



Examining Social Media and Higher Education: An Empirical Study on Rate My Professors.com and Its Impact on College Students

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ABSTRACT

The purpose of this study was to measure the impact of Rate my professors.com (RMP) on college students' choices in class selection and professors. The controversial site RMP has been a social media phenomenon. Is RMP a device for disgruntled college students with a score to settle with a professor? This social media trend has had an impact on college undergraduate students 18-25. These behaviors have made popular social media such as Facebook and RMP a power tool for students' to use to connect or against individuals. As a social media tool, RMP has been used by college students to blog their comments concerning college professors' performance in the classroom. Are these blog comments valid and reliable? This study was guided by three research questions: (a) does RMP have a major influence on college students' choices of courses; (b) does RMP have an impact on students' choices of professors; (c) does RMP have an impact on future students' choices for selecting professors? This study used a principal component analysis (factor analysis) methodology. A pilot study of ($N = 110$) college students was taken conducted from two universities to test the instrument and data. What emerged from the factor analyses were six new factors that influenced student behavior.

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1. Introduction

The influence of social media is a new phenomenon that has affected everyone. It has affected nearly every sector that can be accessed on the internet. It has also affected the higher education sector. It has been a major influence especially on "Digital Natives." With the emergence of social media influences such as Facebook.com and many others, a significant amount of it penetrates our psyche on a daily basis. When things can go viral, it can tarnish someone's reputation in a matter of minutes. Due to this present paradigm shift, what has emerged is a new social revolution that has affected everything that surrounds us. That is the dangerous side of social media. The subject of our research is the controversial website, Rate My Professors.com (RMP). As student evaluations are required for higher education courses, RMP takes that to another level. By using the social media as distribution channel, RMP takes instructor evaluations to a new level. No longer can university faculty hide their evaluations from prospective students. RMP has met that need by using social media as a vehicle to meet that need for information on college professors. Evaluations are aimed at course instruction quality; and they can also assist in possible course improvements. This type of social media takes on a different complexion for professors or anyone whose reputation can be affected by RMP.

2. Review of the Literature

Background of the Study

RateMyProfessors.com (RMP) is a review site, founded in May 1999 by John Swapceinski, a software engineer from Menlo Park, California, which allows college and university students to assign ratings to professors and campuses of American, Canadian, and United Kingdom institutions. The site was originally launched as TeacherRatings.com and converted to Rate My Professors.com in 2001. Rate My Professors.com was acquired in 2005 by Patrick Nagle and William DeSantis.[1] Nagle and DeSantis later resold RateMyProfessors.com in 2007 to Viacom's mtvU, MTV's College channel. The company is currently incorporated in New York.

Rate my professor.com is an internet professor rating site. Students rate their professor on both a five-point Likert Scale and narrative descriptive comments. The faculties are rated on the following categories: "easiness", "helpfulness", "clarity", the rater's "interest" in the class. The rater may also rate the professor on their hotness, and may include comments of up to max 350 characters in length.

Registration is required and postings by students are considered anonymous well sort of, if they are sue, subpoenaed or other legal recourse, if the company is sold if they feel your information would help with a promotion. Be sure to read terms of agreement. Individuals may

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both read about and post an evaluation on an instructor. Users may create a listing for any individual not already listed. "The Overall Quality rating is the average of a teacher's Helpfulness and Clarity ratings...." It's the professor's Overall Quality rating that determines whether their name, on the list of professors, is accompanied by a little smiley face (meaning "Good Quality"), a "frowny face" ("Poor Quality"), or an in-between, expressionless face ("Average Quality"). A professor's name is accompanied by a chili pepper icon if the sum of his or her "HOT" ratings is greater than zero. Students can also comment and rate their school. School Ratings categories include Academic Reputation, Location, Campus, School Library, Food, Clubs & Activities, Social Events, and Happiness.

Students can also comment and rate their school. School Ratings categories include Academic Reputation, Location, Campus, School Library, Food, Clubs & Activities, Social Events, and Happiness. There is a rebuttal feature for professors. Professors must register with the website, using an ".edu" e-mail address, in order to make their rebuttals. The site also has a feature called "Professors Strike Back" which features videos of professors responding to specific ratings that they received.

In 2009, an iPhone app was introduced. In 2011, professors were given the ability to make their Twitter handle available on their professor profile pages for students to follow. The company has become legal savvy and there is a Terms of Agreement section and a Copyright Policy. Therefore, users and their content could be subpoenaed into court, as have many cell phone records, and Face Book records.

Prior Research on Rate My Professors.com

Some of the prior research studies on RMP have been exceedingly limited. Those studies were from Silva, Silva, Quinn, Draper, Cover, and Munoff, (2008); Otto, Douglas, Sanford, and Ross, (2008); and Ritter, (2008). The later studies on RMP were conducted by: Cavanaugh (2009); Davison and Price, (2009); Gregory, (2011), Kowai-Bell, Guadagno, Little, Preiss, and Hensly, (2011). We found there is a gap in the prior studies and literature. There is a gap in the prior research on how RMP actually influences students' behavior and choices. The aim of the researchers is to determine how much of an influence of RMP is on students and their choices in courses selection, professor selection and future choices. A considerable amount of the literature collected data from RMP as secondary data and conducted statistical analysis on it. We wanted to take a different approach for this study. Our approach was to collect primary data from the students and measure their opinions about RMP and its influence on their choices.

Instructor Evaluation Bias

Little is known about the consequences of RMP's use. Reliability and validity of online survey is not established. Concerns about biases related to instructors personality, and charisma evaluation instead of faculty performance and student learning hence there is debate on the data quality. Being rated as "easy" is relative as good instructors can make hard material easy or the instructor may have dummed down the material. Concerns: this could pose as an outlet for angry students or students who earn a low course score. There is the legal issue of libel or defamation statements on the character of an instructor. Additional bias is the limited number of times an instructor is evaluated may be limited to actual numbers of times the course was taught or number of years the faculty has taught. There is the possibility of an inaccurate expectation that is exhibited by either negative or positive comments about the instructor. There is also the issue of instructor bias. RMP has a highly selective sample, which is most likely used by students that either love or hate a professor. Data may be entered by anyone at anytime. False accusations could be posted easily although it appears that false accusations may be removed by submitting a request to the Site Moderation Team, if the faculty has the time to monitor the site. They may enter data during the course or six months after they take the course. They may not have taken the course they only need the course number. There are no safe guards to prevent ballot stuffing whereby faculty may rate themselves or an angry student may post multiple times from various computers using various email addresses. Lastly, differentiation must be made about the facilitation of learning versus student satisfaction.

Possible Benefits to Students

Students may gain helpful insights into instructor teaching style, course difficulty, instructor personality, students may enter the course with a preconceived positive attitude toward the instructor or curriculum. In theory, students may avoid a perceived difficult instructor. Students feel empowered over course and instructor choice.

3. Theoretical Framework and Conceptual Model of the Study

The following theoretical model is presented in more detail with the specific variables for the study. The model that follows gives the both the factors and variables and thus appropriated separated by the three factors. The terms for market behavior and entrepreneurial risk variables is illustrated (see Figure 1). A 28-item researcher-developed instrument was used for data collection. A 7-point Likert Scale instrument developed was specifically for this study. The theoretical framework will be tested using theoretical analysis of a sample ($N = 110$) of college students from an estimated population of 20,000 students in San Antonio, Texas (Bexar County).

As illustrated, the theoretical model is presented with the factors and the specific variables. The model that follows gives the both the factors and variables and thus appropriated separated by the three factors. The terms for the model and the variables are illustrated. The conceptual model of the study is illustrated (see Figure 2). The model illustrates the factors to be measured in the study. The model proposes three factors of Rate my professors' influence to be critical in influencing college students' choices. Figure 1 illustrates the a priori factors and number of items within each factor. The theoretical basis for the study follows with factor implications for entrepreneurial risk. This study will examine 20 variables. The factor terms are distinct and dissimilar in nature. A comparison between the theoretical model and the conclusive factor analysis results will be discussed later. This will be done to understand the differences between the statistical factor loadings and the theoretical model; and also to validate the structure of the theoretical model.

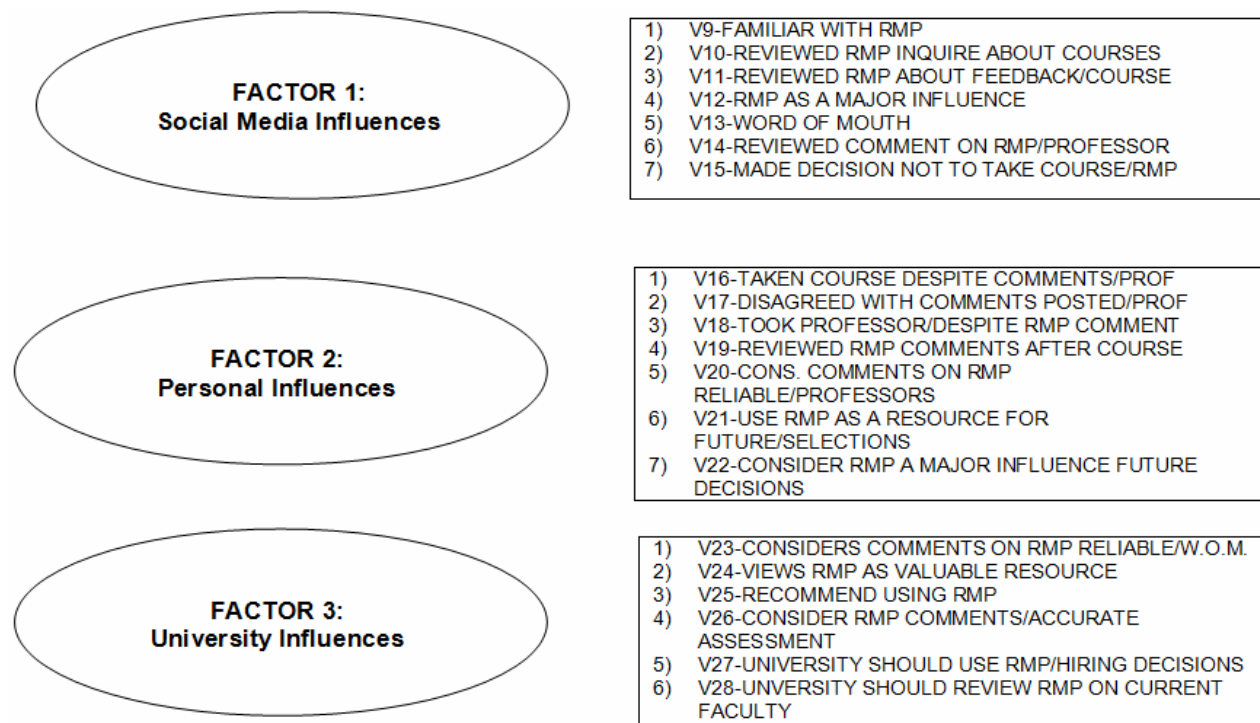


Figure 1. Three Factors - 20 Variables: Theoretical Framework Model Detail

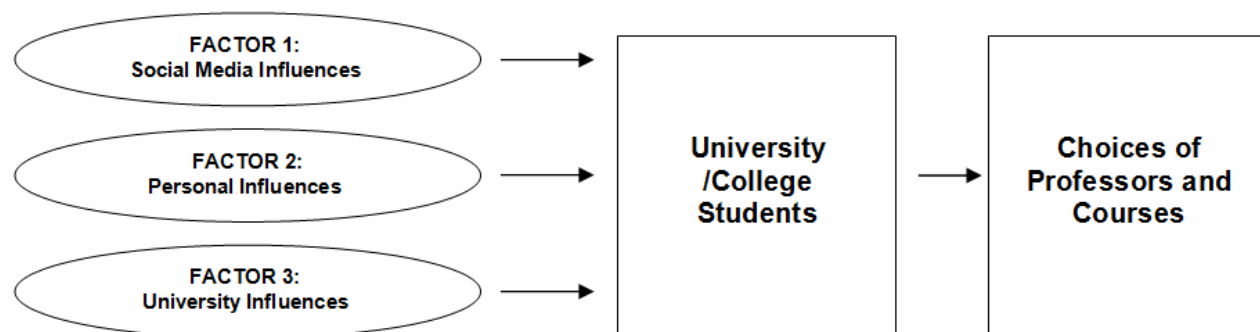


Figure2. Conceptual Model of Study

4. Research Methods and Research Design

Research Design Strategy

This study used a non-experimental, exploratory research design. The study used a cross-sectional research design strategy, which attempts to collect quantifiable or quantitative data with two or more variables. The development of this research utilized researcher-developed instrument based on scale development principles and practices (Fowler, 1988). Also the research design utilized an exploratory factor analysis with a principal components analysis method approach. The research design implemented a survey approach using three strategies: web-based surveys, personal administration and mail questionnaires.

The development of the instrument consists of a 7-point Likert-type scale (1 = Strongly Disagree to 7 = Strongly Agree) and 28 questionnaire-items. The Likert Scale was most appropriate for this study because: (a) the likelihood of producing a highly reliable scale; and (b) the capability to measure more data. These strategies attempt to maximize accessing the highest number of participants through multiple data sources and multiple sites (Fowler, 1995; Zikmund, 2003).

Data Collection

The data collection strategy primarily utilized a web-based approach. The data was collected through Survey Monkey, a web-based survey; the data was downloaded and exported into an Excel spreadsheet. The Statistical Package for the Social Sciences (SPSS) software used to conduct the statistical analyses. This study included descriptive statistics, inferential statistics and multivariate statistics.

The rationale for using descriptive statistics was to: (a) establish central tendencies; and (b) examine the dispersions in the data as reported in terms of means and standard deviations. Inferential statistics included a one-sample t-Test was used to understand the statistical differences between factors. In addition, a factor analysis was used to determine and measure patterns and tendencies in the data. Notably, all inferential statistical analyses were computed at a .05 level of significance. A sample size of 110 students was collected for this study. The proportionate sample was based on estimated population of college students in the metropolitan area of San Antonio, Texas (Bexar County). The sampling frame population consisted of a convenience sample for the selected participants located in the San Antonio area.

Instrument Development

The survey instrument used for this research was developed specifically for this study. As a result of this inquiry into Rate my professors.com, an instrument had to be developed because it did not exist. As a result, the survey was developed from the review of the literature. The review of the literature established the three factors of the scale, and establishes the items for each factor. Again, this is a pilot study. In addition, the instrument was also developed based on previous studies on RMP. There is a gap in the literature; most studies have not researched students' opinion about RMP.

The review of the literature established the dimensions for the researcher developed-scale. The indicators of student behavior in terms course selection and professor choice processes have been based upon four dimensions. The instrument employed a Likert item response scale. This survey employed a five point Likert scale with responses as follows. The decision to use a 7-point Likert scale was to acquire richer data as opposed to a 5-point scale. Lastly, the instrument is comprised of three types of variable responses: (a) *nominal/categorical variables*, data that is sorted into unordered categories (e.g., "male or female"; "married, divorced or single"); (b) *dichotomous variables*, data that has only two response options (e.g., "yes" and "no"; "male" or "female"); and (c) *discrete variables*, data that has a finite number of possible values (e.g., "1, 2, 3, 4, 5, 6, 7"; "strongly disagree to strongly agree"; 7-point Likert Scale).

Pilot Study of the Research

This study is a pilot study and the data collected will be used to determine what modifications need to be made to perfect the study and instrument. The data collected was from the pilot study was also used to evaluate and perfect the instrument in terms of question clarity, consistency, flow and construct before beginning the distributing the survey to the targeted population. Lastly, the pilot study was also used to address issues with ERS in terms of: (a) reliability and validity of the scales, (b) survey question clarity, (d) issues or inconsistencies with the survey questions, and (e) survey design and face validity issues of the instrument. This led to the further development of the instrument and the finalized version used for the second study (Study 2). This will be discussed more in-depth later in the article.

In order to determine question content, clarity, response time, and other statistical analyses, that is the basis for our pilot study. Our goal for the pilot was 50 students. However, there was such an enthusiasm among the participants that we doubled our original goal and collected 110 surveys. Notably, an adequate pilot study to determine correlations typically contain a minimum of 30 participants (Fowler, 1995 and DeVillis, 2011).

5. Statistical Analysis Design

All of the statistical analyses were performed using SPSS ® (Statistical Package for Social Sciences) Version 21.0 software was used for computing the data from the pilot test. SPSS was used for computing the descriptive statistics, inferential statistics and multivariate statistics. This was used for establishing central tendencies (mean, median, and mode), and developing the exploratory factor analysis, and data cleaning. Multivariate statistical analysis was used for computing factor analysis (principle component analysis), logistic regression, Pearson's Correlation, and t-Tests and factor scores.

The research design also incorporated a factor analysis (FA) methodology. The factor analysis was used to provide a means of assessing validity and reliability (Brown, 2006; Kachigan, 1991; Kish, 1987). FA is a multivariate statistical analysis approach that takes a large number of variables and reduces them into smaller, measurable constructs. FA is used to reduce variables to a manageable number; to identify a small number of factors representing relationships among sets of interrelated variables (e.g. descriptors); and to study relationship patterns among dependent variables (Gorsuch, 1983; Harman, 1976; Mulaik, 1972; Rummel, 1970).

One critical advantage that factor analysis utilizes a family of statistical procedures "for removing the redundancy from a set of correlated variables and representing the variables with a smaller set of derived variables" (Kachigan, 1991). Factor analysis is also extensively used for development and validations of an instrument. Since, the primary purpose of this study was to develop and validate an instrument, and explore student behavior; the researchers determined that an exploratory factor analysis (EFA) was an appropriate statistical mode of analysis.

Factor Analysis Type Used: Principle Component Analysis (PCA)

The researchers chose the principal components analysis method of EFA for this study. Using a principal component method of factor analysis has been historically associated with validating first generation instrument. This is critical to researchers attempting to establish the factors (Gorsuch, 1983; Harman, 1976; Mulaik, 1972; Rummel, 1970). The researchers performed a PCA on the data at interval and ratio level of the research instruments (29 items) to reveal factor structure. The researchers conducted an analysis of the 20 Likert scale

entrepreneurial risk items. An advantage that factor analysis has over these other statistical methods (clustering and multidimensional scaling) is that factor analysis can recognize certain properties of correlations.

Thus, Z_j represents a composite variable derived from the r common-factor components and the n unique-factor components. Note, however, that the j th variable has only one nonzero factor loading on the unique factors, which is loading u_j on unique factor V_j . (Mulaik, 1972; Rummel, 1970). The rationale for using a PCA type of factor analysis is: (a) PCA is used when the research purpose is data reduction (parsimony) or exploration; (b) PCA is a variance-focused approach; (c) variance within the factor; and (d) PCA is not used in causal modeling (ex. not used with structural equation modeling) (Garson, 1998).

6. Results of the Study

The overall results of the study indicate that Rate my professors.com (RMP) has some influence on college students. The researchers investigated the influence of RMP on student choices. The students were asked to rate 29 items on the instrument used for this study. After data collection was completed, a data-cleaning process was implemented prior to data analysis. When errors were detected, the original source document was located and corrected. The majority of the data-cleaning problems were of the following types: (a) data entry errors, (b) misspellings, (c) duplicate or redundancy of input, and (d) some incomplete surveys with self-reported surveys. Respondents elected to skip, or otherwise omit some questions. One of the prevailing issues with self-reported data was the participants' failure to complete the survey or skip questions altogether. Surveys with more than six skipped items were discarded. No outliers were detected.

Description of the Sample

A total of 110 college students from two universities participated in study. Their ages ranged from 18-53 years. They were recruited for the study. Data from the subjects was used to conduct the exploratory factor analysis. Descriptive statistics for the sample are presented in Table 1. The majority of the students were of Hispanic origin (94.5%), thus reflecting the demographics of the city from which the sample was drawn. The table illustrates the descriptive statistics of the sample illustrates: gender, age, ethnicity, student ranking, and class preferences.

Descriptive Statistics and Demographic Data

Demographic data was analyzed using descriptive statistics (measures of central tendency and dispersion) and student t-tests, to examine characteristics between group differences. Table 1 presents data on the student behavior in terms of RMP for this study. The objective for the descriptive statistics is to transform large groups of data into a more manageable form (Huck, Cormier & Bounds, 1974). The students were asked to complete the 29-item instrument. The table illustrates the descriptive statistics of the sample. There was a close parity with the variable gender; however, there was not a balance in terms of ethnicity, education level, and marital status. As indicated, the first column illustrates the frequency and percentage of the sample in the data. The first column illustrates variable type. The second column illustrates the frequency; and lastly, the third column illustrates the percentage of the sample. As indicated in the table, the descriptive statistics of the sample were as follows:

Table 1. Pilot Study Results: Descriptive Statistics and Demographics ($N = 110$)

Variables	Frequency	% of Sample
Gender		
Males	47	42.7
Females	63	57.3
Age		
18 – 25	47	42.7
25 – 35	63	57.3
Ethnicity		
African American/Black	4	3.6
Hispanic/Latino	104	94.5
White/Caucasian	2	1.8
Student Ranking		
Freshman	45	40.9
Sophomore	12	10.9
Junior	53	48.2
Class Preferences		
Traditional (in-class)	27	24.5
Online	11	1.4
Hybrid (online/traditional)	72	9.2
Total	110	100.0

Results of Exploratory Factor Analysis

First, to establish a base on the factor coefficients, a benchmark in terms of factor loadings, we set a benchmark for the factors. Typically researchers consider variables with factor loadings coefficients of at least .3 in absolute value as loading on. eigenvector; thus as worthy of consideration in the interpretation of the meaning of the eigenvector. It is a common practice for researchers conducting a factor analysis to consider only factor loadings $> .3$ (see Tables 2 and Table 4). In addition to the results of the PCA, six factors were extracted and accounted for 65.7% of the variance in the 20 items tested (see Table 2). There was a percentage of variance from 14.5% to 5.00% due to the positive eigenvalues or high error variances between latent variables. Based on the PCA, the number of factors retained was based on an examination of six eigenvalues for each factor.

Second, SPSS ® (Statistical Package for Social Sciences) Version 21.0 software was used for computing the data from the pilot study. The computation included descriptive statistics, inferential statistics and multivariate statistics. This was used for establishing central tendencies (mean, median, and mode), and developing the exploratory factor analysis. Multivariate statistical analysis was computed principal component analysis (PCA).

Table 2 illustrates the eigenvalues and the variances. Eigenvalues (λ) are a statistic used in factor analysis to show how much variation in the group of variables is accounted for by a particular factor (Bryant & Yarnold, 1995; Cureton & D'Agostino, 1993; Garson, 1998; Gorsuch, 1983; Harman, 1976; Mulaik, 1972; Rummel, 1970; Tabachnick & Fidell, 2007). The standard for an eigenvalue score is greater than 1.0 (Vogt, 1993). Ten factors with eigenvalues greater than 1 were extracted which accounted for 58.3% of the variance in the 23 items tested (see Table 2). The number of factors retained was based on an examination of percentage of variance explained.

Table 2. Study 1 (Pilot Study) Results of Eigenvalues, Percentages of Variance, and Cumulative Percentages ($N = 110$)

Factor	Eigenvalues	% of Variance	% of Cumulative
1	6.031	30.153	30.153
2	2.577	12.886	12.886
3	1.545	7.727	7.727
4	1.348	6.740	6.740
5	1.52	5.761	5.761
6	1.05	5.524	5.524

Note: Extraction Method: Principal Component Analysis (PCA)

Table 3 illustrates the eigenvalues and the variances. Eigenvalues (λ) are a statistic used in factor analysis to show how much variation in the group of variables is accounted for by a particular. In the PCA, the Kaiser-Meyer-Olkin measure (KMO) of sampling adequacy resulted in a .831, thus slightly below the commonly recommended value of .6; the Barlett's test of sphericity was significant $\chi^2 (231) = 1118.677, p < .000$. In terms of PCA, a finding that indicators have high loadings on the predicted factors indicates convergent validity conceptually. There were six factors that emerged as a result of the PCA in that each items loaded primarily into only one factor (see Table 3).

Table 3. Results of Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Barlett's Test ($N = 110$)

Measurement Type	Measures
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	.831
Barlett's Test of Sphericity (Chi-Square) χ^2	1118.677
Degrees of freedom (df)	231
Significance (p)	.000

Note: Extraction Method: Principal Component Analysis (PCA)

Factor Loadings and Coefficients

The standard for coefficient loadings for a factor analysis varies depending on the type of factor analysis. A standard for the factor coefficient loadings of .3 or higher was established for this study. Factor loadings .6 or higher are considered "high" and those below .4 are considered "low" (Garson, 1998; Hair et al., 1998). Table 4 illustrates the factor loadings for the 20 numerical items in survey instrument. Communality (h^2) is the sum of squared loadings (SSL) for each variable across factors. It measures the percent of variance in a given variable explained by all the factors. Communality also indicates the variance, which a variable has in common with other variables in the factor analysis. Six factors were extracted (see Table 5). Communalities are valued between 0 and 1 (Bryant & Yarnold, 1995; Cureton & D'Agostino, 1993; Garson, 1998; Gorsuch, 1983; Tabachnick & Fidell, 2007). The standard for communalities varies depending on the type of factor analysis methodology type, sample size, and factor structure (Brown, 2006; Cureton & D'Agostino, 1993; Garson, 1998; Mulaik, 1972; Rummel, 1970). To set a standard for this study, only communality coefficients greater than .2 were considered a significant reliable indicator in the factor.

Table 4. Results of 6-Factor Solution (and 21 items) with Principle Component Analysis Coefficient Factor Loadings Matrix with Risk Variables ($N = 110$)

Variables	F1	F2	F3	F4	F5	F6
V22 - Consider RMP A Major Influence/Future Decisions	.933					
V18 - Took Professor/Despite RMP Comment	.926					
V19 - Reviewed RMP Comments After Taking Course	.913					
V20 - Consider Comments On RMP Reliable/Professors	.815					
V23 - Consider Comments On RMP Reliable/W.O.M.	.746					
V17 - Disagreed With Comments Posted/Professor	.722					
V28 - University Should Review RMP on Current Faculty	.685					
V12 - RMP as a Major Influence		-.892				
V11 - Reviewed RMP About Feedback/Course		.880				
V16 - Taken Course Despite Comments/Professors		-.820				
V24 - Views RMP as a Valuable Resource			.823			
V27 - University Should USE RMP/Hiring Decisions			.723			
V26 - Consider RMP Comments/Accurate Assessment			.673			
V14 - Reviewed Comments On RMP/Professor				.746		
V21 - Use RMP as a Resource For Future/Selections.				.682		
V15 - Made Decision Not To Take Course/RMP				.472		
V13 - Word of Mouth Influence					-.719	
V25 - Recommend Using RMP					.509	
V9 - Familiar With RMP						.814
V10 - Reviewed RMP to Inquire About Courses						.662

Note: Extraction Method: Principal Component Factor Analysis (PCA). Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 11 iterations. Only loadings $>.3$ are show in the table.

Table 5 illustrates the summated scale scores for each factor. The summated scale is the average factor score of the variables in that factor. The mean scores and standards deviations for each factor are shown. Factor 1 had the largest mean score ($M = 29.77$, $SD = 15.288$). This indicates that among the six factors, colleges are influenced by these closely related variables.

Table 5. Factor Scores of RMP Influence On College Students ($N = 110$)

Summated Factors	Mean	SD
Factor 1: Student Influence/RMP	29.77	15.288
Factor 2: University Influence	6.96	1.651
Factor 3: Valuable Resource/RMP	9.18	6.324
Factor 4: Future Choices	9.66	3.791
Factor 5: Word of Mouth Influence	6.35	2.284
Factor 6: Knowledge Gap	3.57	1.332

Note: Summated scales were calculated an average score across the variables within that factor.

Table 6 illustrates the summated scale scores for each factor. The summated scale is the average factor score of the variables in that factor. Using *gender* as an independent variable, the mean scores and standards deviations for each factor are shown. This indicates that among the six factors influence university students' choices.

Table 6. Factorial ANOVA: Rate My Professors.com Effect with Factors and Variables ($N = 110$)

Factors	SS	df	Mean	F	p
Factor 1: Student Influence/RMP					
V22 - Consider RMP A Major Influence/Future Decisions	578.5	1	4.652	.876	.352
V18 - Took Professor/Despite RMP Comment	523.1	1	.320	.066	.797
V19 - Reviewed RMP Comments After Taking Course	541.4	1	1.012	.202	.654
V20 - Consider Comments On RMP Reliable/Professors	530.6	1	.411	.084	.773
V23 - Consider Comments On RMP Reliable/W.O.M.	618.3	1	.737	.129	.720
V17 - Disagreed With Comments Posted/Professor	485.6	1	.091	.020	.887
V22 - Consider RMP A Major Influence/Future Decisions	378.6	1	.065	.019	.892
Factor 2: University Influence					
V28 - University Should Review RMP On Current Faculty	6.55	1	.038	.627	.430
V12 - RMP As A Major Influence	44.3	1	1.10	2.76	.100
V11 - Reviewed RMP About Feedback/Course	64.2	1	.172	.291	.591
Factor 3: Valuable Resource/RMP					
V24 - Views RMP As Valuable Resource	380.7	1	.633	.180	.672
V27 - University Should USE RMP/Hiring Decisions	541.8	1	2.27	.455	.502
V26 - Consider RMP Comments/Accurate Assessment	540.0	1	2.74	.553	.459
Factor 4: Future Choices					
V14 - Reviewed Comments On RMP/Professor	117.4	1	.573	.529	.468
V21 - Use RMP As A Resource For Future/Selections.	356.2	1	.001	.000	.987
V15 - Made Decision Not To Take Course/RMP	97.4	1	.013	.014	.906
Factor 5: Word of Mouth Influence					
V13 - Word of Mouth Influence	5.96	1	.027	.494	.484
V25 - Recommend Using RMP	458.2	1	8.79	2.112	.149
Factor 6: Knowledge Gap					
V9 - Familiar With RMP	26.9	1	26.9	.	.
V10 - Reviewed RMP to Inquire About Courses	76.0	1	2.37	3.48	.065

Examining the Conclusive Factor Structure

The factor analyses results of the findings were presented. A revised conceptual model was developed as a result of the new conclusive factor structure results (see Figure 3). The revised conclusive factor structures model includes the new factors as a result of the exploratory factor analysis. The new revised conceptual model presents a 6-factor solution as shown in the previous exploratory factor analysis table (see Figure 3).

A critical observation is that the factor structure significantly differs from the exploratory conceptual theoretical model (see Figure 1). The 23 items configuration significantly differs with the theoretical model. A possible explanation that explains why some factors were important than other were based on the number of factors and the coefficient amount. For example, Factor 1: Student Influence/RMP had the highest coefficients in the principle component analysis (PCA). Furthermore, Factor 1, Factors 2, Factor 3, Factor 5 and Factor 6 were the more important factors in the PCA and the study.

The revised conceptual model indicates two things: (a) the revised theoretical model shows more accuracy of the results and better illustrates the behavior of college students and their choices; and (b) the revised model also proves there are a myriad of influences that affect college student behavior patterns and choices as a result of the factor analysis. Because this is an exploratory factor analysis, these findings assist in refining the theory proposed for this study.

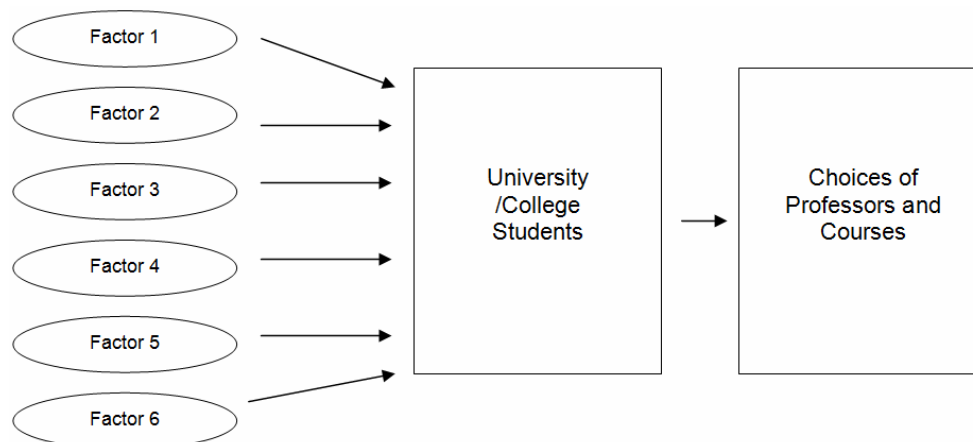


Figure 3. Revised Conceptual Framework

Comparing the Theoretical Model with the Conclusive Factor Analysis Results

The results of the factor analysis of the 20 items did not concur with the apriori factors of the theoretical model. There are two main issues, to consider, in examining the comparison between the theoretical model and factor loading findings. First, there is some structural agreement between the two. Second, the conclusive factor analysis structure confirms the appropriate factor loadings. Therefore, the theoretical model does not completely explain the factor structure of results from the data set (see Figures 4 and 5).

The results of the findings are presented in the comparison table (see Table 7) between the theoretical model and the results of the conclusive factor structure from the factor analysis. The results of the factor loadings are presented in six factors. The first column addresses the theoretical model's proposed loadings. The second column presents the actual results of the factor loadings from the study. Notably, factor structure was significantly different from the theoretical model. This was most evident in factors three and four.

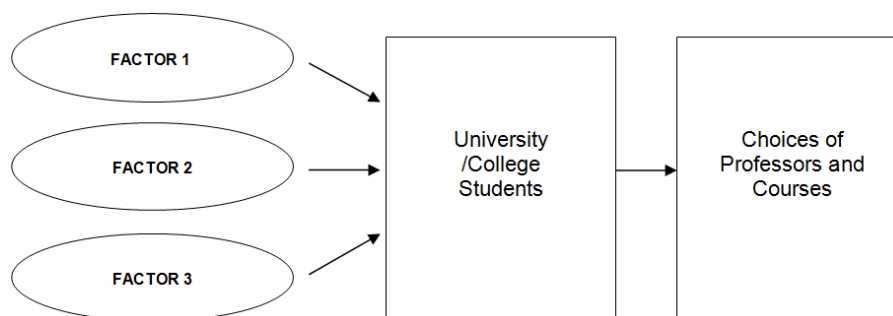


Figure 4. Conceptual Model of Study

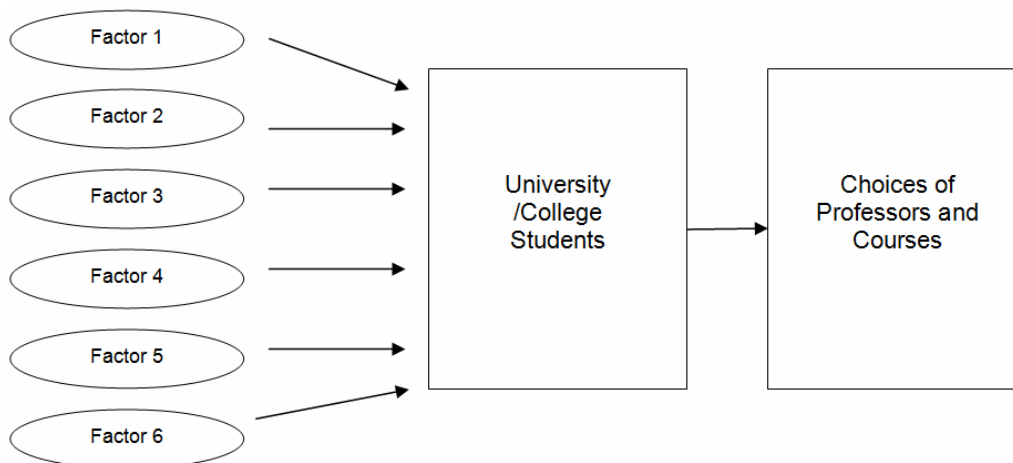


Figure 5. Revised Conceptual Framework

Table 7. Comparison Between Theoretical Model Framework and Conclusive Factor Analysis Structure ($N = 110$)

Theoretical Model - Factors and Items	Pilot Study Results: Conclusive Factor Analysis – Factors and Items Structure
FACTOR 1: SOCIAL MEDIA INFLUENCES V9 - Familiar With RMP V10 - Reviewed RMP to Inquire About Courses V11 - Reviewed RMP About Feedback/Course V12 - RMP As A Major Influence V13 - Word of Mouth Influence V14 - Reviewed Comments On RMP/Professor V15 - Made Decision Not To Take Course/RMP	FACTOR 1: STUDENT INFLUENCE/RMP V22 - Consider RMP A Major Influence/Future Dec. V18 - Took Professor/Despite RMP Comment V19 - Reviewed RMP Comments After Taking Course V20 - Consider Comments On RMP Reliable/Prof. V23 - Consider Comments On RMP Reliable/W.O.M. V17 - Disagreed With Comments Posted/Professor
FACTOR 2: PERSONAL INFLUENCES V16 - Taken Course Despite Comments/Professors V17 - Disagreed With Comments Posted/Professor V18 - Took Professor/Despite RMP Comment V19 - Reviewed RMP Comments After Taking Crs. V20 - Consider Comments On RMP Reliable/Prof. V21 - Use RMP As A Resource For Future/Select V22 - Consider RMP A Major Influence/Future Dec.	FACTOR 2: UNIVERSITY INFLUENCES V28 - University Should Review RMP On Current Fac. V12 - RMP As A Major Influence V11 - Reviewed RMP About Feedback/Course V16 - Taken Course Despite Comments/Professors FACTOR 3: VALUABLE RESOURCE/RMP V24 - Views RMP As Valuable Resource V27 - University Should USE RMP/Hiring Decisions V26 - Consider RMP Comments/Accurate Assessment
FACTOR 3: UNIVERSITY INFLUENCES V23 - Consider Comments On RMP Reliable/WOM. V24 - Views RMP As Valuable Resource V25 - Recommend Using RMP V26 - Consider RMP Comments/Accurate Asses. V27 - University Should USE RMP/Hiring Dec..	FACTOR 4: FUTURE CHOICES INFLUENCES V14 - Reviewed Comments On RMP/Professor V21 - Use RMP As A Resource For Future/Selections. V15 - Made Decision Not To Take Course/RMP
	FACTOR 5: WORD OF MOUTH: INFLUENCE V13 - Word of Mouth Influence V25 - Recommend Using RMP
	FACTOR 6: KNOWLEDGE GAP V9 - Familiar With RMP V10 - Reviewed RMP to Inquire About Courses

Note: Extraction Method: Principal Component Factor Analysis (PCA). Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 11 iterations. Only loadings >.3 are show in the table.

7. Discussion

The purpose of this study is to measure the impact of Rate my professors.com (RMP) on college students' choices in class selection and professors. The controversial site RMP has been a social media phenomenon. The following three research questions guided this investigation:

- Does RMP have a major influence on college students' choices for courses?
- Does RMP have an impact on students' professor choices for course selection?
- Does RMP have an impact on future students' courses?

In this study, the researchers tried to fill the gap in the field by addressing the problem of social media (RMP) and its influence on college students. Not much research has been conducted on RMP. This study attempts to provide research on this under investigated topic. The conceptual model of the study was developed based on the researcher developed-instrument. The findings were gathered utilizing a first-generation instrument developed from an extensive review of literature.

An exploratory factor analysis was used to examine the influence of RMP this population: college students. When taking a exploratory approach, it is suggested that the researchers pilot test to explore the patterns in the data collected. A total of three factor models (see

conceptual framework of the study) were investigated for this study. The theoretical model was investigated in this study was a first-order model with three latent constructs.

Finally, the findings of our research suggest there is a need for more studies and future research on RMP and its influence. Since the study is conceptually based on the prior literature review. However, more research and a better understanding of Rate my professors (RMP) and its influence on college students. Currently, the data of this investigation suggests that there is only six constructs that influence students in terms of RMP.

Limitations of the Study

This study had multiple limitations that may have affected the study. There were limitations in the study such as: (a) the study utilized a convenience sample from university students, which lead to bias in the study; (b) lack of diversity in student ethnicity and population; (c) sample size is suspect because the college student population in area is 20,000; (d) geographical constraints such as ability to reach other students; and lastly (e) a fifth limitation is that the study used a new instrument that may have resulted with high variability between the difficulty values between the items. Considering that the instrument had a large range of coefficients between factors (and items) is warranted, however the mean of the factor coefficients in the range of .800 suggesting that most of the items were distributed in the upper end. It is the opinion of the researchers that because of these limitations, the findings of the study will possibly lead to a stronger subsequent study for future research. The future research will be more in-depth study and capitalize on the limitations of our pilot study, which was just the beginning.

Recommendations for Future Research

Developing a new instrument for a new study can be problematic. In developing a first generation-instrument, there are challenges for us as researchers that emerged beyond the data. This study was an endeavor of hard work and persistence. Based on the findings of the research, there are suggestions for further research:

- **Acquire a larger sample size.** Expand the study with a much larger sample size (e.g. 500 to 1,000). This would be optimal for the next study; it would be helpful to further understand how this population of students influence by Rate my professors.com (RMP);
- **Expand to more universities.** Expand the study to other universities in the San Antonio area; by expanding to other universities we can measure RMP's influence across a diverse student population;
- **Expand the study to examine community colleges.** The study could be expanded to a community college system; we could replicate the study to see if community college students are also influenced by RMP as their university counter-parts;
- **Expand the study on a regional and national basis.** The study could be expanded on a regional and national basis; we could replicate this study on that basis and further examine RMPs influence on students' choices.

Considering the plethora of opportunities to conduct more research on the subject is intriguing. It is our goal to move forward to a formal study and capitalize on the constraints and limitations of this pilot study. We think that would have provided a stronger foundation for improving the next study. Occasionally researchers have the opportunity to expand the population sample utilized for their pilot study. Again, it is our goal to increase the population sample size significantly.

8. Conclusions and Critical Observations

The conclusions of the research suggest that Rate my professors.com is an influence on college students. The conclusions of the study were: (a) there were six factors that resulted from the exploratory factor analysis (principle component analysis); and (b) the conclusive factor structure significantly differed from the theoretical model. The main implication in this study is that RMP has some influence on students, but it may not be a significant influence. Based on the review of the literature and the factor analysis, we concluded that social media (RMP) is a multidimensional construct. Furthermore, our exploratory factor analysis revealed six factors with multiple variable items that influence student choices. Based on our research, those six factors cannot be taken as the final conclusion in the research. One reason is the sample size for the pilot study was adequate but a larger sample size is much needed. However, we know there are at least six factors that influence student behavior in the making those choices. One clear inference from the research is that RMP is an influence on college students but the extent of its influence still needs further investigation.

References

- Aaker, D. & Day, G. (1990). Marketing research (4th ed.) New York, NY: John Wiley & Sons
- Affli, A. & Clark, V. (1984). Computer-aided multivariate analysis. Belmont, CA: Lifetime Learning Publications
- Allen, J. & Yen, W. (1979). Introduction to measurement theory. Belmont, CA: Wadsworth, Inc.
- Babbie, E. (1973). Survey research methods. Belmont, CA: Wadsworth Publishing Company Inc
- Backstrom, H. & Hursh-Cesar, G. (1981). Survey research, (2nd ed.) New York, NY: Macmillan Publishing Company
- Brown, T. (2006). Confirmatory factor analysis for applied research. New York, NY: The Guilford Press.
- Bryant, F. & Yarnold, P. (1995). Principal-components analysis and exploratory and confirmatory factor analysis. In L. Grimm & P. Yarnold (Eds.), Reading and understanding multivariate statistics (12th ed.) Washington, D.C: American Psychological Association.
- Bryman, A. & Cramer, D. (1990). Quantitative data analysis for social sciences to measurement theory. New York, NY: Routledge, Chapman and Hall, Inc.
- Campbell, D. & Stanley, J. (1963). Experimental and quasi-experimental designs for research Boston, MA: Houghton Mifflin Company.
- Cavanaugh, J. (2009). Online professor evaluation: Are they useful resources or misleading and harmful? AURCO Journal, Spring 2009 (15), pp. 11-126.

- Cochran, W.G. (1963). Sampling techniques. New York, NY: Wiley Series in Probability and Mathematical Statistics-Applied: John Wiley & Sons, Inc.
- Converse, J. & Presser, S. (1986). Survey questions: Handcrafting the standardized questionnaire, 5(1). Thousand Oaks, CA: Sage Publications, Inc.
- Davison, E. & Price, J. (2009). How do we rate? An evaluation of online student evaluations. *Assessment & Evaluation in Higher Education*, 34 (1) pp. 51–65.
- DeVellis, R. (2011). Scale Development: theory and application. Newbury Park, CA: Sage Publications, Inc.
- Dunn-Rankin, P., Knezek, G., Wallace, S. & Zhang, S. (2004). Scaling methods (2nd ed.) Hillsdale, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Ehrenberg, A.S. (1975). Data reduction: Analyzing and interpreting statistical data (4th ed.) New York, NY: John Wiley & Sons.
- Fowler, F. (1988). Survey research methods. Newbury Park, CA: Sage Publications, Inc.
- Fowler, F. (1995). Improving survey questions: Design and evaluation. Thousand Oaks, CA: Sage Publications, Inc.
- Garson, D. (1998). Factor analysis. Retrieved from <http://faculty.chass.ncsu.edu/garson/PA765/factor.htm#factoring>
- Gorden, R. (1977). Unidimensional scaling of social variables: Concepts and procedures. New York, NY: Free Press.
- Gorsuch, R. (1983). Factor Analysis (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Gregory, K. (2011). How undergraduates perceive their professors: A corpus analysis of rate my professor. *Journal. Educational Technology Systems*, 34 (20) pp. 169-193.
- Harman, H.H. (1976). Modern Factor Analysis (3rd ed.). Chicago, IL: University of Chicago Press.
- Huck, S., Cormier, W. & Bounds, W. (1974). Reading statistics and research. New York, NY: Harper & Row, Publishers
- Kachigan, S. (1991). Multivariate statistical methods: A conceptual approach (2nd ed.) New York, NY: Radius Press.
- Keppel, G. (1982). Design and analysis: A researcher's handbook (2nd ed.) Englewood Cliffs, NJ: Prentice-Hall, Inc
- Kerlinger, F. (1985). Foundations of behavioral research (3rd ed.) New York, NY: Holt Rinehart and Winston, Publishers
- Kim J. & Mueller, C. (1978a). Introduction to factor analysis: What it is and how to do it. Thousand Oaks, CA: Sage Publications, Quantitative Applications in the Social Sciences Series, No.13.
- Kim J. & Mueller, C. (1978b). Factor analysis: Statistical methods and practical issues Thousand Oaks, CA: Sage Publications, Quantitative Applications in the Social Sciences Series, No.14.
- Kish, L. (1987). Statistical design for research. New York, NY: Wiley Series in Probability and Mathematical Statistics-Applied: John Wiley & Sons.
- Kowai-Bell, N., Guadagno, R., Little, T., Preiss, N., & Hensly, R. (2011). Rate my expectations: How online evaluations impact students' perceived control. *Computers in Human Behavior*, 1(27) pp. 1862-1867.
- Long, J. S. (1983). Confirmatory factor analysis. Thousand Oaks, CA: Sage Publications, Quantitative Applications in the Social Sciences Series, No. 33.
- Mulaik, S. (1972). Foundations of factor analysis (2nd ed.) New York: Chapman & Hall Publishing Company Inc.
- Otto, J., Douglas A., Sanford, D., & Ross, D. (2008). Does ratemyprofessor.com really rate my professor? *Assessment & Evaluation in Higher Education*, 33 (4) pp. 355–368.
- Ritter, K. (2008). E-Valuating learning: Rate my professors and public rhetorics of pedagogy. *Rhetoric Review*, 27 (3) pp. 259–280.
- Rummel, R. J. (1970). Applied factor analysis. Evanston, IL: Northwestern University Press.
- Silva, K., Silva, J., Quinn, M., Draper, J., Cover, K. & Munoff, A. (2008). Rate my professors: Online evaluations of psychology instructors Teaching of Psychology 35 pp. 71-80.
- Tabachnick, B. & Fidell, L. (2007). Using multivariate statistics (5th ed.) Boston, MA: Pearson Education Inc.
- Vogt, P. (1993). Dictionary of statistics and methodology. New Jersey: Sage Publications.
- Zikmund, W. (2003). Business research methods (7th ed.) New York, NY: Thomson-Southwestern.