metrics reported the journals that had published 100 or more articles in a 5-year window, and all 12 journals used in this study had published 100 or more articles for the 5-year period 2009-2013.

The h5-index was the measure accounting for the number of articles equal to and exceeding the h5-index for that journal. For example, an h5-index of 14 for IEEE-TPC was an indication that the journal had published 14 articles with 14 or more citations each within a 5-year period of measure. The h5-index of 20 for *IJBC* was an indication *IJBC* had published 20 articles with 20 or more citations for each article. We chose these metrics to accommodate the criticisms voiced concerning the use of the ISI Web of Knowledge as a data source.

Taking a first glance of the data, there appears to be a meaningful difference between the frequencies of the ABC journals and the related, but not affiliated journals. Most of the journals in Table 1 are shown to be valued and read often by business communication scholars and professionals (Rogers et al., 2007). The most cited article in each journal was included based on the 2009-2013 range, from Google Scholar Metrics as of June 2014. The majority of the most cited articles were published in 2009. The *IJBC* had the top article with 112 citations. Table 1 shows in footnote^c single, double, triple and quadruple asterisks as an indication that the article is a low, moderate, high or very high impact article according to a criterion for impact developed by Walters (2011).

Table 1.

Google Scholar Metrics for Top ABC Journal Articles vis-à-vis Related Journal Articles, from 2009 to 2013

Journal Abbreviation	JME	CCIJ	TC	TCCQ	IEEE/TPC	CS	MCQ	JOCM	JTWC	JBTC	BPCQ	IJBC
h5-index ^a	17	23	9	9	14	12	20	13	6	13	16	20
h5-median ^b	24	31	12	13	20	15	29	22	8	18	25	26
Top Articles	Learning Through Reflective Classroom Practice Applications to Educate the Reflective Manager By PR Hedberg (2009)	Institutionalization of corporate social responsibility within corporate communications: Combining institutional, sense making and communication perspectives By F Schultz, S Wehmeier (2010)	Common Use of PowerPoint versus the Assertion-Evidence Structure By JK Garner, M Alley, AF Gaudelli, SE Zappe (2009)	Using Actor Network Theory to Trace and Improve Multimodal Communication Design By L Potts (2009)	Internet and Online Information Privacy: An Exploratory Study of Preteens and Early Teens By S Chai, S Bagchi-Sen, C Morrell, HR Rao, SI Upadhyaya (2009)	The Platformisation of the European Mobile Industry By P BALLON (2009)	The Social Construction of Leadership: A Sailing Guide By GT Fairhurst, D Grant (2010)	Communicating CSR, citizenship and sustainability on the web By A Moreno, P Capriotti (2009)	The Two-Semester Thesis Model: Emphasizing Research in Undergraduate Technical Communication Curricula By JD Ford, JL Bracken, GD Wilson (2009)	Mapping the Research Questions in Technical Communication By CD Rude (2009)	Social Networking Web Sites and Human Resource Personnel: Suggestions for Job Searches. By SJ Roberts, T Roach (2009)	The Central Role of Communication in Developing Trust and Its Effects on Employee Involvement by GF Thomas, R Zolin, JL Hartman (2009)
Top Article's Citations ^c	61**	81**	28**	25**	30**	39**	74**	52**	8*	33**	50**	112***

Note: Data was collected on February 2, 2015 from Google Scholar Metrics. $\Sigma = 4,624$ citations; there were 172 articles.

a. The "h5-index is the h-index for articles published in the last 5 complete years. It is the largest number h such that h articles published in 2009- 2013 have at least h citations each (Google 2015)."

b. The "h5-median for a publication is the median number of citations for the articles that make up its h5-index (Google 2015)."

c. *low impact (0–24 citations), **moderate impact (25–99 citations), ***high impact (100–249 citations), and ****very high impact (250–1763 citations) (Walters, 2011, p. 1629)

International Journal of Business Communication(IJBC) and Business and Professional Communication Quarterly (BPCQ) Journal of Business and Technical Communication (JBTC), Journal of Technical Writing Communication, (JTWC), Journal of Communication Management (JOCM), Managerial Communication Quarterly (MCQ), Communication and Strategies (CS), IEEE Transactions on Professional Communication (IEEE/TPC), Technical Communication Quarterly (TCCQ), Technical Communication (TC), Corporate Communications: An International Journal (CCIJ), and Journal of Management Education (JME).

The 12 journals published 172 articles from 2009 to 2013, which were included in the Google Scholar Metrics cutoff. The *CCIJ* had the highest h5-index of 23, which indicated 23 of its articles published from 2009 to 2013 had 23 or more citations. During that period, Schultz and Wehmeier (2010) had 81 citations, which is a moderate impact article, but was the highest number for *CCIJ*. This particular article was on track for 506 citations in 25 years [$81/4 * 25\text{-years} = 506$ citations] transforming it from a

moderate impact to a very high impact article in a 25-year period. The *JTWC* had the lowest h5-index of six, which indicated six of its articles published from 2009 to 2013 had only six or more citations. During that period, Ford, Bracken, and Wilson (2009) had a low impact article, which was on track for 40 citations in 25-years [$8/5 * 25\text{-years} = 40$ citations] transforming it from a low impact to a moderate impact article in a 25-year period. Table 1 footnotes explain h5-index and h5-median.

Figure 1 illustrates a line graph of the raw data for the ABC journals vis-à-vis related, but not affiliated journals directly with ABC with total citations of 4,624. The ABC journals had fewer citations of 1,199 because there were only two ABC journals compared to the 10 other related, but not affiliated journals. The related, but not affiliated journals had 3,425 citations. The 10 combined related, but not affiliated journals published, in the aggregate more articles, and thus had more citations taken together. Nevertheless, this raw data did not state what the citation averages were for the 12 journals.

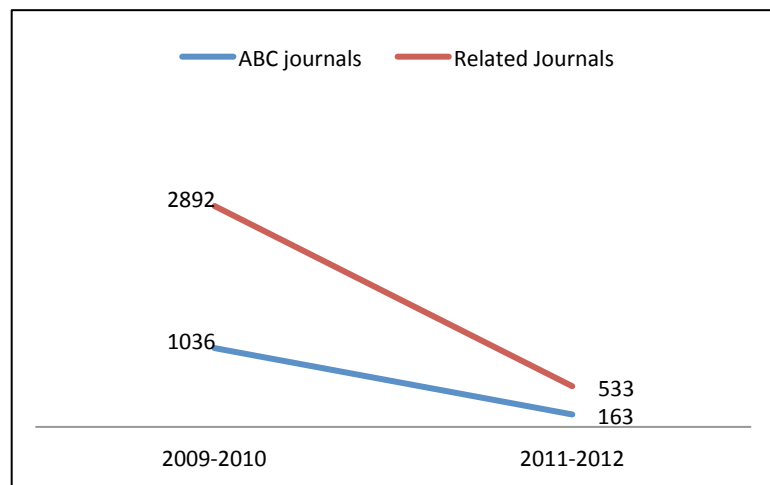


Figure 1. Cited By ABC Journals and Related Journals Compared Between Two Periods

Figure 2 illustrates a line graph of the raw data citation averages for the two ABC journals compared to 10 related, but not affiliated, journals for two periods, 2009-2010 compared to 2011-2012. Clearly, the ABC period of 2009-2010 had a higher average than the related, but not affiliated journal average for both periods 2009-2010 and related, but not affiliated journal average for the period 2011-2012. The plots mirror each other for the ABC affiliated journals vis-à-vis the related, but not affiliated journals in direction of documents found across time. One important fact was that averages for ABC journals were higher for both periods than the averages for both periods for the related, but not-affiliated journals. Figure 2 data indicated that differences between ABC journals and related, but not affiliated journals, concerning citations of articles published in these journals, might differ significantly in an ANOVA test. The averages indicated that two ABC journal articles were apparently more influential than the 10 related, but not affiliated journal articles. The best way to know for sure if these differences were significant was to test the means between the 2 ABC journals and the 10 related, but not affiliated journals, and to test the means further across time (two periods representing 24 months each) testing for an interaction effect.

Frequency counts for the independent variables are shown in Table 2. Nevertheless, frequency and percent counts did not show mean differences. The best way to know if the ABC journals were significantly different from the 10 related, but not affiliated journals was to test the means of the citations of published articles. The influence the journal has on the field was based on its impact factor

or the citations of its articles in a 5-year time window. Again, demonstrating why citations were the best indication of a journal's influence of a field.

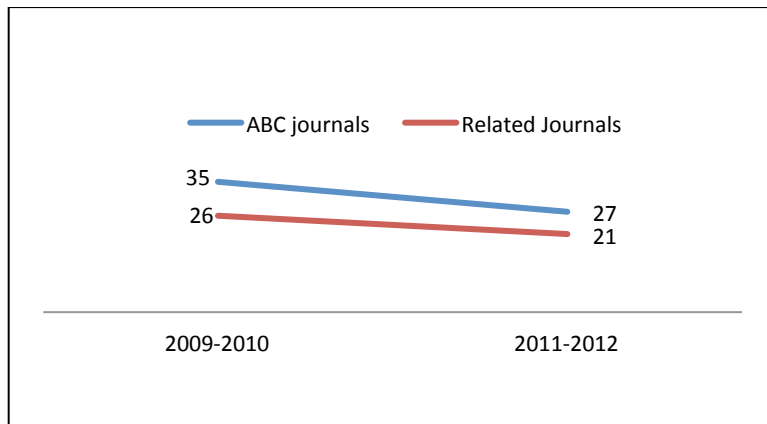


Figure 2. Averages for ABC Journals and Related Journals Compared Between Two Periods

Table 2.
Frequency and Percent for Independent Variables

Independent Variables		Frequency	Percent	Cumulative Percent
Affiliation	ABC Journals	36	20.9	20.9
	Related Journals	136	79.1	100.0
	Total	172	100.0	
Period	2009-2010	141	82.0	82.0
	2011-2012	31	18.0	100.0
	Total	172	100.0	
Year	2009	93	54.1	54.1
	2010	48	27.9	82.0
	2011	24	14.0	95.9
	2012	7	4.1	100.0
	Total	172	100.0	
Journals		Means	Articles	SD
IJBC		38.100	20	23.8104
MCQ		35.200	20	15.3780
CCIJ		34.478	23	12.7132
JME		29.941	17	12.9975
BPCQ		27.312	16	11.0919
JOCM		25.462	13	11.2592
IEEEPC		20.857	14	4.4177
CS		19.417	12	7.5614
JBTC		19.385	13	5.8386
TCQ		15.000	9	5.6569
TC		14.556	9	6.3070
JTWC		7.500	6	.8367
Total		26.884	172	15.0973

One-Way ANOVA, Citations * Affiliation

We rejected H_{01} . Means for the 36 articles published in the two ABC journals differed from the 136 articles published by related, but not affiliated journals when compared on the number of citations per article found in Google Scholar Metrics, using a one-factor model. We rejected H_{01} , with $F(1, 170) = 8.604$, $p = .004$, which indicated that affiliation has a small, but significant effect on the articles' citations. The Cohen (1988) rule stated that values between $\eta^2 .01$ to $.06 \sim$ small, η^2 higher than $.06$ to $.14 \sim$ medium, and η^2 higher than $.14 \sim$ large. Partial Eta squared was small, accounting for only 4.8% of the variance in the dependent variable (citations) when using $\eta^2 =$ estimates of effect size. Table 3 shows the ABC journal mean of 33 citations per article was significantly larger than the related, but not affiliated journal mean of 25 citations per article. In other words, the 36 ABC articles included in the Google Scholar Metrics was significantly higher, with $p = .004$, than the 136 articles published by related, but not affiliated journals.

Table 3.
Descriptive Statistics & Test of Significance

Dependent Variable: Citations						
		N	Mean	Std. Deviation		
ABC Journal Articles		36	33.306	19.7496		
Related, but not affiliated Journal Articles		136	25.184	13.1787		
Total		172	26.884	15.0973		
One-Way ANOVA Table		Sum of Squares	df	Mean Square	F	Sig.
Citations * Affiliation	Between Groups	1877.631	1	1877.631	8.604	** .004
	Within Groups	37098.043	170	218.224		
	Total	38975.674	171			
Measure of Association		Eta	Eta Squared			
Cited by * Affiliation		.219	.048			

Note. **Denotes $p < .01$

Determining whether time influenced the significance of affiliation would help us to understand the true influence of the ABC articles on the field of business communication, using citations as a gauge for that influence. A two factor model, or two-way ANOVA is a good way to determine the influence of one factor on another and whether or not there is any interaction happening, which decreases or increases the level of significance on the dependent variable.

Two-Way ANOVA, Affiliation * Period

We rejected H_{02} . Means for the 36 articles published in the two ABC journals differed from the 136 articles published by related, but not affiliated journals when compared on the number of citations per article found in Google Scholar Metrics, using a two-factor model. We rejected H_{02} , with $F(1, 168) = 3.807$, $p = .053$, which indicated that affiliation had a significant main effect on the number of citations. This probability is much reduced from the earlier one-factor model which produced a $p = .004$. Adding the second factor (time) resulted in probability $p = .053$. Partial Eta squared was also smaller, going from 4.8% to accounting for only 2.2% of the variance in the dependent variable (citations) when using $\eta^2 =$

estimates of effect size. Table 4 illustrates the between subjects effects with means and standard deviations for periods 2009-2010 to 2011-2012 compared between the ABC journals and the related, not affiliated journals.

We could not reject H_{03} . Means between two time periods (2009-2010 to 2011-2012) did not differ scientifically when compared with the number of citations per article found in Google Scholar Metrics, using a two-factor model. The main effect was not significant. The two time periods did not differ significantly. We could not reject H_{03} , with $F(1, 168) = 2.716$, $p = .101$, which suggested that the time period had no effect on the citation differences among the 12 journals. Partial Eta squared was very small, accounting for a meager 1.6% of the variance in the dependent variable.

We could not reject H_{04} . Means for articles published in the two ABC journals did not differ from articles published by related, but not affiliated journals when compared between two time periods (2009-2010 to 2011-2012) and when compared with the number of citations per article found in Google Scholar Metrics, using a two-factor model. There was no two-way interaction effect. We could not reject H_{04} , with $F(1, 168) = .129$, $p = .720$, which suggested that affiliation had no effect on citation magnitudes when the time period was added as a factor in the model. Partial Eta squared was very small, accounting for a scanty 0.1% of the variance in the dependent variable.

Table 4.
Descriptive Statistics & Tests of Between-Subjects Effects

Dependent Variable: Citations						
Affiliation	Period	Mean	Std. Deviation	N		
ABC Journals	2009-2010	34.533	20.9774	30		
	2011-2012	27.167	11.1250	6		
	Total	33.306	19.7496	36		
Related, but not affiliated Journals	2009-2010	26.054	14.0310	111		
	2011-2012	21.320	7.4539	25		
	Total	25.184	13.1787	136		
Total	ABC Journals	27.858	16.0613	141		
	Related Journals	22.452	8.4017	31		
	Total	26.884	15.0973	172		
Tests of Between-Subjects Effects						
Dependent Variable: Cited by						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Affiliation	824.198 ^a	1	824.198	3.807	*.053	.022
Period	588.041	1	588.041	2.716	.101	.016
Affiliation * Period	27.833	1	27.833	.129	.720	.001
Error	36369.416	168	216.485			
Total	163286.000	172				

Note. a. R Squared = .067 (Adjusted R Squared = .050)

Discussion

For this study, we took a different research approach by using actual citations of articles published by 12 journals rather than using survey responses. We sought to answer one critical research question:

Question 1: Do articles published from 2009-2013 by the Association of Business Communication differ from articles published in related, but not affiliated journals in terms of citation counts found in Google Scholar Metrics?

Answer 1: Yes, and no. Articles published from 2009-2013 by the Association for Business Communication differed from articles published in related, but not affiliated journals in terms of citations counts, but only when compared on a one factor model. There is no scientific difference between ABC journals and related, but not affiliated journals, regarding citation counts, when time is added as a factor to the model, in a two-way factorial ANOVA test.

The main effect of affiliation as a single factor is significant, in both the one-way and two-way models using ANOVA to compare means. Of the examined 172 articles published between 2009 and 2013, we found the 36 articles published by ABC's two journals as having the most influence on the literature when they are compared based on citations found on Google Scholar Metrics to 136 articles published in 10 related, but not affiliated journals. Using 2x2 factorial ANOVA, differences do exist between the means of affiliated and not affiliated journals representative of business communication as a field. The examination of 172 articles published from 2009 to 2013 found ABC journals do have the most influence on the literature when they are compared based on Google Scholar Metric's "Cited by" citations to journals published by organizations not directly affiliated with the ABC, $p = .004$ and $p = .053$, respective to the models. The main effect of time alone is insignificant, $p = .101$. However, when time was added to the model, the main effect of affiliation over time is insignificant, and that related, but not affiliated journals are gaining on citations of the two ABC journals (*JBC* and *BPCQ*) over time. This is a clear indication that the other organizations that publish business communication content are catching up to the citations of ABC journals—in terms of mean differences of citation magnitudes.

Figure 3 is the best way to illustrate the differences among the estimated marginal means for documents found in the Google Scholar search. The plot indicates ABC journal articles are cited more often than related, but not affiliated journal articles. Nevertheless, the difference between the means of ABC journals and the related, but not affiliated journals over time is not significant.

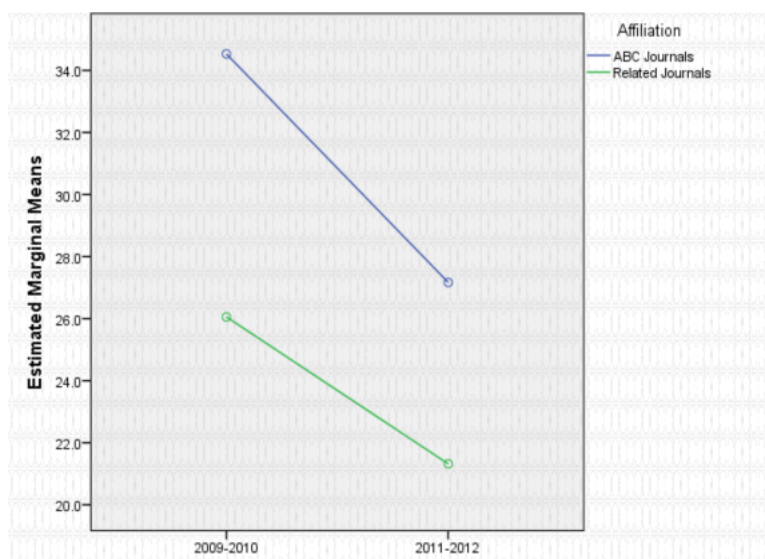


Figure 3. Estimated Means for ABC Journals vs. Related Journals Between 2009-2010 and 2011-2012

The results of the two factor models clearly indicate that ABC's mean citations of 34.533 for the period 2009-2010 is the same as the related, but not affiliated journals' mean of 26.054 for the period 2009-2010. The same is true for the period 2011-2012, where ABC's mean citations of 27.167 are the same as the related, but not affiliated journals' mean of 21.320. Time has neutralized the advantage that ABC had in the one factor model using a one-way ANOVA. The two-way ANOVA using two factors also shows a meager Adjusted R-squared, which indicates that only 5% of the variance in the model is accounted for by the two factors: affiliation and time period.

Conclusion and Recommendations

This study found that across time the related, but not affiliated journal articles were gaining influence in terms of citation counts on ABC's two journals. Knowing where the *International Journal of Business Communication* and *Business and Professional Communication Quarterly* rank in comparison to peer journals is important for ABC to know. Decisions need to be made ensure the organization's two journals remain of high quality and lead in citation counts, so that members will chose to read them and that scholars seek to publish in these journals.

To increase the citations of both ABC journals, in general, and specifically within the management field, we recommend that ABC continues to expand the publication quality of both journals. For example, some topics to consider include rapid publication and reduction of wait time between acceptance and publication. Having been members of ABC for some time, colleagues have shared with us that they have had to wait one to two years after their articles were accepted to see those articles in print. What may help shorten the length of time between acceptance and publication would be to increase the number of issues each year or increase the number of pages allowed in each issue. Another possibility might be to add a third journal such as what the Academy of Management (i.e., Academy of Management Learning and Education) and the Organizational Behavior Teaching Society (i.e., Management Teaching Review) have done. Currently, the *International Journal of Business Communication*, concentrates upon empirical research and the *Business and Professional Communication Quarterly* focuses on the scholarship of teaching. Maybe a third alternative is needed such as a practitioner-oriented journal that could include articles for consultants, case studies, teaching ideas, or teaching tips and practices that both practitioners within organizations as well as educators could implement. For example, the My Favorite Assignment articles then could be published more than once a year.

If ABC's journals are to stand out from the related, but not affiliated journals, clearly ABC may need to consider some of these recommendations to increase citations and to encourage other disciplines to publish within the ABC journals. More articles akin to the ones in Table 1 of this study need to be published by both journals if the ABC desires to be the most influential association for business communication in terms of its citation counts.

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