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Does higher education equip graduate students with the employability skills employers require? The perceptions of employers in Ghana

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ABSTRACT

Recent changes in the labour market and higher education sector have placed graduates' employability on the agenda of researchers, policy-makers and employers in both advanced and developing economies. Yet, the question of whether higher education equips graduate students with the employability skills employers require remains under-studied particularly in a developing country like Ghana. Using survey data and employing a paired t-test analyses, our findings reveal that whilst the employers perceive graduate students to possess various critical skills which match industry demands, the graduate students fall short in these critical skills. The differences were statistically significant indicating that there are still gaps between what higher education is offering its students and what industry requires from graduates at the entry-level. Based on the findings, implications for theory, policy, and practice are discussed.

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Introduction

In recent years, the labour market and higher education sector in both advanced and developing countries have witnessed considerable changes and this has placed the discourse of employability on the agenda of researchers, governments, and employers (Behle 2020; Bridgstock 2009; Moreau and Leathwood 2006; O'Leary 2019; Sharma and Jha 2020; Suleman 2018). Universities and other higher education institutions are under increasing pressure to produce 'employable' graduates, and the graduates themselves are encouraged to incessantly develop their personal qualities, skills, and experiences to compete in the graduate labour market (Behle 2020; Moreau and Leathwood 2006; Suleman 2018). Consequently, there is a growing interest about graduates' employability (see Sumanasiri, Yajid, and Khatibi 2015; Smith, Ferns, and Russell 2014; Finch et al. 2013; Wickramasinghe and Perera 2010; Chandrasiri 2008; Pool and Sewell 2007; Knight and Yorke 2003). For instance, studies have examined the trends and impact of graduate attributes on employability (Osmani et al. 2015); graduate attributes and career management skills (Bridgstock 2009); graduate employability and competencies (Cox, Al Daoud, and Rudd 2013; Jackson 2016)

Although this body of literature is insightful, it overlooks other insightful graduates' employability issues creating a lacuna which still limits our understanding of the employability skills required by employers. First, while a considerable amount of the literature addresses employable skills that are needed to be embedded in graduates' education (Osmani et al. 2015), prior literature is still unclear about how higher education equips graduate students with employable skills to prepare them for the job market. Specifically, the extant literature is inconclusive about the nexus between the acquired

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graduate skills from university and the required skills by employers (Davies 2000; Finn 2000; Lindsay 2002; Osmani et al. 2015; Wickramasinghe and Perera 2010). Second, there is a poor understanding of employability within the context of a developing country particularly in the context of Sub-Saharan Africa. Our scan of the literature reveals that research on employability skills is heavily skewed towards advanced economies like the UK, USA, Australia and Europe (Collet, Hine, and Du Plessis 2015; Cranmer 2006; Bridgstock 2009). This lacuna exists despite the efforts by management of Universities and other higher institutions in Africa to ensure that graduates acquire employable skills that meet industry demands. Further, research on employability skills in Ghana is chiefly underexplored. i.e. the question about whether higher educations in Ghana can arm graduate students with employable skills is yet to be fully explored and answered despite the increase in higher education.

In this paper, we follow the research approach of Collet, Hine, and Du Plessis (2015) to contribute to these gaps by answering the overarching research question: *does higher education equip graduate students with the employability skills employers expect of them?* Using survey data on managers and executives of public and private firms in Accra, Ghana and employing principal component analysis and paired sample t-test as the main analytical tools, the study attempts to respond to the following specific research questions: *which skills do employers perceive to be important when employing graduates at the entry-level? How evident are these important skills in the graduate students at the entry-level? Is there a significant difference in the skills employers perceive to be important and how evident are these skills in graduates at the entry-level?*

Our empirical approach is noteworthy and useful because extant works on employability skills are largely based on theoretical or conceptual analyses and offer policy recommendations and prescriptive advice (e.g. Davies 2000; Raybould and Sheedy 2005; Wickramasinghe and Perera 2010) that, unfortunately, do not provide a better understanding of the lived experiences of managers concerning employable skills of graduates students. Our findings reveal that whilst the employers perceive that the graduate students should possess various critical skills needed mostly in industry (i.e. knowledge, enterprise leadership, team working and technical management), graduate students fall short in these critical skills. The differences were statistically significant indicating that there are still gaps between what higher education is offering its students and what industry requires from graduates at the entry-level. These findings provide new insights into graduate employability skills in developing countries particularly in the underexplored context such as Ghana. The remaining part of the paper is structured as follows. In the next section, we present the theoretical background and hypotheses of the paper and describe our methodology. Subsequently, we present and discuss the findings to highlight their contribution and practical relevance. Finally, we conclude and offer implications of the findings

Literature review and hypotheses

Employability and employability skills

The concept of employability has been discussed for several years and there appears to be a heightened interest in employability over the last decade. According to a report by Artess, Hooley, and Mellors-Bourne (2017), published by the Higher Education Academy, defining employability is more difficult than might be imagined and there is no uniform definition for employability (Artess, Hooley, and Mellors-Bourne 2017; Dearing 1997; Yorke 2006). However, the Higher Education Academy and many scholars believe and share in the definition of Yorke and Knight (2006). The authors define employability as 'a set of achievements – skills, understandings and personal attributes – that make individuals more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy'(Yorke and Knight 2006, 8). For this research, we define employability as defined by Yorke and Knight (2006).

However, not only have employers across the world expressed worry about the poor development of graduate skills relevant for the corporate world, but the importance of employability is generally agreed-upon by policymakers and scholars alike (Römgens, Scoupe, and Beausaert 2020;

Peeters et al. 2019; Australian Chamber of Commerce & Industry 2002). In today's uncertain environment, higher education institutions are required to prepare graduates for jobs that do not exist yet, and for handling problems that nobody has yet thought of (Kumar 2007; Römgens, Scoupe, and Beausaert 2020). Because graduates are part of the labour market, they need to continue working on their employability to prepare them to find and keep jobs (Akkermans et al. 2013). As a result, political, economic, and social groups are mounting pressure on policymakers and higher education professionals to prioritise the discussion on employability in strategic agendas.

On the other hand, employers are generally looking for graduates who possess employability skills, such as as communication, interpersonal, problem-solving skills, and the ability to adapt to all kinds of situations in the workplace (Kearns 2001; Chang 2004). No matter what kind of job the employee has to perform, the following employability skills can be considered as the underpinning skills applied across the board. Chang (2004) revealed that employers search for these types of employability skills, attitudes, and behaviours in their potential employees.

Knowledge skills

Several studies have explored the perception of employers regarding the level of proficiency employers perceive graduates to possess at the entry-level. Direito, Pereira, and de Oliveira Duarte (2012) found that although graduate students possess some level of proficiency in information skills, employers significantly rated the importance they attach to this skills significantly above students' level of proficiency. In a similar study by Collet, Hine, and Du Plessis (2015), the authors argue that graduate students' proficiency in knowledge skill was significantly below the expectation of their employers. But the question is, will these results hold in a developing country context like Ghana? In an attempt to answer this question, we hypothesised that:

Hypothesis 1: There is a significant difference between the importance employers in Ghana attach to knowledge skills and the level of proficiency graduates possess in these skills.

Enterprise leadership

Hodges and Burchell (2003) found that employers significantly rated the importance they attach to skills such as leadership, ability to inspire and influence others above the proficiency graduate students possess in these skills. Direito, Pereira, and de Oliveira Duarte (2012) found that employers significantly rated the importance they attached to leadership skills significantly above the proficiency graduate students possessed. Similarly, Collet, Hine, and Du Plessis (2015) reported that employers were not satisfied with the level of enterprise skills that graduate students possess. Agus, Awang, Yussof and Makhbul (2011) found that employers rated the importance attached to leadership skill as significantly higher than theproficiency gradutate students possess in Malaysia. This implies that employers perceive students not able to meet their expectation regarding enterprise and leadership skills. This led to the hypothesis that:

Hypothesis 2: There is a significant difference between the importance employers in Ghana attach to enterprise leadership skills and the level of proficiency graduates possess in these skills.

Communication skills

Direito, Pereira, and de Oliveira Duarte (2012) found that the importance employers attach to skills such as oral and written communication were significantly higher than how proficient graduate students are in the same skill at the graduate level. Similarly, Wickramasinghe and Perera (2010)

found that the importance employers attach to oral and written communication skills were significantly rated above graduates' level of proficiency in the same skill. Pitan and Adedeji (2012) also found that the importance employers attached to communication skill were significantly above graduate students' level of proficiency in the same skill. Based on the above review, the next hypotheses is hypothesised as follows:

Hypothesis 3: There is a significant difference between the importance employers in Ghana attach to communication skills and the level of proficiency graduates possesses in these skills.

Teamwork

Direito, Pereira, and de Oliveira Duarte (2012) found that that graduates' level of proficiency in teamwork skill was significantly below the importance that employers attach to the same skills. That is, graduate students do not meet the expectation of employers. Hodges and Burchell (2003) also found that the graduate students' level of proficiency in teamwork skill does not meet the expectation of employers in New Zealand. Additionally, Collet, Hine, and Du Plessis (2015) also reported that employers were not satisfied with the level of team skill that graduate students possess. Agus et al. (2011) also reported that employers rated the importance attached to teamwork skill was significantly higher than the proficiency of graduates studens possess in the same skills.

Hypothesis 4: There is a significant difference between the importance employers attach to teamwork skills and the level of proficiency graduates possess in these skills.

Interpersonal collaboration

Husain et al. (2010) found that the importance employers in Malaysia attach to interpersonal skills was significantly higher than student's proficiency in the same skills. Pitan and Adedeji (2012) found that the importance employers attach to interpersonal skills was significantly above students' level of proficiency in the same skills. Agus et al. (2011) also reported that employers rated the importance attached to interpersonal skill significantly higher than their proficiency in the same skills. Lastly, Hodges and Burchell (2003) also found that employers rated the importance they attach to interpersonal skills significantly above students' proficiency in the same skill.

Hypothesis 5: There is a significant difference between the importance employers in Ghana attach to interpersonal skills and the level of proficiency graduates possess in these skills.

Improve (learning) skills

Wickramasinghe and Perera (2010) found that graduate's level of proficiency in learning skill was significantly below the importance that employers attach to the same skills. Pitan and Adedeji (2012) found that the proficiency level of graduate students in learning skill was significantly below the expectations of employers in Nigeria. That is, the importance employers in Nigeria attached to learning skill was significantly higher than graduate students' proficiency in the same skills. Lastly, Direito, Pereira, and de Oliveira Duarte (2012) found a mismatch in the importance employers attached to learning skills and how proficient graduate students are in the same skills.

Hypothesis 6: There is a significant difference between the importance employers in Ghana attach to learning skills and the level of proficiency graduates possess in these skills.

Creativity and innovation skills

Wickramasinghe and Perera (2010) found that the importance employers attach to creativity and innovative skills were significantly above students' proficiency in the same skills. Similarly, Direito, Pereira, and de Oliveira Duarte (2012) found that employers rated graduates' level of proficiency in creativity and innovation skills to be lower than the importance they attach to the same skill. Similarly, Collet, Hine, and Du Plessis (2015) also found that the importance employers attached to creative skill were significantly higher than graduate students' level of proficiency in the same skill. That is, graduates do not meet the satisfaction of employers in terms of creative and innovative skills. All the above empirical review shows that graduate students do not generally meet the satisfaction of their employers. Therefore the next hypothesis is presented as follows.

Hypothesis 7: There is a significant difference between the importance employers in Ghana attach to creativity and innovation skills and the level of proficiency graduates possess in these skills.

Numeracy skills

Wickramasinghe and Perera (2010) found that the importance employers attach to arithmetic was significantly above the level of students' proficiency in the same skill. Pitan and Adedeji (2012) also found that the importance employers attach to numeracy skills was significantly above student's proficiency in the same skill. Lastly, Collet, Hine, and Du Plessis (2015) found that students' proficiency in numeracy skills (which relates to systems thinking and comprises of a core of business knowledge relating to elemental functioning of any business entity such as Knowledge of accounting and financial systems) was significantly below the expectations of employers. Hence, we hypothesise that:

Hypothesis 8: There is a significant difference between the importance employers in Ghana attach to numeracy skills and the level of proficiency graduates possess in these skills.

IT literacy skills

Husain et al. (2010) found that the importance employers attach to systems and technical skill was significantly above graduate students' proficiency in the same skills. Hodges and Burchell (2003) also found that the importance employers attach to computer literacy was significantly rated above graduate students' proficiency in the same skills. Similarly, Pitan and Adedeji (2012) also found that the importance employers in Nigeria attach to informational technology was significantly above graduate students' proficiency in the same skill. Lastly, Collet, Hine, and Du Plessis (2015) reported that the importance employers attach to IT literacy skill was significantly higher than graduate students' proficiency in the same skill. The above literature depicts that employers were not satisfied with the skills graduates possess in this area hence the hypothesis is stated as:

Hypothesis 9: There is a significant difference between the importance employers in Ghana attach to IT literacy skills and the level of proficiency graduates possess in these skills.

Technical management skills

Pitan and Adedeji (2012) explored the perception of Nigerian employers regarding skills mismatch among graduate students and the authors argue that graduates do not possess higher-order technical skills for application and leadership in a project which employers perceive to be important. Collet, Hine, and Du Plessis (2015) also found that the importance that employers attached to technical management was significantly higher than the proficiency of students in the same skills.

Hypothesis 10: There is a significant difference between the importance employers in Ghana attach to technical management skills and the level of proficiency graduates possess in these skills.

Method

Study context

Ghana is a country located in the West African country sub-Region along the Gulf of Guinea with a population of approximately 25 million according to Ghana Statistical Service (2010). It shares borders with Burkina Faso (602 km) to the north, Ivory Coast (720 km) to the west, and Togo (1098 km) to the east. After over a century under the colonial rule of the British, Ghana finally gained its independence in the year 1957 under the leadership of Kwame Nkrumah. The major activities contributing to the development of the economy are industry work, agriculture and provision of services. The industry sector encompasses mining, energy production, manufacturing and construction. Ghana is Africa's second-largest gold producer after South Africa. The agriculture sector supplies raw materials for use in the manufacturing industry and contributes immensely to Ghana's foreign exchange earnings. In terms of human development, Ghana's Human Development Index (HDI) value for 2018 is 0.596 – which puts the country in the medium human development category – positioning it at 142 out of 189 countries and territories (UNDP 2019).

The Policy goal of Tertiary Education in Ghana drives at increasing equitable access to high-quality tertiary education whilst ensuring that young adults pursue relevant courses within Colleges of Education, Polytechnics and Universities. The National Accreditation Board under the auspices of the Ministry of Education is the board that oversees tertiary education in Ghana. Currently in terms of accredited tertiary institutions, Ghana boasts of (10) public universities, eighty one (81) private tertiary institutions offering degree programmes, eight (8) tutorial colleges, two (2) public polytechnics, and one (1) private polytechnic, thirty nine public colleges of education, seven (7)private colleges of education, one regionally–owned (West Africa) tertiary institution, five(5) chartered private institutions, eight (8) technical universities, five(5) registered foreign institutions and seven (7) public universities/professional institutions respectively . There are close to forty-three schools offering business programs at the tertiary level.

Ghana is considered an ideal context for this study because a recent report by the British Council on Universities, employability and inclusive development reports that the higher education system in Ghana has gone through various policy reforms over the years and several innovations have been implemented. Nevertheless, the main policy reforms have focused on structural reviews and the issue of employability has been neglected (British Council 2016). The report further established that interview with key policymakers confirmed that "there is no specific national policy on graduate employability and the country lacks a coherent policy on higher education and employability and a competency framework." This situation suggests Ghana as a suitable and distinct context for employability research.

Research design

The study employed the survey design to survey employers (managers and other executives) across various sectors in Ghana. A total of 200 managers in both the private and public sectors in the Greater Accra Region of Ghana were selected for the survey. The decision to use the Greater Accra region as the case study was because the region is the economic centre of Ghana and most of the university graduates are employed in this region. The survey targeted managers and executives who have supervised fresh graduates in their organisations. Specifically, the survey instruments were administered to managers at the lower, middle and higher levels and have supervised graduate students at the entry-level.

The instrument used in the study was adopted from Collet, Hine, and Du Plessis (2015). The skills items used in the questionnaire cut across disciplines and were based on reports from government,

industry, academic and policy areas (Collet, Hine, and Du Plessis 2015). The survey was aimed at helping us to evaluate the gap between the skills perceived as required by industry (managers and other senior executives) and those perceived as evident in graduates entering the industry. Consequently, each of the skills item in the survey included two questions: (1) how important (IMP) is the skill to your organisation? (2) how evident (EVD) is the skill in the graduates you employ? The instrument was also designed to include questions that addressed the demographics of respondents' organisations, and the background information of the respondents. The questionnaire design included a Likert five-point scale with no neutral point to avoid courtesy bias on the part of respondents and eliminate ambivalence.

From the perspective of the respondents, the relative importance of any the skill item is evaluated in comparison to a suite of other skills. The respondent is explicitly made aware of this during the survey and ranks the skills accordingly. In reviewing skills evident in the graduate, nevertheless, the respondent is not involved in a comparative ranking; the respondent provides explicitly a value judgement about a perceived distance measure (deficiency) that implicitly provides an independent measure of the importance of the skill in the respondent's activities. Therefore, the distance between the means of IMP and EVD provides meaningful measures of skills' importance (i.e. IMPmean–EVDmean). In employing the subtractive difference between the measures of perceived importance and evidence, we aimed to operationalise issues of concern around the employability skills gap. The responses from the survey was analysed using SPSS v21.

We followed an analytical iterative progression to transform and interpret our data. First, exploratory factor analysis (EFA) was carried out to help explore the factorial structure of the skills items. Kaiser-Meyer-Olkin (KMO) tests and Bartlett's test of sphericity were used to evaluate the linear association of items in correlation matrices. Constructs were extracted using principal component analysis with Promax rotation, to allow for correlation between variables, and Kaiser normalisation (Field 2013). Internal consistency of construct validity was examined using Cronbach's α coefficient (Reinard 2006; Field 2013). Second, paired sample t-test was employed to test the difference between the means IMP and EVD. Finally, the effect size was tested using Cohen's d test.

Results

Derivation of skills constructs and description

The output from the exploratory factor analysis (EFA) shows that the KMO statistic (0.899) indicates the sample size is sufficient for the number of items in our scale while Bartlett's test ($x^2 = 4249$, $df = 903$, $p < 0.001$) indicates the correlation matrix is not an identity matrix (Field 2013). Altogether, these two tests show that our correlation matrix is ideal for factor analysis. Ten constructs, each with eigenvalues of > 1, were extracted for the 42 skills items that together explained 63.2% of the variance. The Cronbach alpha for the constructs values exceeds 0.7 for all factors except the third factor which shows 0.699 alpha value. This indicates a high level of internal reliability in the factor outcomes. Details of this analysis are shown in Table 1 with factor loadings of each of the items. The extracted ten factors were labelled as Knowledge, Leadership enterprise, numeracy skills, Technical management, Teamwork skills, interpersonal skills, communication skills, improve (learning) skills, IT literacy skills and creativity and innovation skills as shown in Table 1.

Perceived employability skills needed

To understand the employability skills employers perceived as important, we employed mean ratings to analyse the employability skills. The study made use of scalers, hence, it was expedient to test for reliability. The reliability test which measures the internal consistency of our constructs was carried out using Cronbach Alpha (Nunnally 1978). Table 1 depicts the Cronbach Alpha values and the descriptive

Table 1. The skills constructs extracted by principal component analysis with Promax rotation and Kaiser normalisation.

Skill construct	Cronbach Alpha	Eigen value %	% of Variance	Items	Factor loading
Knowledge skills	0.775	14.249	33.136	Ability to communicate effectively with discipline specialists	.966
				Ability to accurately report information	.841
				Ability to accurately document information from a different source	.813
				Ability to evaluate information and data	.740
				Ability to evaluate information and data	.740
				Ability to retrieve information from different sources	.647
				Ability to understand essential concepts relating to specific discipline	.633
Numeracy skills	0.814	2.432	5.657	Knowledge of financial systems	.908
				Knowledge of accounting	.900
				Knowledge of general principles of law relating to business	.680
				Knowledge of marketing	.603
Enterprise leadership	0.699	2.004	4.659	Plan business ventures	.718
				Willingness to take risk	.520
				Ability to lead a new venture	.474
				Ability to identify key people in a venture	.452
				Ability to negotiate	.447
				Ability to inspire others	.418
Technical management	0.881	1.437	3.342	Apply discipline knowledge to solution of problems of an unfamiliar nature	.562
				Build positive customer relations	.490
				Manage a project	.461
				Reach a timely independent decision	.403
				Apply knowledge in practice	.339
Teamwork skills	0.876	1.404	3.265	Interpret team dynamics	.895
				Awareness of roles and responsibilities of team members	.808
				Respond positively to feedback	.498
				Reflect on own performance	.340
				Appreciation of culture diversity	.318
Interpersonal skills	0.703	1.211	2.816	Adapt one's own skills and knowledge to fit with other professionals	.886
				Work in an interdisciplinary team	.820
				Communicate effectively with non-experts	.733
				Appreciation of the client's perspective	.731
				Work collaboratively with other professions	.598
Communication skills	0.844	1.183	2.750	Effective written and oral communication skills	.514
				Strong action orientation	.486
				Drive to succeed	.432
IT literacy skills	0.865	1.141	2.653	Knowledge of commercialisation	.723
				Understanding of technology valuation	.535
				Understanding of new product/service development processes	.419
Improve learning skills	0.803	1.063	2.473	Initiative for continuing professional learning	.928
				Responsibility for continuing professional learning	.920
Creativity and innoation	0.866	1.034	2.405	Assimilate new external knowledge with existing knowledge	.841
				Acquire new external knowledge	.693
Cumulative % of variance			63.156		

The construct shows high Cronbach's α (CA) values (column 2) and eigenvalues >1 (column 3) that together explain 63% of the cumulative total variance (column 4). The factor loading for each of the items are shown in column 6.

statistics for perceived importance managers attach to these employability skills and their respective Cronbach Alpha. Regarding skills importance, employers demonstrated higher importance to 'knowledge' (M = 21.445; SD = 3.985), 'enterprise leadership' (M = 20.616; SD = 3.916), 'teamwork skills' (Mean = 17.905; SD = 4.248), 'technical management' (M = 17.660; SD = 3.845), 'interpersonal skills' (M = 17.575; SD = 2.485) and 'numeracy skills' (M = 12.803; SD = 2.546). Employers demonstrated lower importance to 'communication skills' (M = 10.745; S.D = 1.569), 'creativity and innovation skills' (M = 10.21; S.D = 1.732), 'IT literacy skills' (M = 10.121, SD = 1.771) and 'improve learning skills' (M = 7.06; S.D = 1.057). The mean importance ratings ranged from 21.445 (Knowledge) to 7.06 (improve). This output is presented in Table 2.

Employees perception of how evident employability skills are in graduates

To answer our second research question, we employed mean ratings to analyse the employability skills. The output of this analysis is presented in Table 3. Regarding skills proficiency, employers demonstrated higher ratings for 'knowledge' (M = 18.673; SD = 3.880), 'enterprise leadership' (M = 18.035; SD = 4.443), 'technical management' (M = 15.06; SD = 3.47), 'teamwork skills' (M = 15.552, SD = 3.148) and 'interpersonal skills' (M = 15.61; SD = 3.355) and 'numeracy skills' (M = 12.803; SD = 2.546). Employers demonstrated lower ratings for 'communication skills' (M = 9.63; SD = 2.015), 'IT literacy skills' (M = 9.09; SD = 2.113), 'improve learning skills' (M = 6.46; SD = 1.373) and 'creativity and innovation skills' (M = 9.19; SD = 2.028).

The employability skills gap analysis

The main objective of this study was to test the employers' perceptions of a skills gap between the skills in demand (i.e. IMP) and the skills level evident in graduate employees in the context of Ghana. This objective was achieved by performing paired sample t-test and computing the effect size using Cohen's d test. The output of this analysis is shown in Table 4. The result of the paired samples t-test indicated that there was a statistically significant difference between the 'mean perceived importance' and 'mean perceived evident' of skills of graduate employees for all the skills set variables. Cohen's *d* effect sizes of medium or larger (>0.5) were obtained for the ten skills constructs with one construct returning cohen's d values of 0.496 indicating a small- to medium-size effect. This suggests a significant and meaningful gap is perceived between the skills considered essential for by employers and those evident in recent graduates. This result provides support for all our hypothesis.

Discussion

The first objective of the study was to investigate the employability skills employers perceive to be important in the industry in Ghana. Among the skills considered in the study were knowledge,

Table 2. Descriptive statistics of the perceived importance of employability skills.

Skills[a]	Rank	Mean	S.D
Knowledge skills	1st	21.445	3.985
Enterprise leadership skills	2nd	20.616	3.916
Teamwork skills	3rd	17.905	4.248
Technical Management	4th	17.660	3.845
Interpersonal skills	5th	17.575	2.485
Numeracy skills	6th	12.803	2.546
Communication skills	7th	10.745	1.569
Creativity and innovation	8th	10.21	1.732
IT literacy skills	9th	10.121	1.771
Improve learning skills	10th	7.06	1.057

[a]Individual items measuring each skill are not shown.

Table 3. Employers perception of employability skills evident in graduates.

Skills[a]	Mean	S. D
Knowledge skills	18.673	3.880
Enterprise leadership	18.035	4.443
Interpersonal skills	15.61	3.355
Teamwork skills	15.552	3.148
Technical Management	15.06	3.47
Numeracy skills	12.803	2.546
Communication skills	9.63	2.015
Creativity and innovation skills	9.19	2.028
IT literacy skills	9.09	2.113
Improve learning skills	6.46	1.373

[a]Individual items measuring each skill are not shown.

Table 4. Paired samples test and effect size.

		Paired Differences								
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)	Standardised effect size (Cohen's d)
1	Knowledge skills	2.75879	4.67878	.33167	2.10473	3.41285	8.318	198	.000	0.701
2	Enterprise leadership skills	2.54040	5.07166	.36043	1.82961	3.25119	7.048	197	.000	0.607
3	Numeracy skills	1.76768	3.06223	.21762	1.33851	2.19685	8.123	197	.000	0.641
4	Technical management skills	−2.59091	4.36987	.31055	−3.20334	−1.97847	−8.343	197	.000	0.706
5	Teamwor skills	2.36683	5.08921	.36076	1.65540	3.07827	6.561	198	.000	0.632
6	Interpersonal skills	1.96482	3.42507	.24280	1.48603	2.44362	8.092	198	.000	0.665
7	Communication skills	1.11055	2.02206	.14334	.82788	1.39322	7.748	198	.000	0.614
8	IT literacy skills	1.03015	2.05949	.14599	.74225	1.31805	7.056	198	.000	0.528
9	Improve learning skills	.60804	1.35107	.09577	.41917	.79691	6.349	198	.000	0.496
10	Creativity and innovation skills	1.02000	1.94900	.13781	.74823	1.29177	7.401	199	.000	0.541

The paired T test shows that there is a statistically significant difference between the 'mean perceived importance' and 'mean perceived evident'. The size effect was determined using Cohen's d test and the constructs showed d values (column 10) > 0.5 (medium to large), with one construct returning cohen's d values of 0.496 indicating a small- to medium-size effect.

enterprise leadership, numeracy skills, technical management, teamwork skills, interpersonal skills, communication skills, IT literacy skills, improve learning skills and creativity and innovation skills. The findings revealed that employers demonstrated higher importance to knowledge, enterprise leadership, teamwork skills, technical management, interpersonal skills and numeracy skills. Employers demonstrated lower ratings for skills such as technical management, teamwork skills, interpersonal skills, communication skills, IT literacy skills, improve learning skills and creativity and innovation skills.

In this current dispensation, information is the engine of business growth. It is not surprising that employers rated 'knowledge' as the most important skills. Quality information drives the success of every business. Ability to accurately evaluate and report information will enable firms to make good decisions. For a business to get accurate and reliable information, they look forward to recruiting employees who are equipped with these skills. Such skills are needed to ensure the efficiency and

growth of businesses. This finding is consistent with that of Agus et al. (2011) who reported that employers in Malaysia considered 'knowledge' as the most important skills needed in the workplace. Similarly, Husain et al. (2010) also found that employers in Malaysia rated 'knowledge' as one of the most important skills needed in the workplace. Whiles employers in Ghana rated 'knowledge' as the most important skills needed in the workplace, studies by Husain et al. (2010) found that employers in Malaysia rated it as the fifth most important skills. The result is also consistent with that of Agus et al. (2011) who found that employers in Malaysia rated 'knowledge' as the most important skills needed in the workplace.

It is not surprising managers rated leadership skills among the most important skills they expect graduates to possess at the entry-level. Businesses are always in need of leaders with track records to occupy management positions. However, they also seek to recruit employees who have the potentials to replace the current managers in future, hence every employer search for employees who have such leadership skills. This is consistent with that of Agus et al. (2011) who also found that employers in Malaysia considered leadership skills as one of the most important skills needed in the workplace. Similarly, Singh, Thambusamy, and Ramly (2014) found that among skills that employers perceive to be important, leadership was rated as the fifth most important skills needed.

A plausible reason for employers rating improves (learning) skills as one of the most important skills needed is that the business world is always changing, new technologies are always coming up. Firms are constantly coming up with new ideas on best practices, hence firms are always in need of employees who can embrace change and learn new skills. This finding is consistent with that of Hodges and Burchell (2003) who also found that employers in New Zealand considered willingness to learn as one of the most important skills needed in the workplace. With regards to team skills, most organisations today expect employees to possess teamwork skills because it is more of a collaborative vibe that generates energy throughout the workplace. Additionally, teamwork enables employees to share ideas which always help to minimise the rate at which organisations make mistake. This finding is consistent with Hodges and Burchell (2003) who rated teamwork as one of the most important skills employers in New Zealand perceive to be important in the workplace. Similarly, Direito, Pereira, and de Oliveira Duarte (2012) found that employers rated teamwork among the most important skills they perceive to be important in industry.

The second objective of the study was to assess student's proficiency in the skills that employers perceive to be important in the workplace. The findings from the study revealed that employers believe that graduate students have some level of proficiency in the skills they perceive to be important. Regarding skills proficiency, employers demonstrated higher rating knowledge, enterprise leadership, technical management, teamwork skills and interpersonal skills and numeracy skills. With regards to teamwork, it wasn't surprising students possess some level of proficiency in teamwork skills. A possible reason for this is that students are usually allowed to do assignments and term papers in groups and this mostly improve their teamwork skills. This is consistent with that of Direito, Pereira, and de Oliveira Duarte (2012) who also found that graduate students in Portugal were more proficient in teamwork. Similarly, Wickramasinghe and Perera (2010) also reported that among the 15 skills employers perceive to be important, employers rated graduates' proficiency in teamwork skill in the third position. Hodges and Burchell (2003) also found that among 25 skills perceive to be important, employers rated student proficiency in the skill in the fourth position.

The last objective of the study was to examine whether there was a statistically significant difference between skills perceived to be important and how proficient graduate students are in the same skills. The researcher hypothesised there was a significant difference in skills perceived by employers and how evident these same skills are in the graduates. Skills gap were identified for all the ten-skills construct considered in the study. A comparison of mean importance and proficiency score for each skill gap shows there is statistically significant difference. The study accepted the null hypothesis that there is significant difference in mean importance of skills and mean evidence of proficiency. The employers perceive the graduate skills to be below their expectation. The gap analysis revealed that employers were not satisfied with the employability skills Ghanaian graduates possess since all the

gaps exhibited a positive value. It was difficult for the researcher to make a direct comparison of the skills gap with previous literature. However, the observation of similarities with past studies is possible. Collet, Hine, and Du Plessis (2015) found that employers in Australia were not satisfied with the employability skills graduates possess since the importance attached to these skills were ranked above how evident it is in the graduates. Direito, Pereira, and de Oliveira Duarte (2012) also found that employers in Portugal rated the importance they attach to the skills significantly above the proficiency of graduate students in the same skill. Additionally, studies conducted by Pitan and Adedeji (2012) also found that there was a mismatch in skills perceived to be important and how evident the same skills in graduate students in Nigeria. Agus et al. (2011) also found that employers in Malaysia were not satisfied with the performance of graduate students at the entry-level

Conclusion

There is the general perception that the students that our universities produce do not possess the employability skills that are needed to effectively work in the corporate world. This study employed a survey design to investigate the perception of Ghanaian employers regarding the importance they attach to some selected employability skills and how evident these same skills are in graduate students at the entry-level. Employers were asked to respond to how important the employability skills are to their organisation and how evident they perceive the graduates to be performing at the skills. The gap between importance and evident skills were further analysed using the paired t-test. The paired t-test enables the researcher to determine if there is a gap between 'mean perceived importance' and 'mean perceived evident'. The study revealed that among the skills considered in the study were knowledge, enterprise leadership, numeracy skills, technical management, teamwork skills, interpersonal skills, communication skills, IT literacy skills, improve learning skills and creativity and innovation skills. Regarding skills proficiency, employers demonstrated higher rating knowledge, enterprise leadership, technical management, teamwork skills and interpersonal skills and numeracy skills. The gap analysis revealed that employers were not satisfied with the employability skills Ghanaian graduates possess since all the gaps exhibited a positive value.

Implications of the study

The study contributes to empirical literature in the field. For instance, it identified that although graduate students possess some degree of skills (e.g. knowledge, enterprise leadership, team working and technical management), yet they fall short in all the dimensions from the expectation of employers. This study is comprehensive compare to existing studies in that it examines first the general existing skills at the graduate entry level in the job market, second, which of these existing skills do employers perceive to the be most important to industry, third, how employers perceive the present-day graduates possess the skills they deem to be most important in industry and four the extent to which whether or not the level of skills graduate students possess either fall short or otherwise of what is expected of them from employers (i.e. four in one). Finally, the study has examined the issues from an under-studied context, by offering a new insight from a new and fresh geographical context. It is important to note that this study did not measure or assessed 'actual' employability skills possessed by graduate students but rather perceptions of employers (managers) about employability skills they expect graduate students to have and what the graduate students exhibit when they are employed.

Disclosure statement

No potential conflict of interest was reported by the authors.

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