

RESEARCH ARTICLE

An Evaluation of Students' Industrial Training Programs in the Hospitality Industry: A Case Study of Three Public Universities in Ashanti Region, Ghana

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ABSTRACT

Industrial attachment is regarded as one of the most relevant aspects of the academic curriculum of tertiary institutions across the globe. Industrial attachment offers students the opportunity to prepare themselves for the job market by gaining relevant insight into what pertains to the world of work. This study aims to investigate the perception of students on the effectiveness of industrial training in academic programmes offered at three Universities in Kumasi, the Ashanti region of Ghana. This study utilized a case study research design and quantitative research approach to solicit from 284 students from the departments of Tourism and Hospitality in the three universities who had undergone practical industrial training in their previous semesters through close ended questionnaires. The study employed descriptive statistics and linear regression analysis to analyse the data collected. The findings of the study revealed that the perception of students on the effectiveness of industrial training was generally positive, with an average ranking score of ±89.62%. The study established that the major factor that had a positive influence on the perception of the students on the effectiveness of their previous industrial training programme was the host company's support. It was, however, observed that the majority of the students (89%) lacked pre-placement orientation, while another 85% also lacked departmental support during their industrial training programme. The study recommends that students should be given the proper orientation before their placement to give them insight into what to expect while on their internship. The departments in the university should also create a feedback system that will allow them to supervise, monitor and also follow-up on the progress of their students while on industrial training programmes.

KEYWORDS

Industrial training, perception, departmental support, company support, orientation

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1. Introduction

In Ghana, almost all higher learning academic institutions offer industrial training programmes for their students. According to Adjei, Nyarko and Nunfam (2014), industrial internship is regarded as an academic requirement that third year students in universities in Ghana must fulfil before they graduate. The overarching goal of industrial attachment programmes in universities in Ghana is to equip students with the relevant experience of what is required of them by employers. According to Sumathi et al. (2012), industrial attachment equips students with employability skills. It offers students the opportunity to match the theoretical perspective of lessons they have been taught on the job. It also equips students with relevant entrepreneurial skills as part of their curriculum. Della-Volpe (2017) also suggests that the relevance of industrial training programmes lies in the fact that they offer students the opportunities to meet real life problems, which enable them to develop better problem-solving competencies and skills on the job. According to Adjei et al. (2014), students from higher learning institutions are trained to take up leadership and managerial roles on the job.

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Imperatively, industrial attachment offers students the avenue to exhibit their leadership and managerial competencies on practical jobs before their graduate. While these identified importance of industrial training programmes are relevant for the development of students, there is also a debate on whether industrial training programmes in Ghana are effective. According to Adjei et al. (2014), the proposition and integration of industrial training programmes into academic degree programmes have been a debatable issue. While industrial training programmes have been a routine practice of most tertiary institutions in Ghana (Frempong, Nkansah, & Nkansah, 2017), the question of whether industrial programmes are able to achieve their purposes in terms of their effectiveness from the perspective of beneficiaries (students) remains unexplored by researchers. Owing to the increasing demand to improve the employability of students by employers through practical competency and skill development, it becomes imperative to assess the effectiveness of industrial training programmes in order to address the gaps that exist in such programmes.

This study aimed to assess the perception of students on the effectiveness of industrial training programmes in three public universities in the Ashanti region, Ghana. The selected public universities included Kwame Nkrumah University of Science and Technology (KNUST), Kumasi Technical University (KsTU) and Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED). According to Mihail (2016), knowledge and experience acquired in the classroom largely differ from what is obtained through industrial training programmes. While lecture room lectures equip students with theoretical knowledge, industrial training programmes, on the other hand, provide the avenue for students to practicalize the theories, concepts and models they have been exposed to in the classroom. This explains why most higher learning institutions create synergy between classroom learning and practical incidental learning through industrial attachment. Essentially this study is expected to enable higher learning institutions to identify the gaps in their industrial training programmes. Ultimately, knowledge of the identified gaps will help tertiary education to develop appropriate strategies which would enhance the effectiveness of academic industrial training programmes in Ghana. Moreover, the assessment of students' perceptions will help shed light on the preparedness of students for the workforce, highlighting strengths and weaknesses in their industrial training experiences and guiding efforts to enhance their employability.

2. Literature Review

2.1 Industrial Training/Internship

Gisela and Gabriela (2018) defined industrial training as a credit bearing, structured work experience in a professional working experience which allows students in higher learning institutions to apply the theoretical perspective of what they have been taught in school on the job. Similarly, Streumer and Kho (2016) also defined industrial training as structured practical incidental learning platforms whereby students in vocational and higher learning institutions are placed in organizations to gain relevant employable experience and skills. According to Karunaratne and Niroshani (2019), industrial attachment is part of the formal curriculum of most tertiary institutions where students are placed in organisations to work for a defined period of time to gain relevant skills and competencies.

2.2 Relevance of Industrial Training Programmes for Undergraduates

It is important to note that the business environment is becoming very competitive in developing countries such as Ghana (Frimpong et al., 2017). Inherently, employers who intend to gain a competitive advantage require graduates who are competent and versatile. In order to bridge the competence gap between academia and industry, it becomes imperative for practical industrial training programmes to be organized for undergraduates. According to Adjei et al. (2014), higher learning institutions cannot ignore the relevance of industrial attachment since it provides them with the opportunities to pair their students with their preferred careers. Historically, industrial training programmes are mechanisms which are widely used by technical universities to blend students' theoretical knowledge into practical life situations on the job. Through industrial attachment, students are given the avenue to demonstrate the theoretical viewpoint of models and concepts which they have been taught in real-life. According to Mihal (2016), most firms prefer to employ graduates who have relevant industry skills and experience. Industry internships enable students the opportunity to gain relevant employable skills. Although the period of internship in most higher learning institutions is relatively short yet, the short while working opportunities give students a chance to develop relevant leadership and managerial skills and competence. In another study, Sumathi et al. (2012) also argue that industrial attachment not only enables students to develop employable skills but also enables students to develop their career paths. In most higher learning institutions, students are allowed to choose their preferred organizations for their internships. This opportunity enables students to choose firms that are aligned with their career aspirations. Agarwal and Gupta (2018) also add that because students choose their preferred, they are to align their internship to their career aspirations, which allows able them to build confidence and interest in their dream jobs.

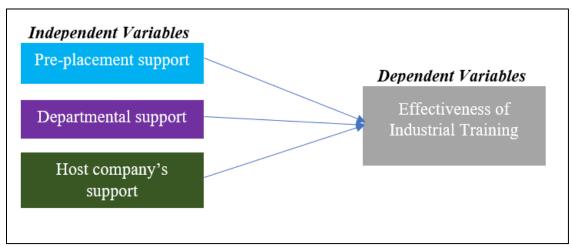
According to Agarwal and Gupta (2018), the experience and knowledge obtained in the classroom are entirely different from what is gained in industrial training programmes. In the views of Agarwal and Gupta (2018), higher learning institutions such as universities provide formal and structured education which are guided by teaching staff. On the contrary, industrial training programmes are offered to students in the form of incidental and informal learning. Della-Volpe (2017) also adds that because the environment on the job internship is entirely different from the classroom, intern students are often met with challenging problems, which they are expected by the host company to apply their problem-solving abilities and competencies to resolve the challenges. Inherently, internships enable students to develop better problems solving capabilities. Again, Della-Volpe (2017) argues that industrial training programmes enable students to build a wider network with employers, thereby improving their job marketability horizon. Similarly, Gisela and Gabriela (2018) add that students who are able to undergo regular internships while in school are able to develop better networks with employers; hence such students find it relatively easier to find employment after graduation. According to Della-Volpe (2017), industrial attachment also creates a healthy bridge which links academia and industry. In the view of Della-Volpe (2017), academic institutions are able to build relationships with industries which provide internship opportunities to their students. In return, the academic community also undertake research to support industries.

2.3 Empirical Literature

The study of Karunaratne and Niroshani (2019) assessed students' perceptions of the effectiveness of industrial attachment in Sri Lanka. The study used a case study approach where data were gathered from 67 students from some selected public universities in Sri Lanka through close ended-guestionnaire. The study revealed that the majority of the students (79%) had a positive perception of the effectiveness of their previous industrial attachment. The study revealed that the majority of the students (87%) were given adequate orientation before they were placed in their respective organizations. Another 73% of the respondents also received support from their respective host organizations, while 82% also received support from their respective departments during their internship. A similar study by Sumathi et al. (2012) also examined the perception of students on industrial attachment offered by selected private technological universities in Malaysia. This study also used a case study approach where data were gathered from 247 students through close-ended questionnaires. Similarly, the study of Sumathi et al. (2012) also revealed that the majority that is 83% of the students, had positive perceptions of their previous internship programmes. Although a minority (42%) of the students received pre-placement orientation from their department, yet majority that is 89%, who received departmental support and organization support during their internship, found the internship programme very relevant and effective to their skill and capability development. Another study by Della-Volpe (2017) also assessed the effectiveness of the internship offered by Campania University in South Italy from the perspective of students who had previously completed their internship programme. The study used an explanatory research design where data were gathered from 732 post-internship students through a close ended questionnaire. The study observed that the majority that is 76%, of the students were satisfied with their internship programme and hence had a positive perception of the effectiveness of the internship programme offered by the university. Similar to the previous findings, the study of Della-Volpe (2017) also revealed that the major factors which had a positive influence on the effectiveness of the internship programmes were pre-placement orientations given to the students by the university, host company's support and faculty's support during the internship.

2.4 Conceptual Model

From the review of related literature, the study assumed that the factors that influence the effectiveness of industrial programmes include; pre-placement support, departmental/Faculty support and host company's support. The conceptual model developed for this study from empirical literature is illustrated in Figure 1.1 and explained below.



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Pre-placement support: Pre-placement support encompasses the assistance and guidance provided to students before they begin their industrial training program. This support may include activities such as providing guidelines and instructions on the internship process, helping students secure suitable placement opportunities, offering orientation programs to familiarize students with the expectations and requirements of the training, and ensuring that students have a clear understanding of their roles and responsibilities during the program.

Departmental/Faculty support: Departmental or faculty support involves the assistance and resources provided by the academic departments or faculties to support students throughout their industrial training. This support may include regular communication and monitoring of students' progress, arranging visits by academic supervisors to provide guidance and resolve challenges faced by students, coordinating with host companies to ensure a productive learning experience, conducting performance evaluations, and offering feedback and mentoring to help students enhance their skills and knowledge.

Host company's support: Host company's support refers to the level of assistance and guidance provided by the organization where students undertake their industrial training. This support may include assigning experienced mentors or supervisors to guide and supervise students, providing relevant training and hands-on experiences, involving students in meaningful projects or tasks that align with their learning objectives, offering opportunities for networking and exposure to industry practices, and providing regular feedback and evaluations of students' performance.

3. Methodology

Research design: The study employed an explanatory research design based on the aim of the research. It must be noted that an explanatory study is characterized by a research hypothesis that attempts to find out the nature, directions and relationships between two or more variables. The kind of data that is used in an explanatory study is purely quantitative. It involves the use of statistical tests and models (Creswell & Plano, 2017). Since this study sought to establish an empirical truth on the perception of students on the effectiveness of industrial training offered at the three selected universities, namely, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi Technical University (KsTU), and Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED), the application of explanatory research design becomes justifiable.

Research approach: The study used a quantitative research approach. Quantitative research approach focuses on describing events and relationships by gathering numerical information and data, which are subjected to mathematical methods of analysis to establish empirical findings that are verifiable by statistical models (Creswell, 2007). While theories and motivating underpinnings of events and phenomena are based on true findings, it became imperative to adopt a research approach which is mathematically objective hence the adoption of a quantitative research approach for this current study.

Study Population: The population consists of students who had previously offered industrial attachment at KNUST, KsTU and AAMUSTED.

Sample size determination: The study adopted Glenn's formula to estimate the number of respondents that were required for the study.

$$\boldsymbol{n} = \frac{N}{1 + N(e)^2}$$

Explanation of the Variables in the formula;

n= the required sample size.

N= the total population from which the sample size is to be drawn from (Assumed \leq 1000; when the total number of N is not known)

e= the degree of freedom, which is set at 0.05

Determination of the sample size is as follows;

$$n = \frac{1000}{1+1000(0.05)2}$$
$$n = \frac{1000}{1+1000(0.0025)}$$
$$n = \frac{1000}{3.25}$$
$$n = 307.69 \approx 308$$

This study was required to engage at least 308 participants. However, 284 were retrieved and considered valid for analysis.

Sampling: In this study, the original target was to engage a minimum of 308 participants. However, due to practical considerations such as issues of response rate and resource limitations, a final sample size of 284 participants was obtained and deemed suitable for robust analysis. The sampling frame was constructed by collecting the names of all students who had previously completed their internship. To ensure fairness and equal opportunity for participation, a simple random sampling technique was employed to select the 284 participants from the sampling frame.

Instrumentation: A questionnaire in the shape of a five-point Likert scale was used to gather relevant data on the research study.

Data analysis: Descriptive statistics in the form of mean and standard deviation were used to describe the responses of the respondents in a meaningful manner. Linear regression analyses were performed at a 5% significance level to determine the factors that had a statistical influence on students' perception of the effectiveness of industrial training programmes offered at KNUST, KsTU and AAMUSTED.

4. Results and Discussion

4.1 Demography of Respondents

Table 1 shows the demographic profile of the respondents.

Variables	Categories	Sample%
Gender	Male	48.95
	Female	51.05
Age	Less than 20 years	10.22
	20-25 year	48.24
	26-30 years	23.59
	31+ years	17.25
School	Kumasi Technical University	34.09
	Kwame Nkrumah University of Science and Technology	37.98
	Akenten Appiah-Menka University of Skills Training and	27.92
	Entrepreneurial Development	

Table 1: Demography of respondents

Source (Field Survey, 2021)

Table 1 shows that 51.05% of the sampled students were females, while 48.95% were males. Table 1 further shows that 48.24% of the sampled students were within the age range of 20 and 25 years. Another 23.59% were also within the range of 26 and 30 years, while 17.25% were either 31 years or above. Marginally only 10.22% of the sampled students were below 20 years. The data in Table 1 shows that 21.83% of the respondents were students of the faculty of applied sciences and technology. Again Table 1 shows that 34.09% of the respondents were students from KsTU. Another 37.98% were students from KNUST, while 27.92% were sampled from AAMUSTED. Overall, these results provide demographic insights into the gender, age, faculty, and university distribution of the sampled students.

4.2 Perception of Students on internship Pre-placement support

Table 2: Perception of Students on internship Pre-placement support

Scale: (1=Very Poor) (2=Poor) (3=Average) (4=Good) (5=Very Good)				
Effectiveness of pre-placement support	Freq.	Mean	Std.	%
Guidelines given by the faculty before the internship was	284	2.157	1.376	43.14
comprehensive				
The university assists students to get companies for the internship	284	2.129	1.173	42.58
Orientation given by the department before the start of the	284	2.081	1.331	41.62
internship was very sufficient and informative				
Students are taken through placement procedures before the start of	284	2.119	1.281	42.38
the internship				
The department gives students a proper introduction to companies	284	2.291	1.252	45.82
before the start of the internship				
Maximum		2.291	1.521	±45.82
Minimum		2.081	1.173	±41.62
Mean		2.155	1.316	±43.11

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4.3 Source (Field Survey, 2021)

The mean score of 2.157, with a corresponding percentage of 43.14%, gives the indication that guidelines given by faculties before the commencement of student internships are poor. Again, the mean score of 2.129, with a corresponding percentage of 42.58%, shows that the assistance given to students to find or get companies for their internship by the university is poor. Also, the mean score of 2.081, with a corresponding percentage of 41.62%, suggests that the orientation given to students before the commencement of their internship is not sufficient and informative as they desire them to be. The mean score of 2.119 and the corresponding percentage of 42.38% gives the indication that students generally have not taken through any placement procedure before the commencement of their internship. The mean score of 2.291, with a corresponding percentage of 45.82%, implies that the various faculties do not give students any proper introductions to their placed companies before they start the internship programme.

The overall implication of the provided results is that the pre-placement support given to students before the commencement of their industrial training program is poor. This conclusion is drawn based on multiple indicators, including low mean scores and corresponding percentages for various aspects captured in Table 2. The aggregate mean score of 2.155 further supports the overall indication of insufficient pre-placement support. These findings are in contrast to previous studies (Sumathi et al., 2012; Della-Volpe, 2017; Karunaratne & Niroshani, 2019) that found intern students often receive the necessary pre-placement support to enhance the effectiveness of their internship programs. Thus, the current study's results suggest a divergence from the findings of these previous studies. The foregoing discussions highlight the need for improvement in the pre-placement support provided to students before their industrial training program, as the existing support mechanisms seem to be lacking in terms of guidelines, assistance, orientation, placement procedures, and introductions to companies.

4.4 Perception of Students on the Effectiveness of Departmental Support

Table 3: Perception of Students on the effectiveness of Departmental Support

Scale: (1=Very Poor) (2=Poor) (3=Average) (4=Good) (5=Very Good)				
Effectiveness of pre-placement support	Freq.	Mean	Std.	%
Academic supervisor comes to visit intern students to identify their	284	1.081	1.182	21.62
challenges				
Academic supervisor was available to help when needed	284	1.209	1.391	24.18
Academic supervisor comes to assess the performance of students	284	1.225	1.429	28.58
Academic supervisor maintained a good relationship with the host	284	1.086	1.320	21.72
company				
Maximum		1.225	1.521	±28.58
Minimum		1.081	1.173	±21.62
Mean		1.150	1.150	±24.025

Source (Field Survey, 2021)

The mean score of 1.081 with the corresponding 21.62% gives the indication that the visitation of academic supervisors to resolve the challenges of intern students is very poor. The mean score of 1.209 with a corresponding percentage score of 24.18% also shows that the availability of academic supervisors when needed by intern students is also very poor. Again, the mean score of 1.225 with a corresponding percentage of 28.58% implies that the assessment of the performance of students, while they are on their industrial training programme by academic supervisors is very poor. The mean score of 1.086, with a corresponding percentage of 21.72%, shows that the relationship between academic supervisors and host companies is very poor. The computed low mean scores and corresponding percentages for various aspects in Table 3 imply that, overall, the departmental support for intern students from KNUST, KsTU and AAMUSTED is very poor. The aggregate mean score of 1.150 further supports the overall indication of insufficient departmental support. These findings contradict the observations of previous studies (Della-Volpe, 2017; Karunaratne and Niroshani, 2019) that identified regular support provided by departments to enhance the effectiveness of the industrial training program for intern students. The results further highlight the need for significant improvements in departmental support for intern students.

4.5 Perception of Students on the Effectiveness of Host Company's Support

Table 4: Perception of Students on the Effectiveness of Host Company's Support

Scale: (1=Very Poor) (2=Poor) (3=Average) (4=Good) (5=Very Good)				
Effectiveness of host company's support	Freq.	Mean	Std.	%
Training provided by the company was related to my course	284	4.612	1.277	92.24
Training was well structured	284	4.772	1.261	95.44

Evaluation and assessment were carried on my performance	284	4.208	1.119	84.16
Good working relationship with employees of the company	284	4.719	1.081	94.38
Provided the opportunity to work in different departments	284	4.481	1.281	89.64
Training was very flexible	284	4.493	1.327	89.86
Maximum		4.772	1.521	±95.44
Minimum		4.208	1.173	±84.16
Mean		4.548	1.150	±90.95

Source (Field Survey, 2021)

The mean score of 4.612, with a corresponding percentage of 92.24%, shows that the training provided by companies to intern students was very good. The mean score of 4.772, with a corresponding percentage of 95.44%, shows that the structure of the industrial training programme for students was very good. The mean score of 4.208, with a corresponding percentage of 84.16%, shows that the performance evaluation carried out by host companies were generally good. The mean score of 4.719, with a corresponding percentage of 89.64%, shows that the working relationship between intern students and employees of host companies was very good. The mean score of 4.481, with a corresponding percentage of 89.64%, gives the indication that the rotation of intern students within the department of host companies was good. The mean score of 4.493, with a corresponding percentage of 89.86%, shows that the flexibility of the training offered by host companies was good. Generally, the mean score of 4.548 gives the indication that the host company's support given to intern students is very good. The findings of the study are in line with that of Karunaratne and Niroshani (2019), who found that host companies often provide the needed support for intern students in Sri Lanka to develop better employable skills. The results imply that the host companies have been successful in providing a positive and supportive environment for intern students. The high mean scores and corresponding percentages suggest that the training, program structure, performance evaluation, working relationship, rotation, flexibility, and overall support form host companies were perceived as very good by the intern students.

4.6 Effectiveness of Industrial Training Programme

Table 5: Effectiveness of the Industrial Training Programme

Scale: (1=strongly disagree) (2=Disagree) (3=Neutral) (4=Agree) (5=Stro	ngly Agree)			
Effectiveness of industrial training programme	Freq.	Mean	Std.	%
The training enhanced my creativity	284	4.529	1.316	95.58
The training enhanced my leadership and managerial abilities	284	4.092	1.371	81.84
The training enhanced my problem-solving abilities	284	4.971	1.009	99.42
The training helped me to develop self-confidence	284	4.682	1.108	93.64
I could work independently with little support	284	4.081	1.380	81.62
I developed better interpersonal skills and team work ability	284	4.719	1.411	94.38
I was able to apply theories and models in practice	284	4.457	1.376	89.14
I acquired industry working experience	284	4.319	1.281	86.38
Maximum		4.971	1.521	±99.42
Minimum		4.081	1.009	±81.82
Mean		4.481	1.308	±89.62

Source (Field Survey, 2021)

The mean score of 4.529, with a corresponding percentage of 95.58%, gives the indication that the majority of the students strongly agreed that the industrial training programme enhanced their creativity and innovative capabilities. The mean score of 4.092, with a corresponding percentage of 81.84%, also gives the indication that the majority of the sample students agreed that their previous industrial training programme enhanced their leadership and managerial abilities. The mean score of 4.971, with a corresponding percentage of 99.42%, implies that the majority of the students strongly agreed that their previous industrial training enhanced their problem-solving abilities. Again, the mean score of 4.682 with a corresponding percentage of 93.64 gives the indication that the majority of the students strongly agreed that their previous industrial training helped them to develop better self-confidence. Furthermore, the aggregate mean score of 4.481 indicates that the sampled students, as a whole, believed that their previous industrial training was generally effective. This finding aligns with similar trends found in previous studies by Sumathi et al. (2012) and Karunaratne and Niroshani (2019). The study results demonstrate that the industrial training program has contributed positively to the development of student's skills and abilities. The majority of the students perceived improvements in areas such as creativity, leadership, problem-solving, and self-confidence as a result of their previous industrial training. These findings underscore the effectiveness and value of the industrial training program in enhancing the students' overall capabilities.

		Table	e 5: Regression ana	lysis		
		Unstandardized Coefficients		Standardized Coefficients	t-stat	Sig.
Model		В	Std. Error	Beta		
1	(Constant)	1.684	.215		7.828	.000
	Pre-placement support	.004	.044	.004	2.473	.089
	Departmental support	067	.063	050	2.027	.179
	Host company support	022	.036	027	2.363	.005

4.7 Regression analysis

a. Dependent Variable: Effectiveness of Industrial Training programme

5. Conclusion

Extensive discussions have highlighted the significance of industrial training programs in providing undergraduate students with practical exposure to apply the theories, models, and concepts they have learned in the classroom to real-life work scenarios. These programs offer invaluable opportunities for students to enhance their employable skills and establish connections within the job market through networking. However, it is crucial to emphasize that the realization of these identified benefits greatly hinges on the effectiveness of these academic programs. As identified in the literature, the effectiveness of industrial training programmes largely depends on how students are prepared and oriented by the university before they commence their internship, how the faculties or department provide support to students during the internship as well as how the host company provide the support and enabling environment for intern students. From the findings of this study, it can be concluded that pre-placement support and departmental support for intern students at the selected universities (KNUST, KsTU and AAMUSTED) are generally poor; hence these determinants are not able to cause any statistical influence on the effectiveness of industrial training programme offered by the university. On the contrary, the study can conclude that the support and environment provided by host-companies for interns from sampled three universities is generally very good; hence students are able to develop better employable skills while on an internship in various companies. From the findings of the study, it is recommended that the university must develop policies that will enable academic supervisors to visit, monitor and evaluate the performance of their students while on internship. This will enable academic supervisors to gain feedback on the challenges and progress of their intern students. Since the study was limited to KNUST, KsTU and AAMUSTED, it could not generalize on whether pre-placement support and departmental support for intern students is generally poor in Ghana. Further studies must be conducted in this research area in other higher learning institutions to add to the narrative on the effectiveness of internship support given to students in Ghana.

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