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How employers perceive online accounting education: Evidence from Kentucky

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ABSTRACT

This study expands upon employer preferences for job applicants with traditional (as opposed to blended or online) educational environment backgrounds. Completing more than one degree is preferable, even if one degree was completed online, and employers are equivalently favorable if the online degree was completed at the undergraduate or graduate level. Applicants who complete a second, online bachelor's degree in accounting are also favored. The reputation of the job applicant's educational institution is of greater importance to employers than the educational environment, and separate AACSB accounting program accreditation is less important than AACSB business accreditation. Finally, employers who are familiar with online education (i.e., have taken online courses themselves) are more likely to hire an online graduate, rate online education as more rigorous, and perceive a greater potential for soft skill attainment in the online environment (albeit with preference still towards traditional applicants), as opposed to those employers without online education experience.

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1. Introduction

As the availability and usage of online education continues to skyrocket (Allen & Seaman, 2011, 2014), the accounting field is not immune to its influence. While Ng (2011) reports that the number of online accounting courses continues to grow each year, more than 200 institutions with AACSB (Association to Advance Collegiate Schools of Business) business accreditation offer an online degree plan (BestBizSchools, 2015), and approximately 11% of undergraduates with a degree in business obtain such a degree exclusively online (Institute of Education Sciences, National Center for Education Statistics, 2017). Accordingly, hundreds of accredited institutions offer online accounting courses, at both the undergraduate and graduate level (SR Education Group, 2017). In light of such a trend, accounting research has examined the effect of online education from several angles, including student perceptions (e.g., Wishniewsky & Randovilsky, 2009), student performance (e.g., Chen, Jones, & Moreland, 2013; Duncan, Kenworthy, & McNamara, 2012), and employer perceptions (e.g., Grossman & Johnson, 2016; Jeancola, 2011; Kohlmeyer, Seese, & Sincich, 2011).

The purpose of the current study is to broaden the understanding of several factors relevant to employer perceptions of online accounting education. These factors include the educational environment (i.e., on-campus, both on-campus and online, or completely online), mixed coursework between the undergraduate and graduate level (i.e., an on-campus undergraduate degree and an online graduate degree or vice versa), attainment of a second, online bachelor's degree in accounting,

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institutional reputation, separate accounting accreditation, and employer experience with online coursework. All of these factors are examined vis-à-vis their effects on the willingness of employers to hire an accounting graduate from an AACSB business accredited institution, as well as their effects on potential employers' perceptions of online accounting education in general.

To evaluate the aforementioned factors, the current study analyzes 130 survey responses from potential Kentucky employers, working mainly in public accounting and industry, covering geographical regions from local to international. Commensurate with the findings of prior survey-based research (e.g., Jeancola, 2011; Kohlmeyer et al., 2011), study results indicate that a job applicant whose degree was obtained in a traditional, on-campus educational environment is viewed more favorably than an applicant whose degree was obtained in a hybrid (some blend of on-campus and online) educational environment. By extension, the degree obtained in a hybrid learning environment is significantly favored over a degree obtained entirely online.

Concerning undergraduate and graduate coursework mix, the current study builds upon the findings of Grossman and Johnson (2016),¹ which indicate that potential employers are more apt to offer employment to a job applicant who obtained either an undergraduate degree or a graduate degree online over an applicant who obtained both degrees online. Based upon the outcomes of Grossman and Johnson's willingness to hire measurements, it was expected that employers would prefer that a job applicant obtain the undergraduate degree in a traditional educational environment and the graduate degree online, as opposed to vice versa. Current study results do not uphold such an expectation, as employers are indifferent to which degree was obtained online.

In evaluating the acceptability of online degrees, this study also examines the scenario pertaining to an individual who returns, after several years of working, to obtain a second, online bachelor's degree in accounting. Based upon the conclusions of prior research (e.g., Hartman, 2007; Tabatabaei & Gardiner, 2012), it was expected that employers would look more favorably upon a job applicant who demonstrates the wherewithal to undertake a second degree – regardless of attainment in an online educational environment. Consistent with expectations, study participants demonstrate a greater propensity to hire such a second-degree applicant, in comparison to the graduate fresh out of school (CPA-ready, with 150 hours).

Many potential employers in non-accounting fields suggest that, beyond the type of educational environment producing a graduate, the reputation of the educational institution is of prime importance to them (Carnevale, 2007; Wellen, 2006). This study finds such a supposition to be supported in the field of accounting, as the importance of institutional reputation is shown to outweigh the importance of educational environment. Prior research has established that AACSB business accreditation signals higher-quality institutional reputation (e.g., Hardin & Stocks, 1995; Kohlmeyer et al., 2011); however, few studies (e.g., Grossman & Johnson, 2016) have attempted to gauge an indicator of reputation beyond that of business accreditation. The present study entertains whether separate accounting program accreditation, which is attained by business schools in an effort to enhance quality (Bitter, 2014), provides educational institutions with an edge in regards to reputational perception in the eyes of potential employers. Contrary to expectations, results find that employers appear to consider business accreditation a more important indication of reputational quality.

Lastly, the present study considers several effects possibly arising from employers' experience with online education, either at the undergraduate or graduate level. Whereas an often-cited source of employer resistance to hire the online graduate is the hiring individual's lack of personal experience with online education (Seibold, 2007), it was expected that greater familiarity with online coursework may translate into a greater willingness to hire an online graduate. Additionally, heightened familiarity with online coursework was expected to favorably affect employers' general perception of the rigor of online education and the ability of online coursework to impart both technical and soft skill (e.g., teambuilding) sets. Results show that those employers with online coursework experience, are more willing to extend an offer of employment to the online graduate, find online coursework more rigorous, and are more inclined to believe that the online delivery format can better instill soft skill sets (the ability to attain technical skills is equivalently perceived). While the three aforementioned variables produce significant differences between the two groups of employers, it is important to note that the ratings for willingness to extend an offer, rigor of online coursework, and ability to instill soft skill sets are still insignificantly different from neutrality. However, employers with online education experience show some movement toward acceptance of job applicants with online accounting coursework.

This study expands upon the current literature in several aspects. First, another attempt is made to broaden the measurement of institutional reputation (i.e., Grossman & Johnson, 2016) from only AACSB business accreditation to include separate accounting accreditation. Second, a more in-depth examination of employer preferences regarding the mix of undergraduate and graduate coursework is provided. Third, the consideration of a student with a non-traditional, second online degree in accounting is evaluated. Finally, the present study provides some evidence that employer familiarity with online coursework affects willingness to hire an online graduate, a relationship previously undemonstrated by prior research (e.g., Grossman & Johnson, 2016; Jeancola, 2011; Kohlmeyer et al., 2011).

The remainder of this study proceeds as follows. The second section examines relevant literature and develops the study hypotheses. The third section describes the study methodology and the survey instrument used. The fourth section presents

¹ Whereas the majority of Grossman and Johnson's (2016) participants are Big Four employees, the majority of current study participants are locally-practicing CPAs.

the study results. The fifth section provides a summary of findings and discusses the implications of such. Finally, the last section presents several study limitations and provides possible new avenues of research.

2. Hypotheses development

Although some research promotes a gradual acceptance of online degrees (e.g., Metrejean & Noland, 2011; Tabatabaei & Gardiner, 2012), the preponderance of research across the past decade points towards the conclusion that employers have a propensity to devalue online education. In their series of studies (2005; 2006; 2007), Adams and Defleur find that institutions of higher education are less likely to hire faculty with an online doctorate, and employers in both business and medicine are less likely to hire individuals with online degrees. Linardopoulos (2012) finds that, across disciplines, job candidates with a traditional degree are more highly favored in hiring decisions than job candidates with an online degree. Some of the most prevalent reasons for reluctance to hire the online graduate include perceived substandard academic rigor, insufficient instructor-student interaction, waning student commitment (Adams, 2008; Columbaro & Monaghan, 2009), and lack of employer experience with online education (Kohlmeyer et al., 2011).

Studies in the field of accounting provide concordant results. In her dissertation, Jeancola (2011) finds that potential employers overwhelmingly favor a job candidate with an on-campus degree, as opposed to a degree either completely, or partially, online. Another exploratory study by Kohlmeyer et al. (2011) finds that, overall, potential employers significantly favor the on-campus, or traditional graduate over a graduate with an online degree. In an experimental study, Grossman and Johnson (2016) conclude that potential employers still significantly favor those graduates whose education was obtained in a traditional or blended learning environment, as opposed to an online environment. Conceding no noteworthy movement by employers to equate the acceptability of an on-campus education with that of an online education, the following hypothesis is presented:

Hypothesis 1. Employers are more willing to extend an offer of employment to a job applicant whose education was obtained via a traditional environment, as opposed to either a hybrid or online environment.

While employers are clearly more accepting of a wholly traditional, on-campus educational environment, the introduction of "mixed" coursework within an applicant's degree – that is, consisting of both traditional and online coursework – may affect a potential employer's decision-making process. Under such circumstances, employers may receive applications from individuals with a partially-online undergraduate degree, or a traditional undergraduate degree and an online master's degree, or vice versa. Since the inclusion of one or more online courses is a growing trend in the student curriculum (Allen & Seaman, 2013), employers must be prepared to navigate through many possible scenarios applicable to the educational environments of a job applicant.

Within the field of accounting, these mixed coursework scenarios will most likely intersect with the completion of an MBA² degree along with the baccalaureate degree. The pursuit of an MBA degree is a worthwhile endeavor for students, since its attainment improves the students' self-appraisal (e.g., Bruce, 2010), attracts employers (AICPA, 2013; GMAC, 2015), and may lead to long-term benefits (Herrington, 2010), such as greater lifetime income (GMAC, 2015). The commingling of traditional and online education in attaining double degrees can produce some unforeseen effects on employer perceptions. According to Grossman and Johnson (2016), employers favor an applicant with one degree obtained in a wholly-traditional environment in comparison to an applicant with two degrees, one of which was obtained online. The applicant with mixed coursework between the undergraduate and graduate degree is also preferred in comparison to the applicant who attained the two degrees online. Further evidence from the study suggests that employers may favor a mixed-degree applicant whose undergraduate degree was obtained in a traditional environment. These findings lead to the following hypothesis:

Hypothesis 2. Employers are more willing to extend an offer of employment to a job applicant who obtained a traditional undergraduate degree and an online graduate degree, as opposed to vice versa.

Apart from mixed coursework scenarios between the undergraduate and graduate degree, another scenario a potential employer may contend with is an applicant who received an online non-accounting baccalaureate degree, worked for a few years, and then came back to school to pursue a second, online bachelor's degree in accounting. Prior research suggests that employers highly value relevant work experience (Tabatabaei & Gardiner, 2012), are willing to advance current employees who obtain an online degree (Hartman, 2007), and do not view post-baccalaureate certificates differently from a traditional bachelor's degree (Almer & Christensen, 2008). One potential conclusion from this research is that employers may view job applicants graduating with a second, online undergraduate degree in accounting more favorably than an applicant who obtained an initial undergraduate degree online. Hence, the following hypothesis is advanced:

Hypothesis 3. Employers are more willing to extend an offer of employment to a job applicant who received a second, online baccalaureate degree in accounting, with intervening work experience, as opposed to an applicant who has received only one online baccalaureate accounting degree.

² According to the AACSB's website, there are significantly more AACSB accredited-online MBA programs than AACSB accredited-online MAcc programs. For this reason, the MBA was utilized as the preferred graduate degree in the present study.

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Other considerations, apart from the applicant obtaining one or more degrees in an online educational environment, may affect an employer's willingness to hire. One consideration is the employer's perception of the reputation of the academic institution. Generally, the perception of the rigor of an online education will suffer greatly if offered by an institution of perceived inferior quality (Carnevale, 2007; Kohlmeyer et al., 2011; Webley, 2012). The results of Kohlmeyer et al. (2011) suggest that employers are more likely to perceive negligible differences between online instruction and traditional, on-campus instruction, with the caveat that such instruction was delivered by a highly-reputable institution.

One universal measure of an institution's quality is the attainment of AACSB business (i.e., the college of business) accreditation. Institutions receiving such accreditation are generally viewed as delivering quality instruction (Wellen, 2006), and enjoy a significantly more favorable perception over both non-accredited institutions (Adams & Defleur, 2006) and institutions with unrecognized accreditation (DeFleur & Adams, 2004). Some prior research (Carnevale, 2007; Wellen, 2006) suggests that the importance of reputation may, in fact, supersede that of the educational environment in which an applicant attains a degree. To look beyond AACSB business accreditation as the sole indicator of reputation, Grossman and Johnson (2016) conducted an experiment in which an institution was either ranked in the first quartile of national business publications, or not ranked. The results indicate that publication ratings, although known to provide an indication of quality (e.g., Peters, 2007), did not significantly affect an employer's willingness to hire. Even though this particular indicator seems ineffectual, study participants still indicated that, in general, an institution's reputation is of more importance than the educational environment in which the job applicant obtained a degree. This leads to the fourth hypothesis:

Hypothesis 4. Employers consider the reputation of a job applicant's educational institution to be more important than the educational environment (traditional, hybrid, or online) in which the applicant's degree was obtained.

Institutional reputation may be enhanced through specific means. In particular, an institution may choose to obtain separate accounting accreditation in addition to business accreditation. Prior to 2013, the standards governing accounting accreditation were somewhat restrictive; however, the AACSB's current standards have opened the door to a greater number of accounting programs undertaking the option (Krom & Buchholz, 2014). The current accounting accreditation standards (AACSB, 2015), paralleling those of business accreditation, advocate for certain requirements among several categories, including strategic management and innovation (e.g., a clear mission and expected outcomes), participants (e.g., qualified instruction), learning and teaching (e.g., knowledge in fundamental areas), and academic and professional engagement (e.g., faculty interaction with professionals).

Business school administrators are of the opinion that accounting accreditation improves the reputation of their program with students, faculty, and employers (Bitter, 2014). Additionally, research demonstrates that students from accounting-accredited institutions enjoy greater success on the CPA exam than students from business-only accredited institutions (Bunker, Cagle, & Harris, 2014). Whereas recruiters are encouraged to understand and incorporate the benefits of accounting accreditation into their decision-making processes (Krom & Buchholz, 2014), it is expected that such benefits will lead to a more favorable impression of the academic institution's reputation. Therefore, the following hypothesis is advanced:

Hypothesis 5. Employers place a premium on AACSB accounting accredited institutions as opposed to AACSB business-only accredited institutions.

Another possible influence in a potential employer's willingness to hire an online graduate is the employer's familiarity with online coursework. Kohlmeyer et al. (2011) were unable to fully explore any relationship between the personal experience of a potential employer with online education and his or her willingness to hire due to an inadequate number of participants having actually experienced online education; however, when asked about their willingness to hire an online graduate within the next three years, partner participants are less willing to do so than either manager or senior participants. The researchers posit that this observation may be explained by the lack of experience with online coursework among those who have reached the partner-level in a CPA firm. The study by Jeancola (2011) finds that potential employers who have taken online courses do not look upon online accounting graduates more favorably; however, Linardopoulos (2012) asserts that as online education booms, and employers become increasingly familiar with the nature of such education, acceptance of job candidates with online degrees will likely become more prevalent.

According to Kavanagh and Drennan (2008), both students and employers remain skeptical of universities' ability to instill non-technical, or soft, skills in the student population. Past research shows that one of the most influential factors in a potential employer's unwillingness to hire the online accounting graduate is the employer's perception that the graduate lacks interpersonal, teambuilding, and written and oral communication skills (e.g., Tabatabaei & Gardiner, 2012; Wagner, Hassanein, & Head, 2008). Seibold (2007) suggests that familiarity with online education may increase an employer's willingness to hire the online graduate and positive employer perceptions regarding the quality of online education; as such, familiarity may also translate into more favorable perceptions of online coursework rigor and the ability of online instruction to impart such skills to students. Based upon these expectations, the following set of hypotheses is presented:

Hypothesis 6a. Employers who have taken online courses are more willing to hire a job applicant whose degree is online than those employers who have taken no courses online.

Hypothesis 6b. Employers who have taken online courses perceive online education as more rigorous than those employers who have taken no courses online.

Hypothesis 6c. Employers who have taken online courses perceive online education as better able to provide a job applicant with both technical and soft skills than those employers who have taken no courses online.

3. Method

3.1. Participants

Participants were solicited by contacting the Kentucky CPA Society Community Relations Director, who then disseminated an email invitation to a subset of society members holding positions of potential authority in a hiring decision (e.g., presidents, partners, senior managers, firm owners). The Relations Director was used as an intermediary in an attempt to increase membership participation, as online community interaction can be an effective inducement to respond to webbased survey research (Petrovčič, Petrič, & Manfreda, 2016). An 8.3% response rate was obtained from the 1570 members to whom an invitation to participate was sent. Although this response rate is not ideal, it is comparable to the response rate obtained in other topically similar web-based survey research (i.e., Jeancola, 2011) and affirms the findings that webbased response rates are significantly lower than their non-electronic counterparts, due to a myriad of factors, such as depersonalization and perceived nuisance due to online survey proliferation (Sánchez-Fernández, Muñoz-Leiva, & Montoro-Ríos, 2012).

Of the 130 participants who completed the study, 51% are male, and the average age is 49 years. In terms of education level, 70% of participants earned at least a baccalaureate degree, with the remainder earning a graduate degree. All but one participant holds a CPA certification, and only three or four participants hold another certification, such as a CMA or a CIA. Online education is not prevalent among participants, with only 20% completing either an undergraduate or graduate course online. Half of the participants are employed within industry; 40% are employed in public practice, and 10% are employed in either the governmental or educational sectors. Finally, in terms of type of practice, the participant breakdown is as follows: local (58), regional (37), national (17), and international (14). Responding members of the Kentucky CPA Society are highly representative of its overall membership, in which 56% are male, 65% are between 40 and 70 years old (only 29% are below the age of 40), and 88% work in either industry or public accounting. Table 1 provides a breakdown of study participant and organizational characteristics.

3.2. Survey instrument

We used SurveyMonkey® to collect data. Participants received an email introducing the researchers, explaining the purpose of the study, and providing information to address any privacy concerns. Participants clicked on a hyperlink to begin the (approximately) 10-minute online survey.³ Upon completion of the survey, participants could choose to enter into a drawing for \$250. The three parts of the survey are described below.⁴

3.2.1. Online survey Part 1

In Part 1, participants are asked to decide whether or not a potential entry-level job applicant will be extended an offer of employment. Participants are presented with summary job application information from three hypothetical applicants (A, B, and C), and asked to indicate how likely they would be to extend an offer of employment to each of these individuals. Each of the three applicants is described along six areas: education, work experience, extra-curricular activities, recommendations, a preliminary interview, and the educational environment in which the applicant completed his or her coursework.

The first five areas are identically described for each of the three applicants. Each applicant completed 150 credit hours (to be CPA eligible), attended a university with an AACSB-accredited school of business, earned a baccalaureate degree with a concentration in accounting, and graduated summa cum laude. Each applicant's work experience consisted of serving as a member of the wait staff at a local restaurant and clerking as a teller in a local banking institution for the past two years. Extra-curricular activities consisted of tutoring local high school students and participating in several community service projects. The recommendations for each applicant described a highly-competent individual of upstanding character with a strong work ethic. Finally, study participants are informed that a colleague's preliminary interview revealed that the applicant's attitude and demeanor made a highly favorable impression, and the applicant seemed an excellent fit for their firm or organization.

The final area, type of educational environment experienced, varied among the applicants. Applicant A earned a degree from a traditional educational environment, in which lectures, class material, and exams are administered on campus. Appli-

³ The survey instrument was reviewed and approved by the Institutional Review Board of the authors' university.

⁴ The authors' previously-published work, "Employer Perceptions of Online Accounting Degrees," utilizes a similar survey instrument, which serves as the basis for the validity of the current study's instrument.

Table 1Summary of study participant and organizational characteristics.

Participant characteristics		
Gender	Count	Percent
Male	66	51%
Female	64	49%
Total	130	100%
Age	Average	Range
	49	25-74
Highest level of education	Count	Percent
Baccalaureate	90	70%
Graduate degree	40	30%
Total	130	100%
Certification		
CPA	129	99%
No CPA	1	1%
Total	130	100%
Online experience		
No online courses	103	79%
Undergraduate/graduate online courses	26	20%
No response	1	1%
Total	130	100%
Organizational characteristics		
Area of practice	Count	Percent
Public	52	40%
Industry	65	50%
Government/education	13	10%
Total	130	100%
Type of practice	Count	Percent
Local	58	45%
Regional	37	28%
National	17	13%
International	14	11%
No response	4	3%
Total	130	100%
	150	100/0

cant B earned a degree from a hybrid educational environment, in which lectures and class material are delivered online, but exams are administered on campus.⁵ Applicant C earned a degree from an online educational environment, in which lectures, class material, and exams are administered online. Then, study participants responded to the following question for each of the three job applicants: How willing would you be to extend an offer of employment to Applicant (A, B, and C)? Participants responded by choosing a number from 1 (not at all willing) to 7 (extremely willing).

Additional questions in Part 1 of the survey varied the type of degree, type of educational environment, or type of experience of one or more of the job applicants to examine any change in participants' willingness to extend an offer of employment. In the first traditional variation, Applicant A earned all accounting course credits in a traditional environment, but earned all other business credits in an online environment. In the second traditional variation, Applicant A earned a baccalaureate accounting degree in a traditional environment, but earned an online MBA. In the first online variation, Applicant C earned an online baccalaureate accounting degree, but earned an MBA in a traditional environment. In the second online variation, Applicant C earned a non-accounting online baccalaureate degree, worked for five years, and returned to complete a second, online baccalaureate degree in accounting. Participants were asked to quantify how their willingness to extend an offer of employment might change on a scale from 1 (less willing to extend an offer) to 7 (more willing to extend an offer).

3.2.2. Online survey Part 2

In Part 2 of the survey, participants were asked to provide their opinions regarding the importance, with respect to the hiring decision, of a number of items, including: the nature of a job applicant's educational environment (traditional, hybrid, or online), the reputation of the job applicant's educational institution, the accreditation status of the college of business attended by the applicant (i.e., AACSB accredited), and the accreditation status of the accounting department within that college of business. For each of these four items, participants rated its importance level on a scale from 1 (not at all important) to 7 (extremely important).

⁵ A simple, clear-cut definition of a "hybrid" learning environment is used in this study to avoid participants imposing their own preconceived notions as to the nature of blended learning (e.g., Grossman & Johnson, 2016).

Additionally, participants were asked to rate their perception of academic rigor in the online educational environment compared to the traditional educational environment on a scale from 1 (much less rigorous) to 7 (much more rigorous). Next, participants were asked their opinion as to the effectiveness of an online educational environment in equipping students with the following skill sets: technical skills, oral communication skills, written communication skills, team-building skills, and interpersonal skills. For each of these skill sets, participants rated their perception of the effectiveness of online delivery on a scale from 1 (extremely ineffective) to 7 (extremely effective). After indicating if they believed transcripts should indicate whether courses were taken online, participants finished Part 2 by indicating which accounting course (principles, intermediate, cost, tax, information systems, auditing, or advanced) they believed, if any, could be effectively taught online. A textbox was provided for participants to provide any free-form comments.

3.2.3. Online survey Part 3

Part 3 of the survey asked study participants to provide demographic information. Regarding the participants themselves, questions included gender, age, highest level of education, types of professional certifications, and the state in which they were currently employed. Regarding their place of employment, participants were asked to choose the best-fitting organizational type (local, regional, national, international, or Big Four⁷), and the best-fitting organizational area of practice (public accounting, private practice, industry, government, or education). Participants were also asked to indicate whether they had taken any undergraduate or graduate courses online to gauge their familiarity with online education.

4. Results

Table 2 provides descriptive statistics for study variables, along with the difference between participant ratings and the neutral rating of 4, which is useful in determining whether a statistically significant difference translates into a practically significant outcome. General trends in the data indicate that a majority of the variable ratings differ significantly from a neutral rating. Next, each hypothesis is examined in detail.

4.1. Hypothesis 1

Table 3, Panel A provides the three level (willingness to hire Applicant A (traditional), willingness to hire Applicant B (hybrid), and willingness to hire Applicant C (online)) repeated-measures design statistical analysis related to Hypothesis 1. The overall results indicate that, in their decision to extend an offer of employment, employers are sensitive to the educational environment in which the job applicant's undergraduate accounting degree was obtained (F(2, 244.744) = 239.892, P = 0.000). Pairwise comparisons further demonstrate that, as expected, employers' willingness ratings are all significantly different from each other (at the P < 0.05 level) and directionally consistent with expectations among graduates from the three educational environments – traditional (mean = 6.69), hybrid (mean = 5.52), and online (mean = 3.95). These results provide support for the first hypothesis.

Whereas Grossman and Johnson (2016) find that the traditional and hybrid learning environments are insignificantly distinguishable from one another in an experimental setting, exposing each participant to all three variations of educational environment produces a significant distinction among all three in the present study. Interestingly, willingness to hire the online graduate is not significantly different than the neutral value of 4 (see Table 2). Overall, these results suggest that employers are indifferent to hiring the online graduate, and are much more favorable to a graduate whose degree was obtained in a hybrid learning environment; however, the traditional graduate is far and away the premier option.

4.2. Hypotheses 2

The second and third hypotheses consider variations on the nature of a job applicants' educational environment descriptions. Each of the variations are measured through a change in participants' willingness to hire ratings for either Applicant A (with two variations for the traditional candidate) or Applicant C (with two variations for the online candidate). Hypothesis 2 sets up a comparison between willingness-to-hire ratings for the second traditional variation and the first online variation.

In the second traditional variation, Applicant A earned all accounting course credits in a traditional educational environment as part of a 120-credit hour baccalaureate degree, but earned a 30-credit hour MBA degree in an online educational environment. In the first online variation, Applicant C earned all accounting course credits in an online educational environment as part of a 120-credit hour baccalaureate degree, but earned a 30-credit hour MBA degree in a traditional educational environment.

⁶ Only a dozen participants from states other than Kentucky were obtained. The inclusion of these participants in statistical examination produce no significant differences.

Only one participant indicated a Big Four affiliation, therefore his/her responses are not included in the study.

⁸ In the first traditional variation, Applicant A earned all accounting course credits in a traditional educational environment, but earned other business credits in an online educational environment. Study participants were neither more or less inclined to extend an offer of employment under such circumstances (see Table 2, mean = 4.21; t = 1.703; p = 0.091). Seemingly, non-accounting business courses are viewed as less consequential in the hiring process.

Table 2Descriptive statistics of study variables and difference from neutral rating of 4.

Variable	N	Mean	Std. dev.	T-val.	Diff.	Sig.
Willingness to hirea:						
Traditional	130	6.69	0.511	60.066	2.692	0.000
Hybrid	130	5.52	1.221	14.145	1.515	0.000
Online	130	3.95	1.738	-0.355	-0.054	0.723
Traditional variations ^b						
Online non-accounting in BAC ^c	129	4.21	1.396	1.703	0.209	0.091
Traditional BAC/online MBA ^d	129	4.51	1.329	4.371	0.512	0.000
Online variations ^b						
Online BAC/traditional MBA ^e	128	4.59	1.295	5.118	0.586	0.000
Second online BAC ^f	130	5.02	1.392	8.317	1.015	0.000
Importance of ^g :						
Educational environment	130	5.56	1.484	11.999	1.562	0.000
Institutional reputation	129	5.98	0.931	24.117	1.977	0.000
Business accreditation	128	5.81	1.114	18.414	1.813	0.000
Accounting accreditation	129	5.33	1.028	12.540	1.333	0.000
Rigor of online over traditional ^h	130	2.61	1.110	-14.299	-1.392	0.000
Effectiveness of online for ⁱ :						
Technical skills	127	3.69	1.396	-2.543	-0.315	0.012
Oral communication skills	130	2.24	1.281	-15.682	-1.762	0.000
Written communication skills	129	4.16	1.378	1.278	0.155	0.203
Team-building skills	129	2.43	1.478	-12.094	-1.574	0.000
Interpersonal skills	130	2.30	1.034	-14.866	-1.700	0.000

^a A job applicant for an entry-level accounting position on a scale from 1 (not at all willing) to 7 (extremely willing). The job applicant's accounting coursework was taken in one of three possible educational environments: on campus (traditional), through blended learning (hybrid), or online, earning baccalaureate (BAC) degree with 150 credit hours.

- b Change in willingness to hire the candidate, on a scale from 1(less willing to extend an offer) to 7 (more willing to extend an offer).
- ^c If job applicant's non-accounting coursework for the BAC degree was completed online.
- ^d If job applicant completed 120 hours of a traditional BAC and 30 hours of an online MBA.
- e If job applicant completed 120 hours of an online BAC and 30 hours of a traditional MBA.
- f If job applicant received a prior non-accounting online BAC degree and returned to school for an online BAC degree in accounting.
- g Effect on willingness to offer employment on a scale from 1 (not at all important) to 7 (extremely important).
- ^h On a scale from 1 (much less rigorous) to 7 (much more rigorous).
- ⁱ On a scale from 1 (extremely ineffective) to 7 (extremely effective).

Hypothesis 2 predicts that employers are more willing to hire an applicant whose undergraduate degree, as opposed to graduate degree, was obtained in a traditional educational environment. As depicted in Table 3, Panel B, the results do not provide support for Hypothesis 2, as the mean ratings for the second traditional variation (4.51) and first online variation (4.59) are insignificantly different from one another (t = -0.451; df = 126, p = 0.652).

Interestingly, the participants in the present study find the completion of a second degree beneficial to the hiring decision, regardless of which degree (undergraduate or graduate) was completed online (i.e., both variations produce a rating significantly different from neutral (see Table 2)). While these results are consistent with the literature promoting the desirability of the MBA degree (AICPA, 2013; GMAC, 2015), they contradict those of Grossman and Johnson (2016), whose results indicate that no added value is placed on the completion of two degrees, if one or the other had been completed online. The divergent participant pools may provide a possible disconnect for results from both studies, as 75% of participants in the Grossman and Johnson (2016) study are from organizations with a Big Four, international, and national type of practice, whereas 73% of present study participants are from organizations with a local and regional type of practice.

4.3. Hypothesis 3

Hypothesis 3 predicts that employers will be more willing to hire an applicant with a prior online degree (in a non-accounting field), with five years of intervening work experience, who has returned to complete a second, online baccalaureate degree in accounting, as opposed to an applicant with one online baccalaureate accounting degree. The hypothesis is predicated on the second online variation (for Applicant C) – i.e., are employers more apt to favor the variant? To examine this hypothesis, a t-test comparing participants' change in willingness to hire against the neutral rating of 4 is produced (see Table 3, Panel C) and reveals a significant, positive difference (mean = 5.02; t = 8.317; p = 0.000). Thus, support is provided for hypothesis 3. It appears that such students, obtaining a second, online baccalaureate degree in accounting, are at an advantage with potential employers as compared to first-time graduates.

Table 3 Study results.

Panel A: Hypothesis 1 (Repeated measu Dependent variable: Willingness to offer					
	r J	MS	df	F	Sig.
Within-subjects					
Educational environment (Ed. environ.) Error		244.744 1.020	2 256	239.892	0.00
EITOI		1.020			
			Diff.	Std. err.	Sig.
Bonferroni pairwise comparisons					
Traditional (6.69) vs. hybrid (5.52)			1.163	0.104	0.00
Hybrid (5.52) vs. online (3.95)			1.581	0.111	0.00
Traditional (6.69) vs. online (3.95)			2.744	0.156	0.00
Panel B: Hypothesis 2 (Dependent t-test					
Dependent variable: Change in willingnes	ss to hire graduate (traditional v	s. online variation)	ac.	T1	C:
			df	T-val.	Sig.
Traditional BAC/online MBA (4.51) vs.					
Online BAC/traditional MBA (4.59)			126	-0.451	0.65
Panel C: Hypothesis 3 (T-test against ne					
Dependent variable: Change in willingnes	ss to hire graduate (online varia	,			
		Mean	Diff.	T-val.	Sig.
Second online BAC degree in accounting		5.02	1.015	8.317	0.00
Panel D: Hypothesis 4 (Dependent t-test	t)				
Dependent variable: Importance in hiring	decision				
			df	T-val.	Sig.
Institutional reputation (5.98) vs. ed. envi	iron. (5.56)		128	3.521	0.00
Panel E: Hypothesis 5 (Dependent <i>t</i> -test)				
Dependent variable: Importance of institu		ision			
	_		df	T-val.	Sig.
Accounting (5.33) vs. business only (5.81))		127	-6.339	0.00
Panel F: Hypotheses 6a, 6b, and 6c (Inde	anandent t-tests)				
Dependent measure:	Taken online courses	Not taken online	df	T-val.	Sig.
		courses	•	****	- 8
Willingness to hire online graduate	4.65	3.77	127	2.366	0.01
Rigor of online coursework	3.08	2.49	128	2.456	0.00
Online technical skills	3.81	3.65	125	0.501	0.61
Online oral communication skills	2.92	2.07	128	3.151	0.00
Online written communication skills	4.77	4.00	127	2.601	0.00
Online team-building skills	3.04	2.27	127	2.407	0.00
Online interpersonal skills	2.96	2.13	128	2.979	0.00

4.4. Hypothesis 4

Hypothesis 4 is evaluated with a dependent t-test (see Table 3, Panel D). With the mean level of importance of institutional reputation at 5.98 and the mean level of importance of educational environment at 5.56, a significant difference is obtained (t = 3.521; df = 128; p = 0.001). The results indicate that employers perceive the reputation of a job applicant's institution to be significantly more important in the hiring decision as compared to the educational environment in which the job applicant obtained his or her accounting degree. Therefore, the fourth hypothesis is supported.

4.5. Hypothesis 5

The fifth hypothesis evaluates, using a dependent t-test, whether or not accounting accreditation, above business accreditation, is an important factor in an employer's willingness to extend an offer of employment (see Table 3, Panel E). With the mean level of importance of accounting accreditation at 5.33 and the mean level of importance of business accreditation at 5.81, a significant difference is obtained (t = -6.339; df = 127; p = 0.000); however, the difference is in the opposite of the predicted direction. That is, separate accounting accreditation is seen as *less* important than business only accreditation. Consequently, the fifth hypothesis is not supported. Despite the emphasis accounting accreditation places on outreach with the professional community (AACSB, 2015), it appears that employers may not perceive an uptick in reputability beyond that provided by business only accreditation.

4.6. Hypotheses 6a, 6b, and 6c

Table 3, Panel F shows results of independent t-tests related to this set of hypotheses. Study participants were divided into two groups, those who had taken an online course (an undergraduate course, a graduate course, or both, representing 20% of participants) and those who had never taken an online course. In regards to hypothesis 6a, the mean rating of willingness to hire the online graduate (4.65) of employers who had taken an online course is significantly higher than the mean rating (3.77) for employers who had never taken an online course (t = 2.366); (t = 127); (t = 0.010)0. Providing support for the hypothesis, these results show that employers who have taken any courses online are more willing to hire an online accounting graduate.

Hypothesis 6b gauged whether or not employers who had taken online courses perceive online coursework as generally more rigorous than their counterparts who had never taken online courses. The mean ratings for rigor for the first group (3.08) and the second group (2.49) are significantly different (t = 2.456; df = 128; p = 0.008). These results suggest that employers who have taken online courses are more inclined to view online education as more rigorous than those employers who have never taken online courses, providing support for hypothesis 6b. Noticeably, the means from both groups are well below the neutral rating of 4, indicating that both groups are seemingly disinclined to perceive online education as rigorous, in a practical sense.

Lastly, hypothesis 6c describes employers with online educational experience as more inclined to view online courses as providing better technical and soft skills. This hypothesis is not supported in terms of technical skills, since employers with online coursework experience and those without online coursework experience did not differ in their perceptions. Additionally, their ratings, 3.81 and 3.65 respectively, suggest that both groups do not view online education as an effective delivery method of technical skills.

The hypothesis is supported, however, in terms of soft skills. For all types of soft skills addressed – oral communication skills, written communication skills, team-building skills, and interpersonal skills – employers with online educational experience viewed online education as a significantly more effective mechanism than those employers with no online educational experience. Nevertheless, such results must be tempered by the fact that only one type of soft skill set, written communication, was rated above a neutral value of 4 on the effectiveness scale. These results are commensurate with Kohlmeyer et al. (2011), who discovered that the perceived quality of online coursework, seen as bereft of interpersonal interaction and fostering communication skills, is the preeminent reason that recruiters are disenchanted with hiring the online student. It appears that while those employers with online coursework experience are ahead of their counterparts without such a benefit, neither group seems enthralled with the ability of online education to provide either technical or soft skill sets.⁹

4.7. Additional analyses

Several demographic descriptors, along with supplemental inquires, were additionally examined. Two ANOVAs were conducted to determine if participants' practice area (public, industry, government/education) or type of practice (local, regional, national, international) affects their willingness to hire the online accounting graduate (Applicant C). Both produce insignificant results. Alternatively, the results from Grossman and Johnson (2016) suggest that international employers are significantly less willing to hire the online graduate as opposed to other types of employers.

Supplemental inquires produce not altogether unexpected findings. Responses were analyzed to the following question: Do you believe that the following types of accounting courses can be taught effectively online? Those participants indicating "yes" are of the following percentages: 45% for accounting principles, 32% for intermediate accounting, 31% for cost accounting, 38% for tax, 43% for accounting information systems, 23% for auditing, and 18% for advanced accounting. These results do not bode well for employer appreciation of an online accounting education, especially for upper-level courses. Also, 79% of participants are in favor of a transcript reporting whether or not a degree was completed online.

Finally, an analysis of participant open-response comments, examples of which are provided in Table 4, supports the qualitative findings described above regarding the development of interpersonal skills. Specifically, many comments express some level of doubt regarding the ability of online courses to adequately build certain soft skills. Other common comments indicate that academic integrity and the quality of online courses continue to be issues of concern for employers; however, several participants indicate that online education is a good opportunity for the "right" students. A few participants concede that they lacked familiarity with online coursework, and that, if they had been more knowledgeable about the online format, it could have impacted their responses.

⁹ Due to the uneven distribution of participants between the experimental groups (those with online education experience and those without online education experience), the power of parametric testing is somewhat compromised (Faul, Erdfelder, Lang, & Buchner, 2007), with an average coefficient of 0.7. As a counterbalance to the results of parametric testing, Mann-Whitney nonparametric tests were conducted for Hypotheses 6a, b, and c. The results of the nonparametric tests mirror those of the parametric tests; that is, for each dependent measure reported in Table 3, Panel F, a comparison of the median values between experimental groups in the nonparametric tests produces equivalent results in terms of significant and insignificant differences. The only exception is that the nonparametric test for the ability of online education to impart team-building skills produces an insignificant difference between groups, whereas a significant difference is produced in the parametric test.

Table 4 Exemplars of open-response comments regarding online accounting education.

Category	Representative examples
Soft skills	Technical, oral, written communication and team collaboration skills are all important. These interpersonal skills are difficult to learn in an on-line environment. The online education process denies the individual the interpersonal skills necessary to effectively excel in a business environment. Communication is not just the words we speak, but also body language, tone of voice, etc. This seems to be missing in an online education. I do not believe all skills – communication, analytical, and team building – can be effectively learned in a totally online environment.
Integrity/ quality	How can I determine if the online student was the person that completed the program? With what I hear about cheating in colleges, I think the online program provides a great opportunity to have someone else do the work. The classroom experience provides a much better opportunity to learn. I believe that it is possible for accounting courses to be taught effectively online under the right circumstances (a motivated student, an engaged and engaging instructor and a high quality curriculum). However, my perception is that, generally, a traditional classroom makes for a richer educational experience. I think the face-to-face interaction between instructor and student and among students is invaluable.
Familiarity	Online education was not an option when I graduated, so my understanding of what is offered is somewhat limited. Perhaps as an employer, I am the one who needs to be educated on the benefits of an online accounting education. Most of the online courses and webinars I have attended did not give me the interaction that I needed to learn the information I needed to do my job. I am trying to keep an open mind about an online education, but the interaction in class is an integral part of learning, in my opinion.

5. Summary and conclusions

Evaluating the perceptions of employers regarding their acceptance of online accounting degrees becomes increasingly important as the number of graduates with an online degree continues to surge. The present study considers the impact of several factors on employers' decision to hire, including the educational environment (traditional, hybrid, or online) in which a job applicant completed a degree, the type of mixed educational environments between undergraduate and graduate coursework, the attainment of a second, online baccalaureate degree in accounting, the reputation of the institution in which the applicant obtained a degree, whether or not the accounting program attended by the applicant was AACSB accounting accredited as well as business accredited, and the familiarity of employers with online coursework. As suspected, employers still prefer that applicants obtain a degree in a traditional, or face-to-face, educational environment as opposed to in a hybrid or online environment. Results do not support the supposition that employers prefer applicants to have completed their undergraduate degree on campus (i.e., in a traditional environment) and their graduate degree online instead of the opposite scenario; employers are indifferent as to which degree was obtained online, and did place a premium on the attainment of a second degree. The prediction that employers will favor an applicant with a second, online baccalaureate degree in accounting, and some work experience, over a newly-minted online graduate is also upheld.

In addition to factors dealing with coursework, study results indicate, as predicted, that institutional reputation is significantly more important than the type of educational environment from which a graduate emerged in the hiring decision. However, contrary to expectations, an institution with AACSB accounting accreditation does not appear to invoke a perception of superior reputation over an institution with only AACSB business accreditation. Finally, the study predicts and results demonstrate that employers who are familiar with online education (i.e., completed at least one undergraduate or graduate course online) are not only more willing to extend an offer of employment to an online graduate, but perceive online accounting education as more rigorous than those potential employers who had never taken an online course. As a corollary, those employers with online educational experience also perceive the online educational environment as better able to provide students with soft skills (the comparison for technical skills demonstrates an insignificant difference between the two groups). These results are provided with the caveat that even those employers with online coursework experience find soft skill sets virtually unattainable in an online environment.

The results of the present study have several implications for education stakeholders, including students, faculty, administrators, and practitioners. Under the assumption that a student's primary goal is to be attractive to potential employers, study results reaffirm the previously-attained conclusion that a traditional, on-campus accounting degree remains most attractive. However, room is being made for the incorporation of online education along several fronts. Students interested in pursuing more than one degree are at an advantage over students pursuing only one degree, and completing one of the two degrees in an online educational environment appears to be an acceptable course of action.

This suggests that potential employers prefer that job applicants experience a quintessential college environment in at least one stage of their academic career. Presumably, this preference may hinge upon an applicant's attainment of soft skill sets (i.e., oral and written communication, team-building, etc.), which, from the employers' point of view, are virtually unattainable in an online educational environment. Attaining soft skill sets continues to be a chink in the armor of newly-minted accountants, and according to Baysden (2013), organizations are providing more training programs to alleviate the deficiencies. Once attained, the online student may be looked on favorably along several lines. According to Grossman and Johnson (2013), employers may perceive online graduates as adept with time management skills, highly self-disciplined, and technologically savvy. Such perceptions are borne out by the free-form comments provided by study participants, some

of which posit that online credentials show initiative, increased exposure to technology, and well-developed research skills. Concurrently, a student with a previous online undergraduate non-accounting degree, with relevant work experience, need not necessarily return to a traditional educational environment to complete a second undergraduate degree in accounting. Employers may consider on-the-job experience as a substitute for desirable skills gained in a traditional educational environment.

Accounting faculty and administrators may also discover some enlightening information from study results. Faculty members, as student advisors, should be aware of the growing acceptability and applicability of online education as it relates to their advisees' academic career. For example, employers appear unconcerned that non-accounting coursework is completed in an online educational environment. Online education developers should thoroughly evaluate the rigorousness of their online program, because if rigor in the online coursework begins to wane, the quality of the institution's graduates will diminish, culminating in an unfavorable perception of institutional reputation. Further, developers should attempt to strengthen, to as much an extent as possible, the inclusion of student interactivity in the online environment.

Both faculty and administrators should observe that separate accounting accreditation, while rated as important, is rated as less important in the hiring decision of potential employers in comparison to business only accreditation. This suggests that employers do not place a premium on the attainment of accounting accreditation, and therefore its impact on institutional reputation may not be as effectual as believed. Further investigation is warranted to determine if accounting accreditation is not fully understood nor appreciated by potential employers, or if, with full understanding, they choose to value business accreditation more highly.

Insofar as the study implications for practitioners, they should recognize that the acceptance of online education is on the rise, especially as more of their ranks are exposed to online education themselves. Perhaps the familiarity of employers with online educational experience skews their perceptions of true rigor in the online educational environment. Or, such employers are assuming that institutions of higher learning will become more adroit with implementing online education. If that is the case, perhaps employers should consider their expectations when it comes to the soft skill sets attainable at an institution of higher learning and retool their own training methods.

Practitioners may also want to consider, or reconsider, any impact that separate accounting accreditation of an institution's accounting program may have on their hiring process. For instance, accounting accreditation standards are comprised of, apart from business accreditation standards, a standard for information technology skills for accounting graduates (Krom & Buchholz, 2014). Since recruiters presumably maintain a relationship with faculty and administrators, a clearer message regarding the perceived value of accounting accreditation might prove fruitful.

6. Limitations and future research

The results of the present study are subject to several limitations. Foremost, study participants are located only in the state of Kentucky which may lessen the applicability of results to other geographical sectors; concordantly, study participants are drawn from mostly local and regional firms. Secondly, the pool of study participants who have any experience with online coursework is somewhat limited; however, the pool was ostensibly sufficient to conduct statistical analyses. In addition, the instrument did not require participants to specify what type, or types, of online coursework they had completed. This forgoes an examination of the impact of online course type (i.e., coursework in accounting, business, or humanities) on the potential employer's willingness to hire an online accounting graduate. Third, the job applicant's description was purposefully limited, and did not include certain factors that may impact employer perceptions outside of educational environment (e.g., prior accounting-related experience). Finally, for the educational environment wherein exams are administered online, no distinction is given as to whether they are proctored or not proctored (presumably, study participants assumed the latter, but this cannot be definitively determined).

Many possible future research opportunities exist. Comparisons might be made among potential employers from various states. A more in-depth analysis of the value employers assign to AACSB accounting accreditation is warranted from the present study's results. Finally, other attributes of job applicants, such as an accounting internship or passing one or more parts of the CPA exam, might be examined in conjunction with educational environment.

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