

## An Evaluation of Employers' Acceptance of Online Degrees: A Perspective of the Ghanaian Employer

ADJEI BUDU KENNETH WILSON<sup>1</sup>

School of Management and Economics  
University of Electronic Science and Technology of China

MU YINPING<sup>2</sup>

School of Management and Economics  
University of Electronic Science and Technology of China

OWUSU ACKAH<sup>3</sup>

School of Management and Economics  
University of Electronic Science and Technology of China

### Abstract:

*The central theme of this study is to examine which factors influences employers' perception of online certification and degrees. The rapid increase in individuals enrolling in online education in recent times serves as a motivation for this study. Addition, there exists a gap in current literature as to which factor contributes to employer acceptance of online certification as compared with the factors that motivate individuals to seek online education. In our effort to fill this gap in research, we hypothesized that the credibility of the institution,*

---

<sup>1</sup> ADJEI BUDU KENNETH WILSON is a PhD candidate at the University of Electronic Science and Technology of China (UESTC). His research focuses on the integration of technology through curriculum development for face-to-face and online learning, the development of virtual learning environments and E-learning; Mobile technologies in the classroom. Contact: [kenbudu22@yahoo.com](mailto:kenbudu22@yahoo.com)

<sup>2</sup> MU YINPING is a Professor of Management Sciences and E-commerce at University of Electronic Science and Technology of China (UESTC). Research Interest: Revenue Management, Supply Chain Management, Pricing Theory, Interface of Operations Management and Marketing/Finance. Contact: [ypmu@uestc.edu.cn](mailto:ypmu@uestc.edu.cn)

<sup>3</sup> OWUSU ACKAH is a final year PhD candidate at the University of Electronic Science and Technology of China (UESTC). His research interests are Organizational studies, Information Systems and Business Administration. Contact: [ackah\\_owusu@yahoo.com](mailto:ackah_owusu@yahoo.com)

*information quality, and actor interaction had a positive impact on employer perception of online certification or online degrees. The partial least square structural equation modelling approach is adopted to test the empirical relationship between the various variables and the dependent variables. In addition, the t-statistics is used to test the hypothesis. Although the r-square shows a significant relationship between the latent variables examined and employer acceptability of online education and certification, it can be deduced that the effect of the credibility of the awarding institution is deemed to be much significant as compared to information quality and students interactions and collaborations. The result obtained from this study suggest that it is incumbent on individuals that plan to enrol in E-learning or online degree programs consider the credibility and reputable of institutions awarding the degree. The finding of this study is expected aid instructors as well as higher education providers in structuring degree programs that will guarantee graduates of enough and successful employment opportunities after their studies, in terms of its information or content quality. This will to a larger extent increase their chances of gaining employment after graduation.*

**Key words:** E-learning, Online Degree, Employer Perception, Partial Least Square, Institutional Credibility

## **INTRODUCTION**

The rapid growth, development, and adoption of information communication and technology tools and mechanisms have transformed the manner in which organizational activities are conducted in past decades. These changes have uttered the nature of most organizations including the educational sector. Organizational structure, culture and business models have seen significant changes as a result of the development of ICT integration in organizational activities. Addition the need for higher educational institutes to catch up to new markets in a relatively cost-effective manner as compared with the setting

up traditional university campus in spatial locations has given birth to an education era known as education 2.0 or electronic learning (E-learning). E-learning can be defined as a vibrant and an instant mode of learning through the use of internet to increase the quality of learning by providing learners with accessibility to technologies and services, coupled with distant exchange and teamwork. (Docimini & Palumbo, 2013; Jeong & Hong, 2013). The introduction of E-learning principles, mechanisms and strategies has enabled universities or institutions of higher learning, mostly, to present individuals with an alternative or complementary mode of learning (Bates, 2001). With E-learning, learners have increased access to quality programs and are always connected to teachers and colleague students. Students may also benefit with the advantage of having the opportunity to interact will fellow students, participate in online discussions which are considered to be more inclusive and productive as compared to lecture room debates which provides relatively less opportunity for participation.

E-learning has been seen as an opportunity for people all categories of learner to keep up with the transformations in the global trend of knowledge acquisition, particularly in this modern era of internet. It comes with a host of advantages such as being economical, flexible, and easy to deliver without the constraints of time and distance (Carey & Blatnik, 2005). Thus, E-learning is considered as an attractive alternative and complementary educational delivery system to the existing conventional form of knowledge delivery in both developed and developing economies. A study conducted by Columbaro & Monaghan (2009) revealed that a growing number of people were seeking various online degrees in undergraduate, graduate and post-graduate programs in 170 accredited institutions of higher learning in the United States of America. Furthermore, the growing trend in E-learning has made this

educational model an alternative training and development stream (Mihartescu et al, 2010).

Although electronic or computer-networked mediated learning has been an acceptable medium of educational delivery in most developed countries, it can be seen that most developing countries are undertaking various forms of initiatives to integrate this innovative educative instruction strategy into their mainstream educational systems. This is influenced and facilitated by the rapid penetration of information telecommunication technology (ICT) and internet usage in developed, emerging, developing economies. According to Ambient Insight's 2011-2016 forecasts, the growth rate for self-paced E-Learning in Africa is 15.2%. Revenues reached \$250.9 million in 2011 and will more than double to \$512.7 million by 2016. E-learning is believed to have huge potential for governments struggling to meet a growing demand for access to education while facing an escalating shortage of teachers (UNESCO, 2006). International NGOs and other developing partners continue to support the integration of ICT across all levels of education across developing countries, in particular, with increased funding and direct involvement and deploying learning technology in their educational systems. For example, in January 2012, the African Development Bank approved a \$15.6 million grant, to help strengthen the capacity of the African Virtual University. As of 2012, it had 31 active higher education partners across Africa. It also intends to use the new funds to develop 12 new E-Learning centres across Africa.

Another factor influencing the increased enrolment in online education is the demand for continuous learning and development of employee skills by organizations in this era of continuously changing business environment, coupled with macroeconomic factors requiring organizations to be competitive and to be able to withstand the growing

competition and changing business dynamics. Since employees serve as the lifeline of organizations, there is the need for a continuous improvement of employee skills to augment their human capital. Because a more competent set of employees impacts positively the performance of any organization, thus, mitigating risks (D'Aveni et al., 2010; Ferrell and Hartline, 2011; Marsh, 2014). In another dimension, new entrants or individuals who seek employment needs to have adequate set of skills and knowledge, due to the fact that current dynamics in the business and organizational structure calls for a new breed of a workforce capable of holding the forth towards economic growth and transformation in all sectors of an economy.

To enhance their competitiveness and employability on the job market, higher educational graduates must possess four specific attributes namely; personality, metal-skill, intellectual and job-specific, according to Finch et al (2016). Their study further proposed that these personal attributes must be combined with integrated dynamic capabilities to enhance the above-mentioned individual attribute. Also, a survey conducted by Hart Research Associates in 2010 to suggests that 91% employers are expecting their employees to take on one or more responsibilities and to use a broader set of skills than in the past, 90% expect that employees work harder to coordinate with other departments that in the past, 88% agrees that for them meet its target objectives, employees needs higher levels of learning and knowledge to enable them to meet the ever increasing complexity of issues confronting them in the workplace.

However, despite the seemingly growing trend of E-learning, the current body of literature or knowledge focuses mostly on E-learning adaptation and acceptability of electronic learning by individuals and other stakeholders, with relatively little focus being placed on the outcomes of the certifications of the various E-learning initiatives. There is the need to focus on

factors that affect employers' perception and acceptability of online or E-learning programs degrees. A study by the Cleveland State University in 2009 established that human resource managers are increasing having negative perception of online degrees due to the existence of unaccredited institutions known for offering and awarding degrees to "anyone with a full wallet". A study by Raj and Alawneh (2010) suggests a general perception among employers, parents, and students that on-campus degrees are preferred to off-campus due to diverse reasons such as real face-to-face experience, interaction between students and students and students and instructors, and the accessibility to learning materials such as laboratory equipment etc. Consequently, there was a high degree of reluctance to accept distance or online education as an alternative to the conventional face-to-face mode of educational delivery. Adams (2008) revealed that face-to-face classroom experience, the reputation of the institution for rigor and mentored learning experiences where the main stumbling blocks for regarding online degrees or certificates as having the same value as classroom degrees.

Therefore, irrespective of the fact that and the overwhelming support and endorsement of E-learning by all stakeholders of higher education in most developing countries, online education may not represent a an appropriate alternative for obtaining oe safeguarding a job in the labor market (Adams & DeFleur, 2006; Chaney 2002; Levin, 1997; Russell, 2004; USU, 1999). Richard Bayer chief operating officer of the Five O'clock Club, a national career counseling, and job placement firm based in New York, "advises clients not to mention it if they earned degrees online because such degrees are often seen as less prestigious" (Russell, 2004).

This study intends to investigate employers' perception towards the credibility of degrees that are earned through online instructional mode of educational delivery and to gain an

insight into what they perceive as the factors influencing the acceptability credibility and acceptability of online or E-learning degrees. In other words, to what extent would an organization accept and employ graduates from online accredited programs as compared to graduates from the conventional classroom or face-to-face mode of delivery. This would enrich both individuals' and organizations' understanding, and have them adequately informed with regards to making relevant decisions in relation to either the pursuance of online degree on the individual's side and acceptance of an employee with online certification on the part of the organization.

It is imperative to note, that the system of institutions of higher learning are somewhat complex where one side may not know what the other side is doing at a particular point in time. Promoters of E-learning mode of learning may not be the exact group of people raising questions about how it's done. Higher education providers know that the effective delivery of E-learning programs demands sophisticated approaches and designs (Hara, 2000; Motteram & Forrester, 2005). Therefore while higher education institutions endeavor to offer more programs through E-learning, This study perceive employers from all sectors of the economy have a different perception of have degrees earned through E-learning or online as compared to those that earned through the conventional face-to-face mode of teaching and learning. Four contributors strike me as playing a part in creating this image.

The study is conducted in Ghana to examine the perception of employers or organization about online degrees certification and their employment propensity. The choice of Ghana emanates from the fact that it is developing country that has witnessed a rapid increase in the adaptation of internet usage and a growing number of accredited as well as unaccredited online degree awarding programs, from the

bachelors level to as high as doctorate. Aside from this study contributing to the growing body of knowledge in the field of online or E-learning, it enables researchers to have a deep insight and understandings of organizational perception of online certification in an emerging or developing economy with its associated complex socio-economic dynamics. The remainder of the study is arranged as follows, section 2 discusses the theoretical background and hypothesis of the study, section 3 focuses on the research design and methodology of the study, section 4 focuses on the empirical analysis and section 5 discusses findings of the empirical study and conclusion.

## **THEORETICAL BACKGROUND AND HYPOTHESIS**

### **Credibility of Awarding Institution**

Institutions awarding offering programs through E-learning or online have become increasingly popular over the past few years, much to the dismay of many academics (Barr & Miller, 2015), though there have been questions regarding the integrity of these institutions. This apprehensiveness is caused by the bad reputation, apparently, these for-profit online institutions have acquired from their unethical practices including; inappropriate marketing practices, exorbitantly high tuition fees, extremely-exceptional student outcomes, and high loan default rates (Barr & Miller, 2015; Rosenthal, 2012; Monsters, 2010). According to (Adams, 2008; Ezell & Bear, 2005; Karl & Peluchette, 2013 yet to cite ), employers are skeptical about the reputation and credibility of online degree awarding institutions, and raised concerns that has to do with diploma mills generating fraudulent degrees

Some researchers admit that this negative image of E-learning or online degree awarding institutions does not portray and depict an entire picture of institutional quality (Barr & Miller, 2015; Blumenstyk, 2008). This argument is

supported by Schulte et al (2012), who believed that each online degree awarding institution is unique and, therefore, cannot be judged as part of a group. According to Barr and Miller (2015), online institutions are uniquely placed to approach the learning process from a technological perspective. They believe that online degree awarding institutions have an unprecedented access to various technological modalities that does not only enhance learning but surpass traditional institutions in terms of quality. This is because, online degree awarding institutions devote time and energy into creating a strong sense of community among their online learners through the use of connectedness, interdependence, and socialization because they understand that connected students are satisfied and committed set of learners. (Barr & Miller, 2015). Most significantly, there should be a national and institutional policy framework and practices that ensure that the guiding principles of E-learning implementation are strictly adhered to. This will guarantee the integrity and the credibility of the institution and that awarding of online degrees or certification is not compromised. For instance, stakeholders of E-learning or online learning environments needs specialized policies that are geared towards training, mentoring, and evaluating human resources readiness in terms of motivations, attitudes, resistance and skills required in providing E-learning. With respect to human resources readiness, Machado (2007) suggested that before the adoption of E-learning, it is imperative to appreciate the actors or stakeholders' vision, their abilities in implementing policies and strategies that inform E-learning implementation. The policies and strategies would be expected to legitimate the capacity of E-learning participants in terms of motivation. Therefore, the existence of a institutional policy framework marries into how credible an institution is, or has to implement E-learning and subsequently awarding degrees. Thus, the perceived credibility of an awarding

institution, value and credibility of employers and other stakeholders of an online learning environment is always of a critical concern.

Shelton (2008), whose focus was on the evaluation of quality online programs, reviewed 13 different articles and studies on quality evaluation of online education programs, revealed that institutional commitment, support, and leadership was the most cited when determining the standards for online programs and degrees. In examining factors that influenced the acceptability of online degrees, Adams (2015) provided evidence to the effect that the credibility of the institution where the degree is earned would determine its acceptability

In addition to enhancing a positive perception of the credibility of the online degree awarding institution, accreditation or the existence of a regulatory authority responsible for monitoring the online education delivery industry must be of prime concern to all stakeholders in education. Benson (2003), in exploring the different aspects of quality that employers consider when evaluating the credibility of an online degree program revealed the quality of accreditation was significantly linked with the quality of an online program. Therefore, to ensure quality assurance and credibility of higher educational institutions awarding degrees or offering courses through E-learning in the United States, there has been the creation of regional accreditors and discipline-specific accreditation organizations such as the Association to Advance Collegiate Schools of Business; responsible for business programs, and the National Council for Accreditation of Teacher Education for education programs and teacher certification in the United States of America. These monitoring and supervisory organs undertake these appraisal and assessment processes using different forms of criteria and benchmarks such as the online degree awarding institution's

self-study report, which demonstrates that established standards such as faculty credentials, financial capability, student satisfaction, and the achievement of learner outcomes) have accomplished. The accreditation bodies have guidelines and standards for evaluation of distance education programs (Howell, Baker, Zuehl, & Johansen, 2007). However, in some cases, there is a lack of public awareness of regulatory bodies assessments reports from accrediting bodies and the variation of standards within a country and across nations are a collective quality assurance concerns. A distance education program that receives an unfavorable review can simply move to another location. Jung et al (2012) report that Distance education in the Sub-Saharan Africa and New Zealand have no or a limited number of regulatory bodies for quality assurance. Perceptions of the quality of institutions offering E-learning courses and consequently awarding degrees to a larger extent affects employer's decision in relation to employing individuals with online certification. This trend, therefore, calls for an urgent need for positive image building by institutions to gain the needed trust and respect. This will increase individual employment propensity and also enhance the patronage of these various educational institutions running E-learning or online degree programs. Based on the literature above, the hypothesis 1 is formulated;

*H1: the perceived credibility of online degree awarding institution influences the acceptability of online certification by a prospective employer.*

### **Information Quality**

The quality of instructional course content which is transferred through the course management system of an E-learning program is a relevant indicator of the richness of information and knowledge transferred in the medium. Course content quality is considered as the extent to which course content

management systems are provided with valuable content, concerning defined needs of learners. (Adeyinka & Mutula, 2010). Bernado (2004), also in his study identified enriched content, as one of the positive attributes of online learning when examining attitudes towards E-learning courses for medical students in UNIFEST, Brazil.

Measures of information quality are made up of the completeness, easiness of understanding, security, personalization, timeless, availability, relevance and format of course content of an online degree program delivered through an E-learning management system. Studies previously conducted have indicated that information quality has a positive influence on perceived usefulness and value and credibility of E-learning systems outcomes; That is, certifications that are awarded through these programs (Chen, 2010; Cheng; 2012). Thus the quality of course content is significantly influential on the perception users of E-learning programs have, and subsequently accepting E-learning systems. The process of ensuring an acceptable and standardized level of information quality coupled with competent curriculum developers and instructors of an E-learning or online program is taken seriously in order to guarantee that students obtain maximum outcomes from such programs. Furthermore, instructors or faculty with a positive reputation among industrial players influences the perception of employees and organizations about the quality of information disseminated through a particular online degree awarding institution (Collis, 1995; Arbaugh, 2000; Khan, 2005; Selin, 2007).

Aside the richness of course content and expertise of instructors and faculty, one essential factor is the relevance of the course offered to the corporate and industrial world. The relevance of course and training programs offered is essential if organizations will accept the certificate issued or awarded out

by these institutions (Hannerman & Gadner, 2010; Koc & Koncz, 2009; Koc, 2010).

Based on the above, hypothesis 2 is formulated;

*H2: The richness of online training program content influences the acceptability of online degrees or certification by prospective employers.*

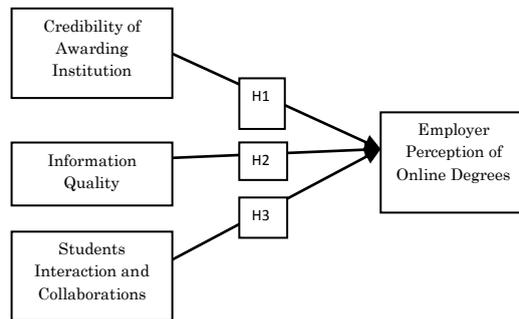
### **Students Interaction and Collaboration**

Keith et, al (2012) in their assessment of quality for E-learning; using the benchmarking approach, stressed that E-learning or online learning must extend modern and current ways of building communities and supporting communication between teachers and students, and between students and their colleagues. Learner-learner and learner-teacher interactions are cardinal and fundamental elements of E-learning in a higher education delivery context. There is growing amount of agreement and acceptance among experts that effective learning is done through dialogue, exchange and collaboration with other actors in the educational web. Collaboration and social learning is progressively being integrated in E-learning environments (Lee & McLoughlin, 2010; Perry & Edwards, 2010). Learners who are not connected geographically can be linked and interact with their colleagues students as well as teachers in real times or within a linked virtual space to share ideas, cooperate, collaborate on assignments, holding discussions, and experience the offer of guidance through the utilization of various ICT and multi-media tools (Anderson, 2008). Addition, (Khan Academy, 2014; Agarwal, 2009) reveals that adaptive assessment technologies are toiler-made to suit learning content, taking into consideration learners' and their interactions with the learning environment. Obviously depicts a significant improvement and advancement from the conventional face-to-face mode of learning and teaching.

Various literatures have identified major influencing factors affecting employers' perception of degrees that are

earned through E-learning or online learning environments. One of these major concerns by employers is the perceived lack of interactivity (Adams, et al., 2012; Karl & Peluchette, 2013). In most cases, employers or job recruiters are of the opinion that degrees that are awarded through E-learning or online lack social interactions and contact with other participants in the educational web such as students, instructors and administrators (Adams, et al., 2012; Columbaro & Monaghan, 2009, Karl & Peluchette, 2013; Seibold, 2007). Their studies believed ICT tools are not adequately applied in most E-learning environments, and the perception that there is reduced teamwork in online learning environments. Furthermore, classes conducted online do not provide the opportunity for learners to be exposed to team-working as compared to face-to-face interactions amongst actors of teaching and learning. Interactions between students-students, and students-teachers are limited or non-existing; though academic outcome achievements could be equated to campus-based learning environments. Certain aspects of educational involvements such as social interactions and the possibilities for networking is considered to a larger extent limited in E-learning since most certifications are based on papers and writing. Berg (2002), claims that despite the increased use in E-learning, critics have expressed the view that it does not promote interaction between student and instructor and student and student. When online degree awarding institutions are able to provide an enabling environment, it fosters and creates a knowledge pool. It further eliminates the perception of isolation associated with online education as compared to traditional institutions of higher learning (Ellison et al, 2011; Buike & Lento, 2010; Khan, 2005; Selin, 2007). Based on this, hypothesis 3 is formulated;

*H3: the continuous interaction between actors in the online education ecosystem influences the acceptability of online certification by prospective employers.*



**Figure 1. Research Model**

## **RESEARCH METHODOLOGY**

This section of the study discusses the research method used for the study. To explore the research question, the mixed methods methodology was used. A mixed method is an approach that combines quantitative and qualitative methods (Tashakkori & Teddlie, 2009). The choice of these methods would enable a thorough examination of the research hypothesis of the study. Data was collected from both primary and secondary sources in a chosen geographical location in Ghana. Because the research question is associated to labour economics, a discipline in social science, the study is intended to efficiently examine both the generality and more specifically views of employers on online degrees and certifications.

### **Data Collection**

The study conducts an empirical analysis to investigate factors identified to be influencing the decisions of employers and organization in relation to the perception and acceptability of online degrees or certification in Ghana. A field survey was used to gather the general reactions from a cross-section of respondents in the Tema industrial area of the greater Accra region of Ghana. Employers requiring employees with a

bachelor's degree were the population of interest for the study. This included HR managers, human resources personnel, and job recruiters from diverse sectors of the Ghanaian economy. The criterion for involvement or participating in the survey was direct participation engaging and employing new employees or promoting existing employees for jobs that required a bachelor's degree. Direct participation in this context was reviewing resumes or job applications, short-listing for interviews, interviewing, short-listing for examinations or tests, marking examinations or tests, making recommendations for selection, or making final decisions on hiring or promoting employees. Partaking in any of the above activities qualified a person to be part of the study. The study selected participants based on availability and convenience (Henry, 2009), as well as through personal referral, snowball method.

The reason behind the selection of the above mentioned category of individuals as respondents is due to the fact that these individuals happen to be the first point of call for employee search and employment. In order to collect the relevant data, initial contact was made with managers of firms through an electronic mail in September 2016. The content of the email explains the objective and significance of this study and how it benefits their respective firms. A total of two hundred (200) electronic emails were sent out. After a period of time, we received feedback from one hundred and sixty (160) respondents. Upon receiving the feedback, questionnaires were sent out to these respondents by the researchers. In a period of four (4) months, a total of one hundred and sixty-four (164) complete questionnaires were returned, comprising an 82 percent response rate of the total questionnaire sent out. Accordingly, this suggests that there was a high return rate and also an indication of the enthusiasm of respondents to participate in this study.

## **DATA ANALYSIS**

Empirical analysis provides the needed statistical value for ascertaining the relationship between the dependent and independent variables. In doing so, Structural equation modeling (SEM), which is a statistical technique for testing and examining causal relationships in collaboration with statistical data and theoretical causal assumptions utilized in this study. This is due to the fact that researchers realise the chances of differentiating between measurement and structural models, therefore, the need to clearly consider measurement error into consideration (Henseler et al, 2009). The partial least square structural equation model (PLS-SEM) approach is adopted to test the stated hypothesis. The choice of partial least square technique is based on its merits over conventional covariance-based structural equation; (a) not requiring a normal data distribution, (b) the minimum sample size must be 10 times the largest number of structural paths directed to a particular construct in the structural model (Chin, et al 2003). In this study, the sample size is 160 respondents consisting of HR managers, human resources personnel, and job recruiters from different sectors of Ghana's economy, therefore, fulfilling this key requirement. In order to conduct the partial least square structural equation model, the study used the SmartPLS statistical software to examine the relationship. Table 1, examines the measurement model in order to assess internal consistency, indicator reliability, convergent validity, and discriminant validity. Subsequently; figure 2, which is the path model test the relationship between the latent variable and dependent variables, and table 2. is the t-statistics adopted to test the hypothesis formulated.

**Table 1 . Summary of Measurement Scales**

Construct	Items	Loadings	Indicator Reliabilities	Composite Reliability	Cronbach's Alpha	AVE	Discriminant Validity?
Credibility of	CAI1	0.344	0.118	0.872	0.594	0.806	YES
Awarding Institution (CAI)	CAI2	0.902	0.813				
	CAI3	0.824	0.678				
	CAI4	0.868	0.753				
	CAI5	0.777	0.603				
Information Quality (IQ)	IQ1	0.880	0.774	0.917	0.787	0.863	YES
	IQ2	0.906	0.820				
	IQ3	0.875	0.765				
Students Interactions and Collaboration (SIC)	SIC1	0.689	0.474	0.802	0.505	0.703	YES
	SIC2	0.804	0.646				
	SIC3	0.641	0.410				
	SIC4	0.698	0.487				
Employer YES Perception of Online Degrees (EPoD)	EPoD1	0.774	0.599	0.839	0.835	0.713	
	EPoD2	0.788	0.620				
	EPoD3	0.828	0.828				

## Empirical Analysis

This section of the study presents the empirical findings of the structural equation model performed. The first section presents the demography of the respondents. The second section discusses the reliability and validity of data acquired through the field survey conducted. The reliability and validity test serves as the basis to conduct further analysis such as the path estimation and bootstrap t-statistics to examine the hypothesis of the study.

## ASSESSMENT OF THE MEASUREMENT MODEL

### Reliability and Validity

According to Bhattacharjee (2012), reliability and validity, which are collectively referred to as the “psychometric properties” of measurement scales are the yardsticks in which the precision and adequateness of the measuring procedures of scientific research are assessed and judged. It is therefore essential to test the reliability and validity of data used in examining the formulated hypothesis. Bhattacharjee (2012) further stated that, it’s not adequate just to measure social

science variables or constructs using any scale of the researcher's choice or preference. However, there is the need to ensure that these scales indeed measure the unobservable construct that the study wants to measure, that is, the scale are "valid". Again, there is the need to check that these scales measure the intended variable of construct consistently and precisely, that is, the scales are "reliable". In doing so, the study conducted both composite reliability and discriminant validity test. Table 1 predicts that item reliability is above 0.70 (Hair et al., 2013). This means that all items are equally reliable and shows discriminant validity and exhibits discriminant validity and convergent validity. It further shows that all items converse and share the high proportion of variance. In order words, the constructs explain more than 50% of the variance of their indicators.

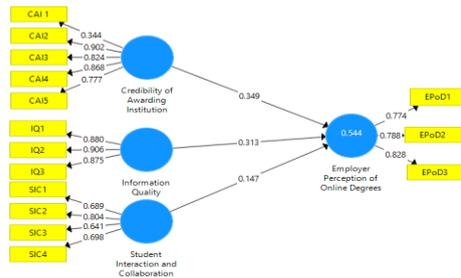
The validity shows that each is imperially difficult from other construct, indicating that each indicator is associated with only one construct. The Fornell-Larcker Criterion is used to authenticate the constructs by relating the square of the Average Variance Extracted (AVE) with the outcome of the latent variable correlation to access the discriminant validity (Fornell & Larcker, 1981). The rationale behind this criterion is that a construct share more with its associated indicators than with any other constructs. An AVE value of at least 0.500 shows that a construct is averagely able to expound more than 50% of the variance of its indicators thus must be deemed to exhibit enough convergent validity (Fornell & Larcker, 1981). Table 2 depicts that assessment, by showing that the entire construct in the model are validated, therefore, scales of different or divers constructs differ from each other. Consequently, the measurement model is reliable and all the items have convergent validity; hence, the latent variables of the model; that is, credibility of awarding institution, information quality, students interactions and collaborations

and employer perception of online degrees and appropriately represented by all the questionnaire items, confirming the reliability and validity of the measurement model by PLS.

**Table 2: Fornell-Larcker Criterion Analysis for Checking Discriminant Validity**

Variables	Credibility of Awarding Institution	Employer Perception of Online Degrees	Information Quality	Students Interactions and Collaborations
Credibility of Awarding Institution	0.771			
Employer Perception of Online Degrees	0.700	0.797		
Information Quality	0.764	0.682	0.887	
Students Interactions and Collaborations	0.698	0.585	0.621	0.710

**Figure 1: Path Estimation Result**



## Assessment of the Structural Model

In this section of the study, we present the result of the path analysis conducted to examine the empirical relationship between the various independent variables and the dependent variable. In order to understand the relationship between these set of variables, the path coefficient is used as the unit of measurement. In addition, the R-square value is used to examine the collective impact of degree awarding institutional credibility, information quality and actor interaction on employer perception of online degrees or certifications. This is

indented to help us predict what factors influences employers perception of degrees that are earned through E-learning programs or online learning, and what factors that influences an employer's decision to accept an online degree or certification.

According to the path estimation result in figure 1 above, the latent variables examined to some extent influences the employer acceptability of online certification and E-learning mode of educational delivery as a whole. The r-square obtained is 0.544; slightly higher than the accepted threshold of 0.5 proposed by (Bhattacharjee, 2012). This indicates the percentage variance of the study as well as specifying the predictive power of the model. Although creditability of degree awarding institution, information quality, and actor interactions serve as enablers for employer perception and acceptability of online degrees and certifications, it can be seen from the path coefficient that each variable had a distinct relationship with employers' perception, thus, offering the highest value of 0.349. The second impact factor or effect on the latent variable is information quality. This is depicted from the path coefficient between information quality construct and employer perception of online degrees construct, with a path coefficient of 0.313. Student's interactions and collaboration had the lowest path coefficient; that is, 0.147.

## **HYPOTHESIS AND DISCUSSION**

Two of the hypotheses are empirically supported by employer perception of online degrees. The rejection or acceptance of the hypothesis was conducted through PLS bootstrapping to obtain the t-statistics. The bootstrap is a demonstration of nonparametric method for assessing the precision of PLs estimates. It gives a random sample of data as a substitute for the population and resamples from an indeterminate number of

times to generate sample bootstrap estimates and standard error (**cite**)

A threshold of 1.96 or more is set as the benchmark to either accept or reject a particular hypothesis. This is going to form the basis or foundation for which the discourse on the findings of this studies going to be based.

**Table 3: T-test**

	Original sample	Sample Mean	Standard Deviation	T-Statistics(IO/STDEVI)	P-Values
Credibility of Awarding Institution	0.349	0.346	0.110	3.170	0.002
Employer Perception of Online Degrees	0.313	0.307	0.114	2.750	0.006
Students Interactions and Collaborations	0.147	0.147	0.098	1.496	0.135

**Table 4: Hypothesis**

Variables	T-test value	
Credibility of Awarding Institution → Employer Perception of Online Degrees	3.170	Supported
Information Quality → Employer Perception of Online Degrees	2.750	Supported
Students Interactions and Collaborations → Employer Perception of Online Degrees	1.496	Not Supported

## DISCUSSION

An analysis of the results above suggests that employers are particularly concerned about the reputation and pedigree of the institution offering online courses and the subsequent award of a degree. In assessing the credibility of the institution, employers looks at it accreditation status as the first step to identify if a particular institution conforms with laid down requirements such as legal status, human resource among others. The rationale being that institution that follows rules and regulations has a high probability or the propensity of producing capable human resource or workforce that is disciplined, professional and capable of increasing productivity.

This is synonymous to the findings of Shelton (2008), whose focus was to evaluate of quality online programs by reviewing 13 different articles and studies on quality evaluation of online education programs. His study revealed that institutional commitment, support, and leadership was the most cited when determining the standards for online programs and degrees. Adams (2015) also provided evidence to the effect that the credibility of the institution where the degree is earned would determine its acceptability. In other words, a good brand name and adhering to institutional and industrial sector norms, rules and regulation earns positive marks in the mind of the employer, therefore, leading to the acceptance of certification from such institutions. Consequently, employers consider the credibility of an online degree awarding institution as more significant, as compared to other factors such as information quality and student's interactions and collaborations.

This is contrary to other studies that viewed information quality and learner or students interactions as a critical determinant in relation to the acceptance electronic learning and its outcomes (e.g. Chen, 2010; Cheng, 2012; Ramayaha & Leeb, 2012 Wang & Chiu, 2011). Thus, this findings also differing from (Adams, et al., 2012; Karl & Peluchette, 2013), who believed that one of the major worry of employers as far as their acceptance of online degrees is was concerned, was the perceived lack of learner interactivity.

This study is of the firm belief that there is being a gradual departure of the perceived lack of individual and social interactivity that is associated with E-learning or degrees that are awarded through online mode of learning. This can be explained by the improvement in the utilization and application of ICT tools in most E-learning environments, as well as the conscious efforts to improve and increase teamwork in online learning environments over more recent years. Online learning institutions are providing an enabling environment that fosters

interaction, such integrating into their various curriculums, student industrial attachment placements. Since online programs are generally professional or vocational in nature, students ought to spend some time-off their study on placement activities in related or affiliated professional organizations. Through this form of industrial attachment, an opportunity is created for students to gain practical or firsthand experience in their field of study, thus providing opportunities for interactions and connectivity of an online program.

The study examines what factors influences employers' decision to accept online certification. The rationale behind this research emanates from the growing number of individuals seeking placement onto E-learning or online degree programs in recent times due to the improvement in information communication technology (ICT. Although, studies have been conducted on E-learning adoption and implementation, a significant number of these literature emphasizes on the factors that influence the decision of individuals to sign up or enroll in these E-learning or online degree program, ignoring the concerns and perception from industry players such as employers, who happens to be at the receiving end of the value chain of this educational instructional delivery. The findings of this study suggest that the credibility of the awarding institution is of much significance if employers will accept any form of online degree or certification. This suggests that it is incumbent on individuals that plan to enroll in E-learning or online degree programs enroll in reputable institutions that are deemed credible. This call for concerted efforts from all stakeholders to ensure that the needs and desires of employers are fulfilled, through the process of designing E-learning and online program curriculums goes to transform the employability of their graduates. Consequently, the finding of this study is expected aid instructors as well as higher education providers in structuring degree programs that will

guarantee graduates enough and successful employment opportunities after their studies.

However, it is important to note that the result of this study might differ from the perception of other key stakeholders, such as, prospective higher education students' readiness to enroll in E-learning programs or degrees that are offered online. Therefore, willingness and preparedness of prospective students to enroll in online degree programs is another research topic that merits further investigations.

## REFERENCES

1. Adams, J. (2008). Understanding the Factors Limiting the Acceptability of Online Courses and Degrees. *International Journal on E-Learning*, 7(4), 573-587. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). Retrieved April 7, 2016, from <https://www.learntechlib.org/p/24314>.
2. Adams, J., & DeFleur, M. H. (2006). The Acceptability of Online Degrees Earned as a Credential for Obtaining Employment. *Communication Education*, 55(1), 32-45.
3. Adams, J., DeFleur, M., & Heald, G. (2007). The acceptability of online degrees in the health professions. *Communication Education*. 56:3. Retrieved from [http://pilotmedia.com/adams/xPDF/HealthHiring\\_commed.pdf](http://pilotmedia.com/adams/xPDF/HealthHiring_commed.pdf)
4. Adams, J., Lee, S. & Cortese, J. (2012). The Acceptability of Online Degrees: Principals and Hiring Practices in Secondary Schools. *Contemporary Issues in Technology and Teacher Education*, 12(4), 408-422. AACE. Retrieved August 4, 2013 from <http://www.editlib.org/p/38477>.

5. Agarwal, A. (2009). Web 3.0 concepts explained in plain English. Retrieved from <http://www.labnol.org/Internet/web-3-concepts-explained/8908/>
6. Al-Furaydi, A. A. (2013). Measuring E-Learning Readiness among EFL Teachers in Intermediate Public Schools in Saudi Arabia. *English Language Teaching* 6 (7) 110-121
7. Anderson, T. (2008). Teaching in an Online Learning Context. In T. Anderson (Ed.), *The theory and practice of online learning* (2nd ed.) Edmonton, AB: AU Press.
8. Baily J., S., & Flegle D., B., A., (2012). *Online Journal of Distance Learning Administration*, Volume XV, Number II, Summer 2012 University of West Georgia, Distance Education Center
9. Barr, B., & Miller, S. (2013). Higher Education: The online teaching and learning experience. Online Submission ERIC (ED543912)
10. Bates A.W. (2001). *National Strategies for Elearning in Post-secondary Education and Training*. Paris: International Institute for Educational Planning, UNESCO.
11. Berg, Gary A. (2002). *Why distance learning? Higher education administrative practices*. Westport Connecticut: Praeger Publishers.
12. Bernardo, V., Ramos, M. P., Plapler, H., Francisco, L., de Figueiredo, P., Nader, H. B., et al. (2004). Web-based learning in undergraduate medical education: development and assessment of an online course on experimental surgery. *International Journal of Medical Informatics*, 73, 731-42.
13. Bhattacharjee, A., "Social Science Research: Principles, Methods, and Practices" (2012). USF Tampa Bay Open

- Access Textbooks Collection. Book 3.  
[http://scholarcommons.usf.edu/oa\\_textbooks/3](http://scholarcommons.usf.edu/oa_textbooks/3)
14. Campbell, J. (2002). A Critical Appraisal of Participatory Methods in development research. *International Journal of Social Research Methodology*, 5 (1). 19-29
  15. Carey, K. and Blatnik, S. (2005), "E-learning and economic development", *Turkish Online Journal of Distance Education*, Vol. 6 No. 1, pp. 22-33.
  16. Charging Course: Ten years of Thinking Online Education in the United States  
<http://files.eric.ed.gov/fulltext/ED541571.pdf> retrieved: April, 6th 2016
  17. Chen, H. (2010), "Linking employees' e-learning system use to their overall job outcomes: An empirical study based on the IS success model", *Computers & Education*, Vol. 55 No. 4, pp. 1628–1639.
  18. Cheng, Y.Y. (2012), "Effects of quality antecedents on e-learning acceptance", *Internet Research*, Vol. 22 No. 3, pp. 361–390.
  19. Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189–217.
  20. Clark, R. C., & Mayer, R. E. (2008). *E-learning and the science of instruction*. USA: John Wiley & Sons.
  21. Clark, R.C. and Mayer, R.E. (2003), *E-learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning*, Jossey-Bass/Pfeiffer, San Francisco, CA.
  22. Columbaro, N.L, & Monaghan, C.H, (2009). *Employer Perceptions of Online Degrees: A Literature Review*.

- Online Journal of Distance Learning Administration, 12(1)
23. Conkova M., (2013) Analysis of Perceptions of Conventional and E-Learning Education in Corporate Train: Journal of Competitiveness Vol. 5 (4), pp 73-97
  24. D. J. Rog (Eds.), Applied social research methods (2nd ed., pp. 283 - 316). Thousand Oaks, CA: Sage Publication Inc.
  25. D'Aveni, R.A., Dagnino, G.B. and Smith, K.G. (2010), "The age of temporary advantage", Strategic Management Journal, Vol. 31 No. 13, pp. 1371-1385.
  26. David J Finch Melanie Peacock Nadege Levallet William Foster , (2016),"A dynamic capabilities view of employability", Education + Training, Vol. 58 Iss 1 pp. 61 – 81
  27. Degrees. International Journal On E-Learning, 7(4), 573-587. Adams, J., & DeFleur, M. H. (2005). The acceptability of a doctoral degree earned online as a credential for obtaining a faculty position. American Journal of Distance Education, 19(2), 71-85.
  28. Dominici, G., & Palumbo, F. (2013). How to build an e-learning product: Factors for student/customer satisfaction. Business Horizons, 56(1), 87-96.
  29. Ferrell, O.C. and Hartline, M. (2011), Marketing Strategy, 5th ed., Southwestern Publishing, Nashville.
  30. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 39–50.
  31. Hair, J. F., Jr., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long Range Planning, 46(1–2), 1–12 (<http://doi.org/10.1016/j.lrp.2013.01.001>).

32. Hair, J. F., Sarstedt J., Hopkins L., & Kuppelwieser V., (2014). Partial Least Square Structural Equation Modeling (PLS-SEM). An Emerging Tool in Business Research. *European Business Review*, 26(2), 106-121
33. Hara, N. (2000). Students' distress with a Web-based distance education course: An ethnographic study of participants' experiences. *Information, Communication, & Society*, 3(4), 557-579.
34. Hart Research Associates (2010), *Employers' Views On College Learning In The Wake Of The Economic Downturn. A Survey among Employers Conducted On Behalf Of: The Association Of American Colleges And Universities*
35. Henry, G. T. (2009). Practical sampling. In L. Bickman & D. J. Rog (Eds.), *Applied social research methods* (2nd ed., pp. 77 - 105). Thousand Oaks, CA: Sage Publication Inc.
36. Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). *The use of partial least squares path*
37. Howell, S. L., Baker, K., Zuehl, J., & Johansen, J. (2007). Distance education and the six regional accrediting commissions: A comparative analysis. Manuscript (ERIC Document Reproduction Service No. ED495650). Retrieved from <http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED495650>
38. Jung, Insung and Latchem, Colin (Eds.) (2012) *Quality Assurance and Accreditation in Distance Education and e-Learning: Models, Policies, and Research*. NY: Routledge
39. Karl, K., & Peluchette, J. (2013). Management Faculty Perceptions of Candidates With Online Doctorates: Why the Stigma?. *American Journal of Distance Education*, 27(2), 89-99.

40. Khan Academy. (2014). About. Retrieved from <https://www.khanacademy.org/about>
41. Lee, M. & McLoughlin, C. (2010). Beyond distance and time constraints: applying social networking tools and Web 2.0 approaches in distance education. In G. Veletsianos (Ed.), *Emerging technologies in distance education* (pp. 61 - 87). Edmonton, AB: Athabasca University Press
42. Machado, C. (2007). Developing an e-readiness model for higher education institutions: Results of a focus group study. *British Journal of Educational Technology*, 38(1), 72-82.
43. Marsh, P. (2014), "The world struggles to keep up with the pace of change in science and technology" *Financial Times*, June 17, available at [www.ft.com/intl/cms/s/0/b1da2ef0-eccd-11e3-a57e](http://www.ft.com/intl/cms/s/0/b1da2ef0-eccd-11e3-a57e)
44. Mihartescu, A. A., Negrut, M. L., & Mazilescu, C. A. (2010). *From traditional learning to elearning*. Iasi: Univ Tech Gheorghe Asachi Iasi.
45. modeling in international marketing (SSRN scholarly paper no. ID 2176454. Rochester,
46. Monsters in the making? (2010 July 22). *Economist*. Retrieved from <http://www.economist.com/node/16643333>
47. Motteram, G., & Forrester, G. (2005). Becoming an online distance learner: What can be learned from students' experiences of induction to distance programmes? *Distance Education*, 26(3), 281-298.
48. NY: Social Science Research Network (Retrieved from <http://papers.ssrn.com/>
49. Perry, B. & Edwards, M. (2010). Creating a culture of community in the online classroom using artistic pedagogical techniques. In G. Veletsianos (Ed.),

- Emerging technologies indistance education (pp. 129 - 151). Edmonton, Canada: Athabasca University Press.
50. Raj, S. & Al-Alawneh, M. (2010). A Perspective on Online Degrees Vs. Face-to-Face in the Academic Field. The Fifth Conference of Learning International Networks Consortium (LINC), Massachusetts, USA, 23 – 26 May.
51. Ramayaha, T. and Leeb, J. (2012), “System characteristics, satisfaction and e-learning usage: A structural equation model (SEM)”, TOJET: The Turkish Online Journal of Educational Technology, Vol. 11 No. 2, pp. 26–28.
52. Rosenthal, C. (2012, November 25). The long and controversial history of for-profit colleges. The Bloomberg Business Review. Retrieved from <http://www.bloomberg.com/news/articles/2015-10-25/the-long-and-controversial-historyof-m for-profit-colleges>
53. Schulte, M., Dennis, K., Eskey, M., Taylor, C., & Zeng, H. (2012). Creating a sustainable ongoing instructor observation system: A case study highlighting flaws when blending mentoring and evaluation. *International Review of Research in Open and Distance Learning*, 13(3), 83-96.
54. Seibold, K. (2007). Employers' Perceptions of Online Education. Retrieved from <http://dc.library.okstate.edu/utills/getfile/collection/Dissert/id/73378/74069.pdf>
55. Sun, P.C., Tsay, R.J., Finger, G., Chen, Y.Y. and Yeh, D. (2008), “What drives a successful e-learning? An empirical investigation of the critical factors influencing learner satisfaction”, *Computers & Education*, Vol. 50 No. 4, pp. 1183-202