

GRADUATES' EMPLOYABILITY INDEX OF GENERIC AND INNOVATIVE SKILLS: A SURVEY OF EMPLOYERS IN OGUN STATE, NIGERIA

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Abstract: -

This paper assesses employers' perception on generic and innovative skills as indicators of graduates' employability. A cross-sectional survey of employers, managers, human capital practitioners and consultants was conducted across different types of work organisations in Ogun State, Nigeria. Multi-stage sampling involving stratification and random selection was used such that 60 participants were taken from each of private and public sectors and randomly selected to make a total of 120 participants reached in the study. A 20-item questionnaire with a four-point likert rating scale was developed and administered to the subjects. Data collected were analysed with multiple regression analysis. The results reveal high employers' demand for generic skills and remarkable innovative skill on the part of graduates as such skills represent core work-demand competence and attributes that could enhance employment opportunities of graduates in a work organization and foster the fulfilment of employers' needs from employed graduates. Hence, graduates' employability is regarded as a function of the ability to demonstrate mastery or competence in array of generic and innovative skills. The study calls for a redirection in higher education towards generic and innovative skills development and mastery, personal development efforts by graduates and collaboration among schools, government agencies and industries towards producing competent manpower for industrial need.

Keywords: - *Generic skill, Innovative skill, Graduates' employability,*

INTRODUCTION

Institutions in higher education sector have the primary concern and responsibility of developing their students to make them a whole persons and integrated personalities by equipping them with knowledge, attributes, skills, attitude and competences to live a productive and socially useful life. This portends that the raison d'être for the establishment of higher education is to offer trainings that will make people foster their capacities and potential to a remarkably high level so that they have intellectual growth, contribute viably and meaningfully to the society, and also accomplish individual fulfilment and satisfaction.

Mattis (2018) posits that producing employable graduates is a major part of the process of education at higher level and such process should cover the whole gamut of educational and instructional ideals involving shift from mere knowledge acquisition and understanding to developing variety of skills, abilities and attributes. Hence, higher educational institutions have the obligation of developing the generalized expertise and competence in their graduates so that they can transfer or apply same to work situations after graduation (Maripaz, Ombra, & Osman, 2013).

Employers require graduates to possess skills and capabilities not necessarily in primary confine of course diverse specialisations in higher education. They require graduates with high academic qualifications, as reflected in the courses of study, class of degrees and diplomas, and who are also equipped with a number of skills and attributes. Some employers place little emphasis on graduates' actual specialisation but generic skills which they have acquired and could apply to jobs (Mattis, 2018). Despite the importance of skills acquisition and competence development as prominent focus in any higher education system to make graduates integrate well into the labour market, there is a lack of consensus on type of skills set for measure of competence required of job seekers (LeDiest & Winterton, 2005) as different yardstick have been employed to define the set of skills that employers give credence to (Suleman, 2016).

The current employment trends, portfolio of jobs and the global mobility of the workforce emphasise the need for graduates who are work-ready, self-starters, who can demonstrate initiative, self-efficacy, creativity and innovation (Rampersad & Patel, 2014). This is so because the ability to seek context-driven creative solutions and innovative practices to facilitate and enhance product knowledge and productivity are emerging desirable graduate attributes (Patel, 2012).

However, studies have shown deficiency of graduates in either generic or innovative skills and the measure of skills deficiencies shows gap between employer ratings of the importance of skills and their ratings of graduate abilities in these skills (Department of Education, Training and Youth Affairs, 2000; Ismail & Mohammed, 2015) while there have been indications that many graduates at entry level in Nigeria do not possess the required employability skills to make them fulfil employers' expectation (Idris & Rajuddin, 2012; Mohammed & Ismail, 2014; Ismail & Mohammed, 2015). Academic achievement alone is not seen as the only key factor to predict employability; abilities, talents, and potentials to compete in the job market and also meet employers' expectations are essential. Hence, it is important to know the extent to which generic and innovative skills relatively and jointly impact on the employability of graduates with a view to suggesting a refocus of higher education policy on curriculum development and content delivery.

An important index of success on a job position is the ability of an employee to proficiently match his skills and knowledge with job requirements and apply his competence so that the expectation of the employer are met (Maripaz & Ombra, 2016). Employers generally consider the academic achievement of a graduate in subject areas as necessary to predict performance but not sufficient consideration for employment decision (Mattis, 2018). Therefore, it is expected that graduates are expected to possess and display mastery of subject specific skills and also demonstrate employability skills that will make them not only specialists but generalists (Maripaz & Ombra, 2016).

According to UK Commission for Employment and Skills (2009), employability comprises skills and abilities that almost everyone should possess. Such skills will facilitate the utilization of specific and technical knowledge required for job success in particular workplaces. It refers to a set of skills, understandings, abilities, achievements, and individual characteristics, tendencies and predictors that could foster employment security by graduated and predict their performance success in occupations and jobs (Yorke & Knight, 2006). This implies that being employable implies having skills and attributes, other than technical competence, which makes an employee an asset to an employer or having the qualities that are critical to securing a job, keeping it and advancing in a workplace (Onyeike & Onyeagbako, 2014). According to National Institute of Adult Continuing Education (1998) as cited in Kevin, et al (2011), employability is a responsibility shared more equally between individual graduates themselves and business organisations to employ them in order to ensure satisfactory performance both at schools, colleges, universities such that when saddled with the mandate for specific discipline competence development and government should ensure employment of all citizens and make them employable.

Different methods have been used to define the set of skills that employers value most to predict employability and competence of graduates such as relational skills, soft skill, IT skill and personal qualities with more detailed skill sets (Hesketh, 2000) generic, higher-order thinking skills, domain-specific skills (Maripaz & Ombra, 2016; Suleman, 2016;), innovation skills, cognitive skills (Gokhberg & Poliakova, 2014) and many other forms of skills. Competence on skills needed to be employable is seen in the way an employee displays proficiency and mastery of different employability skills he acquired (Maripaz & Ombra, 2016). Kevin, et al (2011) considered an array of qualities, attributes,

competence, skills and knowledge that are used to denote general and specific employability of graduates and posited that most employers irrespective of field require graduates to demonstrate competence in the technical and discipline domains of their degrees in addition to other abilities such as critical thinking, problem evaluation and solving, team-work, communication, and where need be, management and leadership. Employability is dependent on possession and utilisation of knowledge, skills and attitudes assets that are important in gaining initial employment, keeping the employment and critical instrumental in acquiring new and additional skill for new employment or emerging roles if required (Onyeike & Onyeagbako, 2014). With the range of different skills that employers demand in graduates, the present study focuses on generic and innovation skills and examines their relative influence on the employability of graduates from the perspective of employers.

According to Bailey (1997) generic skills are needed to meet the demands of most jobs and to make modern workplace remain in business. Generic skills, also referred to as key skills or competence, essential skills, core skills, transferable skills and necessary employability skills are those skill attributes that apply across most job types and relevant to life contexts. They are non-technical skills characterized by intangible attributes needed by graduates other than academic degree achievement, to make them good and successful performers in various aspects of job positions (Rao, 2010; Husain et al, 2015). According to Haron et al (2019), generic skills include perceptive and rational parts of individuals which are not directly academic in nature such as interpersonal relationship abilities, communication skills, team building and support skills, leadership capabilities, etc. that could be regarded as key indicator of graduates' employability as modern jobs require adaptability and initiative to undertake tasks while employers focus on flexibility, change initiative and cost reduction that give increased productivity (Selvadurai, et al, 2012. It then becomes important for employees to be team players, be able to assume responsibility and communicate effectively and make decision for operational or strategic purposes. These should be in addition to possession and application of problem-solving skills and the capacity to meet job demand and exceed expectations (Mark, 2005; Business Council of Australia, 2011).

Innovative skills can be seen as having the ability to create new ideas, new ways of seeing things, new processes, products or services that offer values. Since innovation implies the idea of doing something new or differently, making new things happen or facilitating new initiative, it denotes creativity and involves hard work and persistence (Rothstein & Santana, 2015). According to Sternberg (2012), innovation or creativity represents a balance between knowledge and freeing oneself of that knowledge. Rampersad & Patel (2014) mention that creativity is a precursor, sub-dimension or overarching umbrella of innovation while Trott (2008) sees innovation as a process of conceiving or generating an idea and taking steps to turn it into tangible product or service. According to Gokhberg & Poliakova (2014), innovative skill of an individual is not an instinctive feature, and essential skills for innovation can be learned; it is dependent on the other attributes and requires reflection, encourages engagement and develops confidence and responsibility. As such, the ability and inclination to be innovative and do new things is essential to being productive in a workplace and having a fulfilled and successful life (Richards, 2007).

In view of the expectation of employers in terms of skill match by graduates, this study seeks to assess employers' perception of the relative and combined impact of generic and innovative skills on the employability of graduates.

Methodology

A cross-sectional survey of human resource specialists, managers of firms, administrative heads and human capital management consultants was undertaken across different sectors and industries in Ogun State. These categories of participants were selected from small, medium and large enterprises as well as public organisations and were considered appropriate for the survey on the assumptions that they have versed experience on employment consideration since they are involved in the hiring, training, supervising and appraising of graduates at entry levels to highest position in work organisations. A sample of 120 participants were selected using a multi-stage sampling. The selection was stratified into public and private sectors and 60 participants were selected from each of the sectors. Simple random sampling was however used in selecting the samples from each stratum. A 20-item questionnaire with a four-point likert rating options was used for data collection. . Items on the questionnaire were adapted from Maripaz, et al (2013), Gibb (2004) and Maripaz ad Ombra (2016). Inferential statistics involving correlation and multiple regression analysis was employed for the analysis of data collected.

For a quantitative assessment of the determining impact of generic and innovative skills on graduate employability, it was postulated that:

- H0₁: Generic and innovation skills do not have any significant combined impact on the employability of graduates.
- H0₂: Generic skills do not have any significant relative impact on the employability of graduates?
- H0₃: Innovation skills do not have any significant relative impact on the employability of graduates.

Results and Discussion

Table 1: Descriptive Statistics

	Mean	Std. Deviation	N
GE	20.9286	1.72459	98
GS	24.4184	1.76987	98
IS	24.3061	2.07294	98

Table 1 shows a brief description of the data used in the study. The mean score of the variables GE (Graduate Employability), GS (Generic Skills) IS (Innovative Skills) are 20.9286, 24.4184, 24.3061 while the standard deviations are 1.72459, 1.76987, 2.07294 respectively. These show that each of the scores is not far from the mean scores

Table 2: Correlations Matrix

		GE	GS	IS
Pearson Correlation	GE	1.000	.652	.519
	GS	.652	1.000	.305
	IS	.519	.305	1.000
Sig. (1-tailed)	GE	.	.000	.000
	GS	.000	.	.001
	IS	.000	.001	.
N	GE	98	98	98
	GS	98	98	98
	IS	98	98	98

Table 2 is the correlation matrix among the variables. Generic Skills (GS) and Innovative Skills (IS) correlate with Graduates' Employability (GE) at coefficient of .652 and .519 respectively while GS and IS also correlate with each other with the coefficient of .305

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.734 ^a	.619	.608	1.18432	2.339

a. Predictors: (Constant), GS, IS

b. Dependent Variable: GE

Table 3 shows the summary of the joint effect of the independent variables (Generic Skills and Innovative Skills) on the dependent variable (Graduates' Employability). The result revealed an R-square value $R^2 = .619$, which implies that about 62% variance in Graduates' Employability is jointly accounted for by the independent variables (GS and IS).

Table 4: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	155.253	2	77.626	55.345	.000 ^b
	Residual	133.247	95	1.403		
	Total	288.500	97			

a. Dependent Variable: GE

b. Predictors: (Constant), GS, IS

Table 4 shows the significance of the relationship between independent variables (Generic Skills and Innovative Skills) and the dependent variable (Graduate Employability) at 5% significant level. This is evidenced by the result of the statistics, $f(2/95) = 55.345$, $P < 0.05$. Hence, the null hypothesis is rejected and the alternative hypothesis accepted at 95% confident interval. We accept that generic and innovative skills have significant combined impact on the employability of graduates.

Table 5: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.835	1.915		.436	.664
	GS	.530	.071	.544	7.428	.000
	IS	.294	.061	.354	4.832	.000

a. Dependent Variable: GE

Table 5 shows the summary of the relative influence of the independent variables on the dependent variable. It indicates the magnitude of influence of independent variables on the dependent variables. There is a positive significant impact of generic skill on graduate employability ($\beta = .530$; $t = 7.428$; $P < 0.05$) and a positive significant relationship between Innovative Skills and Graduate Employability ($\beta = .294$, $t = 4.832$, $P < 0.05$). Thus, if the null hypothesis 1 and 2 are rejected and their alternatives are accepted, it is upheld that generic and innovative skills have significant relative impact on graduate employability.

Discussion

Tables 1 and 2 show the standard deviation for each of the variables and the relationship among the variables respectively. There exists positive relationship between generic skills and innovative skills with graduates' employability. This implies that a change in either positive or negative direction among the independent variables will lead to similar change in graduate employability to the extent depicted by the result (.652 and .519) respectively. There is also a relatively positive correlation between generic skills and innovative skills with coefficient of .305. This means that a change in either of generic and innovative skills will result in about 35% change in the other and vice versa.

Tables 3 and 4 show the joint effect and significance of the relationship of generic skills and innovative skills with graduates' employability. The results reveal that about 62% increase in graduate employability is jointly accounted for by generic and innovative skills while the remaining 38% could be accounted for by other factors not covered in this study. This implies that generic skills (teamwork, communication, leadership, moral values, continuous learning) as well as innovative skills (creativity, ability to create new ideas, new ways of doing things, new processes, products or services) jointly serve as key indicators of graduates' employability. Hence, at P-value 0.000, the null hypothesis is rejected and it is accepted that generic and innovative skills have significant combined impact on graduates' employability. It is shown that the possession of both skills will to a large extent help graduates gain, maintain and excel in employment. Any graduate who has both generic and innovation skills will be able to compete for employment and succeed at his workplace. This aligns with Onyeike & Onyeagbako (2014), Gokhberg & Poliakova (2014), Rothstein & Santana (2015), Mattis (2018) and Haron, et al (2019)

Table 5 is the magnitude of the relative impact of generic skills and innovative skills on graduates' employability. With p-value < 0.05 for each of the independent variables, it is upheld that generic and innovative skills have significant relative impact on graduates employability. From the result, a unit increase in generic skills (GS) will yield .53 unit increase in graduate employability (GE) and a unit increase in innovative skills (IS) will yield .29 unit increase in graduate employability. This implies that generic skills when taken alone will engender high graduate employability (.53) than innovative skills (.29). This is particularly so as generic skills are often regarded as core skills, key skills, essential skills, basic skills and workplace know-how (Gibb, 2004) and are therefore sought for graduate employment while innovative skills are exhibited when presented with tasks requiring the use of such skills.

The present findings support Rao (2010) and Haron et al (2010) that generic skills are skills set that contribute to individual graduates' employability and are fundamental to gaining or changing employment. From the perspective of the employers selected from across industries and sectors, small, medium and large enterprises, graduates need to demonstrate teamwork, problem-solving skills, communicate effectively and display the competence to take responsibilities and deal with processes requiring multi-skills. These are primarily factored into employment consideration decision on the labour demand side and they also form the concern of higher education and training as the employability of graduate places much expectations on the labour supply side (schools, curriculum, content delivery and mechanism), hence, the higher influence of generic skills on graduate employability. Innovative skills was also found to have significant impact on graduate employability but it highly enables graduates to apply their acquired skills in a given job placement. This corroborates Pegg, et al (2012) that being creative and innovative will make graduates likely to gain employment but it will make them to be more successful in their chosen occupations. It could be safe to support David et al (2011) as cited in Nakano and Wechsler (2018) that innovativeness in the graduate will be exhibited on the

job and the work environment or condition should impacts creative productivity, by either stimulating or inhibiting creative expression of the job holder.

Conclusion and Recommendations

In making employment consideration decision, applicants' ability to show competence and mastery of the needed skills and knowledge forms an integral way of determining their employability. Generic and innovative skills have been found to have significant impact on the employability of graduates. Despite differences in what employers demand as employability skills from graduates there is a general agreement that employers want their workers to demonstrate an array of broad competence, skills and attributes to offer them opportunity for employment and predict their match with the job. Employers show demand for a set of generic skills that encompasses interpersonal relationship, communication, learning, teamwork, conceptual thinking, customer relationship, information processing, problem-solving, organising, systems thinking, etc. This set of skills are generic, they are in high demand by employers and serve as key indicator of graduate employability.

Apart from having the basic or generic skills, employers are in search for graduates who will exhibit innovative skills in their assigned roles and demonstrate abilities to address and solve problems. Such individuals would have developed system and creative thinking and show initiative in what they do. Possession of creative and innovate capacity to bring about new ideas or new approaches to existing work pattern is a marginal attributes that employers desire and this goes a long way in affirming a well-integrated employable graduates.

It is important to have a redirection or refocus of higher education approaches towards intensifying the impartation and acquisition of generic and innovative skills in the recipients. There is the need for a rounded move by higher education students to gain more generic and innovative skills and be able to utilise them in the face of the real demands of the workplace. Industries, corporate bodies, government establishments and agencies have human capital development roles in ensuring that appropriate work-demand skills are acquired by undergraduates during industrial training while supervisory and monitoring agencies of government should give adequate consideration and commitment to industrial training programmes.

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