

THE ACCEPTABILITY OF ONLINE DEGREES FOR OBTAINING ENTRY-LEVEL EMPLOYMENT IN THE ACCOUNTING PROFESSION: A KANSAS STUDY

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ABSTRACT

The increased demand for and access to online learning is evident when examining the escalating number of online courses now available. Institutions offering online degrees claim their programs are viable routes to employment, career advancement, pay increases, and other job-related rewards. Current research shows that employers at the pinnacle of the accounting profession, certified public firms, show a disinclination to hire graduates of online programs, even when they possess the Certified Public Accountant (CPA) credential. However, employment at CPA firms is but one option for accounting graduates. Employers at CPA firms may have a reluctance to hire graduates of online programs, but existing research is limited given it has not addressed the full range of employment settings. The purpose of this quantitative descriptive and comparative research study was to investigate CPAs' reported likelihood of recruiting an accounting student for entry-level employment and whether this likelihood differs when based on education mode (i.e., online or traditional) or employment setting (i.e., public or private) and if any interaction exists between these two variables. The sample was drawn from licensed CPAs working in public or private practice in Kansas who are involved in the hiring process at their company. Results for the two-way independent factorial ANOVA indicated a significant main effect for education mode, $F(1, 204) = 83.90, p < .001$, partial $\eta^2 = .29$, a significant main effect for employment setting, $F(1, 204) = 5.76, p = .017$, partial $\eta^2 = .03$, and a non-significant interaction effect among education mode and employment setting, $F(1, 204) = 2.36, p = .126$, partial $\eta^2 = .01$. This study extended institutional theory by adding consideration of hiring decisions in the accounting profession as an element of public and private sectors and confirmed previous findings that online degrees are less acceptable than traditional degrees for obtaining entry-level employment in the accounting profession. Additionally, this study indicated that differentiation exists in the accounting profession in Kansas when considering only employment setting and provided support for the system theory of professions. Future research is warranted to investigate if differences exist in other jurisdictions, employment settings, or education modes.

INTRODUCTION

The increased demand for and access to online learning is evident when examining the escalating number of online courses now offered at institutions of higher learning across the United States (Allen & Seaman, 2015). Traditional classroom enrollments are declining and online learning is experiencing strong growth (Tabatabaei & Gardiner, 2012; Tate, Reinstein, &

Churyk, 2017). Every year since 2003, when the Babson Survey Research Group first began tracking online education in the United States, the number of students taking at least one online course has grown at a rate higher than that of the overall higher education student body. The proportion of academic leaders who report that online learning is critical to their institution's long-term strategy has grown from 48.8% in 2002 to 70.8% in 2014, an all-time high. When asked about what will drive the future of higher education, academic leaders selected workforce development and gainful employment second most often, with 20.4% picking it as the most important factor and 64.4% as one of their top three factors (Allen & Seaman, 2015). In the context of high-demand professional fields with a chronic shortage of qualified applicants, online programs have the potential to play a variety of important roles (Adams, Lee, & Cortese, 2012).

Institutions offering online degrees claim their programs are viable routes to employment, career advancement, pay increases, and other job-related rewards. Accordingly, an increasing number of job applicants now earn their degrees online and compete against other applicants with traditional degrees (Tabatabaei & Gardiner, 2012). As a result, it is increasingly important to identify the perceptions of potential employers regarding the acceptability of online degree programs (Bristow, Shepherd, Humphreys, & Ziebell, 2011). Accounting is a degree program area for which online offerings are increasing and students are now preparing themselves for entry into the accounting profession through online degree programs (Kohlmeyer, Seese, & Sincich, 2011; Tate et al., 2017). The question now surfacing is if and how the accounting profession will accept individuals who graduate from these programs (Grossman & Johnson, 2016; Grossman & Johnson, 2017; Kohlmeyer et al., 2011; Metrejean & Noland, 2011; Tabatabaei, Solomon, Strickland, & Metrejean, 2014).

Current research shows that employers at the pinnacle of the accounting profession, certified public firms, show a disinclination to hire graduates of online programs, even when they possess the Certified Public Accountant (CPA) credential (Kohlmeyer et al., 2011; Tabatabaei et al., 2014). Institutional theory supports this disinclination by employers at certified public firms because it suggests that the survival and success of organizations depends on adhering to the rules and norms that facilitate its interaction with other organizations and gives legitimacy to its operations (Kilfoyle & Richardson, 2011). However, employment at certified public firms is but one option for accounting graduates. The accounting profession is not homogenous, as its members are employed in public accounting (i.e., public accounting professionals), business and industry (i.e., private accounting professionals), government, education, and not-for-profit organizations of various sizes. Unique clients with needs distinct to their particular trades compose each of these employment settings (American Accounting Association [AAA], 2012). The system theory of professions is the structure that links professions with specific work tasks. The classic study on the system theory of professions by Abbott (1988) supports the hypothesis that there will be differentiation within any given profession, such as accounting.

Background

An extensive discussion exists in the literature regarding online degree programs (e.g., Adams et al., 2012; Cai, 2013; Fogle & Elliott, 2013; Kohlmeyer et al., 2011; Linardopoulos,

2012; Metrejean and Noland, 2011; Tabatabaei & Gardiner, 2012; Tabatabaei et al., 2014). Much of the existing literature about online learning focuses on student and faculty perceptions and satisfaction with online education delivery, but does not focus on the employer or their perceptions (Bristow et al., 2011; Metrejean & Noland, 2011). The online delivery of higher education has generated questions regarding the acceptance, employability, and credibility from the perspective of external stakeholders of online education (Fogle & Elliott, 2013; Richards, Stevens, Silver, & Metts, 2018). Consequently, when it comes to the transition from higher education to the workplace, employer perceptions are critical (Cai, 2013). The literature is limited regarding the acceptability of online degrees when used as credentials for obtaining employment, especially in the accounting profession (Kohlmeyer et al., 2011; Metrejean & Noland, 2011; Tabatabaei et al., 2014). While debate continues regarding the comparative quality of online learning and traditional face-to-face learning, little is known about the perceptions of practicing CPAs regarding the acceptability of online degrees for obtaining entry-level employment across various positions in the accounting profession (Metrejean & Noland, 2011). As institutions of higher learning enroll an increasing number of students in online degree programs, a key question is whether recruiters will view degrees earned online as comparable to those earned in traditional face-to-face programs (Adams et al., 2012; Cai, 2013; Linardopoulos, 2012; Richards et al., 2018).

Although the number of students taking online courses has grown by the millions over the past decade, faculty acceptance has lagged, student retention concerns linger, and academic leaders continue to worry that online courses require more faculty effort and institutional resources than traditional face-to-face instruction (Allen & Seaman, 2015). Contrary to popular opinion, research suggests that developing online courses often requires a greater investment of time and money than traditional face-to-face courses (Bonvillian & Singer, 2013; Thomas, 2011), which provides support for further research regarding employers' acceptance of online learning as a legitimate education mode. The 2014 Survey of Online Learning conducted by the Babson Survey Research Group revealed that the percent of academic leaders rating the learning outcomes in online education the same or superior to those in face-to-face instruction grew from 57.2% in 2003 to 74.1% in 2014. In contrast, only 28% of academic leaders reported that their faculty accept the value and legitimacy of online education, a rate substantially the same as it was in 2003 (Allen & Seaman, 2015).

Despite the fact that concerns still exist in the educational community, online learning has enhanced its position over the last five to ten years. The Internet has provided a platform for the standardized delivery of online courses, which has allowed strategic importance, popularity, and perceived quality of online learning to improve (Thomas, 2011). The proportion of academic leaders who report that online learning is critical to their institution's long-term strategy has grown from 48.8% in 2002 to 70.8% in 2014, an all-time high (Allen & Seaman, 2015). However, significant challenges remain in that many still regard it as a second-class mode of study (Bristow et al., 2011; Grossman & Johnson, 2016; Grossman & Johnson, 2017; Kohlmeyer et al., 2011; Metrejean & Noland, 2011; Tabatabaei et al., 2014). Nevertheless, online learners claim they increasingly benefit from opportunities to enhance their learning through more flexible modes of course delivery (Thomas, 2011).

Institutions of higher education are becoming increasingly interested in the opportunities provided by online learning. Reasons for this increased interest include the enhancement of student achievement, increased internationalization, improved access, greater flexibility among educational providers, and the ability for students to move between institutions (Thomas, 2011). Additionally, online learning opens up new opportunities for various types of active learning in which the learner has increased control over the course materials, which allows the learner to better participate in the active construction of knowledge. Researchers often refer to these active learning environments as learner-centered instruction and/or problem-based learning (Thomas, 2011).

Accounting is a service profession devoted to helping people by creating and reporting the financial information they need to make good business decisions. In a survey of small business owners, respondents viewed accountants as among the most trusted business advisors. Additionally, many corporate executives are placing increasing importance on accounting skills in their training programs and are emphasizing these skills in their employee searches (American Institute of Certified Public Accountants [AICPA], 2013). The ongoing growth in hiring individuals with strong accounting skills is likely to continue. According to data from the United States Department of Labor Bureau of Labor Statistics (BLS), accountants and auditors will experience faster than average employment growth through 2022. The overall health of the economy and business growth, changing financial laws and corporate governance regulations, and increased accountability for protecting an organization's stakeholders and the general public interest will drive job growth (BLS, 2012).

Statement of the Problem

Employers at certified public accounting firms may have a reluctance to hire graduates of online programs but existing research is limited given it has not addressed the full range of employment settings (Bristow et al., 2011; Metrejean & Noland, 2011) even with the increasing numbers of students pursuing online accounting degrees (Kohlmeyer et al., 2011; Sellers et al., 2012; Tabatabaei et al., 2014). While debate continues regarding the comparative quality of online and traditional learning, not enough is known about the likelihood of being recruited for entry-level employment based on education mode (i.e., online or traditional) (Bristow et al., 2011) and whether this likelihood differs based on employment setting (i.e., public or private) (Metrejean & Noland, 2011) and if any interaction exists between these two variables. Institutional theory is ideally suited to explain this tendency of accountants to restrict hiring to graduates of traditional face-to-face programs rather than online programs because of its consideration of legitimacy concerns and normative pressures to do things in an accepted and traditional fashion (Sellers et al., 2012). Nevertheless, accountants fill a wide range of positions across all employment settings and the desired qualifications differ across these roles (AAA, 2012). Such differences among employment settings, as supported by the system theory of professions (Abbott, 1988), may determine whether job applicants are scrutinized differently during the hiring process, particularly with regard to education mode (i.e., online or traditional). Due to increased demands by employers seeking accounting graduates and the continued growth

of online programs, identification of the employment settings favorable to graduates with online accounting degrees is needed (Kohlmeyer et al., 2011; Metrejean & Noland, 2011; Tabatabaei et al., 2014) and can serve to examine internal differentiation within the profession. Without this study, previous findings that online degrees may be unacceptable for obtaining entry-level employment in the accounting profession would have remained unchallenged and unconfirmed across multiple employment settings (Kohlmeyer et al., 2011; Tabatabaei et al., 2014).

RESEARCH METHOD

The purpose of this quantitative descriptive and comparative research study was to investigate CPAs' reported likelihood of recruiting an accounting student for entry-level employment and whether this likelihood differs when based on education mode (i.e., online or traditional) or employment setting (i.e., public or private) and if any interaction exists between these two variables. The study answered the following questions.

Q1. What difference, if any, exists in Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional)?

Q2. What difference, if any, exists in Kansas CPAs' reported likelihood to recruit an accounting student based on employment setting (i.e., public or private)?

Q3. What interaction, if any, exists among Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional) and employment setting (i.e., public or private)?

H1₀. There is no statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional).

H1_a. There is a statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional).

H2₀. There is no statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on employment setting (i.e., public or private).

H2_a. There is a statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on employment setting (i.e., public or private).

H3₀. There is no statistically significant interaction among Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional) and employment setting (i.e., public or private).

H3_a. There is a statistically significant interaction among Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional) and employment setting (i.e., public or private).

Research Method and Design

A quantitative descriptive and comparative research study was conducted to answer the research questions in this study. The study neither focused on nor took a position on the educational merits or quality of online learning. Instead, the study began to address questions that remain unanswered in the literature concerning the acceptability of online degrees for

obtaining entry-level employment across various employment settings in the accounting profession. Two independent variables and one dependent variable were used in this study. The independent variables were education mode (i.e., online or traditional) and employment setting (i.e., public or private). The dependent variable was CPAs' reported likelihood to recruit, operationally defined as the probability of how actively an accounting student would be recruited. Data were analyzed using both descriptive and inferential statistics. Descriptive statistics were reported for participant demographics and inferential statistics were used to test the null hypotheses.

Population and Sample

The population under study included all members of the Kansas Society of CPAs (KSCPA) who are licensed CPAs working in public or private practice in Kansas and are involved in the hiring process at their company. Previous studies have employed CPA societies as the target population, which provides justification for this study (Tabatabaei et al., 2014). A CPA is an individual who has demonstrated proficiency by passing a uniform national examination and meeting other requirements of the applicable state board of accountancy (Kansas Board of Accountancy [KSBOA], 2012). In Kansas, an individual must meet educational, examination, and experience requirements before practicing as a CPA (KSBOA, 2012). Because the CPA is a state license and requirements vary in each state, it is important to restrict the population under study to a single jurisdiction.

The sample included members of the KSCPA who are licensed CPAs working in public or private practice in Kansas and are involved in the hiring process at their company that volunteered to participate in the study. A census sampling was employed with a potential pool of 2,002 participants. An invitation to participate in an online survey was sent to all licensed CPA members of the KSCPA working in public or private practice in Kansas. Therefore, all members of the target population had the opportunity to participate. However, only CPAs who are involved in the hiring process at their company were included in the sample for analysis. Any participant in the pool who indicated they do not hold a license to practice public accountancy in Kansas or are not involved in the hiring process at their company were automatically excluded from further consideration.

Materials/Instruments

The research instrument is a slightly modified survey previously used and extended in three published studies examining the perceptions of recruiters regarding the attractiveness of student applicants for entry-level employment across various positions in the accounting profession (Hardin & Stocks, 1995; Metrejean et al., 2008; Metrejean & Noland, 2011). The instrument includes several characteristics of a hypothetical entry-level accounting recruit that were developed in previous literature examining the factors that recruiters feel are most important in their new hires (Hardin & Stocks, 1995). Participants were asked to assume they

are recruiting to hire an entry-level accountant to fill a position in their company and that the hypothetical recruit described on the instrument had been interviewed briefly by the respondent.

The survey collected data useful in assessing the acceptability of online degrees for obtaining entry-level employment across various positions in the accounting profession aimed at answering the stated research questions. The survey also collected demographic information to group according to the independent variables and to describe the sample. Survey questions were adapted as needed to align them with the research problem, purpose, questions, and hypotheses in this study. The characteristic regarding education mode (i.e., online or traditional) is the primary manipulation in the research instrument.

In this study, a Likert scale was used to measure CPAs' likelihood to recruit an accounting student for entry-level employment across various positions in the accounting profession. The scale was a seven-point Likert scale. Two bipolar adjectives anchored the poles of the scale. Because there were seven options, the scale allowed a middle choice for a neutral position on each statement. A neutral position was included in this study based on a previously published instrument most recently used in a study by Metrejean and Noland (2011).

Operational Definition of Variables

Two independent variables and one dependent variable were used in this study. The independent variables were education mode (i.e., online or traditional) and employment setting (i.e., public or private). The dependent variable was CPAs' reported likelihood to recruit (i.e., probability of how actively an accounting student would be recruited). The following operational definitions of variables were used in this study.

Education mode. Education mode was operationally defined as the type of degree earned by the student applicant. This construct was a nominal independent variable having two possible values: online degree (code=1) and traditional degree (code=2) (Kohlmeyer et al., 2011; Tabatabaei & Gardiner, 2012). Education mode was provided to participants in the survey instrument as a characteristic of the student applicant.

Employment setting. Employment setting was operationally defined as the participant's current workplace. This construct was a nominal independent variable having two possible values: public accounting (code=1) or private accounting (code=2) (Metrejean et al., 2008). Employment setting was obtained from participants in the demographic portion of the survey instrument.

CPAs' reported likelihood to recruit. CPAs' reported likelihood to recruit was operationally defined as the probability of how actively an accounting student would be recruited by the participant for entry-level employment across various positions in the accounting profession. This construct was an interval dependent variable that sought to determine if CPAs express a preference for hiring students who earned their accounting degree through one education mode (i.e., online or traditional) over the other (Kohlmeyer et al., 2011; Tabatabaei & Gardiner, 2012). This variable was operationalized through survey questions in which potential accounting graduates for hire are described and participants were then asked, "How actively would you recruit this student?" Participants were asked to respond using a Likert scale ranging

from one (not at all) to seven (very actively). This construct was measured using answers to questions on the survey instrument.

Data Collection, Processing, and Analysis

Each null hypothesis was tested using inferential statistics. A two-way analysis of variance (ANOVA) F-test tested each hypothesis and drew conclusions. More specifically, the ANOVA was independent (i.e., between-groups) factorial in design because the study grouped participants into two different employment settings (i.e., public or private) and included two independent variables (i.e., education mode and employment setting). Using factorial ANOVA, researchers can test a null hypothesis for each of the independent variables and one for their interaction. An interaction occurs when the effect of one independent variable on the dependent variable is not the same under all of the conditions of the other independent variable (Burns & Burns, 2012).

Data were gathered from practicing CPAs in Kansas regarding their likelihood to recruit an accounting student for entry-level employment across various positions in the accounting profession. A structured survey instrument was administered via the Internet. The survey was cross-sectional with data collected at a single point in time. Each potential participant received an e-mail with a hyperlink to access the survey. The survey was open for two weeks to ensure that a reasonable amount of time was provided to allow for maximum participation. A reminder e-mail was sent after one week asking participants to complete the survey if they have not done so already. A second reminder e-mail was sent at the end of the second week to boost participation. An introductory screen explained to participants the purpose of the study and any potential risks and benefits of participating. Participants were informed that participation is voluntary, that they could withdraw at any time, and that their responses will remain anonymous and confidential. After agreeing to participate and acknowledging informed consent, each participant was asked to indicate how actively he or she would recruit the student described in the research instrument. This rating served as the dependent variable in the ANOVA model. The independent variables in the analysis were education mode and employment setting, each with two levels.

The first hypothesis was tested by considering the education mode main effect. An education mode main effect suggests that the type of degree (i.e., online or traditional) the accounting graduate earned affected how actively the participant would recruit the graduate. The second hypothesis was tested by considering the employment setting main effect. An employment setting main effect suggests that the participant's type of employment (i.e., public or private) affected how actively he or she would recruit the graduate. The third hypothesis was tested by considering the education mode and employment setting interaction effect. An education mode and employment setting interaction effect suggests that how actively the participant would recruit the student differs according to the education mode in which the student earned his or her degree and the employment setting of the participant.

Limitations and Delimitations

The purpose of this quantitative descriptive and comparative research study was not to establish causality between the variables. Therefore, the constraint of not being able to determine causality between the variables represents a limitation of the study. A second limitation of the design in this study was the use of a one-time survey. This type of survey is generally the least informative. Because researchers obtain information from a single sample at a given point in time, comparisons with other groups is not possible. Findings are therefore limited to the population under study (Eysenck, 2004). Additionally, nonresponse (i.e., the failure to get a valid response from every sampled respondent) weakens a survey. If a high proportion of the sampled respondents do not respond, results may not be generalizable, especially if those who do not respond differ from those who do. A third limitation of the study is that the survey was conducted using only Kansas CPAs. Because the CPA is a state license and requirements vary in each state, it is important to restrict the population under study to a single jurisdiction. Therefore, care should be exercised in generalizing the findings to other professional fields and geographic regions.

Delimitations relate to specific choices made by the researcher to limit the scope of the study. Though listed as a limitation of the study, limiting the study to licensed CPAs working in public or private practice in Kansas who are involved in the hiring process at their company is also a delimitation. The results of this study could be generalized to other states that have similar CPA licensure requirements; however, generalizing the results to all CPAs across the United States is not advised. Because the regulatory environment in Kansas may be different from that in other states, the ability to generalize the findings of this study beyond CPAs in Kansas is uncertain. Delimiting to CPAs in Kansas could allow for the establishment of a baseline in terms of findings from which additional studies of other states may commence. Second, the researcher chose to restrict education mode to purely online or purely traditional, therefore not including blended education modes. Third, the researcher chose to restrict employment setting to public accounting or private accounting, therefore not including CPAs working in government, education, not-for-profit, or other employment settings.

FINDINGS

Results

Sample. The sample included members of the KSCPA who are licensed CPAs working in public or private practice in Kansas and are involved in the hiring process at their company that volunteered to participate in the study. A total of 121 respondents completed the survey, of which 104 were useable. Public accounting professionals returned 71 (68%) useable surveys and private accounting professionals returned 33 (32%) useable surveys.

Descriptive statistics. Measures of central tendency were examined prior to testing the hypotheses. Descriptive statistics for the dependent variable are shown in Table 1. Responses for likelihood to recruit for public accounting professionals were somewhat high with a mean of

6.01 ($SD = 1.24$). Responses for likelihood to recruit for private accounting professionals were somewhat lower with a mean of 5.61 ($SD = 1.59$). Responses for likelihood to recruit for online degrees were the lowest reported, with a mean of 5.15 ($SD = 1.51$). Responses for likelihood to recruit for traditional degrees were the highest overall with a mean of 6.62 ($SD = 0.63$).

Table 1

Descriptive Statistics for the Dependent Variable				
	<i>M (SD)</i>	<i>Mdn</i>	Minimum	Maximum
Public Accounting	6.01 (1.24)	6.00	1.00	7.00
Private Accounting	5.61 (1.59)	6.00	1.00	7.00
Online Degree	5.15 (1.51)	5.00	1.00	7.00
Traditional Degree	6.62 (0.63)	7.00	4.00	7.00

RQ1. What difference, if any, exists in Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional)?

H1₀. There is no statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional).

H1_a. There is a statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional).

The results for the factorial ANOVA indicated a significant main effect for education mode, $F(1, 204) = 83.90$, $p < .001$, partial $\eta^2 = .29$, indicating a statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional). Overall, Kansas CPAs' reported their likelihood to recruit was different between online degree candidates ($M = 5.15$, $SD = 1.51$) and traditional degree candidates ($M = 6.62$, $SD = 0.63$), $p < .001$. Additionally, the partial eta squared effect size of .29 and observed power of 1.00 indicated practical significance of the results. The null hypothesis was rejected.

RQ2. What difference, if any, exists in Kansas CPAs' reported likelihood to recruit an accounting student based on employment setting (i.e., public or private)?

H2₀. There is no statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on employment setting (i.e., public or private).

H2_a. There is a statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on employment setting (i.e., public or private).

The results for the factorial ANOVA indicated a significant main effect for employment setting, $F(1, 204) = 5.76$, $p = .017$, partial $\eta^2 = .03$, indicating a statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on employment setting (i.e., public or private). Kansas CPAs' reported their likelihood to recruit was different

for public accounting professionals ($M = 6.01$, $SD = 1.24$) and private accounting professionals ($M = 5.61$, $SD = 1.59$), $p = .045$. The null hypothesis was rejected. However, the partial eta squared effect size of .03 and observed power of 0.67 indicated a lack of practical significance of the results.

RQ3. What interaction, if any, exists among Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional) and employment setting (i.e., public or private)?

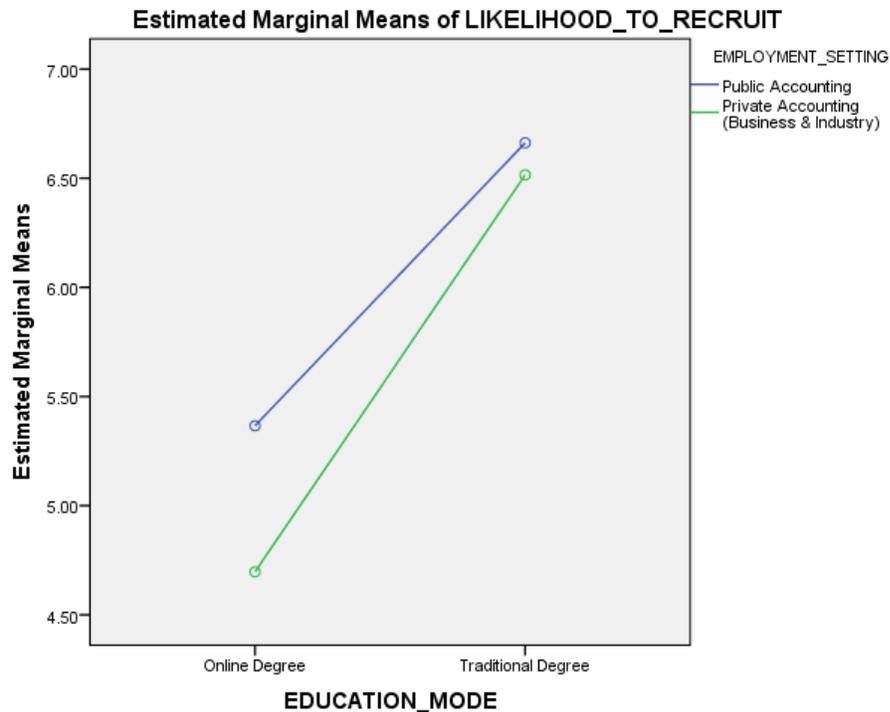
H3₀. There is no statistically significant interaction among Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional) and employment setting (i.e., public or private).

H3_a. There is a statistically significant interaction among Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional) and employment setting (i.e., public or private).

The results for the factorial ANOVA indicated a non-significant interaction effect among education mode and employment setting, $F(1, 204) = 2.36$, $p = .126$, partial $\eta^2 = .01$, indicating no statistically significant interaction among Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional) and employment setting (i.e., public or private). There is no significant difference in recruiting online versus traditional graduates that is dependent on public or private accounting settings. This lack of interaction is demonstrated graphically in Figure 1. Non-parallel lines usually indicate a significant interaction effect. If the lines actually cross, a fairly large interaction between the independent variables exists. The lines in Figure 1 do not cross; therefore, a significant interaction effect does not exist (Burns & Burns, 2012). The null hypothesis was not rejected.

Kansas CPAs' reported likelihood to recruit was significantly different ($p = .003$) between public accounting professionals ($M = 5.37$, $SD = 1.38$) and private accounting professionals ($M = 4.70$, $SD = 1.70$) for online degree candidates. However, Kansas CPAs' reported likelihood to recruit was not significantly different ($p = .116$) between public accounting professionals ($M = 6.66$, $SD = 0.58$) and private accounting professionals ($M = 6.52$, $SD = 0.71$) for traditional degree candidates. Additionally, the partial eta squared effect size of .01 and observed power of 0.33 indicated a lack of practical significance of the interaction results.

Figure 1
Estimated Marginal Means of the Dependent Variable



Evaluation of Findings

This study investigated the accounting profession through two lenses, institutional theory and the system theory of professions from the sociology of professions literature, to gain insight into the educational preparation issues facing the profession. Institutional theory is a popular theory for explaining choices based on institutional pressures experienced by organizations. Institutionalism ties the practices of organization leaders, such as accounting practitioner hiring decisions, to social norms and their need to interact successfully with other entities in society (Guerreiro, Rodrigues, & Craig, 2012). Institutional theory supports the hypothesis that the survival and success of organizations depends on adhering to the rules and norms that facilitate its interaction with other organizations and gives legitimacy to its operations (Kilfoyle & Richardson, 2011). The system theory of professions is the structure that links professions with specific work tasks. The distinguishing characteristic of a profession is that its members possess a body of knowledge that establishes them as qualified to control a particular area of work tasks (Abbott, 1988). The classic study on the system theory of professions by Abbott (1988) supported the hypothesis that there will be differentiation within any given profession, such as accounting. Given the findings in previous studies (e.g. Adams & DeFleur, 2006; Columbaro & Monaghan, 2009; Kohlmeyer et al., 2011; Tabatabaei et al., 2014), it was possible that completion of traditional versus online degree programs constitutes a differentiation within the

accounting profession. Varying levels of willingness to hire traditional versus online degree program graduates could establish evidence of this differentiation. The following discussion evaluates the findings of this study in light of the established theoretical framework.

RQ1. The results of the ANOVA supported rejecting the null hypothesis for RQ1, indicating a statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional). Regardless of employment setting, Kansas CPAs reported they would recruit the traditional degree candidate more actively than they would recruit the online degree candidate. This finding is consistent with what other researchers have found and lends support for institutional theory in action within the accounting profession regarding hiring practices. Existing research indicates that employers in the accounting profession show a disinclination to hire graduates of online programs (Kohlmeyer et al., 2011; Tabatabaei et al., 2014) and the present findings align with this notion. Institutional theory supports this disinclination by employers in the accounting profession because it suggests that the survival and success of organizations depends on adhering to the rules and norms that facilitate its interaction with other organizations and gives legitimacy to its operations (Kilfoyle & Richardson, 2011). While the fact that the offering of online accounting degrees is increasing could indicate decreasing bias against online degrees in the profession, the findings of this study do not bear this out.

RQ2. The results of the ANOVA supported rejecting the null hypothesis for RQ2, indicating a statistically significant difference in Kansas CPAs' reported likelihood to recruit an accounting student based on employment setting (i.e., public or private). Regardless of education mode, Kansas CPAs working in public accounting reported they would recruit candidates more actively than those working in private accounting would recruit candidates. As indicated by a significant main effect for employment setting, the results show that, in Kansas, public accounting professionals would recruit candidates more actively than private accounting professionals, regardless of the method by which they obtained their degree. This finding possibly suggests that public accounting firms have a higher need for entry-level professionals than do private business and industry groups and are therefore less picky overall when considering possible hires. This indicates that differentiation exists in the accounting profession in Kansas when considering only employment setting and provides support for the system theory of professions. The United States Department of Labor Bureau of Labor Statistics (BLS) expects employment of accountants and auditors to grow 13% by 2022, faster than the average for all occupations. The public accounting profession will see an increase of about 166,700 new jobs over the next decade and over 500,000 job openings (BLS, 2012), which provides a possible explanation for why public accounting firms in Kansas are recruiting more actively. Consistent with Kohlmeyer et al. (2011), despite reservations, study participants appear to understand that accepting job candidates with online accounting degrees might be necessary to meet the demand to fill public accounting positions.

RQ3. The results of the ANOVA did not support rejecting the null hypothesis for RQ3, indicating no statistically significant interaction among Kansas CPAs' reported likelihood to recruit an accounting student based on education mode (i.e., online or traditional) that is dependent on the CPAs' employment setting (i.e., public or private). While Kansas CPAs'

reported likelihood to recruit was different for public accounting professionals and private accounting professionals for online degree candidates, a difference was not revealed for traditional degree candidates. Kansas CPAs working in public accounting reported they would recruit online candidates more actively than those working in private accounting would recruit online candidates. However, Kansas CPAs working in public accounting reported they would recruit traditional degree candidates just as actively as those working in private accounting would recruit traditional degree candidates. Although the mean for likelihood to recruit traditional degree candidates for public accounting professionals ($M = 6.66$, $SD = 0.58$) was slightly higher than the mean for private accounting professionals ($M = 6.52$, $SD = 0.71$), the difference was not statistically significant ($p = .116$). As indicated by a lack of an interaction effect, this study suggests that differentiation does not exist in the accounting profession in Kansas when considering both education mode and employment setting. This finding is inconsistent with existing research given that multiple studies indicate that online degrees are more acceptable in corporate settings and some corporate employers now accept online degrees from institutions with an established history of providing quality education (Adams & DeFleur, 2006; Bristow et al., 2011). Furthermore, a number of corporations now promote online learning for training and continuing education as part of their human resource practices. Studies have shown that firms are supportive of online continuing professional education training (Adams et al., 2012; Nelis, 2014; Tabatabaei et al., 2014). It is possible that private business and industry groups in Kansas have a lower need for entry-level professionals than do public accounting firms and are therefore more picky overall when considering possible hires.

IMPLICATIONS AND RECOMMENDATIONS

Implications

The online delivery of higher education has generated questions regarding the acceptance, employability, and credibility from the perspective of external stakeholders of online education (Fogle & Elliott, 2013). Due to increased demands by employers seeking accounting graduates and the continued growth of online programs, identification of the employment settings favorable to graduates with online accounting degrees was needed (Kohlmeyer et al., 2011; Metrejean & Noland, 2011; Tabatabaei et al., 2014) and served to examine internal differentiation within the profession. Additionally, the study sought to extend institutional theory by adding consideration of hiring decisions in the accounting profession as an element of public and private sectors and to provide additional evidence to the existing system theory of professions regarding whether differentiation within the accounting profession exists when considering education mode (i.e., online or traditional) and employment setting (i.e., public or private).

If employers are skeptical about entry-level job candidates that received their education online, then they are not likely to hire these individuals. This has implications for both the job candidates and the institutions that graduate them. The individuals that earn their degrees online will be less competitive in the job market and institutions that offer online degree programs may

be considered inferior by important stakeholders (e.g., employers and students). Implications of the results are discussed in the context of each research question answered in this study.

RQ1. Regardless of employment setting of the participant, Kansas CPAs reported they would recruit the traditional degree candidate more actively than they would recruit the online degree candidate. Institutional theory contends that to interact successfully with industry peers, firms must maintain a status of legitimacy (DiMaggio & Powell, 1983). Firms may be wary of hiring online accounting graduates because of the fear that their legitimacy may experience negative affects by having graduates of online schools with little prestige representing the firm to its customers and suppliers. Institutional theory is ideally suited to explain the tendency of accountants to more likely recruit graduates of traditional face-to-face programs in contrast to graduates of online programs given the theory's consideration of legitimacy concerns and normative pressures to do things in an accepted and traditional fashion.

Existing research indicates that employers in the accounting profession show a disinclination to hire graduates of online programs (Kohlmeyer et al., 2011; Tabatabaei et al., 2014) and the results here confirm these same findings. Institutional theory supports this disinclination by employers in the accounting profession because it suggests that the survival and success of organizations depends on adhering to the rules and norms that facilitate its interaction with other organizations and gives legitimacy to its operations (Kilfoyle & Richardson, 2011). As indicated by a significant main effect and practical significance for education mode, Kansas CPAs confirmed the existing research and supported the application of institutional theory to the accounting profession.

The implication of this finding for online degree program graduates is that their applications for entry-level employment in the accounting profession in Kansas are not likely to be as well received as applications from traditional degree program graduates. The same employment opportunities may not be available to online degree candidates in Kansas that are available to students earning traditional face-to-face degrees. Higher education institutions, especially those serving Kansans, must consider that online degree graduates are not as attractive to employers as traditional face-to-face graduates. It may not be the right time for academic leaders in Kansas to allocate resources to develop online degree programs in accounting.

RQ2. Regardless of education mode of the candidate, Kansas CPAs working in public accounting reported they would recruit any candidate more actively than CPAs working in private accounting reported they would. The classic study on the system theory of professions by Abbott (1988) supported the hypothesis that there will be differentiation within any given profession, such as accounting. Varying levels of willingness to hire traditional versus online degree program graduates established evidence of this differentiation. This study indicated that differentiation exists in the accounting profession in Kansas when considering only employment setting and provided support for the system theory of professions.

Given the particularly rural nature of the Kansas population, a finding by Tabatabaei et al. (2014) was significant to this study. These researchers found that respondents from rural firms were more accepting of online education than respondents from metropolitan firms. They suggested that rural firms often better relate to a lack of access to traditional education and therefore understood the need to pursue online education as an alternative. This also

demonstrates differentiation in the accounting profession and supports the system theory of professions. As indicated by a significant main effect for employment setting, Kansas CPAs participating in this study provided data to support the application of the system theory of professions to the accounting profession. The implication of this finding for online degree program graduates is that their applications for entry-level employment in the accounting profession in Kansas are likely to receive more consideration from public accounting professionals than private accounting professionals. However, a lack of practical significance limits the implication of this finding.

RQ3. Given a non-significant interaction effect, implications can only be drawn from the simple main effects that Kansas CPAs working in public accounting reported they would recruit online candidates more actively than CPAs working in private accounting reported they would; however, Kansas CPAs working in public accounting reported they would recruit traditional candidates just as actively as CPAs working in private accounting reported they would. The mean for public accounting professionals ($M = 5.37$, $SD = 1.38$) was much higher than the mean for private accounting professionals ($M = 4.70$, $SD = 1.70$) for online degree candidates and the difference was statistically significant ($p = .003$). However, the mean for public accounting professionals ($M = 6.66$, $SD = 0.58$) was only slightly higher than the mean for private accounting professionals ($M = 6.52$, $SD = 0.71$) for traditional degree candidates and the difference was not statistically significant ($p = .116$). Thus, while public accounting professionals do not report recruiting traditional degree candidates more actively than private accounting professionals do, indicating a somewhat equal likelihood of possible employment for these students, public accounting professionals do report that they would more actively recruit online degree candidates than would private accounting professionals, indicating that online degree candidates have a better opportunity to be hired at public firms in comparison with private business and industry groups.

Existing research shows a reluctance of employers in the accounting profession to hire graduates of online programs (Kohlmeyer et al., 2011; Tabatabaei et al., 2014) as supported by institutional theory (Sellers et al., 2012). This study was aimed at filling the gap in the literature by testing if this reluctance exists when employment settings outside of certified public firms are considered (Bristow et al., 2011; Metrejean & Noland, 2011). This study extended institutional theory by adding consideration of hiring decisions in the accounting profession as an element of public and private sectors and confirmed previous findings that online degrees are less acceptable than traditional degrees for obtaining entry-level employment in the accounting profession.

The classic study on the system theory of professions by Abbott (1988) supported the hypothesis that there will be differentiation within any given profession, such as accounting. The system theory of professions advocates that systems are dynamic and existing biases may eventually disappear. Therefore, it was important to test if differentiation exists within other areas of the accounting profession with an updated study. This study indicated that differentiation exists in the accounting profession in Kansas when considering only employment setting and provided support for the system theory of professions.

Recommendations

As previously noted, accounting is a degree program area for which online offerings are increasing and students are now preparing themselves for entry into the accounting profession through online degree programs (Kohlmeyer et al., 2011; Sellers et al., 2012; Tabatabaei et al., 2014). However, current research shows that employers at the pinnacle of the accounting profession, certified public firms, show a disinclination to hire graduates of online programs, even when they possess the CPA credential (Kohlmeyer et al., 2011; Tabatabaei et al., 2014). Given several consistent studies in recent years, it is conceivable that the bias for traditional education delivery modes may result from cultural preferences that are specific to particular fields, general resistance to change, or that online education is not yet recognized as a viable alternative for traditional practices (Adams et al., 2012). The literature still demonstrates a distinct limit to how much employers and other stakeholders in higher education are willing to accept online learning (DePriest & Absher, 2013). Individuals with online degrees are still facing a perceptual uphill battle regarding hiring and promotion decisions (Kaupins et al., 2014). The findings of this study, using a sample of CPAs in Kansas, confirmed existing research regarding the acceptability of online degrees for entry-level employment in the accounting profession. That is, Kansas CPAs will more actively recruit traditional degree program graduates over those with online degrees.

Recommendations for practice. The findings of this study suggest there is still a reluctance to hire job candidates with online degrees for entry-level employment in the accounting profession. Institutions that offer online degrees can either discontinue these programs due to employer concerns or make concerted efforts to improve the quality and reputation of these programs. Given the need to meet student and employer demand for educated professionals, academic administrators are not likely to discontinue their online offerings. However, academic administrators should exercise extreme caution if they decide to enter or continue to participate in the online education market, especially in the accounting discipline. They must continue to work to improve the credibility of their programs.

Students are another key stakeholder in online education. Students earning online degrees are interested in knowing if the same employment opportunities are available to them that are available to students earning traditional face-to-face degrees (Bristow et al., 2011; Columbaro & Monaghan, 2009; Tabatabaei & Gardiner, 2012). Additionally, educators are interested in knowing more about the attractiveness of online degrees to employers because the success of their students in terms of job placement is very important to the reputation of their programs. Educators are also interested in evaluating, improving, and redesigning curriculum to prepare graduates for career success (Tabatabaei & Gardiner, 2012). What remains unknown for job candidates is whether online degrees are becoming more accepted in the job market (Fogle & Elliott, 2013; Kohlmeyer et al., 2011; Metrejean & Noland, 2011). This study confirmed that, in Kansas, students who graduate from traditional degree programs will be more actively recruited and, thus, likely have more job opportunities than those who graduate from online degree programs. Therefore, students should exercise extreme caution if they decide to pursue an online

accounting degree, especially if they are looking for entry-level employment in the accounting profession.

Recommendations for future research. As online course offerings and degree programs continue to grow in higher education, it only makes sense to continue investigating aspects of the delivery modality and the impact modality has on hiring decisions. Future research is warranted to investigate if differences exist in other jurisdictions (i.e., states). Because the CPA is a state license and requirements vary in each state, it is important to restrict the population under study to a single jurisdiction. Therefore, care should be exercised in generalizing the findings to other geographic regions. The results of this study could be generalized to other states that have similar CPA licensure requirements; however, generalizing the results to all CPAs across the United States is not advised. Because the regulatory environment in Kansas may be different from that in other states, the ability to generalize the findings of this study beyond CPAs in Kansas is uncertain. Additionally, states with more or less rural populations may have different perceptions regarding the acceptability of online degrees. Delimiting to CPAs in Kansas could allow for the establishment of a baseline in terms of findings from which additional studies of other states may commence. Therefore, replication studies in other jurisdictions are recommended.

For this study, the researcher chose to restrict employment setting to public accounting or private accounting, therefore not including CPAs working in government, education, not-for-profit, or other employment settings. Additionally, the researcher chose to restrict education mode to purely online or purely traditional, therefore not including blended education modes. Future research is warranted to investigate if differences exist in other employment settings in the accounting profession or in blended learning modalities. The current study could be replicated with inclusion of additional levels for employment setting and education mode.

Given the findings of this study, several questions arise that should be addressed with additional research. It is now known that Kansas CPAs report a reluctance to hire online degree program graduates; however, what remains unknown is why this is the case. Public accounting professionals in Kansas reported they will recruit online students more actively than private accounting professionals will; however, outside of information regarding supply and demand for public accounting professionals, stakeholders can only speculate as to why this is true. Educators must certainly be interested in knowing more about the attractiveness of online degrees to employers as they consider offering initial or additional online programs and because the success of their students in terms of job placement is very important to the reputation of their programs. Educators are also interested in evaluating, improving, and redesigning curriculum to prepare graduates for career success (Tabatabaei & Gardiner, 2012). In order for educators to improve their programs, they must know how or why their programs are not meeting the needs of employers or if other perceptions regarding online degrees are where the bias is originating. Future studies could collect qualitative data to answer these questions. Personally interviewing Kansas CPAs could answer why they have a reluctance to hire online degree program graduates. More specifically, interviewers could ask what it is about online graduates that make them less desirable than traditional graduates. For example, do Kansas CPAs perceive online graduates to be less prepared, less professional, or less polished than their traditional counterparts?

Additionally, do Kansas CPAs perceive the technical competence of online graduates to be inferior? Researchers could identify employers who have hired both online and traditional graduates and ask them to compare and contrast their preparation, professionalism, polish, and technical competence. Furthermore, interviewers could ask what, if anything, Kansas CPAs believe higher education institutions could do to improve their online programs and reduce bias against their online graduates.

Future research could also investigate whether the age of the participant affects their perception of the acceptability of online degrees. The system theory of professions advocates that systems are dynamic and existing biases may eventually disappear. Therefore, online degrees may gain acceptance as older generations retire and younger generations move into upper-management positions and become responsible for hiring decisions. The current study could be replicated with inclusion of participant age as an additional variable. A multiple regression analysis could be conducted to investigate if this additional variable affects perceptions.

Finally, to continue to further inform both institutional theory and the system theory of professions, future research could investigate differences in other professions beyond accounting. This study addressed the accounting profession, but online degree offerings also exist for other professions (e.g., management, marketing, information systems). This study confirmed that institutional theory and the system theory of professions are active in the accounting profession, but other professions may not operate under the same conditions. Therefore, institutional theory might be further extended by adding consideration of hiring decisions in other professions and the system theory of professions might be further extended by testing if differentiation exists in other professions. The divide between the growing popularity of online degree programs and less than favorable employer perceptions of online degree recipients is an area of research that continues to be ripe for additional study.

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