

The acceptance of electronic journals by business faculty: an adoption/diffusion approach

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ABSTRACT

This research investigates the adoption of electronic journals by business academicians as a medium for disseminating academic research. The authors present a theoretical framework based on the body of literature in the area of adoption and diffusion of innovation, and the Technology Acceptance Model. Four hypotheses proposing that age, tenure status, gender and whether an institution is accredited affect perceptions of electronic journals are tested using a sample of 141 business professors. Age and gender were found to be correlated with propensity to regard electronic journals as equivalent to print journals. Younger respondents and women were found to be more likely to regard electronic journals favorably than older and male respondents. No tenure or accreditation effects were found.

Keywords: Electronic journals, e-journals, technology acceptance, adoption, diffusion, business education.

INTRODUCTION

Among the many consequences of the information revolution brought about by the global availability of the Internet and other communication modes is the explosive propagation of online academic journals, including those within the realm of business-related research. Estimates of the annual growth rate of electronic scholarly journals in the first decade of the 21st century are in the range of 12 to 15 percent per year (Hynes & Stretcher, 2005), a trend that reaches across virtually all disciplines.

This extraordinary growth is due to the fact that both users and suppliers enjoy significant advantages in utilizing electronic journals over traditional print-only journals. Journal readers enjoy the benefit of having ready access to limitless information from the broadest possible number of sources without having to physically store anything. The journal publishers enjoy significant cost advantages, the ability to change content in response to reader needs, and greater efficiency as publishing electronically allows for just-in-time delivery and greater diffusion of knowledge across disciplines (Fidczuk & Beebe, 2007).

For journal publishers the cost advantages are numerous. There is no backlog, resulting in faster editing and production cycles. By eliminating editing, binding, shipping, and storage, a journal can publish a variety of materials with little initial capital. Also, storage and bandwidth costs are usually transferred to the reader. Some of the cost advantage may be offset by unforeseen costs and risks. Electronic journals introduce copyright payment structures, scanning/coding/tagging of content, content hosting costs, Crossref membership fees, DOI submission fees, and supplemental materials. Electronic publishers also need to incur the costs of managing and continually developing their systems, as well as providing a perpetual archive; and because technology continues to evolve over time, new features and enhancements to electronic journals may add additional costs as the journal matures (Odlysko, 1998).

The transition of journal publishing from print to online takes place within the greater context of the onset of the information age and its effects on all of civilization in the 21st century. The advantages to consumers and producers parallel those found in other areas of our daily lives, including the way people communicate with each other, the way people play, and the way people shop. For example, the power of Internet retailing has mandated that retailers may sell via both Internet and in-person or solely via Internet, but rarely by bricks and mortar alone (Konus, Verhoef & Neslin, 2008). Similarly, as researchers had earlier predicted, scholarly journals have evolved such that a journal may publish via both print and Internet or solely via Internet, but rarely by print alone (Odlyzko 1999).

The general purpose of this research is to investigate the phenomenon of electronic journals in the arena of business education. More specifically, we: (1) review the academic literature and identify the issues previous researchers have found to be relevant to this subject; (2) develop a theoretical framework to explain and predict the factors that contribute to the acceptance of electronic journals as an information medium among business educators; (3) report on the nature and results of a study conducted for the purposes of testing the theoretical framework; and (4) discuss the limitations and implications of our study.

LITERATURE REVIEW

Based on a review of previous research in the area of electronic journals, there are three key areas of concern to scholars: (1) The effect of scholarly journals on the depth and breadth of

information in the scientific literature; (2) The degree to which scholarly research may be becoming more perishable; and (3) The possible loss of rigor and reputation that might accrue to researchers as a result of publishing in electronic journals. Following is a discussion of the literature as it pertains to these issues.

Depth and Breadth of Information

As academic researchers change their behavior from reliance on print sources to reliance on Internet sources, they assimilate information differently, and that has significantly altered how researchers gather and cite information. The number of readings, time spent reading, and citing patterns show that, as a result of the electronic availability of scholarly content, researchers today are plying their craft differently than they did in the past. They are reading less information from each article they consult, while consulting a broader array of sources. One study reported that university faculty read twice as much as they did thirty years ago, with electronic articles accounting for the greater part of the readings (Tenopir et al., 2009).

There is some disagreement in the literature as to whether the increase in breadth of reading has resulted in researchers citing from a broader array of sources than they did in the past. Tenopir, et al (2009) suggest that scholars are reading more articles than they ultimately cite, and so citing patterns have narrowed. This tightening of citation patterns can be attributed to many factors, including an increase in electronic searching and a decrease in browsing through hard copy. Also, because electronic searches may yield a great volume of relevant articles, there is a shortening in the age of the articles cited. Older articles are consequently cited less frequently. However, other research has found that there has been an increase in the dispersion of citations as researchers are consulting a wider variety of sources (Lanviere et al., 2009). The discrepancy between the two studies can perhaps be explained if there is both a narrowing of dispersion in citations based on age of source, but a widening of dispersion based on variety of sources cited.

Perishability of Information

While the switch to electronic formats is rapidly increasing, scholars have an interest in seeing to it that the information infrastructure is stable and long-lasting. There has been a great deal of concern as to the long-term durability of e-journals and whether or not the databases will be accessible generations from now. The electronic versions produced today are intended to work with current technologies; but when today's technology becomes obsolete, electronic journals might then be unreadable. In order to steer clear of this problem, backward integration must be sustained (Anat & Gray, 2004). Friedlander (2008) described the possibility of a "Digital Katrina" that would span nearly all academic disciplines if the information infrastructure were to prove to be unable to sustain the trust scholars currently have in intellectual delivery systems. Because the main functions of scholarly communication are to provide information access while legitimizing scholarly work and disseminating that work to an audience, the sustainability of electronic articles is imperative to the long-term preservation of collective knowledge.

A potential problem is that each electronic journal's life depends on its publisher's continued existence. This may be a reason why more than a few researchers may view print versions as "real" work and electronic sources as supplementary. For example, one art historian chose print versions over electronic versions because he did not know the correct way to cite

digital work, while others suggested that print versions were “standard” with “more credibility and more permanence” than electronic sources of information (Friedlander, 2008). Scholars are naturally desirous to publish their work in a permanent setting so that it can be found and cited years into the future. This problem may be exacerbated by the fact that many journals are subscription-only, which restricts library access, and that could hinder their preservation for the future (Starr, 2009).

A related problem is that potential errors can arise in electronic versions because digital content is displayed differently on various browsers, which has been known to establish ambiguities. Therefore, there appears to be a critical need for a trustworthy long-term system that scholars can rely upon. Nonetheless, the continued success of electronic journals demonstrates that peer review is compatible with the digital environment, though the management of an unflinching digital communication system presents numerous challenges.

Reputation of Electronic Journals

Perhaps the most salient issue with regard to electronic journals is the degree to which they are accepted by peers as equivalent to print journals in terms of academic quality. In one study focusing on business schools, 85.7 percent of deans agreed that electronic publications were valid in terms of their ability to make important intellectual contributions (Hynes & Stretcher, 2005). Those opposing this position were mostly deans from midsized institutions with AACSB membership for 25 years or more. When evaluating journal quality, deans rely heavily on the peer review process, and the journal’s reputation and acceptance rate. It appears that the reputation of electronic journals is improving as a greater number of them are peer reviewed. At schools where electronic journals are rated, they are by and large accepted as equivalent to print journals. In this same study, the percentage of business school deans that weighted electronic journals as substandard to print journals was just 18.7 percent.

The rapid pace of journal publishers converting to electronic journals has brought about a need for better methods to evaluate scholarly performance. Among faculty, there may be a desire to reward innovation, encourage flexibility and promote creativity; but there may also be a perception that the traditional printed journals are much more rigorous and discerning in their publication standards. The swift pace of technological change in this area requires overseers to establish new practices that are applicable, plausible, and reasonable as important institutional decisions regarding promotion and tenure may hinge on the question of journal reputation.

There is some evidence that the academic reputation of electronic journals is improving with time. One study comparing electronic journal use between scientific disciplines found there has been a “cultural shift” from a previous study that showed paper journals to be favored. The study found that, although there were differences between disciplines, a “shift in use patterns has occurred and patrons now favor the electronic format (Brady et al., 2006).” More recently, a Spanish study found that, among academics in Spain, the use of electronic journals has been increasing over time, and that younger scholars tended to adopt the new technology before older scholars (Borrego et al., 2007). This particular research did not address whether there were gender differences in adoption rates, but another study conducted with international students in Texas found that on a few attitudinal variables related to technology acceptance, women were significantly more receptive to some specific information search technologies, although there were no significant differences between men and women on most of the attitudes measured (Yi, 2007). Finally, a survey conducted among scholars at Istanbul University in Turkey found that

there was significantly more use of electronic journals by younger scholars than older scholars. There were also differences based on discipline; but this study found no gender or academic rank effects toward electronic journal usage (Dilek-Kayaoglu, 2008).

THEORETICAL FOUNDATIONS

The relevant body of literature that explains and predicts the process of something new being introduced into a social system and becoming accepted over time is known as diffusion and adoption. While the two terms are often used interchangeably, there is a distinction between the two. The term “diffusion” refers to the process of introducing some innovation to a social system and the innovation becoming accepted over time. The term “adoption” refers to the process of society accepting a new innovation. To use a classroom analogy, it might be thought of as a drop of chocolate being introduced to a glass of milk. Diffusion describes the process from the point of view of the chocolate; whereas, adoption refers to the process from the point of view of the milk.

The research concerning the nature of innovation and what specific characteristics of products and social systems encourage or discourage the rate of acceptance begins with Rogers (1995) who identified five product characteristics that influence the diffusion of new products: (1) relative advantage; (2) compatibility; (3) complexity; (4) trialability; and (4) observability. Rogers also identified five segments within a social system based on whether they adopted innovation early or late in the diffusion process. These categories of adopters are known as (1) innovators, defined as the first 2.5 percent of adopters; (2) early adopters, defined as the next 13.5 percent of adopters; (3) early majority, defined as the next 34 percent; (4) late majority, defined as the next 34 percent, and (5) laggards, the final 16 percent of adopters. A great deal of research has been devoted to identifying the characteristics that distinguish early adopters from late adopters, as well as the factors that make social systems more receptive to new things. It is generally agreed that early adopters tend to be higher risk takers, younger, male, urban and status-seeking (Robertson, 1991).

Rogers’ adoption/diffusion framework has been used as a basis for investigating the phenomenon of introducing innovation into a social system in numerous contexts over the years. Researchers have used the framework to explain and predict everything from consumer acceptance of high technology products (Higgins & Shanklin, 1992) to the usage patterns of the Worldwide Web (Chen & Crowston, 1997) to the introduction of pickup trucks to the women’s market (Eldridge, 2001).

The adoption/diffusion framework is biased toward the introduction of innovation becoming completely adopted by its target social system without interruption or reversal, and most of the refinements that have followed it contain the same bias. Figure 1 (Appendix) illustrates how Rogers’ adoption framework might be applied to the diffusion of electronic journals within the social system of academic faculty. Early in the process, there will be few within the population who regard electronic journals as equivalent to printed journals. As time goes on, there will be broader and broader acceptance of electronic journals until such time that 100 percent of faculty perceive there to be no reputational differences between electronic and print journals. It is assumed, based on the review of the literature, that this acceptance process is progressing well along, although more research is needed to determine more precisely just how far along the continuum society is at present.

A more recent refinement of Rogers' adoption/diffusion framework, as well as other paradigms from the behavioral literature, is known as the "Technology Acceptance Model (TAM)." TAM is a very broad framework that attempts to integrate numerous sets of predictors to determine the rate at which technological innovation will be adopted by a social system (Igarria et al., 1995). The framework attempts to integrate three sets of factors as possible contributors to adoption acceleration; (1) characteristics of the innovation being introduced; (2) characteristics of the social system affected by the innovation; and (3) psychographic characteristics of the individual members within the social system. As subsequent researchers applied the model to later research, a construct known as "self efficacy" was shown to be of significant importance in terms of predicting whether an individual would be more or less likely to adopt new technology early. Self efficacy can be defined as an individual's belief in his own capabilities to organize and execute a course of action (Bandura, 1997). Among the many factors said to be positively associated with self-efficacy are experience with previous technology and usefulness of new technology. Researchers have found that new innovations are more useful to those who have less experience with previous technology; therefore, those with less experience with older technology will have higher self-efficacy toward the newer technology (Lippert & Forman, 2005).

Among the characteristics of social systems that may retard adoption of innovation is the degree to which a particular institutional practice defines, reinforces and rewards the previous technology (Jaffee, 1998). Social systems become dependent on certain methods and procedures over time, and as these methods and procedures become embedded into the fabric of a system, inertia results, and there is a subsequent resistance to change. Over the years numerous researchers have verified this effect within the context of work environments, organizational groups, informal groups and their subsystems (Straub, 2009). Included in this body of research are articles verifying these effects within an educational setting (see, for example, Ndubisi, 2006).

Figure 2 (Appendix) illustrates a theoretical framework to be applied to the diffusion of electronic journals within academe. The framework utilizes constructs from the adoption/diffusion paradigm and the Technology Acceptance Model. It is not a comprehensive model, but suggests some relationships that should exist based on variables that are practical and easy to measure from a managerial standpoint. The framework broadly proposes that as previous experience with print journals goes up, acceptance of electronic journals will go down. Between these two broad factors are numerous intervening variables, including variables relating to individuals, organizations and the nature of electronic journals themselves. Among these individual variables are age, whether a person is tenured, and gender. Among the organizational variables is whether an academic institution is tenured. The framework also suggests that as experience with print journals goes up, the self-efficacy of professors with regard to electronic journals goes down.

This research tests four hypotheses regarding the relationship between age, tenure, gender and institutional accreditation toward propensity to perceive electronic journals as equivalent to print journals (EQUIV). Specifically, it is proposed that there will be a negative correlation between age (AGE) and EQUIV, an inverse relationship between tenure (TENURE) and EQUIV, a positive correlation between being female (FEMALE) and EQUIV, and an inverse relationship between institutional accreditation (ACCRED) and EQUIV.

AGE. Older professors are more likely to have greater experience with print journals. Electronic journals will therefore be less efficacious to them in terms of advancing their careers or facilitating personal goals. Therefore:

H1: There will be an inverse relationship between AGE and EQUIV.

TENURE. Tenured professors are more likely to have had greater experience with print journals. Electronic journals will therefore be less efficacious to them in terms of advancing their careers or facilitating personal goals. Therefore:

H2: There will be an inverse relationship between TENURE and EQUIV

GENDER. Women have come into academe in greater numbers in recent decades as society and its institutions have encouraged equal opportunity in the workplace. Colleges and universities have been very aggressive in recruiting and developing female faculty, and that has resulted in a greater proportion of females on university and college faculties in recent years than had been the case earlier. Thus, by virtue of their lower levels of experience with print journals, it is expected that women will have less attachment to the traditional ways of doing things, and greater self efficacy toward newer technology.

H3: There will be a positive relationship between FEMALE and EQUIV.

ACCRED. Business instructional institutions that are accredited by AACSB can be expected to have had much more dependency on printed journals in the past than institutions that are not accredited. Such institutions are under much more pressure to recruit and retain academically qualified faculty, and since the most senior and qualified faculty are likely to have greater experience with print journals than junior faculty at such institutions, it is expected there will be an internal institutional bias toward journals in printed form.

H4: There will be an inverse relationship between ACCRED and EQUIV.

METHODOLOGY AND RESULTS

An online survey was distributed via e-mail to business professors and administrators at colleges and universities via a network of contacts originating with colleagues of the authors, and members of a review board for an academic business journal. The original contacts were encouraged to complete the survey themselves and pass the survey on to other business professors within their institutions. A total of 141 respondents from colleges and universities across the USA completed the survey. Of those, 45 respondents came from institutions that were not AACSB-accredited and 90 came from AACSB-accredited institutions (3 respondents did not answer the question). A total of 45 respondents were female, and 96 were male. There were 3 deans, 6 non-tenure track professors, 45 tenure track professors, and 87 tenured professors. A summary of the characteristics of the survey respondents can be found in Table 1 (Appendix).

Respondents were asked six questions regarding their perceptions of electronic journals and their comparison to print journals. The questions considered different aspects of academic reputation, including: (1) whether electronic journals were as academically rigorous as print journals; (2) whether electronic journals are as rigorously peer-reviewed as print journals; (3) whether publishing in an electronic journal gains one as much peer recognition as publishing in a print journal; (4) whether one's work is as likely to be cited in electronic journals as opposed to print journals; (5) whether publishing in electronic journals is as contributory to improving the

quality of one's vita as publishing in a print journal; and (6) whether publishing in electronic journals is as generally contributory to an institution's reputation as publishing in print journals. The survey questions, descriptive results and frequencies are shown in TABLE 2 (Appendix).

All of the questions were framed such that a low score (1 or 2) indicated a bias toward print journals while a high score (4 or 5) indicated a bias toward electronic journals. The results suggest that electronic journals are well on their way toward becoming accepted by business professors as equivalent to printed journals; but there is yet a way to go before they will be regarded as fully equivalent. The mean score was above the mid-point (2.5) for all six questions. Approximately one-fifth of the respondents seemed to regard electronic journals as equivalent academically to printed journals, as the range of respondents who answered "strongly disagree" to the questions ranged from 18 percent to 27 percent. Conversely, approximately one-tenth of the respondents seemed to regard print journals as unequivocally superior, as between 9 percent and 27 percent "strongly disagreed" with the questions. Using adoption/diffusion terminology, based on user acceptance, it would appear that electronic journals are toward the end of the growth phase and nearing maturity.

In order to determine whether the six variables could be treated as a single dimension, the data was subjected to a common factor analysis using the principal component extraction method. All of the variables loaded well above the .50 threshold to be considered very significantly correlated to a single factor. The factor analysis yielded a new component, EQUIV, which was used as a dependent variable to test the four hypotheses. Results showing the factor analysis loadings and coefficients of the new variable are shown in Table 3 (Appendix).

The four hypotheses were tested using multiple regression analysis with the factor EQUIV entered as the dependent variable and AGE, TENURE, FEMALE and ACCRED as predictor variables. The resultant model yielded an adjusted R-square of 15.7 percent, suggesting there are numerous variables beyond these that might contribute to or predict the degree to which business professors regard electronic and print journals as academically equivalent. The entire model was nonetheless regarded as strongly and significantly predictive of EQUIV ($F=7.3$, $sig=.000$). Of the four predictor variables, two (AGE and GENDER) were found to be below the .05 threshold for significance. Both of these variables were also directionally consistent with their individual hypothesis. The effects of the AGE variable were most pronounced between the very oldest cohort and the remainder of the sample. Of the other two variables, TENURE was directionally consistent with its hypothesis, but not found to be significant ($sig=.500$); ACCRED was found to be directionally opposite that predicted by its hypothesis, and also not significant ($sig=.631$). The mean scores, standardized coefficients, t-scores and significance levels for each of the four predictor variables are shown in TABLE 4 (Appendix).

Thus, H1 and H3 are supported by this analysis, while H2 and H4 are not supported.

DISCUSSION

Limitations

One of the most perplexing findings in this study is the significant difference between males and females in terms of propensity to regard electronic journals as academically equivalent. The hypothesized relationship was based on the proposition that females are generally newer to academe than males. However, there was no significant correlation between

TENURE and FEMALE, AGE and FEMALE, or ACCRED and FEMALE. A possible explanation is that, statistically speaking, women are newer to the system, entered academe at a later point in life than males, but are generally experienced enough to have already earned tenure. There may be other explanations related to whether females are likely to have higher self-efficacy to certain types of innovation; perhaps there is some theory not related to this study that explains it; or perhaps it was simply an anomaly. The question is left open for others to interpret and explore in the future.

The online survey used for the study may not be truly representative of a national population of business professors. There were no identifiers to indicate what geographic locations the surveys came from, for example. The journal that sponsored the survey and distributed the query to its reviewers was a cross-disciplinary business journal. An examination of the distribution of the sample by discipline reveals that there was broad participation as 17 percent of the respondents came from accounting, 15 percent from finance, 21 percent from management, 19 percent from marketing, and the rest from other disciplines (see Table 1, Appendix). The gender distribution also seemed fairly reflective of the broader population. Nonetheless, the study should be regarded as being limited in terms of generalizing the findings to the greater population of business professors.

Finally, all of the relationships hypothesized in the framework shown in Figure 2 were not tested. The framework was developed based on a review of the extant literature on this subject, and is presented as an integrative theoretical blueprint for the purposes of developing hypotheses for the data on hand. It was never our intention to test the model itself, only to test some of the relationships suggested by the model. Furthermore, there are numerous potential predictive variables unexposed in this framework. It is therefore not a comprehensive treatment of the subject of innovation diffusion and the Technology Acceptance Model.

Implications and Future Research

Our most important finding is that, although electronic journals appear to be growing in number and stature, business faculty continue to show some bias toward print journals as having a superior academic reputation. This bias is most pronounced among the oldest faculty and male faculty. Nonetheless, based on the broad acceptance of electronic journals by the respondents in our survey, it appears that the academic reputation of electronic journals continues to improve over time, and that electronic journals are now firmly established as a vital element in the academic establishment.

As the proliferation of electronic journals continues, scholars will wrestle with the question of how these journals should be evaluated by tenure and promotion committees. At this point in time it appears that, all other things being equal, publishing in an electronic-only journal is considered contributory to the body of knowledge in one's discipline, but not quite at the level of a print-only journal. Of course, the method of publication is only one element that contributes to a journal's academic reputation. Ultimately, which journal one's work appears in will likely carry a great deal more weight in tenure and promotion decisions than whether a journal is printed or not.

The fact that little or no bias was found toward print journals based on whether a faculty member was tenured, or associated with an accredited institution, suggests that academic institutions -- business schools in particular -- may not be as inertia-prone as some may suspect. Electronic journals offer a demonstrable relative advantage over print journals on some very

important dimensions, including timeliness, efficiency and low cost. Based on the evidence of this study, the institutional systems of tenure and accreditation are not so powerful or constricting that they change a scholar's perception of an innovation that is useful and relevant to his job performance, and moves the society as a whole toward a future in which information is more accessible. This is an interesting finding that parallels the situation in many of the industries that are studied, as businesses continue a trend toward sharing formerly guarded proprietary trade information in order to improve efficiency. Electronic journals appear to have had much the same effect on academe.

Future research is needed to explore the nature of innovation, adoption and diffusion. While there is a great body of literature in this area, the market continues to confound researchers as the vast majority of new products, even those targeted toward the most receptive potential adopters, fail. Furthermore, there appears to be broad acceptance of some innovations among target markets that traditionally have been late adopters. The "conventional wisdom" in this area is insufficient to explain much of what is happening, the present study being no exception in that regard. There is a great need for new theory in the area of diffusion of innovation, adoption, and the nature of social systems as they respond to new stimuli. Such theory would be useful to any number of researchers and practitioners in wide variety of contexts, from introducing new management to employees, to launching a new product, to gaining societal acceptance of social change.

The implications of changing reading patterns among scholars and how they affect the evolution of science is a very important area of research that has up to now been largely neglected. What is lost as a result of scientists knowing less about more? Is the scientific community likely to become less or more fragmented as greater and greater numbers of electronic journals become available? Will fewer scholars become specialists in more narrowly defined areas, or will the opposite occur? Will scientists become more casual about citing works and documenting sources as the breadth of information consulted widens exponentially? All of these are important areas for scholars to pursue in the future.

Another fruitful area for future research concerns the possible effects of electronic journals on academic research itself. The extant literature barely scratches the surface regarding the positive and negative implications of this revolutionary transition from permanent to perishable information gathering and dissemination. While there has been some discussion as to the positive ramifications, there has been very little said about what might be lost as a result of the trend. While the transition from hard copy to soft copy is undoubtedly a train that has left the station, it might behoove us to consider the point of view of some of the naysayers, if for no other reason than to build in some safeguards to ensure that what people do today is retained and useful for future generations.

There is also very little in the current literature regarding the perceptions of faculty toward electronic journals. This study makes a contribution in the area of better understanding the phenomenon from the point of view of business faculty in the United States of America. It is by no means definitive in that regard, and exposes the need for a much broader and more comprehensive treatment of the subject, both from a business education perspective and from the perspective of other academic subject areas.

It is sincerely hoped this research will spark an interest.

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APPENDIX

Figure 1. Theoretical Framework for Adoption/Diffusion of Electronic Journals

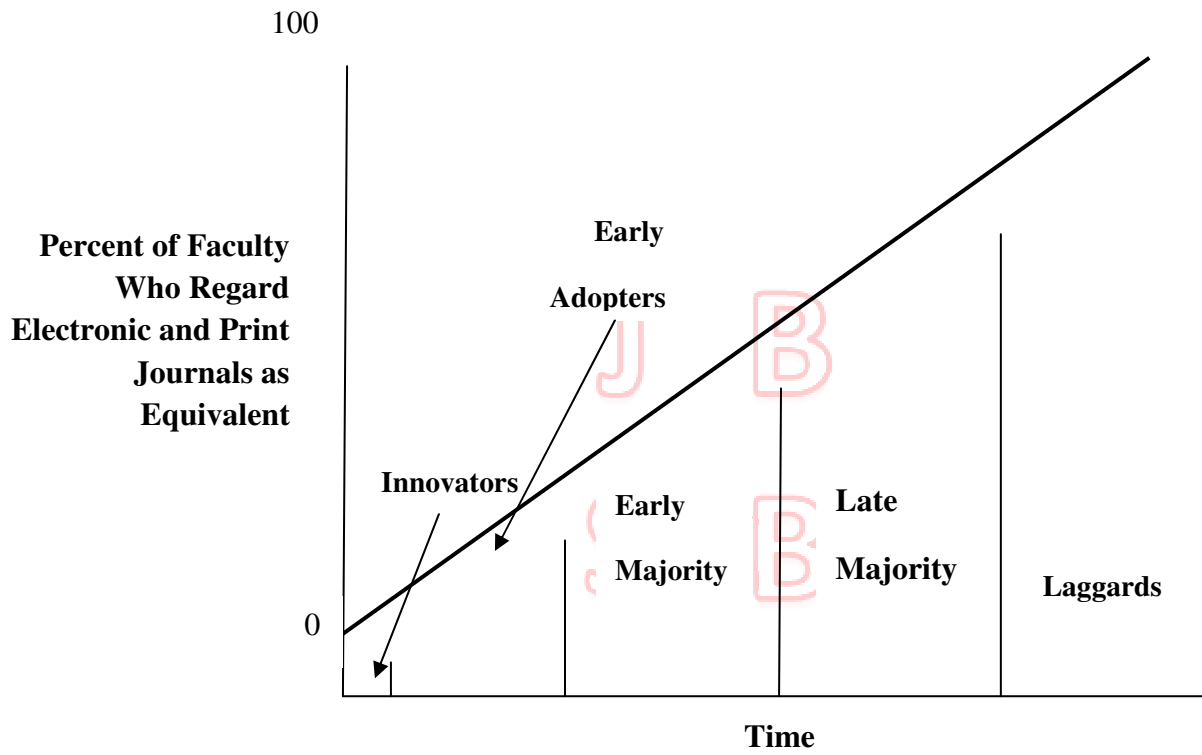


Figure 2. Theoretical Framework for Development of Hypotheses

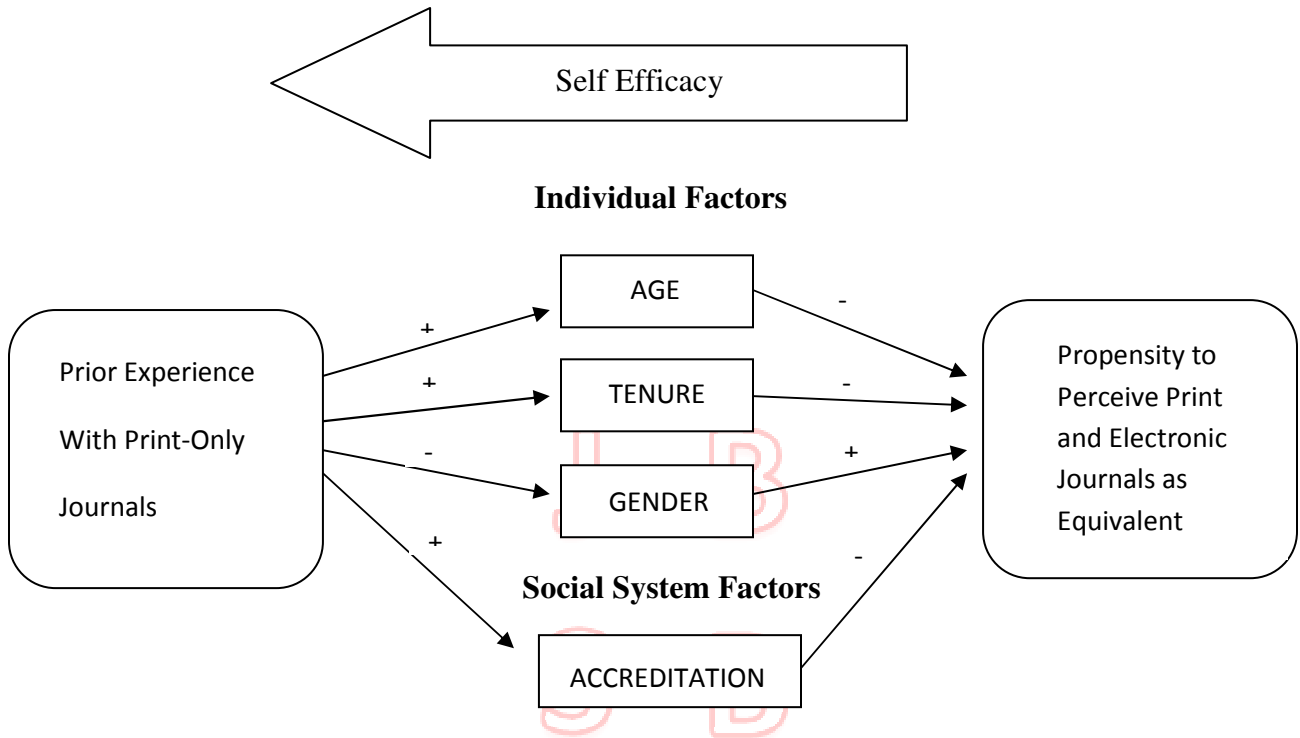


Table 1. Survey Respondent Characteristics

| Attribute | Cohort | Number | Percent |
|------------------|------------------|---------------|----------------|
| GENDER | Male | 96 | 68 |
| | Female | 45 | 32 |
| AGE | 20-30 | 3 | 2 |
| | 31-40 | 24 | 17 |
| | 41-50 | 30 | 21 |
| | 51-60 | 57 | 40 |
| | 61+ | 27 | 19 |
| TENURE | Tenured | 87 | 62 |
| | Tenure Track | 45 | 32 |
| | Non-Tenure Track | 6 | 4 |
| | Dean | 3 | 2 |
| DISCIPLINE | Management | 30 | 21 |
| | Marketing | 27 | 19 |
| | Accounting | 24 | 17 |
| | Finance | 21 | 15 |
| | MIS | 15 | 11 |
| | Operations | 9 | 6 |
| | Others | 15 | 11 |
| ACCREDITED | AACSB-Accredited | 93 | 66 |
| | Non-Accredited | 45 | 32 |

Table 2. Descriptive Results to Survey Questions

(All Questions: 1=Strongly Agree; 5=Strongly Disagree)

| Variable | Question | Mean | Response | Freq/Pct |
|----------|---|------|---|---|
| REPUT | A journal that is published only electronically is not as academically rigorous as one that is published in hard copy form. | 3.04 | Strongly Agree Agree Neutral Disagree Strongly Disagree | 12/9 42/30 42/30 18/13 27/19 |
| PEERREV | I do not believe that electronic journals are as rigorously peer-reviewed as journals that are printed in hard copy form. | 2.61 | Strongly Agree Agree Neutral Disagree Strongly Disagree | 9/6 36/26 21/15 36/26 39/28 |
| PEERREC | I would gain more respect from my peers by publishing my work in printed journals rather than electronic journals. | 2.61 | Strongly Agree Agree Neutral Disagree Strongly Disagree | 27/19 54/38 21/15 18/13 18/13 |
| CITATNS | My work is much more likely to be cited by my peers if it appears in a printed journal rather than an electronic journal. | 2.89 | Strongly Agree Agree Neutral Disagree Strongly Disagree | 12/9 51/36 36/26 24/17 18/13 |
| VITAQ | My curricula vita would be more marketable to potential employers and grant givers with articles in printed journals rather than electronic journals. | 2.74 | Strongly Agree Agree Neutral Disagree Strongly Disagree | 24/17 51/36 24/17 21/15 21/15 |
| SCHREP | The reputation of my business school would be enhanced if faculty generally published in printed journals rather than electronic journals. | 2.96 | Strongly Agree Agree Neutral Disagree Strongly Disagree | 15/11 48/34 30/21 24/17 24/17 |

Table 3. Factor Loadings and Coefficients for EQUIV

| Variable | Factor Loadings | Coefficient |
|----------|-----------------|-------------|
| PEERREC | .890 | .198 |
| PEERREV | .792 | .176 |
| CITATNS | .831 | .185 |
| SCHREP | .932 | .207 |
| VITAQ | .847 | .188 |
| REPUT | .898 | .199 |

Table 4. Individual Variable Mean Values and Regression Output

| Hypothesis | Variable | Cohort | Mean on REPUT | Standard. Coefficient | T | Sig |
|------------|----------|----------------|---------------|-----------------------|------|------|
| H1 | AGE | 20-30 | 3.11 | -.170 | 2.0 | .047 |
| | | 31-40 | 3.02 | | | |
| | | 41-50 | 3.45 | | | |
| | | 51-60 | 3.05 | | | |
| | | 61+ | 2.11 | | | |
| | | | | | | |
| H2 | TENURE | Non-Tenured | 3.14 | .058 | .68 | .500 |
| | | Tenured | 2.97 | | | |
| H3 | FEMALE | Female | 3.52 | -.394 | 4.9 | .000 |
| | | Male | 2.81 | | | |
| H4 | ACCRED | Non-Accredited | 3.07 | -.039 | -.48 | .631 |
| | | Accredited | 3.03 | | | |