

Is student internship still beneficial today? The views of multi-parties in Ghana

Patrick Arthur

*Directorate of Public Affairs, Cape Coast Technical University,
Cape Coast, Ghana, and*

Samuel Koomson

*Department of Business Administration, Faculty of Management Studies,
University of Professional Studies, Accra, Ghana*

Student
internships:
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Abstract

Purpose – There is evidence of country-level contextual variations regarding the benefits of practical experience acquired by students during higher education. This paper, therefore, analyses the benefits of student internships in the Ghanaian context.

Design/methodology/approach – In Study 1, two structured but distinct surveys were distributed to senior members and students of six specialised technical education institutions (TIs). Study 2 involved in-depth interviews with the heads of organisations in the tertiary education sector, including trade groups, industries and government agencies.

Findings – Internship provides soft skills, confidence, career development, sense of responsibility, employability, income, knowledge sharing and networking for students/interns. For TIs, it contributes to the professional development of faculty supervisors and helps them to update the content they teach. For employers, it unveils talented and promising students who can be employed immediately after graduation at a relatively cheaper cost.

Research limitations/implications – There is still the need for additional research in different contexts: both developed and developing economies to clear doubts on the controversies surrounding the relevance of internship in the 21st century.

Practical implications – TIs should continue to champion student internship programmes. This study highlights the need for employers to place internship students in areas that relate to their fields of study. It also underscores the need for students to embrace internship since it is the cornerstone to their employability in the labour market.

Social implications – Undeniably, student internships provide a critical platform for career beginners.

Originality/value – This paper contributes to knowledge by offering contextual literature in Ghana on the benefits of student internship programme for interns/students, TIs and employers, all together.

Keywords Students' practical training, Benefits, Multiparty, Tertiary education sector, Ghanaian context

Paper type Research paper

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1. Introduction

The job market pays more attention to work experience than to paper qualifications (Piróg and Hibszer, 2021). Verhaest and Baert (2018) maintain that this requirement makes industrial training or job experience an important part of higher education (Goedegebuure and Schubert, 2017). Since getting a job is one of the main reasons people go to school (Miralles-Quirós and Jerez-Barroso, 2018), institutions of higher learning (Schuetze and Slowey, 2020) need to give students the chance to put what they learn into practise through industrial training (Lambert and Wall, 2021). This will increase their chances of getting a job (Herbert *et al.*, 2020). An internship course is a way to learn practical skills (Cregan *et al.*, 2020). It is meant to bridge the gap between the real world of work and the theoretical world of academics (Verhaest *et al.*, 2018).

Stakeholders have seen an internship scheme based on the experiential learning method (Wall and Hindley, 2018) as a way to help develop human resources (Baert *et al.*, 2016). Internships are a great way for students to make the move from the classroom to the world of work. They help students improve their interpersonal, communication and problem-solving skills, increase their chances of getting a job (Sá and Holt, 2019) and teach them job-related skills (Holford, 2017a). Wall *et al.* (2017) assert that internships bring together theory and real-world experience, boost students' professional confidence and connect the classroom to the workplace. Di Meglio *et al.* (2019) and Teng *et al.* (2021) posit that lecture theatre may never give students the complexity and problem-solving skills they will need in the real world. Practical experimentation, according to Anjum (2020), is needed to give information to students and skills that they may otherwise have gotten in the lecture theatre.

Internships give students experience and help them learn social skills. This gives students a way to make money, makes it easier for them to move from college to the job market and makes them more employable (Scott *et al.*, 2020). The money from jobs could be used along with money from friends and family to buy software, textbooks and other useful educational materials (Bolli *et al.*, 2019). Internships are one of the most important things that students can do to get ready for the business world (Routon and Walker, 2019). Internship is perceived as a human capital investment (Petzold, 2020), and Becker's (1964) theory of human capital explains why this is true. This idea says that an internship is an investment that a person pays for by working for little or no pay in return for experiences and skills that make them more productive (Becker, 1964). In turn, better productivity leads to more money on the job market. Also, having work experience boosts income directly (Mincer, 1974). So, Becker (1964) educates that internships increase income by giving students more human capital and job experience. This is especially true for students in technical educational institutions (TIs), which used to be called polytechnics (File *et al.*, 2013).

Practical work is more important than theory in TIs' schooling (Pineda-Herrero *et al.*, 2016). To put it simply, the internship scheme is the most important part of TI education. It is a four-credit-hour course that is needed or must be taken. It is an important part of the curriculum (Mburayi and Wall, 2018), and it is directly related to the student's job goals and major programme (Ho and Squires, 2021). The emphasis placed on practical training by TIs advances the UN Sustainable Development Goal 4, which aims to make sure everyone gets a good education and that everyone has the chance to learn throughout their lives.

For a successful internship programme to be carried out, three parties need to be directly involved, namely, interns or students, employing organisations or employers and training institutions (Khalil, 2015). All these three parties benefit from the internship programme in one way or another. Internships, in Drydak's (2016) opinion, offer "win-win opportunities" for all the participants involved. From the employers' perspective, students on internship are often an inexpensive help, a vibrant source for new ideas and potential future employees upon successfully metamorphosing into an experienced candidate (Sanahuja-Vélez and Ribes-Giner, 2015). Employers also enjoy reduced recruitment and training costs by hiring interns (Ismail, 2018).

Training institutions benefit from the interface with industry and use the feedback to continually strive to produce students who are “fit for the market” (Miller *et al.*, 2018). For TIs, internships grant them opportunities to develop curriculum and increase the enrolments of students, who provide revenue through the payment of tuition fees (Adjei, 2018). Besides, Manzano *et al.* (2018) assert that internship provides the opportunity for the university to offer hands-on experience to students who have been given specialized skills in areas, such as engineering, science and business in universities.

For students, Deming (2017) opines that internship enables them to acquire soft skills, such as communication abilities, interpersonal skills, professionalism, computer skills, customer management skills, language skills, emotional empathy, time management, teamwork, self-discipline and leadership traits, which are highly rated by employers. Moreover, internship aids students to improve their self-efficacy and confidence (Albert and Davia, 2018). Nunley *et al.* (2016) utilise data from a résumé audit and find that internship experience increases interview requests. According to Ismail (2018), internship can foster professional networks and knowledge sharing among interns, which eventually facilitates knowledge transfer. Baert *et al.* (2019) add that, on average, prospects for a job interview who have undertaken an internship are 12.6% more likely to be asked to come in for the interview.

In spite of the documented benefits of internship, there appears to be a mixed debate among stakeholders on the relevance of student internship, particularly, in Ghana (Nduro *et al.*, 2015). The debate became pronounced during a workshop for stakeholders in Kumasi in 2017. At the workshop, Accra and Tamale TIs were of the view that internship programme was expensive and unnecessary because such experiential learning could take place when the students secured jobs after graduation. To these two TIs, the internship exercise was a bother and a complete waste of time to students and recipient organisations. They, therefore, argued that the programme should be non-scoring or even scrapped completely from the TI curriculum (Nkrumah, 2017).

On the contrary, a statement by the Cape Coast TI through the Vice Chancellor in a workshop for Industrial Liaison Officers and Pro-Vice Chancellors of TIs in March 2018 showed that internship programme was a necessary component of TI education. The Vice Chancellor maintained that, if the development of the required middle-level manpower for the nation is to be achieved, then, internship programme must be given serious attention by all stakeholders. To the Vice-Chancellor, internship programme essentially serves to bridge the gap between the actual work environment and the classroom (Adjei, 2018).

Similarly, empirical literature on the role of internships on post-graduation outcomes has produced contradictory results among scholars. For instance, researchers in their study, such as Albert and Davia (2018), Bolli *et al.* (2019), Deming (2017), Holford (2017b) and Silva *et al.* (2016), argue that internships in higher education strongly improve post-graduation outcomes; others, such as Ruey *et al.* (2016) contend that participating in internship is not associated with the probability of being employed full-time. Platform and Market (2016) add to this contention by showing that unpaid internships are negatively correlated to salary, employment outcomes, job search duration and job satisfaction among students. Cerulli-Harms (2017) also find that internship has a detrimental effect across dimensions. The author explains that graduates with an internship experience are significantly less likely to be employed one year after graduation, and, if employed, earn significantly less than other non-intern peers.

These inconsistencies make the phenomenon of internships open to further research to clear the doubts in the minds of policy makers, academicians, practitioners, business consultants, training institutions and employers on the relevance of internship in this 21st century (O’Higgins and Pinedo, 2018). Additionally, there is evidence of country-level contextual variations regarding the role of practical know-how obtained during school days on post-graduation labour market results across nations, even for countries with similar

economic features. For instance, [Passaretta and Triventi \(2015\)](#) showed that, in Italy and, especially, Spain, working while in college was linked to better jobs after graduation, especially if the work was related to the area of research.

However, the effect of practical experience acquired during higher education on student employment was unimportant in Norway and minimal for most results in Germany ([Passaretta and Triventi, 2015](#)). This finding signals that contextual factors are relevant in evaluating student internship programmes. In the Ghanaian context, few studies have addressed the benefits of student internship to interns, TIs and employers, all together. To address this gap in the literature, the overarching goal of this study is to analyse the benefits of student internship programme in Ghana. Specifically, this study seeks to: (1) examine the benefits of student internship programme to interns in Ghana, (2) ascertain the benefits of student internship programme to TIs in Ghana and (3) assess the benefits of student internship programme to employers in Ghana.

2. Literature review

The literature review talks about the current literature on internships, internships as a way for schools to help students find jobs, basic information about technical universities of Ghana, human capital theory and the benefits of student internship to stakeholders. The benefits of student internship to stakeholders, which forms the empirical review of this paper, is structured under three themes, namely, the benefits of student internship programme to interns, the benefits of student internship programme to TIs and the benefits of student internship programme to employers, consistent with this paper's three specific research objectives.

2.1 Internship as a concept

[Taylor \(1988\)](#) educates that internships are organised, career-related work experiences that students get before they graduate from school. Internships are usually volunteer work in the field that can take place in many different types of organisations and academic fields ([Gault et al., 2000](#)). [International Youth Foundation \(2013\)](#) maintains that internships are a supplement or extension of lecture hall teaching that intends to give young interns real-world job experience and show them how the world of work works. An internship is a promise to give a student monitored work exposure that is temporal and generally connected to their career goals or field of study ([Gairn-Sallán et al., 2020](#)). So, internships tend to bring theory and practise closer together.

2.2 Internships are a way for schools to help students find jobs

The internship scheme is often the first and most important thing that schools do to help their students find jobs. Internships give young people the chance to use their skills and knowledge (both soft and hard) in a real work setting and to learn how to acclimatise with novel circumstances that may pop up at work ([Miller et al., 2018](#)). Most internships are made possible by an agreement between the company, the training school and the young person undergoing the internship. The word "employer", according to [Baert et al. \(2019\)](#), covers a wide range of groups that could host an internship.

Even though most internships have been in the business sector, according to [Di Meglio et al. \(2021\)](#), some institutions of higher learning have operated with non-profit making organisations or government agencies to help young people undertake their internships there. Placement for interns should be related to their training, job goals and other interests. For example, young people in a vocational training course for the hospitality industry should undertake their internships in restaurants and hotels not car repair shops ([Sayeda, 2020](#)).

When probable, internships for young people should lead to full-time, permanent jobs, either with the company that gave them the internship or with some another company in the same sector or business (Cerulli-Harms, 2017). Because of this, Miralles-Quirós and Jerez-Barroso (2018) state that placements should be in places and businesses where there is a big need for entry-level workers.

2.3 Basic information about technical universities of Ghana

There are 10 technical universities' institutions in Ghana, which were formerly known as polytechnics after the passage of the technical university Act 2016, Act 922. These 10 technical institutions are Tamale Technical University, Kumasi Technical University, Accra Technical University, Cape Coast Technical University, Koforidua Technical University, Ho Technical University, Takoradi Technical University, Sunyani Technical University, Bolgatanga Technical University and Wa Technical University (Success Africa Media Group Limited, 2021). An estimated student population of about 163,000 is recorded in the technical institutions. The technical institutions of Ghana are mandated to run award Diploma, High National Diploma (HND) and Bachelor of Technology (B-Tech) programmes.

The fields covered are Fashion Design and Textiles; Science Laboratory Technology; Hotel, Catering and Institutional Management; Mathematics and Statistics; Computer Science; Mechanical Engineering; Electrical/Electronic Engineering; Building Technology; Civil Engineering and Furniture Design and Production; Hospitality Management; Office Management; Painting and Decoration; Sculpture; Interior Architecture; Statistics; Estate Management; Welding and Fabrication; Logistics and Transport; Aircraft Maintenance; Block Laying and Concreting; Radio and Television, Carpentry and Joinery; Secretaryship and Management Studies; Accountancy; Marketing; Purchasing and Supply; Advance Fashion; and Advance Cookery. Organisations that usually employ graduates from technical universities include but are not limited to, manufacturing companies, mining companies, hotels, restaurants, public sector organisations, accountancy firms, audit firms, civil society organisations, radio and television stations, automobile companies, construction companies, exploration firms, water and electricity companies.

In the HND and B-Tech programmes at technical colleges in Ghana, it is written that the practical internship should last at least six months: three months after the first year of course work and three months after the second year of course work (Nunfam *et al.*, 2015). Before getting the HND certificate, each student in the HND and B-Tech course must complete a six-month internship and get a grade of at least 1.5, no matter what his or her final CGPA is (Adjei, 2018).

2.4 Human capital theory

When applied to organisations, the human capital theory maintains that people who spend in training will get better at what they do and be more productive than those with less training. As a result, they can justify getting paid more because of their investment. Becker (1993) asserts that training mostly increases earnings and productivity by giving people information, skills and a way to look at problems. Human capital theory (Grant, 1996; Hatch and Dyer, 2004), which is based on Becker's ideas, argues that employees' competencies, knowledge and skills can be improved by investing in training and learning (Grant, 1996; Hatch and Dyer, 2004). Becker's ideas also play an important role in modern employee development and learning literature.

Internships can be thought of as investments in people. Becker's Human Capital Theory from 1964 argues that an internship is viewed as an investment that is paid for by taking no or low pay in return for experience and skills that make a person more productive. In turn, better productivity means more money on the job market (Mincer, 1974). According to

Passaretta and Triventi (2015), working while pursuing technical education could be a good way to prepare for the job market when you complete it. So, according to Becker (1964), students, especially those in technical schools, who undertake internships earn more money because they gain knowledge and have more human capital.

2.5 Benefits derived from the internship programme to stakeholders

This section discusses the empirical review of the benefits of student internship programme to stakeholders. The section is grouped under three sub-sections, namely, the benefits of student internship programme to interns, benefits of student internship programme to TIs and benefits of student internship programme to employers, in line with the three specific research objectives.

2.5.1 Benefits of student internship programme to students/interns. Amponsah *et al.* (2014) assessed the relevance and experience of internships of undergraduate psychology students at the University of Cape Coast in Ghana. Their results underscored the relevance of internship experience with a greater sense of responsibility and career development it provides. Their results also showed that career focus was associated with positive beliefs about intern's career choice and future job satisfaction. Thus, in Amponsah *et al.*'s opinion, internship offers a greater sense of responsibility, career development, career focus and future job satisfaction to interns.

Maertz *et al.* (2014) assessed the benefits of successful internship among interns. The authors showed that successful internships produced many benefits for interns in the form of job-related benefits, career-related benefits, networking/job market benefits and cost benefits. Maertz Jr *et al.*'s research was an improvement on that of Amponsah *et al.* (2014) by revealing that internship offers networking/job market and cost benefits to interns.

Nduro *et al.* (2015) analysed the benefits derived by students who undertook an industrial attachment programme. The researchers showed that: interns were exposed to machines and resources related to the course of study, which were not available in their schools; internship offered trainees the opportunity to put into practice the theory learnt in school; the industrial training programme paved the way for trainees to learn techniques in solving real world of work-related issues and contributed valuable ideas to national development; internship kept trainees abreast of changing industrial culture and trends in technology; and, finally, industrial training programmes increased students the opportunity of getting employed. Nduro *et al.*'s addition to knowledge was that internship made interns more exposed, practical, real-world problem-solvers, abreast with changing trends and employable.

Passaretta and Triventi (2015) looked at the link between work experience gained during college and success in the job market after graduation in Germany, Italy, Norway and Spain. The authors made a theoretical framework that showed that job experience in institutional settings may give young graduates a "competitive advantage". The empirical results showed that work activities during higher education were linked to better jobs after graduation in Italy and Spain. Any kind of work experience makes one more employable and lowers the risk of being unemployed. Also, previous work experience, especially if it was related to the area of study, made it less likely that a skill mismatch would happen in a future job. However, job experience gained during college had less of an effect on student employment in most cases in Germany and had no effect at all in Norway. Passaretta and Triventi's finding look similar to that of Nduro *et al.* (2015) because, both agreed that internships make students/interns more employable.

Khalil (2015) assessed students' experiences with the business internship programme at Kuwait University as well as the effect of a number of individual and situational characteristics on those experiences. The analysis revealed five internship impact areas, including adaptability to the workplace, team-playing capability, professionalism, computer

and communication skills and career potential. Khalil's addition to knowledge was that, internship makes students/interns more adaptable to the workplace, boost their team-playing capability and increase their professionalism, and computer and communication skills.

[Silva et al. \(2016\)](#) aimed to shed light on the debate regarding the role of internships in higher education in graduates' employability, using empirical data on a large-scale study of Portuguese first-cycle study programmes. The investigators demonstrated that study programmes that included internships significantly enhanced graduates' employability, particularly within the universe of technical universities and public higher education institutions. [Silva et al. \(2016\)](#) also found that required internships and multiple, shorter internships spread out over the course of a degree were related to higher unemployment rates in a bad way. They show that work-based learning can be a good way to bridge the gap between theory and practise and make graduates more employable. Thus, [Silva et al.](#)'s finding compared well with the earlier works of [Nduru et al. \(2015\)](#) and [Passaretta and Triventi \(2015\)](#), since all three studies emphasised the employability benefit associated with internship, implying that internship is, indeed, a cornerstone to employability in the labour market, to the advantage of interns.

[Sahrir et al. \(2016\)](#) investigated the performance of internship training programme at International Islamic University in Malaysia. The authors congregated the opinions and experience about internship programme among Arabic language and literature students. Their results showed that internship training had essentially improved students/interns' soft skills and increased their work-place literacy and well-being. The authors added that internship training increased interns' level of confidence to explore their future opportunity in the job market, including setting up their own businesses through entrepreneurship knowledge and skill. The authors, therefore, concluded that internship training enriched students' experiences, knowledge and skills, both in their personal and social life. [Sahrir et al.](#)'s contribution to knowledge is that internship offers social-life benefits to interns.

[Cerulli-Harms \(2017\)](#) analysed the effects of internships on early labour market performance to evaluate whether internship enhanced or hindered the university-to-work transition. The researcher found that internships had detrimental effects on graduates across dimensions. Graduates with an internship experience were significantly less likely to be employed one year after graduation, and, if employed, earned significantly less than their non-intern peers. Yet, the negative effects were short-lived and vanished within five years. The author, therefore, argued that internship sent a negative signal to prospective employers, causing underperformance at job entry. The measured effects were, however, less pronounced for female interns. [Cerulli-Harms's](#) contribution to knowledge was that, unlike earlier authors who show the positive sides of internship, internship has negative effects on interns.

[O'Higgins and Pinedo \(2018\)](#) examined the effectiveness of internship as an integration mechanism for young people into the world of work. The authors found that paid internships produced, on average, better labour market outcomes for graduates than unpaid internships do. [O'Higgins and Pinedo's](#) findings made a substantial contribution to knowledge, as they provided lessons to opt for paid internships over unpaid ones. [Miller et al. \(2018\)](#) explored whether high-impact practice participation influenced plans for career and further education for graduating seniors and whether high-impact practice participation had a positive impact on job attainment for these students. The investigators found that high-impact practice participation was a significant predictor of future career plans and attainment. They, therefore, came to the conclusion that high-impact practice participation can give students a career-related advantage through transferable skill development, engaging in learning opportunities and generating "stories" for potential employers. [Miller et al.](#)'s result parallels that of [Maertz et al. \(2014\)](#), as both studies indicated that internship offered career-related benefits to interns.

[Bangal \(2018\)](#) conducted a study on training and assessment of medical interns, using direct observation of procedural skills tools in obstetrics and gynaecology. Bangal's discovered that there was significant gain in knowledge by interns following training programme. Interns adopted good aseptic precautions and followed universal bio-safety measures during their clinical posting. Compliance to aseptic precautions was significantly more in female interns as compared to males. Nurses, faculty members and co-ordinator of internship programme gave positive feedback about the changes observed in the batch of interns, who underwent training as compared to previous batches. Bangal's finding augmented the results of earlier authors that, internship offered personal and social benefits to interns.

[Ismail \(2018\)](#) conducted a review study, which sought to address the benefits of internship for interns in science, technology, engineering and mathematics disciplines in Yemen. The findings that emanated from the extensive literature review suggested that internships were useful for developing interns' soft skills, such as interpersonal skills, professionalism, confidence, self-efficacy, problem-solving skills, communication skills, team working, customer service skills and creativity particularly among information technology interns. The author declared that interpersonal skills were valued by employers, and it increased the probability of finding employment but decreased the likelihood of postgraduate studies. The author also found that internship was deemed to have an impact on the earnings of graduates. Internships had the potential to facilitate professional networking and knowledge sharing, but there was little evidence of its occurrence. Knowledge sharing was successful in cases where interns joined professional communities with well-connected mentors who helped them to integrate into the community. However, Ismail found that women benefited less from internship, since female interns were less likely to find employment after the internship. This finding by Ismail disputed the result of the research by [Cerulli-Harms \(2017\)](#), in which the author discovered that the negative effects of internships on graduates were less pronounced for female than male interns.

[Felício *et al.* \(2019\)](#) examined students' perceptions of the importance of internships in Spain. The researchers showed that students valued the existence of internships in the curriculum of their undergraduate courses. In addition, the Retail Management students saw internships as an important and differentiating factor of employability in the job market, suggesting that internship offers employability benefit. Felício *et al.*'s results agreed with the findings of [Nduro *et al.* \(2015\)](#), [Passaretta and Triventi \(2015\)](#) and [Silva *et al.* \(2016\)](#) that, internship offers employability benefits to interns.

[Bolli *et al.* \(2019\)](#) analysed whether and how attending an internship during tertiary education affects the income of Swiss students. The analysts uncovered that doing an internship increased the income of Swiss students, and this effect worked mainly by increasing human capital through the acquisition of general skills rather than firm or field-specific skills. Bolli *et al.* contribution to knowledge was that, internships put money in the pockets of interns.

[Di Meglio *et al.* \(2021\)](#) addressed whether internships helped people get jobs in the short term, right after they graduated from college, and in the medium/long term, four years later. The first Spanish Job Placement Research was conducted in 2014, and researchers used it to determine the probit models and linear probability models. They showed that the internship experience facilitated the university-to-work transition for Spanish graduates. Although internship effects on employment do not vanish in the medium/long term, they found weak evidence of positive effects on matching or wages, four years after graduation. Di Meglio *et al.*'s finding made a substantial contribution to knowledge by highlighting how the employment benefits of internship weaken, as the year goes by.

[Routon and Walker \(2019\)](#) looked at the effects of occupational internship schemes on academic performance, plans for after college and other aspects of the college experience at

more than 400 schools. Researchers found that college internships helped students get better grades, made them more likely to want to go to graduate school right after graduation or work full-time and made them slightly more likely to want administrative tasks and to be financially well-off. Routon and Walker' finding provides new knowledge by revealing that internship improves students' grades, and their desire to pursue further studies.

Baert *et al.* (2019) addressed how a volunteer internship during college affects the chance of getting a job interview. The authors found that applicants who had undertaken an internship had a 12.6% better chance of getting a job interview on average, implying that internship increases employability, as reported in earlier studies like Nduro *et al.* (2015), Passaretta and Triventi (2015), Silva *et al.* (2016), and Felício *et al.* (2019).

Gairín-Sallán *et al.* (2020) investigated how practicum experiences for teachers with bachelor's degrees in Primary Education and Early Childhood Education affect the organisations and people involved. The writers showed that the practicum helped students get better at what they could do. This finding is like what other studies have found. Examples of such studies are Amponsah *et al.* (2014), Maertz *et al.* (2014), Nduro *et al.* (2015), Khalil (2015), Miller *et al.* (2018) and Bangal (2018) who show that internship emboldens the abilities of interns.

Anjum (2020) assessed how internship courses affected the professional skills and growth of business students in Pakistan, as well as their personal skills and growth. The researcher found that internship courses helped business students in Pakistan improve their skills and grow as people and professionals. This result is like what was found in previous studies by Amponsah *et al.* (2014), Maertz *et al.* (2014), Nduro *et al.* (2015), Khalil (2015), Miller *et al.* (2018), Bangal (2018) and Gairín-Sallán *et al.* (2020) who show that internship improves interns' capacities.

2.5.2 Benefits of student internship programme to technical universities/educational institutions. Maertz *et al.* (2014) assessed the benefits of successful internship among educators. The authors found that, for educational institutions, successful internships filled an important modern need for experiential and vocational learning. Gairín-Sallán *et al.* (2020) analysed the effect and impact that teachers' practicum experiences in Early Childhood Education and Primary Education bachelor's degrees generate on the people and institutions involved. The authors showed that the practicum contributed had a positive effect on the professional development of school and faculty supervisors. The practicum generated work dynamics, which caused a positive impact mainly on the class level. In faculties, it generated an indirect positive repercussion through the faculty tutors, so far as they update the contents they teach.

2.5.3 Benefits of student internship programme to employers. Maertz *et al.* (2014) assessed the benefits of successful internship among talent management professionals. The authors found that, for employers, hiring an intern for a full-time position after the assignment led to savings in the areas of recruitment and selection. Ismail (2018) conducted a review study, which sought to address the benefits of internship for interns and host organisations in science, technology, engineering and mathematics disciplines. The findings that emanated from the extensive literature review suggested that interpersonal skills obtained by interns during their internship programme were valued by employers. In addition, internship provided useful labour at a low cost to employers, by cutting down their recruitment and training costs, as revealed in earlier research by Maertz *et al.* (2014).

3. Methodology

3.1 Study design

Two separate studies were conducted. The first study (Study 1) was quantitative in nature and descriptive in design. The second study (Study 2) was qualitative in nature and exploratory in design.

3.2 Population

All third-year students, administrators and faculty members from the six chosen technical institutions made up the population. In the six technical institutions, there were a total of 10,594 third-year students, 527 administrators and 1,062 faculty members. The distribution of the total population across the six TIs is displayed in [Table 1](#).

3.3 Sample and sampling procedure

Study 1: [Krejcie and Morgan \(1970\)](#) provide that a known target group of 10,594 third-year students, 527 administrators and 1,062 senior members needs a minimum sample size of 370 third-year students, 217 administrators and 278 senior members. To account for the number of people who did not respond to the survey instrument, these sample sizes were increased by 30%. From 370 third-year students, 217 administrators and 278 faculty members, the sample numbers went up to 481 third-year students, 282 administrators and 361 faculty members. To choose samples, a simple random selection method was used with the aid of the table of random numbers. In the first step, a sampling frame was identified or constructed. In the second step, an appropriate table of random numbers is selected. In the second step, we randomly chose, horizontally, the direction of the selection. In the final step, we selected units whose codes coincided with the random numbers.

Study 2: The purposeful sampling method was used to choose important officials from Ghana Employers Association, NABPTEX, COVET, GTEC and Association of Ghana Industries, as well as people in business who benefited from the student internship scheme. One key official each from the Ghana Employers Association, Association of Ghana Industries, NABPTEX, GTEC and COVET, as well as four businessmen, were interviewed. Thus, 9 participants were interviewed to reach saturation. The similar trend of responses provided by the participants suggested that additional interviews with other members of the population would have given similar narrations and, therefore, would not have made much difference to the nature and number of themes generated.

3.4 Data collection instruments

Study 1: Two structured but distinct survey instruments were used to collect data. The survey instruments were distributed to third-year students and senior members (administrators and faculty members). The survey instruments were designed based on the existing literature on the benefits of student internship programme. Both survey instruments were pre-tested to ensure content validity prior to the main survey. The survey instrument for third-year students is depicted in [Appendix 1](#) and that of senior members is displayed in [Appendix 2](#). Eventually, 356 out of 481 blank survey instruments

Table 1.
Distribution of the total population

Technical university	Third-year students	Administrators	Faculty members
Accra	2,415	93	228
Kumasi	1,801	110	208
Takoradi	2,714	120	215
Tamale	1,092	42	128
Koforidua	1,501	84	151
Sunyani	1,071	78	132
Total	10,594	527	1,062

Source(s): Authors Own Work

were filled out and sent back by the third-year students, and 483 out of the 643 blank survey instruments were filled out and sent back by senior members [administrators ($n = 211$), faculty members ($n = 272$)].

Study 2: Interviews were conducted using an interview guide. The interview guide is shown in [Appendix 3](#). Expert judgement was used to assure content validity for the interview guide.

3.5 Data analysis procedure

Study 1: The mean and standard deviation were used to look at the numbers. A mean range of 1.0–2.9 showed that respondents did not agree, while a mean range of 3.1–5.0 showed that respondents did agree. A mean of 3.0 means that the people who answered were not sure. The Statistical Package for Social Science (SPSS) version 24 for Windows was used.

Study 2: Before the data were analysed, the interview data with key officials was typed up word for word. The writers used constant comparison analysis to figure out what the interview data meant. Quotes were used to show what the results of the qualitative data were. University of Cape Coast's Institutional Review Board was asked for an ethical endorsement. The ID for the ethical endorsement was UCCIRB/CES/2021/62.

4. Results and discussion

4.1 Background information of third-year students

The background information sought from third-year students were their sex, technical university and certificate sought. The results suggested that, out of the 356 filled survey instruments that were returned, 57.00% ($n = 203$) were females, while 43.00% ($n = 153$) were males. This result indicated that both males and females were fairly represented in the response. Regarding their technical university, 23.04% ($n = 82$) of the respondents were students of Accra Technical University, 17.13% ($n = 61$) of the respondents were students of Kumasi Technical University, 25.28% ($n = 90$) of the respondents were students of Takoradi Technical University, 10.39% ($n = 37$) of the respondents were students of Tamale Technical University, 14.04% ($n = 50$) of the respondents were students of Koforidua Technical University and 10.12% ($n = 36$) of the respondents were students of Sunyani Technical University. This result suggested that the third-year students of the six chosen TIs were equitably represented in the responses, thereby generating complete responses, which strengthened the generalizability of the results.

Concerning the certificates sought by the third-year students, results indicated that 59 students represent 16.57% sought bachelor's degree certification, while 297 students represent 83.43% sought higher national diploma (HND) certification, indicating that a vast majority of the respondents pursued HND programmes, endorsing the fact that HND programmes were predominantly offered by technical universities in Ghana. In [Kumasi Technical University \(2021\)](#), for example, 21 HND programmes were available for students, while only four bachelor's degree programmes existed.

4.2 Background information of senior members

The background information sought from senior members were sex, technical university and staff category. The results indicated that, of the 483 completed questionnaires returned by senior members, 38.10% ($n = 184$) were females, while 61.90% ($n = 299$) were males. This result indicated that the respondents were dominated by males. Regarding their technical

university, 19.67% ($n = 95$) of the respondents were staff of Accra Technical University, 20.29% ($n = 98$) of the respondents were staff of Kumasi Technical University, 21.33% ($n = 103$) of the respondents were staff of Takoradi Technical University, 10.35% ($n = 50$) of the respondents were staff of Tamale Technical University, 14.91% ($n = 72$) of the respondents were staff of Koforidua Technical University and 13.45% ($n = 65$) of the respondents were staff of Sunyani Technical University.

The result of the technical university above suggested that the senior members of the six chosen TIs were equitably represented in the data, depicting a complete response, which reinforced the generalizability of the results. Concerning the staff category of the respondents, the results indicated that 211 staff, representing 43.69% were administrators, and 272 staff, representing 56.31% were faculty members. This result indicated that the responses from senior members were dominated by faculty members.

4.3 Students' views on the benefits of student internship programme

Firstly, the views of the third-year students were sought. The first indicator "*Internship experience provides greater sense of responsibility and career development for students*" produced a mean of 3.51, suggesting *agreement* from respondents, with a standard deviation of 0.85, indicating that the views of respondents were less varied. This result is identical with the finding of the study by Amponsah *et al.* (2014), wherein the authors found that internship offered a greater sense of responsibility and career development among undergraduate psychology students at the University of Cape Coast. The second indicator "*Interns are exposed to machines and resources related to their course of study, which were not available in their schools*" obtained a mean of 4.37, suggesting *agreement* from respondents, with a standard deviation of 0.71, indicating that respondents' opinions did not differ. This result compared well with research by Nduro *et al.* (2015), in which the researchers reported that interns were exposed to machines and resources related to the course of study, which were not available in their schools.

The third indicator "*Internship offers trainees the opportunity to put into practice the theory learnt in school*" showed a mean of 4.12, indicating *agreement* from respondents, with a standard deviation of 0.88, implying that respondents' opinions were not wide-ranging. This finding resembles the result of the research by Nduro *et al.* (2015), in which the researchers uncovered that internship offered trainees the opportunity to put into practice the theory learnt in school. The fourth indicator "*internship paves way for trainees to learn techniques in solving real world of work related issues*" produced a mean of 3.24, indicating *agreement* from respondents, with a standard deviation of 1.56, suggesting that the opinion of respondents were diverse. This result is in line with the finding of the research by Nduro *et al.* (2015), where the researchers disclosed that the industrial training programme paved way for trainees to learn techniques for solving real world of work-related issues and contributed valuable ideas to national development.

The fifth indicator "*Internship keeps trainees abreast of changing industrial culture and trends in technology*" produced a mean of 3.04, indicating *agreement* from respondents, with a standard deviation of 0.91, suggesting that respondents' opinions were less wide-ranging. This finding resembles the result of the research by Nduro *et al.* (2015), in which the researchers showed that internship keeps trainees abreast of changing industrial culture and trends in technology. The sixth indicator "*Industrial training programmes increase students' opportunity of getting employed*" revealed a mean of 3.78, suggesting *agreement* from respondents, with a standard deviation of 1.45, indicating that respondents' opinions were variegated. This finding is parallel to the result of the study by Nduro *et al.* (2015), wherein the authors discovered that industrial training programmes increased students' opportunities of getting employed.

The seventh indicator “*Experience acquired during internship reduces the risk of unemployment*” obtained a mean of 3.99, indicating *agreement* from respondents, with a standard deviation of 0.74, implying that the opinion of respondents were not varied. This finding looks similar to the result of the study by Passaretta and Triventi (2015) in Italy and especially in Spain, where the authors reported that work activities during tertiary education increased employability and reduced the risk of unemployment. The eighth indicator “*Internship provides students with skills, such as adaptability to the workplace, team-playing capability, professionalism, computer and communication skills, problem solving, and entrepreneurial skills*” showed a mean of 3.55, indicating *agreement* from respondents, with a standard deviation of 0.84, implying that the opinions of respondents were less diverse. This finding compares well with the result of the research by Khalil (2015) at Kuwait University, where the author revealed that internship programme improved business students’ adaptability to the workplace, team-playing capability, professionalism, computer and communication skills and career potential.

The ninth indicator “*Internship improves students’ soft skills and increased their work-place literacy and well-being*” showed a mean of 3.19, indicating *agreement* from respondents, with a standard deviation of 0.77, suggesting that the opinions of respondents were not wide apart. This result mirrored the finding of the research by Sahrir *et al.* (2016) at the International Islamic University in Malaysia, in which the researchers found that internship training essentially improved students’/interns’ soft skills and increased their workplace literacy and well-being. The 10th indicator “*Internship increases interns’ level of confidence to explore their future opportunities*” showed a mean of 3.46, implying agreement from respondents, with a standard deviation of 0.82, indicating that the views of respondents were less varied. This finding compared well with the result of the research by Sahrir *et al.* (2016) at International Islamic University, where the authors disclosed that internship training increased interns’ level of confidence to explore their future opportunities in the Malaysian job market, including setting up their own businesses through entrepreneurship knowledge and skill.

The 11th indicator “*Internship has the potential to facilitate professional networking and knowledge sharing*” revealed a mean of 3.33, indicating *agreement* from respondents, with a standard deviation of 0.76, implying that the opinion of respondents were less variegated. This result is consistent with the result of a systematic review by Ismail (2018), in which the author uncovered that internships had the potential to facilitate professional networking and knowledge sharing. The 12th indicator “*Internship increases student income*” obtained a mean of 4.12, suggesting *agreement* from respondents, with a standard deviation of 0.96, implying that respondents’ opinions were not wide-ranging. This finding can be likened to the research by Bolli *et al.* (2019) in Sweden, where the researchers unveiled that internship increased students’ income, and this effect worked mainly by increasing human capital through the acquisition of general skills rather than firm or field-specific skills.

The 13th indicator “*Internship experience facilitates the university-to-work transition for graduates*” showed a mean of 3.94, indicating *agreement* from respondents, with a standard deviation of 1.21, implying that the opinion of respondents were wide apart. This finding compares well with the result of the study by Di Meglio *et al.* (2021) in Spain, wherein the authors showed that internship experience facilitated the university-to-work transition for Spanish graduates. The fourteenth indicator “*Internship has a positive effect on student grade*” obtained a mean of 3.11, suggesting *agreement* from respondents, with a standard deviation of 0.98, indicating that respondents’ opinions were not wide-ranging. This finding resembles the result of research by Routon and Walker (2019), in which the researchers uncovered that college internship had a positive effect on students’ grades.

The fifteenth indicator “*Internship increases students’ desire to work full-time*” showed a mean of 3.41, suggesting *agreement* from respondents, with a standard deviation of 0.77, indicating that the views of respondents were not wide apart. This finding can be compared

with the result of the study by [Routon and Walker \(2019\)](#), in which the researchers found that internship increased students' desire to work full-time immediately following graduation. The sixteenth indicator "*Internship increase students' ambitions to have administrative responsibilities*" showed a mean of 3.63, suggesting *agreement* from respondents, with a standard deviation of 1.45, implying that respondents' views were varied. This finding is consistent with the result of a study by [Routon and Walker \(2019\)](#), in which the authors unveiled that internship slightly increased students' ambitions to have administrative responsibilities and be financially well. The final indicator "*Internship increases graduates' chances of being invited to a job interview*" showed a mean of 3.44, suggesting *agreement* from respondents, with a standard deviation of 0.82, implying that the opinion of respondents are less varied. This finding resembles the result of the research by [Baert et al. \(2019\)](#) in Belgium, wherein the authors discovered that applicants with internship experience had, on average, a 12.6% higher probability of being invited to a job interview.

4.4 Senior members' views on the benefits of student internship programme

Upon analysing and discussing the views of third-year students concerning the benefits derived from the internship programme by stakeholders, these authors continued with the analysis and discussion of the views of senior members of the TIs on the same phenomenon. The first indicator "*Internship fills an important modern need for experiential and vocational learning*" obtained a mean of 4.78, suggesting *agreement* from respondents, with a standard deviation of 1.45, indicating that the views of respondents were diverse. This result compares well with a systematic review study by [Maertz et al. \(2014\)](#), in which the authors showed that, for schools, internship filled an important modern need for experiential and vocational learning. The second indicator "*Internship has a positive impact on the earnings of companies*" showed a mean of 3.45, indicating *agreement* from respondents, with a standard deviation of 1.78, implying that respondents' opinions were wide apart. This finding looks similar to the finding of the research by [Ismail \(2018\)](#), in which the researcher reported that internship was deemed to have an impact on earning and provided useful labour at low cost to employers, by cutting down recruitment and training costs of employers.

The third indicator "*Internship has the potential to facilitate professional networking and knowledge sharing*" revealed a mean of 3.77, indicating *agreement* from respondents, with a standard deviation of 0.85, implying that the views of respondents were less varied. This result can be likened to the finding of the research by [Ismail \(2018\)](#), in which the researcher reported that internship had the potential to facilitate professional networking and knowledge sharing. The author added that knowledge sharing was successful in cases where interns joined professional communities with well-connected mentors who helped them to integrate into the community. The fourth indicator "*Internship experience facilitates the university-to-work transition for graduates*" showed a mean of 4.98, indicating *agreement* from respondents, with a standard deviation of 0.72, suggesting that the opinion of respondents were not wide-ranging. This result is consistent with the finding of the study by [Di Meglio et al. \(2021\)](#) in Spain, wherein the authors discovered that internship experience facilitated the university-to-work transition for Spanish graduates.

The fifth indicator "*Internship has a positive effect on student grade*" showed a mean of 3.66, indicating *agreement* from respondents, with a standard deviation of 1.87, implying that the views of respondents were less diverse. This outcome resembles the result of a research work by [Routon and Walker \(2019\)](#), in which the authors uncovered that internship had a positive effect on the grades of college students. The sixth indicator "*Internship contributes to the development of student capacities and has a positive effect on the professional development of school and faculty supervisors*" obtained a mean of 3.37, indicating *agreement* from respondents, with a standard deviation of 1.24, implying that the views of respondents were

wide-ranging. This finding compares well with the result of the research work by [Gairín-Sallán et al. \(2020\)](#) in Spain, where the authors showed that practicum or internship contributed to the development of student capacities and had a positive effect on the professional development of school and faculty supervisors.

The seventh indicator “*Internship helps faculty members to update the contents they teach*” showed a mean of 3.89, indicating *agreement* from respondents, with a standard deviation of 2.54, implying that the opinions of respondents were varied. This finding mirrored the result of the study by [Gairín-Sallán et al. \(2020\)](#) in Spain, where the authors showed that practicum or internship generated an indirect positive repercussion through the faculty tutors, as long as they updated the contents they teach. The final indicator “*Internship positively affects students’ professional and personal growth*” produced a mean of 4.12, suggesting *agreement* from respondents, with a standard deviation of 0.89, implying that the views of respondents were less variegated. This result is in line with the finding of a study by [Anjum \(2020\)](#) in Pakistan, wherein the author found that internship programmes favourably impacted on the professional and personal growth and skills of undergraduate Business students.

4.5 Industry members’ views on the benefits of student internship programme

Upon successfully presenting and discussing the responses of third-year students and senior members concerning the benefits derived from the internship programme by stakeholders, the authors continued with the presentation and discussion of the results of interviews held with members of the industry on the same phenomena. Three target questions were presented to participants. The first target question sought the opinions of industry executives on the ways by which students benefited from the internship programme.

Among the four industry executives that were interviewed, one participant put forward that:

Internship creates a direct path towards students’ career development, because the student gains practical skill and competencies in his/her specialisation (Participant 3).

This finding seems similar to the result of the research by [Anjum \(2020\)](#) in Pakistan, where the researcher showed that internship programmes favourably impacted on students’ professional and personal growth, and skills of undergraduate Business students. Also, this result is consistent with the finding of the research by [Amponsah et al. \(2014\)](#), in which the authors revealed that internship experience provided a greater sense of responsibility and career development.

Another participant stated that:

Internship increased students’ craving to work full-time, since it boosts their ambition to have work-related responsible (Participant 4).

This finding mirrored the results of the study by [Routon and Walker \(2019\)](#), in which the analysts found that internship increased students’ desire to work full-time, and slightly increased their ambitions to have administrative responsibilities and be financially well-off.

The second target question sought the views of industry executives concerning how TIs benefit from student internship programme. Participant 1 responded in the words below:

Through internship, faculty workers who supervise interns at site gain useful knowledge in industry that helps them to develop their professional know-how

This finding compared well with the research by [Gairín-Sallán et al. \(2020\)](#) in Spain, in which the authors found that practicum or internship had a positive effect on the professional development of school and faculty supervisors.

Participant 2 contributes to the discussion by stating that:

Knowledge obtained from internship enable technical university lecturer to modernize the content they teach.

This result is identical to the finding of the study by [Gairín-Sallán et al. \(2020\)](#) in Spain, where the authors found that, in faculties, internship generated an indirect positive effect through the faculty tutors, as long as they update the contents they teach.

The final target question sought the opinion of industry executives concerning the ways by which members of industry benefit from the student internship programme. Participant 2 expressed an opinion in the narration below:

Filling full-time vacancies with interns save costs associated with recruitment and selection processes

This result is congruent with the finding of a review study by [Maertz et al. \(2014\)](#), in which the analysts reported that, hiring an intern for a full-time position after the internship period led to savings in the areas of recruitment and selection for the benefit of employers.

Participant 4 shares the opinion of Participant 2 and adds that:

Internship enables employers to get useful labour at a reduced cost, compared to how much they would have paid for a regular worker.

This result resembles the finding of the review study by [Ismail \(2018\)](#), in which the author uncovered that internship provided useful labour at a low cost to employers.

4.6 Views of professional associations and government bodies on the benefits of student internship programme

Finally, the views of key officials from professional associations and some government bodies were sought concerning the benefits derived from the internship programme by stakeholders. Three target questions were put forward. The first target question sought participants' views about the ways by which students benefit from the internship programme. The participant from COTVET stated that:

The benefits of internship to students are countless. More importantly, internship gives students the opportunity to gain practical training that can make them employable

The narration from this participant implies that internship increases the employability of students due to the practical training they acquire during the internship period.

The participant from Ghana Employers Association adds by stating that:

Internship gives students first-hand experience about what employers expect from employees at the workplace, thereby increasing their desire to gain full-time employment.

This finding parallels the result of the research by [Routon and Walker \(2019\)](#), in which the researchers unveiled that internship increased students' desire to work full-time immediately following graduation.

The second target question asked participants how TIs benefit from the student internship programme. The participant from COTVET narrated that:

Through internship, TI faculty members and members of industry collaborate, and this collaboration offers knowledge sharing and networking opportunities

This result is similar to the finding of the review study by [Ismail \(2018\)](#), in which the author found that internships had the potential to facilitate professional networking and knowledge sharing.

The participant from GTEC augments by stating that:

Internship tends to bridge the gap between theory and practice, as it helps faulty members to keep up-to-date with the new happenings and inventions at the workplace, especially for those who supervisors interns.

This finding is parallel to the result of a research by [Gairín-Sallán *et al.* \(2020\)](#) in Spain, where the researchers found that internship generated an indirect positive effect through the faculty members, as long as they updated the contents they teach.

The third and final target question sought the views of participants regarding the ways by which industries benefit from student internship programme. The participant the Association of Ghana Industries put forward that:

As members of industry, internship gives us the opportunity to uncover talented and promising students who can be employed immediately after graduation at a relatively cheaper cost

This finding resembles the result of the review study by [Maertz *et al.* \(2014\)](#), in which the analysers uncovered that successful internships produced benefits for employers, such that hiring an intern for a full-time position after graduation led to cost savings.

The participant from Ghana Employers Association adds to benefits of student internship programme, as manifested in the words below:

For employers, student internship programme enables us to discover new talents and innovative minds, who can be nurtured to occupy vacant positions in companies. These new recruits are willing to take a moderate salary after graduation, which offers us cost-savings

This finding also compares well with the result of the review study by [Maertz *et al.* \(2014\)](#), in which the analysers uncovered that successful internships produced benefits for employers, such that hiring an intern for a full-time position after graduation led to cost savings. Besides, this finding mirrored the result of a study by [Passaretta and Triventi \(2015\)](#), in which the authors found that internship increased employability and reduced the risk of unemployment in Italy, and especially in Spain.

5. Conclusions

This paper found that student internship is still relevant in the 21st century, offering several benefits to interns, universities and employers. For interns, internship provides soft skills, confidence, career development, sense of responsibility, employability, income, knowledge sharing and networking. For TIs, it contributes to the professional development of school and faculty supervisors and helps them to update the contents they teach. For employers, it unveils talented and promising students who can be employed immediately after graduation at a relatively cheaper cost. This paper concludes that student internship programme, when well-organised, presents several advantages to students, industry, technical universities and the economy as a whole. Therefore, interns, technical universities, industries, professional associations and government bodies should harness the benefits that internship brings to them and the economy as a whole.

The paper contributes to knowledge in diverse, following, ways. This paper builds on existing literature on human capital development through internship programme, thereby lengthening the Human Capital Theory credited to [Becker \(1964\)](#). Also, the research contributes to knowledge by helping to clear the doubts in the minds of policy makers, academicians, practitioners, business consultants, training institutions and employers on the controversies regarding the relevance of internship in this 21st century. This research harmonises the views of multi-parties, offering useful information to government, business associations, employers and higher education institutions for policy planning, formulation and implementation of student internship.

6. Practical and policy implications

Policy makers in higher educational institutions who are keen to realise the knowledge economy vision by increasing the supply of graduates should continue champion student

internship programmes. This study highlights the need for employers to place internship students in areas that relate to their fields of study. This study underscores the need for students to embrace internship programmes since it is the cornerstone to their employability in the labour market.

7. Research implications

Due to the mixed debate among stakeholders and researchers on the relevance of student internship, there is a need for additional research in different contexts: both developed and developing economies. This will help in clearing doubts in the minds of policy makers, academicians, practitioners, business consultants, training institutions and employers on the controversies surrounding the relevance of internship in the 21st century. Also, with lessons from the literature review, there still seem to be a paucity of literature on the benefits of student internship programme to employers and educational institutions. Thus, further research is needed to fill the gaps in this area.

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Further reading

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Appendix 1

Questionnaire for third-year students

Dear Respondent,

My name is Patrick Arthur, a PhD student at the Department of Business and Social Science Education, College of Education Studies, University of Cape Coast. This research forms part of the requirement for the award of my PhD in Management Education and it seeks to examine *the Benefits of Student Internship Programme*.

It would be highly appreciated if you could spare about 1 h of your time to help in this research by reacting to the statements as candidly as possible. There is no right or wrong answer. Your

questionnaire is strictly anonymous and will only be read and used by myself. Participation is voluntary. In the event that anything is published from this research, no information supplied will be identifiable to you since only aggregated data will be reported in this study.

It is expected that the findings of this research will present useful suggestions for policy planning, formulation and implementation of internship programmes among technical universities in Ghana. I would be very grateful if I could get the completed questionnaire within a week. If you need any clarification on this questionnaire, its nature or its purpose, or you wish to be informed on the results of the study, do not hesitate to contact me at 0545-824-047 or email: patrick.arthur@cctu.edu.gh. Thank you for your valuable time and input.

Questionnaire sections

Section A: Background Information

Please tick (✓) the appropriate box and provide answers where spaces are provided.

- (1) Sex: a. Male [] b. Female []
- (2) Technical university: _____
- (3) Programme: _____

Section B: Benefits derived from the Internship Programme

Please indicate the extent to which you agree or disagree to each of the following statements that relate to the benefits derived from the internship programme, by **circling** the appropriate number, on the scale: 1 = strongly disagree (SD), 2 = disagree (D), 3 = undecided (U), 4 = agree (A), 5 = strongly agree (SA).

<i>Benefits derived from the Internship Programme</i>	SD	D	U	A	SA
01 Internship experience provides greater sense of responsibility and career development for students	1	2	3	4	5
02 Interns are exposed to machines and resources related to their course of study, which were not available in their schools	1	2	3	4	5
03 Internship offers trainees the opportunity to put into practice the theory learnt in school	1	2	3	4	5
04 Internship paves way for trainees to learn techniques for solving real world of work-related issues	1	2	3	4	5
05 Internship keeps trainees abreast of changing industrial culture and trends in technology	1	2	3	4	5
06 Industrial training programmes increase students' opportunities of getting employed	1	2	3	4	5
07 Experience acquired during internship reduces the risk of unemployment	1	2	3	4	5
08 Internship provides students with skills, such as adaptability to the workplace, team-playing capability, professionalism, computer and communication skills, problem-solving and entrepreneurial skills	1	2	3	4	5
09 Internship improves students' soft skills and increased their work-place literacy and well-being	1	2	3	4	5
10 Internship increases interns' level of confidence to explore their future opportunity	1	2	3	4	5
11 Internship has the potential to facilitate professional networking and knowledge sharing	1	2	3	4	5
12 Internship increase student income	1	2	3	4	5
13 Internship experience facilitates the university-to-work transition for graduates	1	2	3	4	5
14 Internship has a positive effect on student grade	1	2	3	4	5
15 Internship increase student desire to work full-time	1	2	3	4	5
16 Internship increases students' ambitions to have administrative responsibilities	1	2	3	4	5
17 Internship increases graduates' chances of being invited to a job interview	1	2	3	4	5

Table A1.
Questionnaire for
third-year students

Appendix 2

Questionnaire for senior members

Dear Respondent,

My name is Patrick Arthur, a PhD student at the Department of Business and Social Science Education, College of Education Studies, University of Cape Coast. This research forms part of the requirement for the award of my PhD in Management Education and it seeks to examine *the Benefits of Student Internship Programme*.

It would be highly appreciated if you could spare about 1 h of your time to help in this research by reacting to the statements as candidly as possible. There is no right or wrong answer. Your questionnaire is strictly anonymous and will only be read and used by myself. Participation is voluntary. In the event that anything is published from this research, no information supplied will be identifiable to you since only aggregated data will be reported in this study.

It is expected that the findings of this research will present useful suggestions for policy planning, formulation and implementation of internship programmes among technical universities in Ghana. I would be very grateful if I could get the completed questionnaire within a week. If you need any clarification on this questionnaire, its nature or its purpose, or you wish to be informed on the results of the study, do not hesitate to contact me at 0545-824-047 or email: patrick.arthur@cctu.edu.gh. Thank you for your valuable time and input.

QUESTIONNAIRE SECTIONS

Section A: Background Information

Please tick (✓) the appropriate box and provide answers where spaces are provided.

- (1) Sex: a. Male [] b. Female []
- (2) Technical university: _____
- (3) Staff category: a. Administrator [] b. Lecturer []

Section B: Benefits derived from the Internship Programme

Please indicate the extent to which you agree or disagree with each of the following statements that relate to the benefits derived from the internship programme, by **circling** the appropriate number, on the scale: 1 = strongly disagree (SD), 2 = disagree (D), 3 = undecided (U), 4 = agree (A), 5 = strongly agree (SA).

<i>Benefits derived from the Internship Programme</i>		SD	D	U	A	SA
01	Internship fills an important modern need for experiential and vocational learning	1	2	3	4	5
02	Internship has a positive impact on the earnings of companies	1	2	3	4	5
03	Internship has the potential to facilitate professional networking and knowledge sharing	1	2	3	4	5
04	Internship experience facilitates the university-to-work transition for graduates	1	2	3	4	5
05	Internship has a positive effect on student grade	1	2	3	4	5
06	Internship contributes to the development of student capacities and has a positive effect on the professional development of school and faculty supervisors	1	2	3	4	5
07	Internship helps faculty members to update the contents they teach	1	2	3	4	5
08	Internship positively affects students' professional and personal growth	1	2	3	4	5

Table A2.
Questionnaire for
senior members

Appendix 3

Interview guide for key officials of association and government bodies, and members of industry

Dear Participant,

My name is Patrick Arthur, a PhD student at the Department of Business and Social Science Education, College of Education Studies, University of Cape Coast. This research forms part of the requirement for the award of my PhD in Management Education and it seeks to examine *the Benefits of Student Internship Programme*.

It would be highly appreciated if you could spare about 1 h of your time to help in this research by reacting to the questions as candidly as possible. There is no right or wrong answer. This interview guide is strictly anonymous. Participation is voluntary. In the event that anything is published from this research, no information supplied will be identifiable to you since only aggregated data will be reported in this study.

It is expected that the findings of this research will present useful suggestions for policy planning, formulation and implementation of internship programmes among technical universities in Ghana.

Section A: Background Information

- (1) Sex: a. Male [] b. Female []
- (2) Age in *years*: _____
- (3) How many *years* have you worked in your organisation? _____

Section E: Benefits Derived from the Internship Programme

Target Questions.

- (1) In what ways do students benefit from the internship programme?
- (2) How do technical universities benefits derived from student internship programme?
- (3) In what ways do members of industry benefit from student internship programme?

Corresponding author

Samuel Koomson can be contacted at: skoomson68@gmail.com