

**GRADUATE EMPLOYMENT TYPE IN RELATION TO AREAS OF
SPECIALIZATION: A CASE STUDY OF A SELECTED HIGHER LEARNING
INSTITUTION IN BOTSWANA**

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ABSTRACT: *The purpose of this paper was to determine whether graduates of a selected higher learning institution (HLI) in Botswana got jobs in their areas of specialisation. The issue of graduates who are not employed in their field of specialization has gained prominence in national debates world over. The mismatch between graduate employment types in relation to graduates' fields of specialization has created a dichotomy which has generated growing interest for governments, ministries of education, regulatory authorities, and institutions of higher learning, industry, students, and parents at large. With a bigger chunk of the national fiscus in Botswana going to funding education, the dichotomy has turned into an issue of national interest. The study employed the case study research design while the research approach was quantitative. Survey strategy was used for data collection. This study's target population was all former full time students at the selected HLI in Botswana who graduated between 2007 and 2014. Since the study was a quantitative one, convenient sampling procedure was adopted. The sample size adopted for this study was 250. The study revealed that across gender, more graduates were employed in their fields of expertise when compared to those employed in fields they did not specialize in. Gender-wise, there were more female graduates employed in areas of expertise when compared to male graduates.*

KEYWORDS: Higher education, graduate employability, Human Resource Development Council (HRDC), graduates

INTRODUCTION

The problem of graduate employment type in relation to learner's field of specialisation remains a continuing policy priority for higher education policymakers in Botswana. The Government of Botswana has, through the approval of Human Resource Development Council (HRDC) Act No 17 of 2013, established the HRDC that became operational on the 8th of November 2013. The objectives of the Council are to: provide for policy advice on all matters of national human resource development, co-ordinate and promote the implementation of the National Human Resource Development Strategy, prepare the National Human Resource Development Plan, and plan and advise on Tertiary Education Financing and work-place learning. The HRDC is mandated with identifying skills gaps in industry and commerce so as to inform institutions of higher learning on priority areas of training in order to avoid the scenario of graduates who are not getting employment or working in areas they were not trained for.

The relationship between higher education (HE) and the labour market has traditionally been a closely corresponding one, although in sometimes loose and intangible ways (Brennah et al, 1996; Johnston, 2003). In addition Tomlinson (2012) states that HE has traditionally helped regulate the flow of skilled, professional and managerial workers. This relationship was

marked by a relative stable flow of highly qualified young people into well paid and rewarding employment. According to Scott (2005), over time, however, this traditional link between HE and the labour market has been ruptured. The expansion of HE, and the creation of new forms of HE institutions and degree provision has resulted in a more heterogeneous mix of graduates leaving universities. Scott (2005)'s assertion resonates well with the situation in Botswana. Traditionally, the University of Botswana (UB) was the only degree offering institution in the country. Consequently, the relation between UB and the labour market has traditionally been a closely corresponding one. The flow of graduates into the labour market has been highly regulated. The advent of other players in HE culminated in the tremendous increase in the inflow of graduates into the job market to unprecedented proportion resulting in the challenges bedeviling the nation. It is against this background that the paper reviewed some of the key empirical and conceptual themes in the area of graduate employability in so far as the fit between employment type and nature of qualification obtained were concerned.

Objectives of the Study

The major aim of this study was to explore graduate employment type in relation to graduates' field of specialisation. The specific objectives were to:

- Assess types of jobs in which graduates were employed.
- Establish if graduates were employed in their fields of specialisation.
- Establish the sectors of the economy in which the majority of the graduates were employed.

Hypotheses

Hypothesis 1: There is a significant statistical relationship between the degree qualification obtained at HE institutions and the economic sector graduates work in.

Hypothesis 2: There is significant statistical relationship between the degree graduates obtained from the selected institution and the job designations the graduates were occupying.

Hypothesis 3: There is a significant statistical relationship between the degree graduates obtained at HE institutions and being employed in the field of specialisation.

LITERATURE REVIEW

Tomlinson (2012) posits that, HE has traditionally helped regulate the flow of skilled, profession and highly qualified workers. Furthermore, this relationship was marked by a relatively stable flow of highly qualified young people into well-paid and rewarding employment. Tomlinson (2012) further asserts that, as a mode of cultural and economic reproduction (or even cultural apprenticeship), HE facilitated the anticipated economic needs of both organisations and individuals, effectively equipping graduates for future employment. The assertion by Tomlinson summarizes the historical synergy and harmony that existed between HEIs and the labour market. Students in the olden days literally graduated into the labour market where they fitted well into their chosen career. However, the labour market of today has changed and the HE landscape has also dramatically changed with new players

coming in on board (Scott 2005). The proliferation of private tertiary institutions has not only resulted in the mismatch of qualifications and labour requirement but in the dearth of the traditionally smooth supply of qualified young people into matching jobs (Scott 2005). Tomlinson (2012) supports this line of thought when he posits that, “Overtime however, this traditional link between HE and the labour market has been ruptured. The expansion of HE, and the creation of new forms of HE institutions and degree provision has resulted in a more heterogeneous mix of graduates leaving universities”.

One cannot divorce the relationship between employment type and the concept of employability. Employability is premised on the belief that it is education that defines the match of people to jobs (Bolaane et al (2010) and relates to being employable and being employed. What comes out clearly from this statement is that education should produce graduates who are suitable for the job market. Graduates fail to acquire suitable jobs because the skills they have trained for are in digression to what is needed in the job market. Being employed means having a job while being employable means having the qualities needed to maintain a job and being able to progress at the workplace (de Guzman & de Castro, 2008). Deducing from this definition, employability encompasses continued employment and a chance of career progression which are not possible if one is not employed in the area of specialisation. One can only progress if he/she is employed in their area of specialisation. Employability can also be viewed as relating to a set of competences and abilities which are necessary for a graduate to obtain and maintain a job (Chiavenato, 1997).

Theoretical framework

The theoretical framework underpinning this study is the CAREEDGE model (Figure 1).

The premise of the model is that increasing domain-specific expertise only instead of a broad employability package of skills and knowledge is not enough to guarantee graduate employability (Van dam, 2004). The model therefore focuses on providing students with opportunities to access and develop everything on the lower tier of the model, and reflect on and evaluate their experiences (from lower tie). As earlier alluded to, employability is premised on the belief that it is education that defines the match of people to jobs (Bolaane et al 2010).

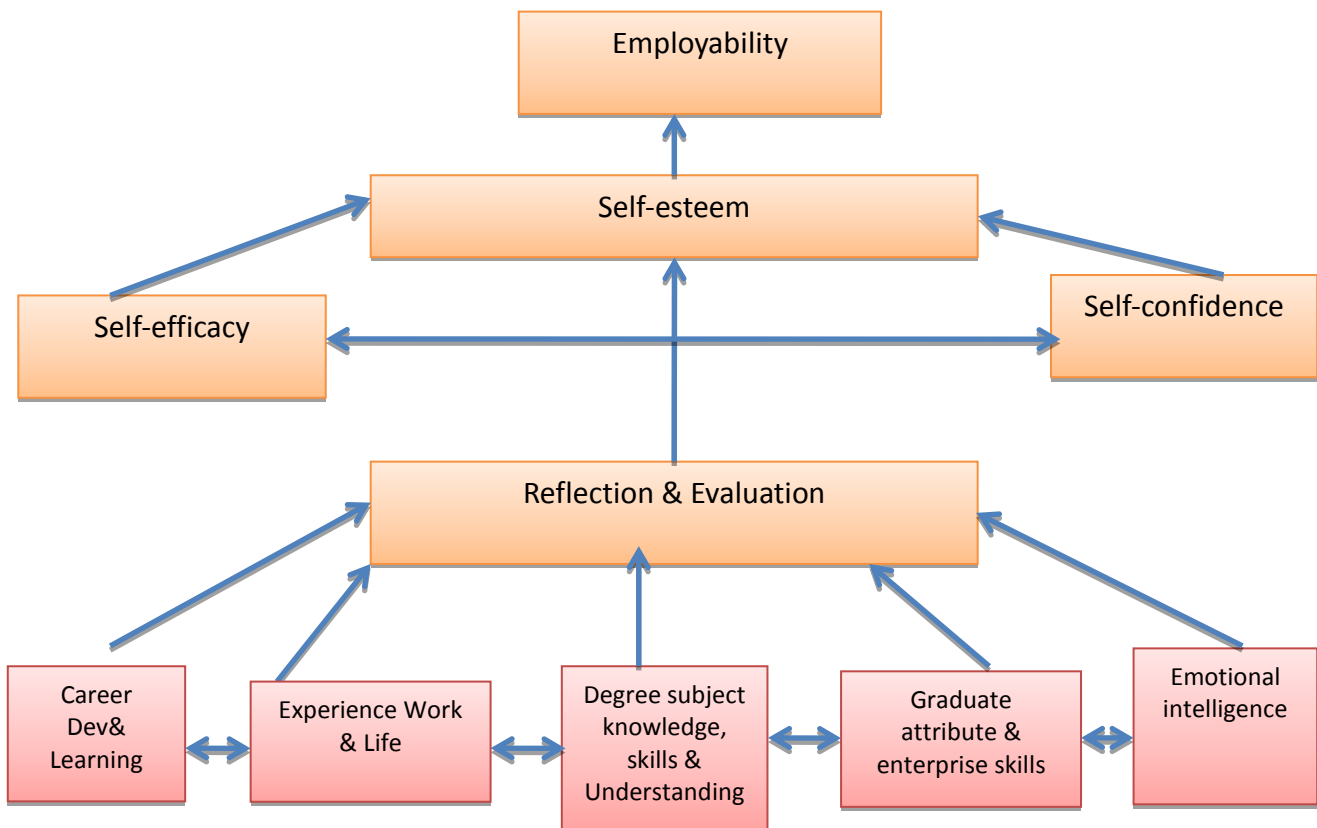


Figure1: CareerEDGE Model of Employability (Van Dam, 2004)

Opportunities shown in the lower tier in Figure 1 will result in the development of higher levels of self-efficacy, self-confidence and self-esteem and hence higher employability prospects (Jaeger, 2003; Johnes, 2006; Knight & Yorke, 2004). One major advantage of the model is that it provides clarity about what needs to be done by HE institutions to enhance graduate employability, which in turn will result in graduates being employed in their field of specialisation.

METHODOLOGY

This section looks at the research methodology used in this study focusing on the research approach, the population, sampling strategy, and data collection and analysis procedures.

The research approach

The research methodology used in the study was quantitative with the questionnaire being used as the dominant data collection instrument. The study adopted the case study design where the selected HE institution was used as a single case study to represent all graduates of HE institutions in Botswana.

Population and sampling

This study's target population was all former full time students of a selected HE institution in Botswana who graduated between 2007 and 2014. The sample frame thus comprised, firstly, the list of all the organisations that employed (or have employed) the targeted HE institution's graduates of 2007 to 2014. Secondly, the sample frame also comprised the list of all graduates of the selected institution who completed their studies between 2007 and 2014. The sample size based on the sample size calculator was 250 (The Research Advisors, 2006).

Sampling procedure

This study adopted convenient sampling procedure owing to the geographical dispersion of respondents and time limitations. As such, respondents were selected on the basis of availability. For instance, all graduates in Maun, Selibe-Phikwe, Mahalapye, Serowe, Palapye, and Lobatse who were in the data base of the institution were included. For Gaborone and Francistown, graduates in the data base were called and given questionnaires until an acceptable number was reached.

Data collection and analysis

Data was collected on the employment type and area of specialisation of graduates of a selected HE institution through a structured questionnaire. Information gathered from the questionnaires was analysed using statistical software popularly known as Statistical Package for Social Sciences (SPSS). This was carried out by assigning codes to the responses and entering the codes into the computer and then transferring them into SPSS. The reason for coding the data was to allow numerical representation and manipulation of the responses in order to address the specific research questions and objectives. The software was used to run descriptive statistics and cross tabulations to produce frequency tables, charts and graphs for easier and more effective analyses. Data for inferential statistics was also analysed through non-parametric Chi-square test.

RESULTS AND DISCUSSION

The results of the study are presented below.

Graduate employment type

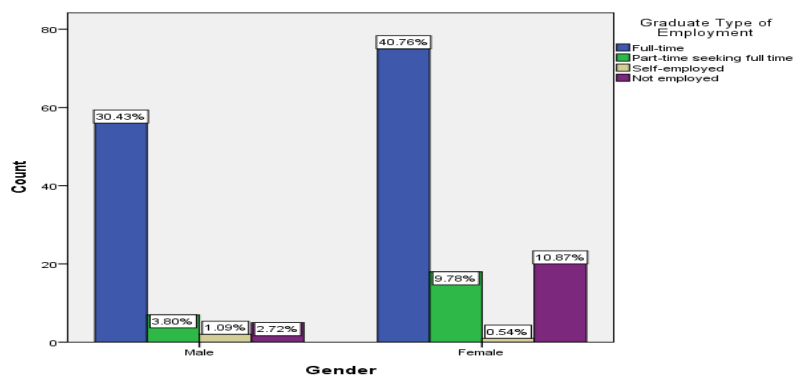


Figure 2: Graduate employment type * Gender

Figure 2 shows that 71.1% of the students of the selected HE institution who graduated between 2007 and 2014 were employed full-time, while 13.5% were employed part-time; 1.6% were self-employed, while 10.8% were not employed. The above figures therefore show that most of the graduates were in full-time employment. When looking at the statistics gender-wise, more female graduates were employed full-time (40.8%) when compared to their male counterparts (30.4%). There were also more female graduates employed part-time (9.8%) when compared to male graduates (3.8%). More female graduates were not employed (10.9%) when compared to male graduates (2.8%). On the other hand, there were more male graduates who were self-employed (1.1%) when compared to female graduates (0.5%) showing that male graduates were more entrepreneurial than their female counterparts.

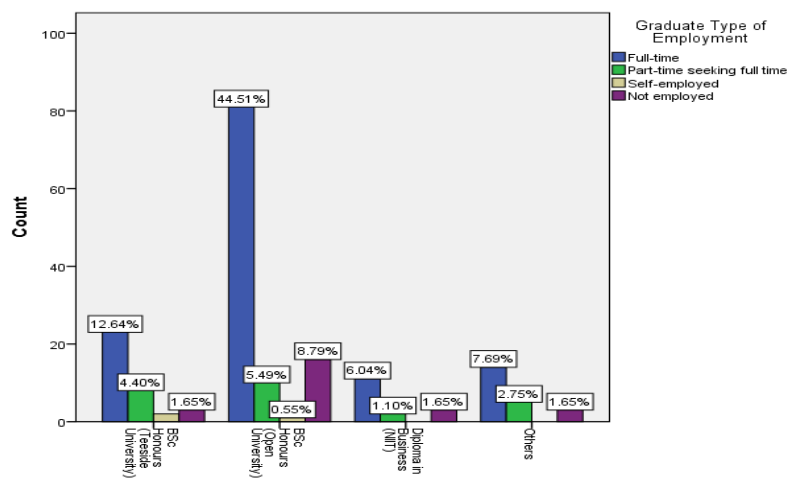


Figure 3: Graduate employment type * Degree programme

Figure 3 shows that across programmes, most of the graduates (70.9%) were employed full-time. Of this figure, 44.5% were from the BSc (Hons) Open University, 12.6% from BSc (Hons) Teesside, 6.1% from Diploma in Business NIIT and 7.7% from others. BSc (Hons) Open University had also more graduates (5.5%) employed on a part-time basis as well as not employed (8.8%).

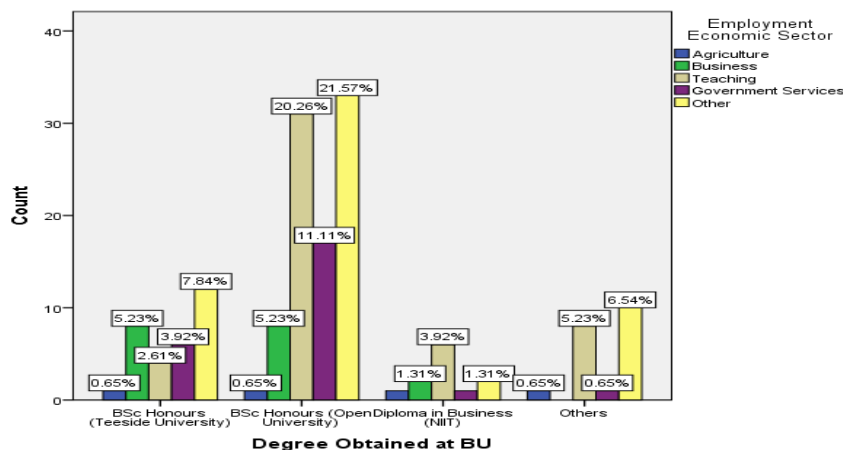


Figure 4: Graduate employment economic sector * Degree programme

Figure 4 shows that across all programmes, the sector in which most of the graduates were employed is other (37.3%), followed by teaching (32%). Results also show that across programmes, very few graduates were employed in agriculture (2.6%), government services (16.3%) and business (11.8%). Results further show that most of the employed graduates were from the BSc (Hons) Open University (58.8%) followed by BSc (Hons) Teesside University (20.3%) with the programme with the least employed graduates being the Diploma in Business NIIT (7.8%).

Nature of employment and organisations employing graduates of the selected HE institution

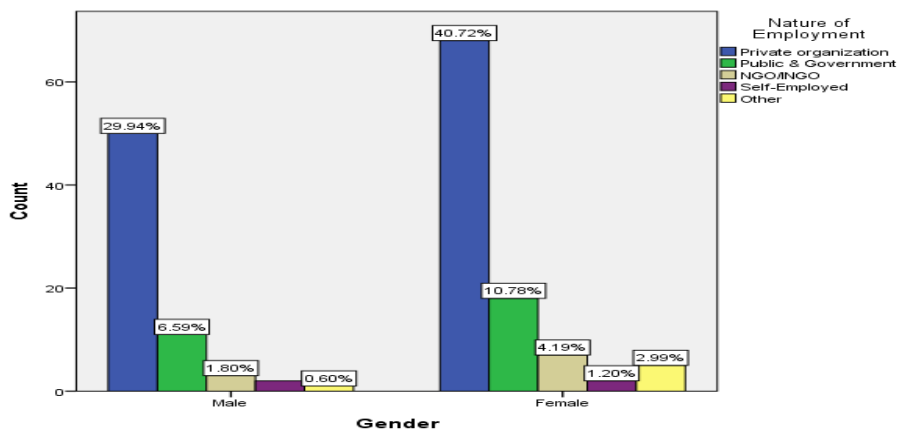


Figure 5: Nature of employment organisations * Gender

Figure 5 shows that across gender, most graduates of the selected HE institution (70.6%) were employed in private organisations with most of these (40.7%) being female graduates. Very few graduates across gender were self-employed (3%).

Graduates' job designations

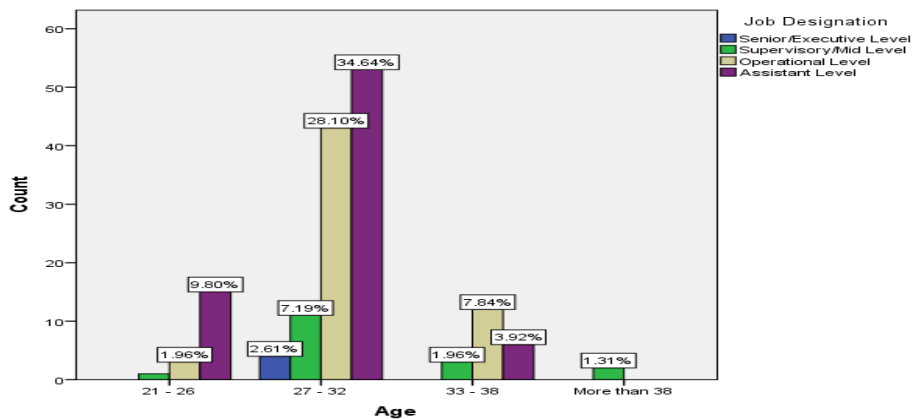


Figure 6: Job designation

Figure 6 shows that across all age groups, most graduates (76.4%) were employed at either assistant or operational level. Of those employed at assistant level, 34.6% were 27-32 years old, followed by 21-26 year olds (9.8%). Of those employed at operations level, most of them were also in the 27-32 years age group (28.1%) followed by those in the 33-38 years age group (7.8%). There were very few graduates employed at supervisory level (7.9%). Fewest of the graduates were at senior executive level (2.6%) and all in the 27-32 years age group.

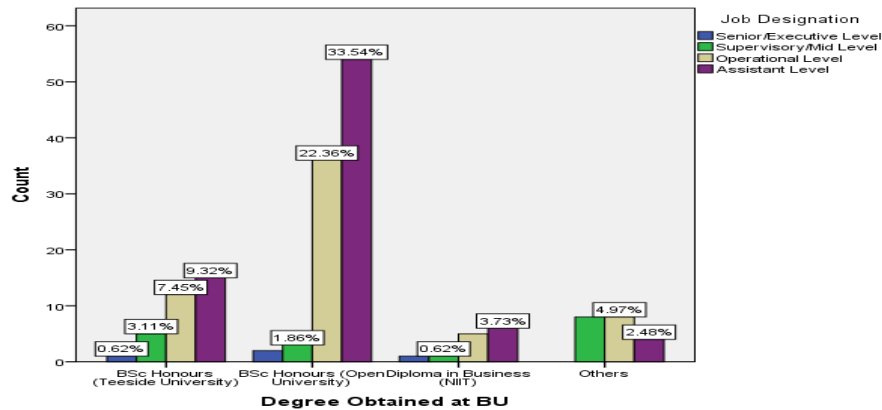


Figure 7: Job designation * Degree programme

Figure 7 shows that across programmes, most of the graduates (49.8%) were employed at assistant level than at any other level. Other levels of employment across programmes show that (38.5%) of the graduates were employed at operational level, 10.6% at supervisory level, and 1.1% at senior executive level. Programme-wise, most of the graduates employed at both assistant and operational levels than at other senior positions were from the BSc (Hons) Open University (55.9%), followed by the BSc (Hons) Teesside University, with 20.5% of graduates employed at lower positions

Graduate employment in field of specialisation

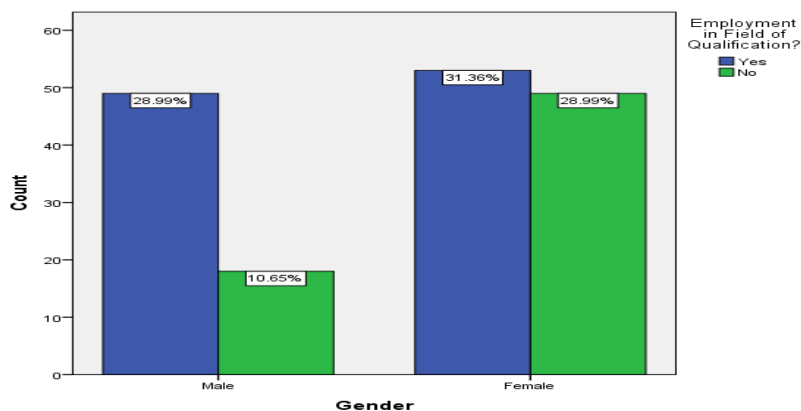


Figure 8: Employment in field of specialization * Gender

Figure 8 shows that across gender, there were more graduates employed in their field of expertise (60.4%) when compared to those employed in fields which they did not specialise in (39.6%). Gender-wise, there were more female graduates (31.4%) employed in areas of

expertise when compared to male graduates (29%). Also, there were more female graduates who were employed in areas in which they did not specialise (27%) than male graduates (10.7%).

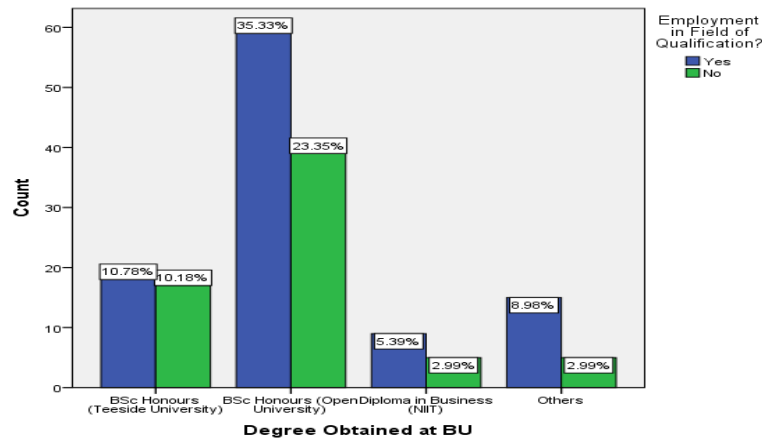


Figure 9: Employed in the field of specialization * Degree programme

Figure 9 shows that across all programmes, most graduates (60.5%) were employed in the field of specialisation with only 39.5% disagreeing. Of the graduates employed in the fields of specialisation, 35.3% came from BSc (Hons) Open University, 10.8% from BSc (Hons) Teesside, 9% from others, and 5.4% from Diploma in Business.

Descriptive statistics above have also been confirmed by inferential statistics as shown below.

Hypothesis 1

There is a significant statistical relationship between the type of degree (programme) a graduate obtained from the selected HE institution and the type of employment they got.

Hypothesis 2

There is a significant statistical relationship between the degree qualification obtained from the selected institution and the economic sector graduates work.

Table 1: Degree Obtained at HEIs * Employment Economic Sector

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 21.335 ^a | 12 | .076 |
| Likelihood Ratio | 23.727 | 12 | .022 |
| Linear-by-Linear Association | .076 | 1 | .783 |
| N of Valid Cases | 153 | | |

The calculated P-Value in Table 1 shows that $P > 0.05$ which is not statistically significant, hence the hypothesis that there is a significant statistical relationship between the type of

qualification a graduate obtained from the selected HE institution and the economic sector graduates worked was accepted. This means that the degree which graduates got from the selected institution mostly helped students to acquire employment from a few sectors of the economy namely private sector and teaching sector rather than from all sectors. This result confirmed the earlier result in Figure 4 which showed that most graduates (69.3%) from the selected HE institution were mostly employed in two sectors namely private sector and teaching sectors and not in the rest of the economic sectors.

Hypothesis 3

There is significant statistical relationship between the degree graduates obtained from selected institutions and the job designations the graduates are occupying at their jobs.

Table 2: Degree Obtained at HE institution * Job Designation

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 28.886 ^a | 9 | .001 |
| Likelihood Ratio | 24.759 | 9 | .003 |
| Linear-by-Linear Association | 5.359 | 1 | .021 |
| N of Valid Cases | 161 | | |

The calculated P-Value in Table 3 shows that $P < 0.05$ which is statistically significant, hence the hypothesis that there is a significant statistical relationship between the type of qualification a graduate obtained from the institution and the job designation they occupied was rejected. This means that graduates from the institution were occupying work positions that did not suit their level of education. This result confirmed the earlier result in Figure 7 which showed that almost 50% of the graduates from the selected institution were occupying positions which were lower than the level of their qualifications as most were employed as either assistants or worked as operational level employees.

Hypothesis 4

There is a significant statistical relationship between the degree graduates obtained at HEIs and being employed in the field of qualification.

Table 3: Degree Obtained at selected Institutions* Employment in Field of Qualification

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|--------------------|----|-----------------------|
| Pearson Chi-Square | 3.052 ^a | 3 | .084 |
| Likelihood Ratio | 3.140 | 3 | .370 |
| Linear-by-Linear Association | 2.965 | 1 | .085 |
| N of Valid Cases | 167 | | |

The calculated P-Value in Table 4 shows that $P > 0.05$ which is not statistically significant, hence the hypothesis that there is a significant statistical relationship between the degree a graduate obtained from the selected institution and being employed in the field of qualification was accepted. The above means that the qualifications most graduates obtained from the selected institution have helped graduates to acquire employment in the areas of their specialisation. This result confirms earlier results in Figure 9 which showed that most graduates (60.5%) of the institution were employed in their areas of specialisation.

CONCLUSION

This study provides succulent conclusion about employment type in relation to areas of specialisation and mismatch between qualifications in the job market. The research revealed that the majority of the graduating classes of 2007 to 2014 were gainfully employed. The second observation is that most graduates were employed in areas of specialisation although a significant number was not employed in the area specialisation. Thirdly, it was discovered that the fact that a significant number of graduates not employed in their area of specialisation was attributed to the constant reshaping of the economy, labour market and shifting of the higher education landscape from a scenario whereby one state university dominated the sector replenishing commerce and industry with young graduates, to a scenario whereby many private and public institutions were awarding qualifications. It was also noted that the advent of private institutions ushered in a lot of challenges related to cross-border education, whereby programmes were imported and sold to Botswana wholesomely on a franchise arrangement. The franchise agreement has its defects as it does not address issues of programme relevance to the market resulting in a mismatch between industry requirements and qualifications obtained by graduates. Lastly, it was observed that most graduates were not content with their jobs. This was attributed to the misfit between employment type and area of specialisation and compounded by the fact that even those employed in their area of specialisation were engaged either at assistant or operational levels.

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