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An Academic Study of WIAN (What's-in-a-name?)

by

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Undergraduate honors thesis under the direction of

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Introduction

Titles are a vital and fundamental piece to all article and research papers. Titles serve as a slice of what the article will possibly inform the reader of. “Although it is a very small part of the research paper, the title plays an important role as the first point of contact between writer and potential reader and may decide whether or not the paper is read” (Haggan 2003). As the initial contact with the reader, the title heaps great responsibility on the author. Properly conveying the message of an article in an attention-gaining manner is no small feat. Of particular interest to researchers should then be, what specific –if any – characteristics of a title influence exposure, or citation count? Do the title characteristics themselves, independent of any characteristics of the actual article, have a correlation to citation count? Even further, does the title structure of an article have an influence on the rating of a paper?

Specifically, academic journals are rated on myriad quality measures, and universities rank these journals, generally in an A/B/C-level journal format. Our research evaluates, empirically, whether the title structure of marketing journal can predict citation count for those articles, and also possible ranking patterns between title characteristics and articles. 642 article titles were analyzed based on the relationship between title characteristics or structure, and the subsequent effect on citation count. Titles were taken from six different business/marketing journals from the two years 2005 and 2015. Grammatical function of the words in the titles, as well as the presence of technical jargon and acronyms were indicated. Citation Count was used as the dependent variable

in response to 46 different independent variables or qualities. (Full list of these qualities are in Table 1). Upon analysis, several interesting and statistically significant findings emerged, and will be discussed in this manuscript.

We note that patterns can help future journal writers factor in an unexpected variable of title structure that may influence their citation count and ranking. These patterns may also indicate what aspects readers find important in Marketing Research articles as a whole, which they may believe is indicated by the title.

Literature Review

The critical influence a title plays on the attractiveness of an article cannot be overstated, particularly given the scant amount of research available on the subject. This importance has grown with the use of internet searches and Google Scholar, which rely on keyword searches, often for phrases contained within titles. This makes the relevance of the words and structures used in article titles an important element for authors to consider when naming their work. Exactly how a person evaluates an article's title, and what elements are given more attention is a research topic worth exploring.

Our literature review on the subject of article titles yielded a few common threads between published works in the area. In evaluating nine related papers, we found all have the common element that title has a correlation to whether or not the reader will find the succeeding article interesting, relevant, or read-worthy, but there are varying methodologies and results of title review. For example, in their evaluation of 2,172 article titles published in *Public Library of Science Journals*, Jamali and Grant (2011)

focused specifically on title type (whether descriptive, indicative, or question) and its influence on download and citation, specifically with a stronger influence on download than citation. They found that, in regards to title structure, longer titles were downloaded less frequently than shorter titles, and downloads and citation had a positively correlated relationship.

Wang and Bai (2007) also evaluated scientific article titles on the basis of title structure. They used 417 medical research article titles from the *New England Journal of Medicine*, and evaluated the structure of those titles based on the presence of nominal groups, gerunds, and modifiers. They found that medical research article titles with nominal groups are more preferred, and uni-head nominal groups were the type used most frequently. Uni-head nominal group meaning, in the title only one medical term such as a medicine, treatment, disease, or efficacy was used before a prepositional phrase, clause, past participle, etc. Hartley (2007) also evaluated academic article titles, but on the basis of punctuation, and between disciplines. Hartley found that there was a greater use of colons in articles involving the arts than in sciences, and that a single author is more likely to use a colon in an article title than are two or more article authors. Hartley found that the presence of a colon in the evaluated titles had no effect on citation rate.

Similarly, Anthony (2001) also evaluates research articles, looking at length, punctuation, word frequency, and use of prepositions across 600 article titles from six different journals as a basis for evaluating what makes a “good” title (p.1). Anthony found that the average length of titles was about 7.9 words. However, in that evaluation, too few article titles were taken from each journal to conclusively evaluate a clear pattern

on title length. He also found that across every journal type, there contained a “hanging title”, or a colon in the middle of the title to separate two parts. Anthony found that prepositions were the highest frequency words in four journals, and the second highest frequency in the other two, indicating a significant use of prepositions in, and across all six journal types (p.1). Haggan (2003) also assessed titles across multiple fields or journal sources. She looked at whether the title contained a noun-phrase, full sentence, or compound sentence in literature, science, and linguistic titles, finding large differences in title structure for the three fields. This led to the conclusion that there are specific differences, if not unspoken requirements, that disciplines adhere to certain title structures.

Stremersch, Verniers, and Verhoef (2007), like the previous authors, analyzed titles from five major marketing journals on title length, use of “grabbers” in the title, and title clarity (p.2). They also evaluated the titles on differentiating factors of “author visibility” and “author personal promotion.” (p. 2). In doing this, they found that the content of the article, or what is said, and the source it is coming from, or who the author is, has a greater impact on citation count than the structure of the title. Schrock, Zhao, Hughes, and Richards (2016) evaluated 721 articles all published from the *Journal of Personal Selling & Sales Management*, also with a heavier focus on title content than on title structure. To evaluate these titles, they used multidimensional scaling to graphically depict areas of similarity or dissimilarity between article titles. They found that since the 1980s, salesperson motivation and salesperson performance are key themes in articles from the *Journal of Personal Selling & Sales Management*, with salesperson performance as the dependent variable, and salesperson motivation as the predictor of that variable.

Hays (2010) takes a completely alternative route on title evaluation, claiming that title citation and receptiveness to the reader does not have to do with structure but rather how “simple, stylish, and informative” the title is (p. 102). None of this information is based on scientific evidence or testing, but on experiential evidence from Hays and others when assigning titles to papers. Liunbruno, Velati, Pasqualetti, Franchini (2013) take a similar approach to Hays, citing that titles for scientific journals should be “clear, brief, specific, not include jargon, and non-standard or unexplained abbreviations,” further making the claim that declarative titles are not as effective as indicative ones (p. 6). On the other hand, Hartley (2012), agrees with the previous authors on the successfulness of clear titles, but indicates that he prefers more detailed and informative, as opposed to brief titles.

These investigations into the intricacies and relationships between title and article, and citation count indicate that there is a worthwhile trove of information to be gleaned from an examination of title qualities. Herein, we take an exploratory lens to the question, “what elements of title influence citation count,” and “are there differences in title structure between “top-level” journals and “non-top” journals? The following sections describe the data collection process, analysis and results of the testing. As this is an exploratory research project, no hypotheses are provided.

Data

Data Collection

Coding began with using 642 titles from Marketing journals published in either 2005 or 2015. The titles came from the journals: *Journal of Marketing*, *Marketing Science*, *Marketing Letters*, *Journal of Marketing Research*, *Business Horizons*, and *Journal of Consumer Research*. The citation counts on the titles ranged from 0-3265. The average citation count from 83 titles from the Journal of Marketing is 373.49, for 93 titles from Marketing Science the average citation count is 82.27, for 85 titles from Marketing Letters citation average is 37.39, 111 titles from Journal of Marketing Research has citation average of 98.16, 117 Business Horizons titles has average citation of 74.38, and 120 titles from Journal of Consumer Research average citation is 164.46.

The titles were evaluated using mostly dichotomous variable coding. Examples of elements collected include: alliterations, technical jargon, use of acronyms, and number of nouns, verbs, adjectives, and adverbs. The full list of title qualities was created with a team of researchers well-versed in business publication and English writing.

Alliteration

When determining if the title contained an alliteration, “1” was used for “yes” or containing an alliteration, and “2” was used for “no” or not containing an alliteration. The criteria used in determining an alliteration was the repetition of a letter as the first letter in more than one word in a row. For example, “Commercial Conflicts” constituted an alliteration because of the repeating of the consonant C at the beginning of the words. Similarly, “From Finance” also constituted an alliteration because of the repeating of the consonant F, or “Poison Pill” with repeating of the consonant P. “Applications Affect”

and “Empirical Evidence” were also indicated as alliterations by repetition of the vowels A and E at the beginning of the words.

In addition to counting the presence or absence of alliteration, we also tracked where the alliteration appeared in the title. Of the 642 titles, 125 titles contained alliterations according to these conditions. 45 of the titles contained alliterations in the first half of the title, whereas 58 contained alliterations in the second half of the title. This does not indicate a substantial pattern for the limited number of titles, on heavier alliteration percentage at the first or second half of the title, but would be a topic for further research.

Acronyms

When accounting for acronyms, “1” was indicated for “yes”. “Yes” meaning the title contained 2 or more letters or numbers considered as a word in its own right, but taken from other words. If the title did not contain an acronym, “2” was indicated for “no”. One example of the acronyms indicated by “1” or “yes” from the included titles are, “BYOB” to represent the words “bring your own bag”, as further expanded upon by the rest of the title. Other examples include, “RFM” and “RFMC”, “ECO”, “SKUs”, “CRM”, “eWOM”, “3G” and “4G”, and “EEG” among others. In total only 30 titles of the 642 contained acronyms. Nevertheless, as shown in the data analysis, we were able to detect a significant impact on citation count when acronyms are used.

Jargon

When determining if the title contained technical jargon “1” was used to indicate “yes” and “2” was used to indicate “no”. Coding was determined by whether a person

not in a business profession would comprehend all of the words in the title. If all of the words were deemed discernable by a lay person, or a person not in the business world, then the title would be labeled “2”. If a word or phrase in the title would need a deeper understanding or experience in the business profession to understand the meaning, or the context of the meaning it was used in, then that word would be labeled as technical jargon and the title would be coded a “1” in this category. Example words or phrases that would warrant a technical jargon “1” coding include “Meta-Analysis”, “Brand Anthropomorphization”, “Win-Back Offer”, and “Experiential Quality.” 108 of the 642 titles contained technical jargon. Any concerns were addressed with a team of trained researchers.

Nouns, verbs, adjectives, adverbs

The number and nouns, verbs, adjectives, and adverbs were also counted and represented by the number in the titles, for example if the title contained four nouns, then this was coded as “4” in the noun category, and likewise for the verbs, adjectives, and adverbs. When coding for nouns, all acronyms and names were counted as nouns, as well as any word that could be perceived as a subject in context of the title. Specific to our data collection, words that could be understood as being paired together as one subject or idea in the context of the title were counted as “1” noun when coding. For example, “Customer Satisfaction”, “Consumer Preferences”, “Win-Back Offer”, “Marketing Department”, “Firm Performance”, “Background Music”, “Purchase Behavior”, “Social Networks”, “Sales Organizations”, “Field Experiments”, and “Loyalty Programs” among similar phrases were all coded as “1” when counting nouns for

representing one subject. On the other hand, two part phrases that may appear similar such as “Price Discount”, “Contract Drafting”, and “Donor Relationships” were coded as “2” when counting nouns. This is because each noun in the two-word phrase can stand independently of each other and do not have to be in conjunction to represent the intended idea. For example, “Social Networks” is a noun or subject in its own right. Although there are many other types of networks in the business world and elsewhere, “Social Networks” serves as a single subject or noun in the context it is used and in general understanding. In the phrase “Donor Relationships”, donor can be replaced with a different noun to represent a different type of relationship more fluidly. “Donor Relationships” do not represent a foundational subject such as “Social Networks” or “Background Music”. This indicates that “Donor Relationships” is not itself a subject but each word in the phrase is a subject or noun that can stand alone, in context of the title, so each was counted as a noun separately when coding. The holistic view of the title was also taken into consideration when coding for nouns to evaluate the context of such phrases.

Pronouns and conjunctions

Pronouns in titles such as we, what, and it, were not counted as nouns when coding. The number of nouns in the titles ranged from 0-11. (2 titles contained 0, 22 contained 1, 88 contained 2, 127 contain 3, 135 contain 4, 120 contain 5, 82 contain 6, 37 contain 7, 15 contain 8, 11 contain 9, 2 contain 10, and 1 contain 11). The mode of the nouns is 4, the median is 4, and the mean is 4.24. Any word in the title displaying action was counted as a verb. Verbs included words such as “leveraging”, “conflicts”, “developing”,

“navigating”, “buy”, and other action words. When titles contained phrases such as “Should Firms Use”, or “Do Satisfied Customers Buy More”, “Should – Use” and “Do—Buy” were counted as 2 verbs when coding. Although in conjunction with each other, these were counted as two verbs to uphold consistency. Considering “Should” and “Do” and other similar action words appeared unaccompanied in other titles, and were in such titles counted as “1” verb when coding, they were also counted as “1” here. Similarly, if “Use” or “Buy” were to appear in another title unaccompanied with “Should” or “Do” or another similar word it would also be counted as “1” verb when coding. Since each of these words would be counted as “1” verb when coded separately, when appearing together they are counted as “2” verbs to remain consistent throughout. Other examples of such incidents include phrases such as, “will—kill”, “can—bridge” and “has happened”. The number of verbs present in the titles range from 0-5. (296 containing 0, 187 containing 1, 104 containing 2, 39 containing 3, 13 containing 4, and 3 containing 5). The mode of the verbs is 0, the median is 1, and the mean is .902.

A word describing a word that was indicated as a noun in the title, was counted as an adjective when coding. Examples of adjectives are “Temporal” in the phrase “Temporal Experiences”, “Dynamic” in the phrase “Dynamic Presentation”, “High-Effort” in the phrase “High-Effort Firms”, and “Repeat” in the phrase “Repeat Purchasing” among other similar examples. In some titles a phrase would include two or more adjectives associated with one noun for example “Small Financial” in the phrase “Small Financial Benefits” which was counted as “2” adjectives when coding or “General Robust Conjoint” in the phrase “General Robust Conjoint Estimation” which was counted as “3” adjectives when coding. The words “online” and “corporate” were always counted as

adjectives when coding. “No” was not counted as an adjective because in context of the titles it was always used as a determiner. The number of adjectives present in the titles ranged from 0-6. (224 containing 0, 207 containing 1, 132 containing 2, 60 containing 3, 14 containing 4, 4 containing 5, and 1 containing 6). The mode of the adjectives is 0, the median is 1, and the mean is 1.14. A word was indicated as an adverb when it described a word that was indicated as a verb in the title. Some examples of adverbs included, “Better”, “When”, “Just”, “Where”, “How”, “United”, and “More” among others. The number of adverbs present in the titles ranged from 0-4. (513 containing 0, 86 containing 1, 29 containing 2, 10 containing 3, 4 containing 4). The mode of the adjectives is 0, the median is 0, and the mean is .296. A key was made and used while coding to use for reference in order to maintain consistency throughout the counting and coding process (Fig. 1).

The articles were also evaluated on many other qualities including punctuation, word and character count, and the presence of certain phrases among others. (Full list of these qualities are in Table 1). There were significant findings to show that a number of these qualities had an impact on citation count for the articles. The specific quality that had the impact and the strength of the impact varied based on whether the journal was a top journal (Journal of Marketing, Journal of Consumer Research, Journal of Marketing Research, or Marketing Science) or a bottom journal (Business Horizons, Marketing Letters). A linear regression using a 95% confidence interval and step-wise function was conducted to find the explained variance and which qualities explained these variances across the different journals. (Results are shown for all journal in Fig 2 and Table 2). (Results for Top Journals in Table 3 and Bottom Journals in Table 4).

When looking at all journals, there were multiple title characteristics that led to an impact on citation count. Statistically significant findings have shown that when looking at all journals together year group is an impactor on citation count. This could be expected as articles published in the year 2005 would have longer availability and opportunity to be cited than those published in 2015. Other title qualities that showed to have an impact on citation count when looking at all titles included the use of the phrase “Study of”, the use of acronyms, and parenthesis, among others. The full list of statistically significant impacting qualities on citation count for all journals are located in Table 2 where it can also be seen that the specific combination of predictors of Year Group, the use of the phrase “Study of”, use of acronyms, the word Where, parenthesis, an alliteration, and preposition count, along with the journal number in a particular title would have a 36.4% statistical influence on citation count. This is significant being that the 36.4% impact on citation count can be judged based on the title alone. It is also important to note that with the presence of all of these characteristics, journal number also becomes a significantly impactful quality. This may suggest that these characteristics that lead to higher citation count may also be more predominant in one journal or another, or in the higher level journals compared to the bottom level journals.

Characteristics of titles were also found to have an impact on citation count when looking at the journals in isolated groups as just grouped in high level journals and then again just as lower level journals. Table 3 shows the qualities that led to a statistically significant impact on citation count for higher level journals. It is important to note that some qualities that were significant when looking at all journals remained so when just looking at the top journals, for example, the use of the phrase “Study of”, the word

Where, parenthesis, and an alliteration. Other characteristics became significant when just looking at the top journals, for example, the use of technical jargon and the number of verbs in the title. Table 3 also shows that the combination of the characteristics of use of the phrase “Study of”, the word Where, parenthesis, use of technical jargon, the number of verbs in the title, and an alliteration explains a 10.4% citation count for the top level journals. It is interesting to note that when looking at just the top journals, the specific journal number is no longer a quality of the title that has a significant impact on citation count for those higher level journals compared to its significance when looking at all journals together. When looking at the lower level journals, the use of the word Lessons, and the number of nouns in the title were the qualities that had a statistically significant impact on the citation count for the lower level journals. Table 4 shows these two qualities together in a title explained a 6.4% variance in citation count for lower level journal titles. It is important to note that when looking at just the lower journals, similar to when just looking at the higher journals, journal number is again not an important quality to have a statistically significant impact on citation count. The use of the phrase “Study of”, the word Where, parenthesis, and an alliteration were impactful qualities when looking both at all journals together and when looking solely at top level journals, but are no longer significant qualities to make an impact on citation count when analyzing just the lower level journals. The specific journal number is again, just as when analyzing only the top level journals, not significant when analyzing just the bottom level journals compared to its significance when analyzing all journals together.

Significant differences in means for particular variables were also noticed when comparing journals for high to low journals. For example, when looking at significant

differences in means between high level journals (Journals 1-4) to low level journals (Journals 5-6) there are differences on title qualities such as use of acronyms, use of technical jargon, average word length, and number of pronouns. As can be seen by Table 5, the mean for average word length in the top level journals is 7.26 but 7.51 for the bottom level journals, suggesting the bottom level journals use, on average, longer words. Alternatively, when comparing the mean differences for use of pronouns between the top level and bottom level journals, the mean for use of pronouns in top level journals is 0.27 and 0.15 for bottom level journals suggesting that top level journals use more pronouns than bottom level journals do. An important discrepancy to note for Table 5 is the mean difference for the citation count between the top and bottom journals. This table would indicate that the top journals have a much lower mean citation count (60.34) than the bottom journals (169.03). This does not initially make sense as it would be expected that higher level journals would have a higher mean citation count than lower level journals. Considering the standard deviations for these two means is extremely high (166.16 for high level journals and 329.01 for low level journals), there is likely a statistical explanation for the mean difference. For example, there may have been a much larger number of lower level journals used when calculating this mean compared to higher level journals, thus giving the overall citation count for the lower level journals a higher skew. This will be evaluated and the mean citation count differences for high level to low level journals will be re-analyzed. (Significant differences for variables across each of the six journal compared to each other is also noted in Tables A1-A in Appendix A).

Significant differences in means for particular variables were also noticed when comparing journals by year group. For example, when evaluating between means for

journals in 2005 and 2015, significant differences were noticed between qualities of number of verbs, use of acronyms, number of characters, number of words, average word length, and others, all of which can be seen in table 6. Looking at the differences between means of qualities of journal titles from 2005 and 2015 may show how trends or styles of title characteristics changed over the decade. For example, the mean of the number of words increased from 10.28 in 2005 to 11.55 in 2015 whereas, the mean of the average word length decreased from 7.75 to 7.34. This would suggest that although the average number of words used in titles has increased over the decade, the words being used are shorter words. Another interesting mean difference that showed to be significant is the increase in the mean use of colons from 0.44 in 2005 to 0.63 in 2015, suggesting, on average, more authors are using colons in 2015 than they were in 2005.

Data Analysis

There were no hypotheses at the start of the analysis of the article titles because there are no significant prevalent theories on any correlations between qualities of a title and citation count. Based on the observations found and recorded, there is a statistically significant impact on citation by certain title qualities, and research should be continued to further evaluate the extent to which these, and other characteristics, have on a larger number and scale of titles. A significant finding was the impact the presence of the phrase “Study of”, use of an acronym, and parenthesis had on citation count for high level journals. This finding had influence on the naming of this paper which contains those three impactful qualities.

Limitations for this research include the number of titles. The number of 642 titles was a limiting range that only shows an indication of what can possibly be shown with a larger number of titles. The titles used were also all from the years 2005 and 2015, this was done so to give a variety of titles, not concentrated in a two consecutive year grouping, which may have indicated patterns of its own. Although the ten-year gap was intentional to create diversity in writing style in the titles, it is still limiting, isolating the research to titles published in only those two years. Further research will be less limited and include a range of years, including the years 2006-2014. Limiting the researched titles to marketing journal titles was also intentional to determine the effects of title structure on citation specifically involving marketing published literature, but this may limit the research findings from being generalized to other disciplines. Further research would also include the quality of the word “Theory”, and other title characteristics deemed to be important in continuing research has on citation count. Lastly, maintaining the editor as a controlled variable when analyzing titles would be important in further research. Editors may have a preference for title characteristics and would therefore have an influence on what is published during their tenure as editor, influencing what characteristics are present in published titles over certain time periods. This variable would be an aspect to control for in future research.

Linear regression

Linear regression is used to further understand or predict the relationship between conditions or variables. One variable is the independent or explanatory variable. For this study, there were multiple independent variables being that the independent variables

were characteristics of the article titles. Number of nouns, journal year, number of characters in the title, presence of the phrase “Study of”, etc. were all independent variables (Lane 2018).

The other variable in linear regression is the dependent variable or the considered outcome. For this study, the dependent variable considered was citation count for the article titles. For this study, we are using the independent variables of title characteristics to determine the dependent variable of citation count. A linear regression measures the relationship between these two types of variables by fitting a linear equation to the relationship. The equation of a linear equation with one independent variable is $Y = a + bX$ where X is the independent variable and Y is the dependent variable. To show multiple independent variables, the equation $Y = a + b_1X_1 + b_2X_2 + b_3X_3$ would be used (Prabhakaran 2018). This equation is used to determine if the independent variables do in fact determine the dependent variable. It is also used to determine the strength to which the independent variables determine the dependent variable, or how much of an impact certain independent variables have on the dependent variable.

In this study, using linear regression across multiple independent variables will show which of these variables has an impact on the dependent variable of citation count and also the strength each of the variables has on the dependent variable of citation count. The linear regression equation can be used to plot points to show a relationship graphically between the variables. To graph the linear regression, the independent variable moves across the x-axis and the points of the dependent variable are noted on the y-axis and indicated by the regression line. The dependent variable points may not

represent a perfectly straight line graphically, but they indicate a linear relationship which can be represented by a best fit line or a regression line. This regression line is a straight line that will touch or be closest to the most points of the graph and will show the relationship between the variables.

Table 1:

Qualities Evaluated				
Citation Count	# of Syllables Per Word	Begin Word Ending –Ing	Where	Principles
Alliteration	Average Word Length	Number of Verbs Ending in – Ing	Why	Facts
# of Nouns	# of Pronouns	Period	How	Lessons
# of Verbs	# of “A”	Colon	Is/Are	Ideas
# of Adjectives	# of “An”	Exclamation Point	Do/Does	Ways
# of Adverbs	# of “The”	Question Marks	Will	Secrets
Use of Acronyms	# of Articles	Parenthesis	On	Tricks
Use of Technical Jargon	Coordinating Conjunction	Who	“Analysis of”	
# of Words	Prepositions Count ₁	What	“Study of”	
# of Characters	Prepositions Count ₂	When	Reasons	

Fig. 1:

high-effort firms: 1 adj.
temporal experiences: 1 adj.
corporate: adj.
communication strategies: 1 adj.
innovation strategy: 1 adj.
online = adj.
Small financial benefits: 2 adj.
choice behavior = 1 adj.
Financial leverage: 1 adj.
repeat purchasing: 1 adj.
empirical evidence: 1 adj.
generalized robust conjoint estimation: 3 adj.

when = adv.

From "where" to "what" → "where" not an adv.

better = adv.

just = adv.

"cui bono?" = 1 verb
Branded products: 1 verb
Should — use: 2 verbs
do — want: 2 verbs
will — kill = 2 verbs
can — bridge: 2 verbs
has happened = 2 verbs

What: pronoun so nothing

it: pronoun so nothing

between: preposition

from: preposition } nothing

among: preposition

"2002-2013" = nothing

"no plan" → "no" is determiner
so not adj.

customer satisfaction = 1 noun
consumer preferences = 1 noun
idea generation platforms = 3 nouns
domain-specific knowledge = 1 noun
win-back offer = 1 noun
donor relationships = 2 nouns
book reviews = 2 nouns
acronym = noun (ex: BYOB)
marketing department = 1 noun
firm performance = 1 noun
background music = 1 noun
salesperson-customer interactions = 1 noun
market-finance interface = 1 noun
product-harm crisis management = 1 noun
purchase behavior = 1 noun
chief marketing officer = 1 noun
product development processes = 3 nouns
social networks = 1 noun
sales organizations = 1 noun
field experiment = 1 noun
price discounts = 2 nouns
contract drafting = 2 nouns
multichannel customers = 1 noun
political candidates = 1 noun
price comparison sites = 3 nouns
rental markets = 1 noun
choice models = 1 noun
loyalty programs = 1 noun
"Brand ____" = 1 noun
"bucket-based price discrimination" = 2 nouns
social influence = 1 noun

statistical analysis = 1 noun
consumer preferences = 2 nouns
management caveats = 2 nouns
media coverage = 1 noun
customer relationships = 1 noun
"takes two" two = 1 noun
five forces = 1 noun
human need satisfaction = 2 noun

Fig 2:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.549 ^a	.301	.300	268.475
2	.563 ^b	.317	.314	265.779
3	.573 ^c	.329	.324	263.782
4	.581 ^d	.338	.331	262.338
5	.588 ^e	.345	.337	261.144
6	.593 ^f	.352	.342	260.162
7	.598 ^g	.358	.347	259.247
8	.603 ^h	.364	.352	258.288

a. Predictors: (Constant), YearGroup

b. Predictors: (Constant), YearGroup, "Study of"

c. Predictors: (Constant), YearGroup, "Study of", Use of Acronyms (Yes=1; No=2)

d. Predictors: (Constant), YearGroup, "Study of", Use of Acronyms (Yes=1; No=2), Where

e. Predictors: (Constant), YearGroup, "Study of", Use of Acronyms (Yes=1; No=2), Where, Parenthesis

f. Predictors: (Constant), YearGroup, "Study of", Use of Acronyms (Yes=1; No=2), Where, Parenthesis, Journal#

g. Predictors: (Constant), YearGroup, "Study of", Use of Acronyms (Yes=1; No=2), Where, Parenthesis, Journal#, PrepositionsCount

h. Predictors: (Constant), YearGroup, "Study of", Use of Acronyms (Yes=1; No=2), Where, Parenthesis, Journal#, PrepositionsCount, Alliteration

Top Journal:

Journal 1 = Journal of Marketing
Journal 2 = Journal of Consumer Research
Journal 3 = Journal of Marketing Research

Bottom Journal:

Journal 4 = Marketing Science
Journal 5 = Business Horizons
Journal 6 = Marketing Letters

Table 2:

Linear Regression- All	
Model 1:	Citation Count= 819.863 - 398.232 Year Group, 30.1% variance explained
Model 2:	Citation Count= 805.273-390.936 Year Group + 831.664 "Study of", 31.7% variance explained
Model 3:	Citation Count= 1152.299 - 399.154 Year Group + 833.170 "Study of" - 170.157 Use of Acronyms, 32.9% variance explained
Model 4:	Citation Count= 1141.802 -393.605 Year Group + 838.736 "Study of" - 170.467 Use of Acronyms + 628.736 Where, 33.8% variance explained
Model 5:	Citation Count= 1080.773 - 393.319 Year Group + 841.131 "Study of" - 141.292 Use of Acronyms +631.131 Where + 148.668 Parenthesis, 34.5% variance explained
Model 6:	Citation Count= 1106.087 -355.911 Year Group + 830.647 "Study of" - 158.282 Use of Acronyms + 620.647 Where + 155.684 Parenthesis - 18.260 Journal#, 35.2% variance explained
Model 7:	Citation Count= 1103.906 - 355.367 Year Group + 821.112 "Study of" - 151.889 Use of Acronyms + 699.691 Where + 165.352 Parenthesis - 19.874 Journal# -88.580 Preposition Count, 35.8% variance explained

Table 3:

Linear Regression-Top Journals (1-4)	
Model 1:	Citation Count= 166.834 + 1079.166 "Study of", 2.6% variance explained
Model 2:	Citation Count= 164.703 + 1081.297 "Study of" + 871.297 Where, 4.3% of variance explained
Model 3:	Citation Count= 160.638 + 1085.362 "Study of" + 875.362 Where + 276.417 Parenthesis, 6.0% variance explained
Model 4:	Citation Count= 348.216 +1106.927 "Study of" + 896.927 Where + 278.899 Parenthesis -104.572 Technical Jargon, 7.7% of the variance explained
Model 5:	Citation Count= 375.472 + 1186.176 "Study of" + 939.095 Where + 274.772 Parenthesis -102.203 Technical Jargon – 37.081 # of Verbs, 9.1 % of the variance explained
Model 6:	Citation Count= Citation Count=551.324 +12111.801 "Study of" + 864.350 Where +275.965 Parenthesis -100.928 Technical Jargon - 40.367 # of Verbs - 97.084 Alliteration, 10.4 % of variance explained

Table 4:

Linear Regression-Bottom Journals (5-6)	
Model 1:	Citation Count= 55.478 +251.522 Lessons, 4.4% of the variance explained
Model 2:	Citation Count= 108.742 +262.850 Lessons - 12.918 # of Nouns, 6.4% of the variance explained

Table 5:

Significant Difference By Journals High Group(1-4) to Low Group(5-6)							
	Journal s 1-4 M =	Journal s 1-4 SD =	Journal s 5-6 M=	Journal s 5-6 SD=	Sig. (2- tailed) =	t=	p=
Citation Count	60.34	166.16	169.03	329.01	0.000	(616)= - 4.476	<.0 1
Use of Acronym s	1.93	.256	1.97	.168	0.017	(624)= -2.4	<.0 2
Use of Technica l Jargon	1.91	.292	1.79	.405	0.000	(624)=3.61 6	<.0 1
Average Word Length	7.26	1.13	7.51	1.21	0.010	(456.78)=- 2.596	=.0 1
# of Pronoun s	0.27	0.804	0.15	0.612	0.040	(624)=2.05 3	<.0 5
Period	0.04	0.213	0.00	0.00	0.000	(624)=3.55 8	<.0 1
On	0.11	0.310	0.18	0.413	0.030	(624)=- 2.171	<.0 4
Principle s	0.01	0.118	0.00	0.00	0.016	(624)=2.41 6	<.0 2
Lessons	0.02	0.136	0.00	0.00	0.005	(624)=2.79 7	<.0 1
Secrets	0.02	0.180	0.00	0.00	0.008	(624)=2.64 0	<.0 1

Table 6:

Significant Difference By Year Group 2005 to 2015							
	Journ al Year Group 2005 M =	Journ al Year Group 2005 SD =	Journ al Year Group 2015 M=	Journ al Year Group 2015 SD=	Sig. (2- tailed) =	t=	p=
# of Verbs	0.63	1.01	1.11	1.11	0.000	(220.84)=- 4.249	<.0 1
# of Adverbs	0.19	0.54	0.36	0.74	0.027	(428)=-2.214	<.0 3
Use of Acronym s	1.99	0.09	1.94	0.23	0.031	(429)=2.166	<.0 4
Use of Technical Jargon	1.71	0.45	1.86	0.35	0.001	(429)= -3.488	<.0 1
# of Words	10.28	3.82	11.55	3.95	0.003	(208.60)=- 3.023	<.0 1
# of Characte rs	77.65	26.44	83.53	28.36	0.046	(215.77)=- 2.003	<.0 5
Average Word Length	7.75	1.24	7.34	1.04	0.002	(175.319)=3.1 87	<.0 1
# of "The"	0.32	0.54	0.47	0.71	0.018	(263.52)=- 2.389	<.0 2
# of Verbs Ending in -Ing	0.51	0.78	0.68	0.79	0.046	(204.464)=- 2.01	<.0 5
Colon	0.44	0.50	0.63	0.48	0.001	(429)=-3.507	<.0 1
How	0.02	0.13	0.08	0.27	0.024	(429)=-2.267	<.0 3

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Appendix A

A1 : Journal 1

Significant Difference By Journal 1 to 2							
	Journ al 1 M =	Journ al 1 SD =	Journ al 2 M=	Journ al 2 SD=	Sig. (2- tailed) =	t=	p=
# of Nouns	4.92	1.89	4.11	1.55	0.001	(158.091)=3.245	<.01
# of Words	11.87	4.21	10.66	3.72	0.035	(166.679)=2.129	<.04
# of Characte rs	89.93	29.73	77.58	24.74	0.001	(203)=3.238	<.01
# of Syllables Per Word	27.91	9.33	23.45	7.70	0.000	(158.530)=3.616	<.01
Average Word Length	7.83	1.34	7.44	1.13	0.031	(161.240)=2.179	<.04
# of Verbs Ending in -Ing	0.69	0.87	0.47	0.70	0.040	(203)= 2.070	=.04
Colon	0.48	0.50	0.63	0.48	0.032	(203)= -2.166	<.04
Question Marks	0.12	0.32	0.04	0.20	0.040	(203)=2.069	=.04

Significant Difference By Journal 1 to 3							
	Journ al 1 M =	Journ al 1 SD =	Journ al 3 M=	Journ al 3 SD=	Sig. (2- tailed) =	t=	p=
# of Nouns	4.92	1.89	4.31	1.88	0.001	(158.091)=3.2 45	<.0 1
# of Words	11.87	4.21	10.51	3.81	0.035	(166.679)=2.1 29	<.0 4
# of Characte rs	89.93	29.73	76.86	27.67	0.001	(203)=3.238	<.0 1
# of Syllables Per Word	27.91	9.33	23.43	8.38	0.000	(158.530)=3.6 16	<.0 1
Average Word Length	7.83	1.34	7.44	1.31	0.031	(161.240)=2.1 79	<.0 4
# of Verbs Ending in -Ing	0.69	0.87	0.64	0.74	0.048	(154.745)=1.9 93	<.0 5
Colon	0.48	0.50	0.43	0.50	0.033	(176.729)=2.1 52	<.0 4
Question Marks	0.12	0.32	0.06	0.24	0.040	(203)=2.069	=.0 4

Significant Difference By Journal 1 to 4							
	Journ al 1 M =	Journ al 1 SD =	Journ al 4 M=	Journ al 4 SD=	Sig. (2- tailed) =	t=	p=
# of Nouns	4.92	1.89	4.22	1.67	0.001	(158.091)=3.2 45	<.0 1
# of Characte r	89.93	29.73	71.23	21.11	0.001	(203)=3.238	<.0 1
# of Syllables Per Word	27.91	9.33	21.98	7.25	0.000	(158.530)=3.6 16	<.0 1
# of Verbs Ending in -Ing	0.69	0.87	0.76	0.71	0.040	(203)=2.070	=.0 4
Colon	0.48	0.50	0.76	0.71	0.032	(2030= -2.166	<.0 4

Significant Difference By Journal 1 to 5							
	Journ al 1 M =	Journ al 1 SD =	Journ al 5 M=	Journ al 5 SD=	Sig. (2- tailed) =	t=	p=
# of Nouns	4.82	1.89	3.83	1.52	0.001	(158.091)=3.245	<.01
# of Characte rs	89.93	29.73	69.57	25.00	0.001	(203)=3.238	<.01
# of Syllables Per Word	27.91	9.33	21.07	7.88	0.000	(158.530)=3.616	<.01
Average Word Length	7.83	1.34	7.15	1.20	0.031	(161.240)=2.179	<.04
# of Verbs Ending in -Ing	0.69	0.87	0.62	0.71	0.040	(203)=2.070	=.04
Colon	0.48	0.50	0.61	0.50	0.032	(203)= - 2.166	<.04

Significant Difference By Journal 1 to 6							
	Jour nal 1 M =	Jour nal 1 SD =	Jour nal 6 M=	Jour nal 6 SD=	Sig. (2- taile d)=	t=	p=
Average Word Length	7.83	1.34	7.43	1.01	0.030	(156.168)=2.190	=.03
CoordinatingConj unction	0.79	0.80	0.52	0.67	0.018	(162.406)=2.391	<.02

A2: Journal 2

Significant Difference By Journal 2 to 3							
	Journa l 2 M =	Journa l 2 SD =	Journa l 3 M=	Journa l 3 SD=	Sig. (2- tailed) =	t=	p=
Use of Technica l Jargon	1.80	0.40	1.93	0.26	0.005	(229)= - 2.849	<.0 1
Colon	0.63	0.48	0.43	0.50	0.002	(229)=3.11 0	<.0 1

Significant Difference By Journal 2 to 4							
	Journ al 2 M =	Journ al 2 SD =	Journ al 4 M=	Journ al 4 SD=	Sig. (2- tailed) =	t=	p=
# of Adjective s	1.00	0.99	1.32	1.12	0.025	(214)= -2.250	<.0 3
Use of Acronyms	1.99	0.09	1.93	0.26	0.012	(214)=2.523	<.0 2
# of Character s	77.58	24.74	71.23	22.11	0.051	(214)=1.963	<.0 6
# of "The"	0.48	0.61	0.32	0.57	0.048	(208.498)=1.9 93	<.0 5
Prepositio n Count	0.13	0.39	0.03	0.17	0.018	(214)=2.393	<.0 2
# of Verbs Ending in -Ing	0.47	.70	0.76	0.71	0.003	(202.49)=- 3.053	<.0 1
Colon	0.63	0.48	0.44	0.50	0.004	(200.987)=2.9 06	<.0 1

Significant Difference By Journal 2 to 5							
	Journ al 2 M =	Journ al 2 SD =	Journ al 5 M=	Journ al 5 SD=	Sig. (2- tailed) =	t=	p=
# of Adjective s	1.00	0.99	0.89	0.99	0.025	(214)=- 2.250	<.0 3
Use of Acronyms	1.99	0.09	1.93	0.26	0.012	(214)=2.523	<.0 2
# of Character s	77.58	24.74	69.57	25.00	0.048	(211.339)=1.98 8	<.0 5
# of "The"	0.48	0.61	0.45	0.67	0.048	(208.4980)=1.9 93	<.0 5
Prepositi on Count	0.13	0.39	0.03	0.17	0.018	(214)=2.393	<.0 2
# of Verbs Ending in- Ing	0.47	0.70	0.62	0.71	0.003	(202.49)=- 3.053	<.0 1
Colon	0.63	0.48	0.61	0.50	0.004	(200.987)=2.90 6	<.0 1
"Analysis of"	0.00	0.00	0.00	0.00	0.003	(214)= -3.058	<.0 1

Significant Difference By Journal 2 to 6							
	Journal 2 M =	Journal 2 SD =	Journal 6 M =	Journal 6 SD =	Sig. (2-tailed) =	t =	p =
# of Adjectives	1.00	0.99	1.36	1.12	0.017	(166.16)=-2.409	<.02
Use of Acronyms	1.99	0.09	1.93	0.26	0.015	(203)=2.441	<.02
# of "The"	0.48	0.61	0.29	0.55	0.024	(203)=2.279	<.03
Preposition Count	0.13	0.39	0.02	0.15	0.014	(203)=2.479	<.02
Colon	0.63	0.48	0.46	0.50	0.013	(203)=2.506	<.02

A3: Journal 3

Significant Difference By Journal 3 to 4							
	Journal 3 M =	Journal 3 SD =	Journal 4 M =	Journal 4 SD =	Sig. (2-tailed) =	t =	p =
Use of Technical Jargon	1.93	0.26	1.71	0.46	0.000	(205)=4.321	<.01
Preposition Count	0.11	0.34	0.03	0.17	0.047	(205)=1.998	<.05
Question Marks	0.06	0.24	0.01	0.10	0.050	(205)=1.969	=.05

Significant Difference By Journal 3 to 5							
	Journ al 3 M =	Journ al 3 SD =	Journ al 5 M=	Journ al 5 SD=	Sig. (2- tailed) =	t=	p=
# of Nouns	4.31	1.88	3.83	1.52	0.031	(238)=2.173	<.0 4
# of Verbs	0.90	1.10	1.01	1.06	0.446	(229.39)=- 0.763	<.5
# of Adjective s	1.27	1.18	0.89	0.99	0.007	(238)=2.705	<.0 1
# of Characte rs	76.86	27.67	69.57	25.00	0.034	(223.878)=2.1 28	<.0 4
# of Syllables Per Word	23.43	8.38	21.07	7.88	0.026	(227.698)=2.2 38	<.0 3
# of Pronouns	0.14	0.67	0.36	0.96	0.036	(238)=-2.114	<.0 4
Period	0.00	0.00	0.05	0.25	0.047	(238)=-1.995	<.0 5
Colon	0.43	0.50	0.61	0.50	0.006	(233.62)=- 2.775	<.0 1
On	0.15	0.36	0.06	0.24	0.021	(238)=2.321	<.0 3

Significant Difference By Journal 3 to 6							
	Journa l 3 M =	Journa l 3 SD =	Journa l 6 M=	Journa l 6 SD=	Sig. (2- tailed) =	t=	p=
Prepositio n Count	0.11	0.34	0.02	0.15	0.034	(194)=2.13 5	<.0 4

A4= Journal 4

Significant Difference By Journal 4 to 5							
	Journa l 4 M =	Journa l 4 SD =	Journa l 5 M=	Journa l 5 SD=	Sig. (2- tailed) =	t=	p=
# of Verbs	0.66	0.87	1.01	1.06	0.007	(220.77)=- 2.735	<.0 1
# of Adjective s	1.32	1.12	0.89	0.99	0.002	(223)=3.06 3	<.0 1
Use of Technical Jargon	1.71	0.46	1.98	0.15	0.000	(223)= - 6.233	<.0 1
# of Pronouns	0.10	0.42	0.36	0.96	0.014	(223)= - 2.482	<.0 2
Colon	0.44	0.50	0.61	0.50	0.010	(206.16)=- 2.588	=.0 1
“Analysis of”	0.07	0.26	0.00	0.00	0.002	(223)=3.17 1	<.0 1

Significant Difference By Journal 4 to 6							
	Journ al 4 M =	Journ al 4 SD =	Journ al 6 M=	Journ al 6 SD=	Sig. (2- tailed) =	t=	p=
# of Verbs	0.66	0.87	0.96	1.09	0.038	(160.62)=- 2.094	<.0 4
# of Words	9.78	3.27	11.06	4.90	0.039	(179)= -2.083	<.0 4
# of Characte rs	71.23	22.11	80.87	35.17	0.027	(179)= -2.234	<.0 3
# of Syllables Per Word	21.98	7.25	25.06	10.87	0.025	(179)= -2.265	<.0 3
# of Verbs Ending in -Ing	0.76	0.71	0.52	0.83	0.036	(166.475)=2.1 11	<.0 4

A5= Journal 5

Significant Difference By Journal 5 to 6							
	Journ al 5 M =	Journ al 5 SD =	Journ al 6 M=	Journ al 6 SD=	Sig. (2- tailed) =	t=	p=
# of Nouns	3.83	1.52	4.61	2.19	0.002	(212)=-3.081	<.0 1
# of Adjective s	0.89	0.99	1.36	1.12	0.002	(163.51)=- 3.166	<.0 1
Use of Technical Jargon	1.98	0.15	1.80	0.40	0.000	(212)=4.531	<.0 1
# of Character s	69.57	25	80.87	35.17	0.007	(212)= - 2.746	<.0 1
# of Syllables Per Word	21.07	7.88	25.06	10.87	0.002	(212)= -3.111	<.0 1
# of Pronouns	0.36	0.96	0.12	0.45	0.028	(212)=2.215	<.0 3
Prepositio n Count	1.27	0.93	1.71	1.23	0.003	(212)= -2.957	<.0 1
Colon	0.61	0.50	0.46	0.50	0.030	(180.800)=2.1 87	=.0 3