Benefits of Internships for Interns and Host Organisations

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Question

What are the benefits of internship programmes in terms of perceived improvements in skills and employment outcomes, particularly in the information technology and business sectors?

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1. Summary

Internships enable students to acquire skills, which cannot be learned in the classroom environment, while employers obtain access to low-cost labour and reduced recruitment costs (Galloway, Marks, & Chillas, 2014; Holyoak, 2013; Maertz, Stoeberl, & Marks, 2014). Interns develop interpersonal skills, team-working skills, professionalism and customer management experience. Students also improve their communication, confidence and self-efficacy. Those with internship experience are more likely to find jobs and earn more (Saniter & Siedler, 2014). In the information technology (IT) sector internships provide valuable on-the-job training that helps students to develop entrepreneurial skills and prepares them for self-employment in this sector (Varghese et al., 2012). There is little evidence that internships can foster professional networks that facilitate knowledge transfer, although the potential for this is acknowledged.

The literature on internships is sparse and focuses on programmes run by academic institutions, mostly in the developed world, in collaboration with industry. The literature is located in academic...
journals, especially those that concentrate on education, and the emphasis is on student development rather than benefits for industry. However, this literature provides useful evidence on the impact of internships on skills development and employment outcomes. This review was able to identify only one grey literature study on an internship programme in Yemen. Internships are traditionally core components of academic programmes in the business, hospitality and health fields. However, the use of internships in the science, technology, engineering and mathematics (STEM) disciplines has expanded (Galloway et al., 2014). The following benefits of internships for interns and host organisations are highlighted in the literature:

- Internships are useful for developing soft skills such as interpersonal skills, professionalism, confidence and self-efficacy.
- Interpersonal skills are valued by employers and interns are perceived to require less need for socialisation or training to help them adjust to the work environment (Holyoak, 2013).
- IT interns in the UK state that the combination of institutional learning and practical work experience is necessary to develop technical and problem-solving skills (Galloway et al., 2014).
- Internships were particularly useful for enhancing communication skills, team working, customer service skills and creativity among IT interns (Galloway et al., 2014).
- Internships increase the probability of finding employment, but decrease the likelihood of postgraduate studies (Saniter & Siedler, 2014).
- Internships have a positive impact on earnings (Gault, Leach, & Duey, 2010).
- Internships provide useful labour at low cost to employers (Maertz et al., 2014).
- Recruitment and training costs can be reduced by employing interns (Dobratz, Singh, & Abbey, 2014).
- Internships have the potential to facilitate professional networking and knowledge sharing, but there is little evidence that this has occurred.
- Knowledge sharing is more likely to occur if interns who join professional communities are assisted by well-connected mentors who can help them integrate into the community (Holyoak, 2013).

Evaluations of internships in the STEM sector reveal that women benefit less from internships. The lower proportion of women in STEM results in fewer female interns and the evidence suggests that internships may not be a useful tool for overcoming this structural imbalance (Varghese et al., 2012). In addition, female interns in Yemen were less likely to find employment after the internship (McKenzie, Assaf, & Cusolito, 2015).

2. Background

Internships provide students with practical experience, which cannot be fully simulated in the classroom (Elarde & Chong, 2012). Consequently, interns are better prepared to cope with the challenges of the work environment and their job performance may be accelerated (Maertz et al., 2014, p. 126). Moreover, internships provide students with the opportunity to apply the skills that they learn in classroom settings in the world of work (Green et al., 2011). "What distinguishes internships from other forms of active learning is that there is a degree of supervision and self-study that allows students to 'learn by doing' and to reflect upon that learning in a way that
achieves certain learning goals and objectives. Feedback for improvement and the development or refinement of learning goals is also essential. What distinguishes an intern from a volunteer is the deliberative form of learning that takes place.” (O’Neill, 2010, p. 4). The duration of an internship is generally 10 to 12 weeks long (Hurst & Good, 2010).

Internships are well established in the US and are becoming more common in the UK (Holyoak, 2013). In the US internships have become a popular way to bridge the transition from education to work and in 2004 three out of four college students were competing for an internship which is a significant increase since the 1980s. In Germany 55% of university students completed an internship in the past 12 months (Saniter & Siedler, 2014). The literature used in this report focuses on internship programmes that were set up by tertiary education providers and industry to provide workplace learning for students. For universities internships are powerful vehicle for attracting students as well as fostering partnerships between academia and industry (Hurst & Good, 2010).

Internships are common in the hospitality, business and health sectors, because they enable students to accumulate practical skills that can only be gleaned through on-the-job training. However, use of internships is growing in the fields of information technology (IT) and entrepreneurship studies (Dobratz et al., 2014; Galloway et al., 2014). Technical skills alone are no longer adequate for graduates entering the IT industry. However, entry-level employment in the IT sector in Western countries has declined because such jobs moved to countries like India where there is a cheaper supply of labour (Elarde & Chong, 2012, p. 189; Galloway et al., 2014, p. 656). Internships provide a means for IT graduates to get entry level work experience in a commercial organisation and in addition they can be exposed to an IT specialism in a market context. They can therefore develop their business and commercial skills and become more employable (Galloway et al., 2014). Furthermore, since the IT industry tends to employ self-employed contractors rather than offer full-time permanent employment, internships can help graduates to prepare for self-employment. Interns enrolled in entrepreneurship courses are exposed to an entrepreneurial environment and are better placed to start their own enterprises (Dobratz et al., 2014).

3. Benefits for interns, employers and academic institutions

Much of the literature on internships relies on qualitative research, which provides self-reported evidence of the benefits of the internship for interns and host organisations (Shoenfelt et al., Stone, & Kottke, 2013). The following evidence was obtained from qualitative assessments of the impact of internships for interns and host organisations

Skills development for interns

Internships are useful for developing soft skills and interpersonal skills, such as professionalism, cultural sensitivity, time management and integrity, that are not generally part of the formal tertiary education curriculum (Holyoak, 2013; Shoenfelt et al., 2013). Accounting interns report that interpersonal skills were the most important skill that they learned during their internship. Integrity and professionalism were rated as the top skills required by employers. Furthermore, the opportunity to acquire skills and experience through internships reinforces self-efficacy, which in turn influences entrepreneurial intent (Shoenfelt et al., 2013, p. 2). Interns are given more responsibility and are allowed to take ownership of the work allocated to them.
Companies are making a conscious effort to socialise interns into the company culture and interns want to be treated like full time employees (Hurst & Good, 2010). Some studies have found that interpersonal skills are a predictor of job performance among medical students (Shoenfelt et al., 2013). Other soft skills that can be fostered by internships include confidence and self-efficacy, which are especially useful for budding entrepreneurs (Dobratz et al., 2014; Elarde & Chong, 2012). Moreover, experiential internship programmes can have a positive effect on student understanding, attitudes, perceptions and intentions relating to entrepreneurship and small business activity (Holyoak, 2013).

The UK industry body for the IT sector, e-Skills, developed a student placement programme in 2010 (Galloway et al., 2014). Students at British universities in the fields of computing, IT, business and other disciplines were placed at organisations including large firms such as IBM or very small organisations that might only be able to take on one student. Placement usually lasted for one year and was paid. Placement offered students a rich blend of business, interpersonal and technical skills. In 2011 a survey of 100 students who completed a placement and 120 employers was conducted.

Figure 1: Perceptions of Skills Developed from Internships (Source: Galloway et al., 2014, p. 660)

Figure 1 compares the results of the survey for interns and employers. Overall, students perceived that both the internship and their university studies have contributed to their skills development and the combination was effective in terms of enhancing both technical skills and problem solving skills. Internships were perceived to be particularly effective in terms of enhancing communication skills, team working, customer service skills and creativity, especially by employers (Galloway et al., 2014). In addition technical skills also improved as in some cases interns develop competence in programming languages that they were not taught in university. Employers generally believe that internships should develop job skills as well as interpersonal skills (Vélez & Giner, 2015). Interns claimed that the internship enhanced their employability. One of the most commonly cited benefits of placements related to the opportunity to experience the world of work and the personal development which this entailed (Galloway et al., 2014, p. 662). The internship helped the students prepare for self-employment which is expanding in the IT sector as work is increasingly outsourced to contractors. Some of the interns became employed as subcontractors to the firms that they were interned with (Galloway et al., 2014).
Delft University of Technology in the Netherlands has a master’s in electrical engineering programme that requires practical training which is often internationalised as the department engages in multi-country projects (Rompelman & Vries, 2002). It was envisaged that students would gain some insight into the engineering profession via the internship. The practical training gave them a unique opportunity to learn about the roles and tasks of engineers. In addition, students learned to apply their knowledge and skills in a real-life situation. Students were positive about practical training and stated that they learned much more than expected. Only 40% of students took up the opportunity to do an internship abroad and these students found that their self-confidence and cultural experience was enhanced (Rompelman & Vries, 2002).

Internships have also been linked to increased ambition and higher job satisfaction and more stability (Dobratz et al., 2014, p. 63). In addition, the organisational host or the academic supervisor can provide valuable feedback to the intern concerning his or her employability as well as opportunities for further skills development (Shoenfelt et al., 2013). A systematic review of internship programmes found that overall the ratings from participants were positive even though the satisfaction ratings were varied (Vélez & Giner, 2015, p. 126). Students generally felt that there expectations were met while employers’ expectations were mostly fulfilled although they concur that interns require further skills development.

Employment outcomes

Internships increase the probability of finding employment after graduation, 58% of those who completed internships compared to 30% of those who received university training only were offered jobs immediately after graduation (Dobratz et al., 2014, p. 64). Accounting firms regard students who have completed an internship as better entry-level accountants (Holyoak, 2013). A systematic review of assessments of internship programmes found that internships enhance the employability of graduates and lead to higher earnings (Vélez & Giner, 2015, p. 123). A survey of 185 employers found that the majority preferred to hire interns rather than non-interns (Gault et al., 2010, p. 83). Regression analysis found that the preference for interns was linked to the perception that they showed initiative and were committed to quality work.

Human capital theory predicts that the additional knowledge, skills and competence accumulated by the intern should result in higher pay (Saniter & Siedler, 2014). Using data from a large survey of university students in Germany, Saniter & Siedler (2014) conducted regression analysis to determine the effect of internships and employment outcomes. The results were as follows:

- 73% of graduates stated that their job matched their academic qualifications in terms of occupation status.
- 72% stated that the tasks assigned to them were appropriate.
- Internship experience increased the probability of being in full-time employment by 4%. Therefore, internships should be regarded as a door opener to the labour market.
- There was no relationship between completing an internship and having a permanent position.
- There was no relationship between completion of an internship and being employed versus being self-employed.
- Those who completed an internship were less likely to continue with higher education. More specifically, internship experience decreased the probability of starting a doctoral programme by 4%.
• Internship experience decreased the probability of being unemployed during the first year after completion of studies.

• Completing an internship had a positive impact on earnings of between 9-13% (Saniter & Siedler, 2014, p. 22).

• The experience gained through student internships increased earnings by around 6% five years after graduation.

Similarly, Gault et al. (2010, p. 78) found that interns in a US based programme earned 17% more than those who did not participate in such programmes two to three years later.

Benefits for industry

Cost savings

Interns are generally viewed as a good source of low cost labour for industry (Galloway et al., 2014; Green et al., 2011; McKenzie et al., 2015). Interns can undertake ‘back-burner’ or value-added projects, which might not otherwise be done (Maertz et al., 2014, p. 130). Employers can utilise interns as resources during busy periods. In addition, recruitment and training costs are reduced if firms employ the interns after the internship is completed (Holyoak, 2013). The internship acts as a trial period for both the employer and the student (Elarde & Chong, 2012, p. 189). Employers can assess the likelihood of a fit between a prospective employee and the organisation (Dobratz et al., 2014). Students gain valuable real-world experience and this reduces the adjustment period, which is required when starting employment. For example, interns do not need as much socialisation, training and time for adjustment as new recruits (Maertz et al., 2014).

Networks

The literature highlights the potential benefits of networking that can arise from internships, but does not offer meaningful examples of such networks. The formation of social networks which arise from internships is a key potential benefit of internships in the entrepreneurship sector (Dobratz et al., 2014). Such networks may be useful for sharing knowledge and can help entrepreneurs to identify opportunities in the market as well as gain access to the resources required to take advantage of potential opportunities. Holyoak (2013) describes a community of practice (CoP) as a potential benefit of internships. “The purpose of CoPs is to create knowledge and to manage and exchange that knowledge for the benefits of groups and individuals in the community (Barrett et al., 2009).” (Holyoak, 2013, p. 574). The CoP must have certain features such as a shared domain of interest and community members that interact in a shared repertoire of practice. Relationships between members of the community are critical for knowledge acquisition. The CoP is a community that fosters learning so that individuals move from the periphery to the centre of knowledge production (Holyoak, 2013). However, movement from the periphery to the centre depends on the motivation and interest of the interns themselves. People at the centre of the community must be willing to assist those in the periphery (Holyoak, 2013, p. 581). A small qualitative analysis of intern experiences found that CoPs were an effective forum for networking only when those in the centre were willing to assist the interns (who were at the periphery) to become more connected and influential within the community.

International internships were useful for promoting intercultural competence, which includes intercultural communication skills, work experience and understanding (Vélez & Giner, 2015).
Academic benefits of internships

Much of the literature tends to see internships as part of the learning and career development process (Dobratz et al., 2014; Galloway et al., 2014; Holyoak, 2013; Vélez & Giner, 2015). Furthermore, internships give students insights into the industries they are entering and help them to make more informed career choices (McManus & Feinstein, 2014). Internship programmes are perceived as an important addition to undergraduate education and they play a fundamental role in preparing students for the world of work (Hurst & Good, 2010). Internships can provide feedback to students, which helps to guide further learning and career development (Elarde & Chong, 2012). It has been suggested that internships should be a requirement for entrepreneurship students, because it provides a connection between their studies and real-world experience as well as benefits to the academic institution and the employer (Dobratz et al., 2014). Internships enhance the reputation and visibility of academic institutions and enhances their potential for recruiting students (Vélez & Giner, 2015).

4. Case studies

Workplace Integrated Learning in Australia

There is an increasing trend for Australian universities to embrace work integrated learning. In addition, industry wants to be more involved in training and to ensure that graduates are work ready (Staehr, B. Martin, & Ching Chan, 2014). Workplace integrated learning is especially valuable for IT students since their career options are varied. Internships allow them to gain experience in more than one role and to become knowledgeable about different career paths within the industry. Experience makes students work ready so that when they graduate they are an attractive prospect employers. The Department of Computer Science and Computer Engineering at La Trobe University offers a work placement for students. Placements are voluntary and involve a very small token payment and the students are not formally assessed on their internship performance. The main aim of the internship is to provide an opportunity for undergraduate students to learn from practical experience and solve real-world problems in the workplace, as well as to foster mutually beneficial relationships between the industry and the university (Staehr et al., 2014).

The industry based learning programme is available to students in the final year of the course. In addition, there is an industry experience programme which was designed for employers who wish to employ a final year student full-time for period of one or two semesters. A third industry placement scheme was introduced so that IT students could gain paid part-time IT positions. This option is available after students have completed the first year of study (Staehr et al., 2014).

Interns for Indiana (IfI)

This internship programme was created by a large research university in the Midwestern US in 2004 to enhance the entrepreneurial skills of undergraduate students studying STEM or business as well as their motivation to work for small businesses or start their own enterprises (Varghese et al., 2012). The programme promotes regional economic development by supporting early-stage start-up companies. Students are paired with local high-tech start-up companies and are given more autonomy and responsibility and would usually be the case in a corporate internship programme. Since 2004 477 students and 160 companies have participated in the programme.
The start-up businesses are in the biomedical, software development, aerospace and other high-tech industries (Varghese et al., 2012). The students are interviewed by the selected companies and matches are created by aligning student and company rankings, the needs of the company and the skills of the students. The interns work an average of 150 hours per academic semester or they can work for 400 hours during the summer. Students who work during the semester receive either a credit or a scholarship while those working during the summer receive a stipend (Varghese et al., 2012).

The IFI programme includes a classroom component which allows students to integrate the internship experience with their academic experience. Interns undertake a seminar course, which includes small group discussions of the internship experience, presentations by students on their experiences and a reflective writing assignment in which students compare their expectations with their actual experience as interns. Interviews are conducted with students throughout the programme and there is a focus group at the end of the internship in order to identify challenges and assess the benefits of the programme. Only 27% of the participants were female and this reflects the overall gender imbalance in the science, technology engineering and mathematics (STEM) disciplines (Varghese et al., 2012).

In order to understand the process of student learning in an entrepreneurial internship programme the cognitive apprenticeship model is proposed (Varghese et al., 2012). Cognitive apprenticeship (CA) is a model or conceptual framework that is used to explain how experts transfer knowledge to students as well as how students acquire knowledge through the practice of authentic activities in a particular profession (Varghese et al., 2012, p. 2). The CA model has been used to explain student learning during internships in the science and health fields. The CA framework is comprised of four broad dimensions: content, method, sequence and sociology. Content relates to the knowledge that experts use to solve problems and includes four components: domain knowledge, heuristic strategies, control strategies and learning strategies. Students enter the programme with domain knowledge in engineering, business or computer science and were therefore familiar with the technical background of the concepts that they encountered in the workplace. A qualitative evaluation of the programme found that students gained important knowledge, which is not generally taught in the classroom setting (Varghese et al., 2012, p. 5). Most students found that their domain knowledge was inadequate for coping with the realities of the workplace. In particular, students reported learning specific heuristic strategies from their supervisors and co-workers relating to dealing with difficult customers, managing stress effectively and maximising the output from experiments. Students also found the structure of the small business working environment to be very different from the more familiar academic setting. Consequently, students developed new control strategies during their internship, for example they learned how to multitask (Varghese et al., 2012).

Enterprise revitalisation and employment pilot in Yemen

The enterprise revitalisation and employment pilot was a two-year project that aims to help graduates seeking jobs (McKenzie et al., 2015). The project aims to place 400 Yemeni youth into internship jobs with firms in Yemen. The internships were funded through matching grants to firms applying to the programme in which the programme would pay half the cost of the internship for up to 6 months and the firm would pay the remainder. The participants were graduates from a university or vocational school living in either of the two main cities, Sanaa or Aden. The median age of the applicants was 26 years, 30% were female, 43% of the graduates had studied engineering or information technology and 27% studied business (McKenzie et
There was a mismatch in terms of supply and demand as the industry demanded primarily business graduates but most of the graduates in the programme had studied STEM subjects.

A two-day basic skills training workshop was provided in 2014 and attended by 500 applicants. After the training the applicants were split into treatment and control groups. After random assignment there were 430 people in the treatment group and 153 in the control group. A human resource adviser helped to match individuals in the treatment group with the firms seeking interns. Around one third (158 of the 430 people in the experimental group) received an internship. This lower uptake rate was mainly a result of attrition as people dropped out of the programme because they found employment without the internship or became uncontactable. The programme was evaluated using three sources of data: baseline information collected from the applicants, administrative data from the programme and data from the follow-up survey (McKenzie et al., 2015). Due to the deteriorating security situation in Yemen the follow-up survey was brought forward and occurred three to six months after the end of the internships and just before the civil conflict erupted. The survey was conducted telephonically. The findings were as follows:

- The model length of the internship was six months.
- Some participants were unable to complete the internship because of the conflict.
- Overall the working conditions were very similar for the treatment and control groups.
- Interns claimed that they learned technical skills on the job and also learned organisational skills.
- Interns were 42% more likely to find a job than the control group.
- Female applicants were less likely to find work as a result of the internship, those who did find work worked for fewer months compared to their male counterparts.
- The internship had a statistically significant impact for male applicants only.
- The post internship survey found that overall the treatment group worked 4.7 hours more per week than the control group.

The study concludes that the internship was successful in terms of generating new job experiences for applicants despite the political and economic instability in Yemen (McKenzie et al., 2015). Those who participated in the internship had better employment outcomes after the end of the programme. The programme was disrupted by the conflict and the second phase was not implemented.

**Faculty of Business in Botswana**

The Faculty of Business at the University of Botswana runs a ten week internship programme which places students with organisations during the vacation period (Mgaya & Mbekomize, 2014). Students are assigned both a faculty supervisor who will visit them at the workplace and a supervisor from the host organisation. Since 2005 the number of internships has declined because there are fewer host organisations in the programme. A survey of 176 host organisations revealed that 90% were willing to continue to participate in the programme, but over 80% did not have capacity to take on more interns (Mgaya & Mbekomize, 2014). In addition to cost savings, the following benefits for host organisations were identified: fulfilling corporate social responsibility, enhancing corporate image and gaining new ideas. Host organisations stated that while they enjoyed several benefits from interns such as new ideas and lower
recruitment costs, they also sacrificed time and resources by training the interns. Employers desire more commitment and effort from the university, particularly in terms of finding internship opportunities for students rather than encouraging students to solicit interest from firms (Mgaya & Mbekomize, 2014, p. 141). Employers averred that the ten week internship was too short to enable interns to acquire meaningful work experience.

5. Success factors

A successful internship programme requires adequate resources to structure and monitor the programme (McManus & Feinstein, 2014). Furthermore, it is important for the interns to feel in control of their decisions and have a sense of autonomy. In order for successful learning to occur the programme must encompass the following components: intentional learning, self-reflection, question generation and metacognitive skills (McManus & Feinstein, 2014). Intentional learning is fostered by encouraging interns to focus their work on goals or topics and focusing the learning on a few areas. The older practice of rotating interns across many departments should be avoided since this undermines the development of problem solving skills.¹ There must be opportunities for self-reflection as this gives interns a chance to self-monitor their progress. Interns must be free to ask questions as this gives them more agency and control over the learning process. Interns must develop metacognitive skills. These are the steps which people take to regulate and modify the progress of their cognitive activity. This is a gradual process that can be facilitated by the use of journals or logs, time management tools and self-evaluation exercises (McManus & Feinstein, 2014, p. 134).

A positive attitude among interns is a critical success factor (Galloway et al., 2014). High quality mentoring, challenging assignments, provision of feedback and greater autonomy leads to more successful internship experiences (Vélez & Giner, 2015). The academic value of internships is enhanced if a dedicated instructor at the academic institution is available to oversee the internship (Vélez & Giner, 2015). The programme must have support from top management as well as supervisors and mentors in order to be effective. Supervisors must have the time and ability to nature interns (Maertz et al., 2014). The employer must be willing to undertake the costs of hosting interns, which are generally supervision costs and costs relating to recruitment such as compliance with legislation concerning equal opportunities, workmen’s compensation and fair labour standards, particularly if interns are not paid (Maertz et al., 2014). It is also necessary for the expectations of interns and employers to be realistic and aligned.

6. References


¹ Previously internships were rotational but currently the trend has moved towards project orientated or team based internships (Hurst & Good, 2010).


**Key websites**

Australian Collaborative Education Network - http://acen.edu.au/

The International Association for the Exchange of Students for Technical Experience - https://iaeste.org/student_pages

The Internship Group - https://www.theinterngroup.com

Eli Abroad - https://www.eliabroad.org/international-internships

AIESEC - https://www.aiesec.in/global-entrepreneur/

**Suggested citation**


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