ICT graduates call for interventions to improve internship programmes

By Khathutshelo Budeli, Dikgetho Mokhutja, Alex Dandadzi, Ntsoka Mathiba, Taurai Hungwe, Tsakani Ndobe, Vhulenda Sumbana, Siyabonga Masuku, Innocent Nkosi and Mosima Masethe

Khathutshelo Budeli and Dikgetho Mokhutja were postgraduate students who carried out the research study under the guidance of the other authors, all with the Computer Science and Information Technology Department at Sefako Makgatho Health Sciences University, Gauteng, South Africa.

Internship programmes are potentially a powerful intervention to give university graduates the work experience they need to advance in their chosen profession. These initiatives represent a major investment by government and the Sector Education and Training Authorities (SETAs) who sponsor them. This study, drawn from the experience of ICT graduates, questions some of the features of internship programmes and suggests avenues to improve their usefulness for both interns and employers.

Introduction

Youth unemployment in South Africa, as of the first quarter of 2021, stood at 46.3%. The youth jobless rate as per the expanded definition stood at 74.7% (Statistics South Africa, 2021). This is a disturbing statistic. The government has intervened to encourage government and private sector organisations to employ young graduates and place them in internship programmes (Mabiza, Mahlalela and Mbohwa, 2017). These internship programmes range from 12 to 24 months. They were included as a new entrant category into the National Development Plan (NDP) and are operationalised by the Department of Higher Education and Training (DHET), which oversees the SETAs (Pop and Barkhuizen, 2010).

The aim of the internships was to furnish interns with opportunities to work with experienced professionals in a particular field as well as develop networks for future reference (Burns and Chopra, 2017; Mabeba, 2019). The employer receives a grant from the relevant SETA to pay the interns while the intern gets an opportunity to gain hands-on experience that enhances his or her learning or understanding of a particular area of study through participation in real work environments (Bukaliya, 2012; Mgaya and Mbekomize, 2014). A benefit that might be less obvious, but which is nevertheless important, is that host organisations get a chance to fulfill their corporate social responsibilities (Mgaya and Mbekomize, 2014), and to operate at full capacity at much lower cost; interns, who do the actual work, generally earn less than entry-level positions (Koyana and Mason, 2018). Therefore, employers use internships as a cost-savings measure.

It has also been found that interns get little support from established employees who have been with the organisation for longer, but who are less formally qualified than the interns (Koyana, 2014). Mabeba (2019) posits that interns are assigned to different mentors with different skills, which creates confusion for the interns. This often obstructs their process of learning new systems and skills in the work ➤➤

environment. Furthermore, hosting organisations do not commit to retaining graduates at the end of the internship programme, resulting in those graduates finding themselves unemployed, and possibly back where they were before the internship (Mabiza, Mahlalela and Mbohwa, 2017; Mseleku, 2019).

It remains to be determined whether interns acquired skills from internships that make them more employable and experience to help them get jobs (Ohei and Africa, 2019). This study set out to determine if the DHET/SETA internship programme works for graduates with Computer Science and Information Technology qualifications in South Africa.

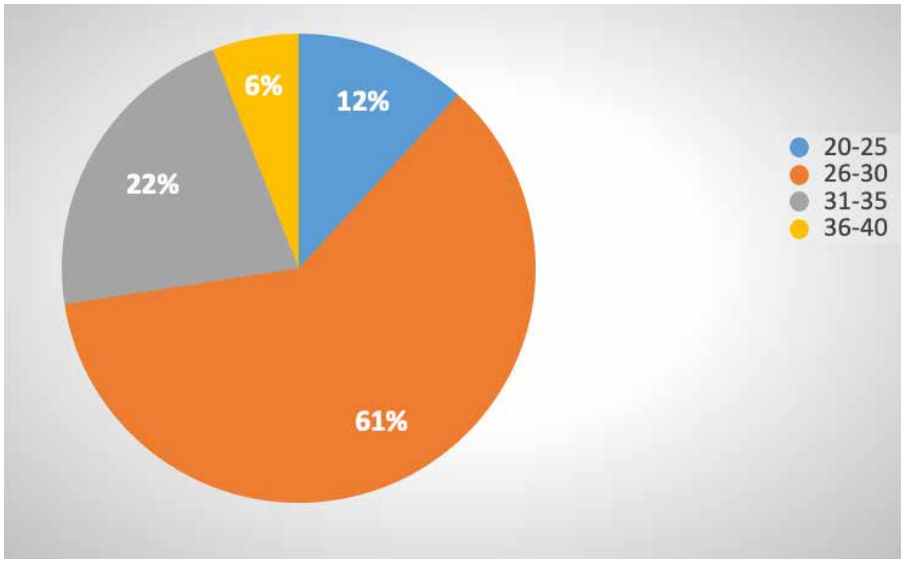
Methodology

Quantitative and qualitative approaches and the snowball sampling method were used in this study. A total of 100 questionnaires were distributed by email to graduates working and/or undergoing internship programmes in the field of Computer Science and Information Technology at private and public organisations in Gauteng. The disclosure of organisations' names and respondents' personal information was discouraged to preserve privacy and confidentiality. The study was carried out over one year during the 2020 academic year.

Findings

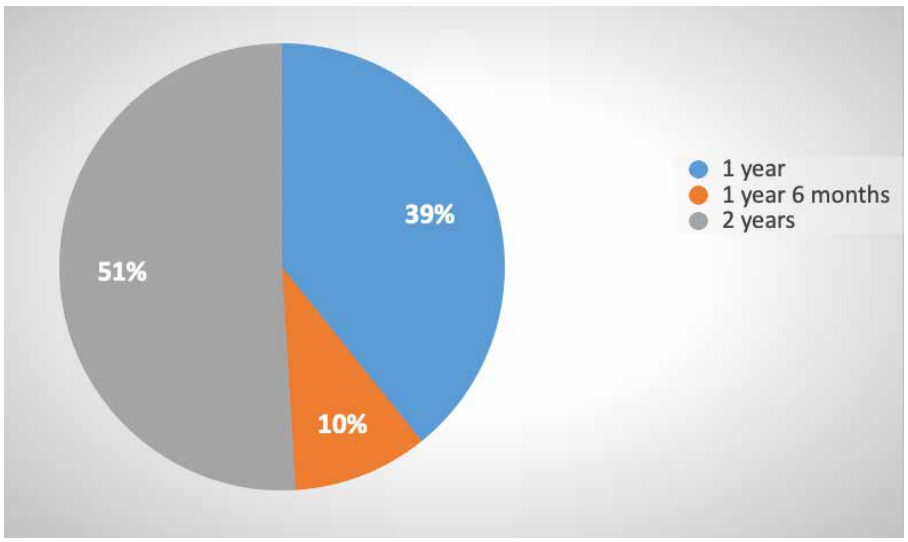
Out of 100 survey questionnaires distributed 51 responses were received, which suggests that there was interest in the study. Of these responses, 59% were from females and 41% were from males. This points to the inclusion of more women in the formal sector of the South African economy. The majority of the respondents (93%) were employed in the private sector with only 7% employed in the public sector.

Figure 1: Age of respondents



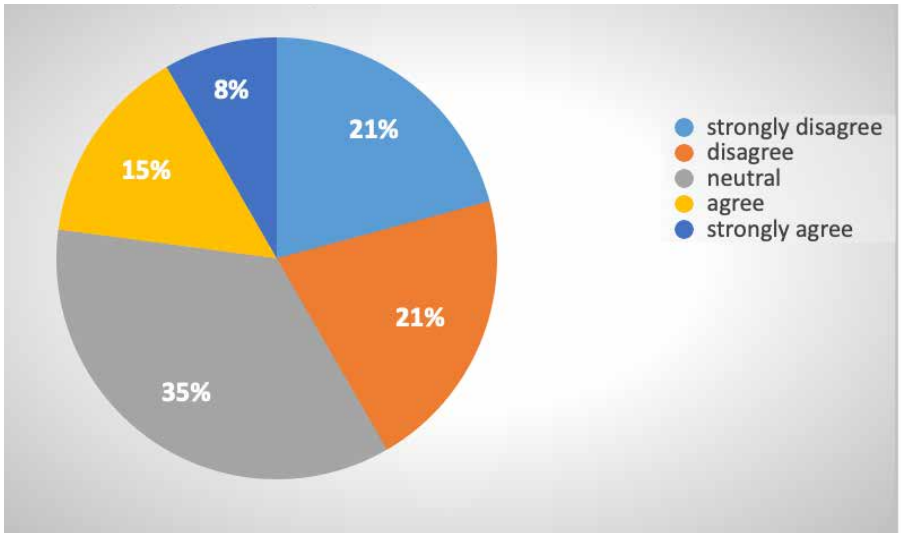
The majority of the respondents (61%) were between the ages of 26 and 30, which suggests the respondents were graduates who had recently completed their first and/or second degree at an institution of higher learning in South Africa. This was followed by those in the 31-35 age group at 21%, while 12% were in the range 20-25, and 6% between 36 and 40 years old.

Figure 2: Duration of internship



The majority of the interns (51%) were employed for two years, followed by 39% who were employed for a period of one year, and 10% employed for 18 months.

Figure 3: Tasks versus job description



As illustrated in figure 3, only 8% of the respondents "strongly agreed" that they did tasks stipulated in their job descriptions. A further 15% of the respondents "agreed", giving a total of 23% of respondents who agreed or strongly agreed that the tasks they performed as interns matched their job descriptions. A very high percentage of 35% were neutral with 42% saying they experienced a misalignment between the tasks they were made to carry out and their individual job descriptions.

Figure 4:Communication with seniors

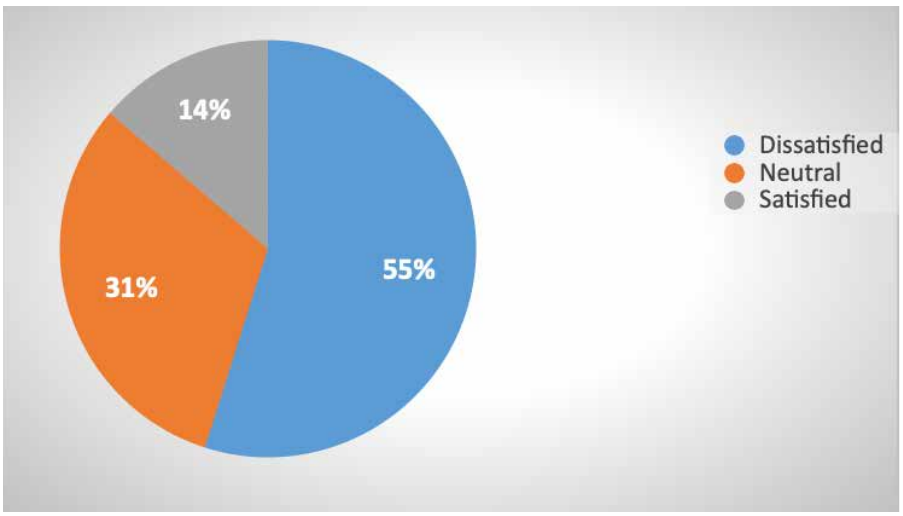


Figure 4 illustrates the communication between interns and their superiors (senior co-workers or supervisors). The majority of the interns (55%) felt there was a communication vacuum between them and their senior co-workers whom they were expected to learn from. Only 14% said they had a fruitful communication channel between themselves and their superiors.

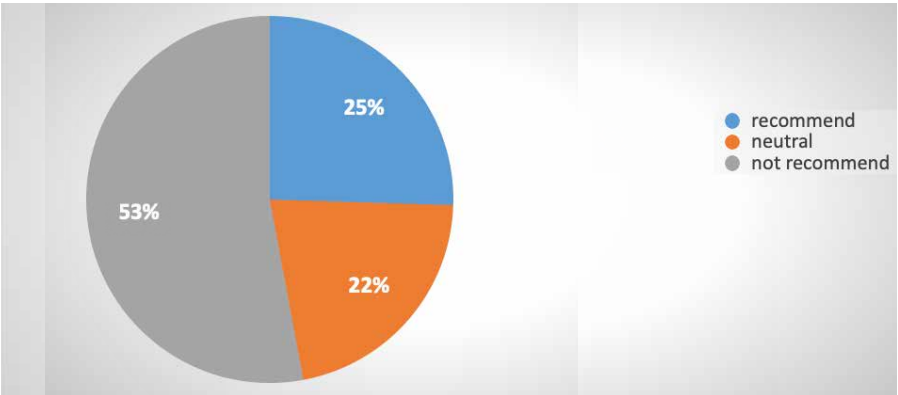
Figure 5 shows to what extent respondents would recommend an internship to someone else. Only 25% of respondents felt that they would recommend the internship, while the majority of the respondents (53%) said they would not. This negative result (53%) is a matter of concern considering that the government is trying to tackle the need for skills transfer to youth and reduce youth unemployment. It suggests that an intervention in the current system is warranted.

The respondents were asked what they think should be done to improve the ICT internship programme. This is what some had to say:

- "The sectors must conduct exit interviews when the contracts of their interns end so that they can have ideas on how to improve their training";
- "The interns must be able to rotate between different departments for them to choose a career based on what they feel confident [with], excel [in] or what they like";
- "Graduate interns must do their part in researching what they are training so that they can have knowledge and do not struggle when being trained so that they can fit well into the organisation";
- "Sectors should have a clear set of learning outcomes, access to mentors and on-going career development opportunities";
- "Have interns work on real projects, real problems that generate real results"; and
- "Allow interns to ask questions, talk about their performance, understand how they can improve, and offer feedback".

The respondents' opinions indicate dissatisfaction with the existing internship programmes and the need for interventions such as exit interviews, job rotation, implementation of ➤➤

Figure 5: Recommend internship



mentorship programmes, clear job or learning outcomes, continuous career development opportunities, openness, effective feedback, and real project engagement.

Conclusion

The purpose of this study was to investigate whether the internship programmes in the fields of ICT and/or Computer Science effectively provide interns with work experience and improve their skills. All of the respondents in the study had at least a bachelor's degree suggesting that they had acquired the theoretical and practical skills required by industry. Based on the findings, it is clear that most respondents felt they were made to perform tasks not specified in their job descriptions. This echoes a theoretical finding by Mabeba (2019) and a qualitative finding by Mseleku (2019) of general dissatisfaction among interns with the internship programmes.

The study looked specifically at graduates with qualifications in the ICT and Computer Science fields. It is certainly reasonable to expect interns to acquire relevant skills in two years of internship, which is demonstrated by the 23% of satisfied respondents. However, a lot more needs to be done in order to address youth unemployment in this country, given the government's interventions.

Employers might be taking advantage of the grants provided by the government, simply to have more people available for their operations at low costs, instead of focusing on the intended goals of internships. It is our view that naming and shaming organisations that have taken advantage of the subsidised internship programmes might have deterred the respondents from taking part in the study. The fact that the majority of respondents would not recommend taking part in an internship programme to anyone else suggests that the current policy is not being adhered to.

The recommendations made by interns are a fair call on government institutions and other organisations (private or public) to relook at the internship programmes and the policy as a monitoring and evaluation exercise to address these challenges. Such a policy review would create a win-win situation as it would also empower ICT graduates. Future research which compares the private and public sectors internship programmes according to different factors such as retention of interns, level of job positions, screening process of interns, and type of tasks (practical, administrative) could be a valuable exercise.

Although it would be beneficial for South Africa to conduct the same study at a national level, it is our view that in the medium term these results and recommendations should be applied as a contribution towards updating and improving the current internship programme policy first. Such a move would directly address current internship programme challenges, resulting in the reduced unemployment of ICT graduates as well as contributing to the development of South Africa as a whole.

REFERENCES

Bukaliya, R. 2012. "The potential benefits and challenges of internship programmes in an ODL institution: A case for the Zimbabwe Open University", *International journal on new trends in education and their implications*, 3(1), pp. 118–133.

Burns, C. and Chopra, S. 2017. "A meta-analysis of the effect of industry engagement on student learning in undergraduate programs", *Journal of Technology, Management, and Applied Engineering*, 33(1), pp. 1–20.

Koyana, S. 2014. "Final Report on the internship baseline study 2013", (October), p. 125.

Koyana, S. and Mason, R. B. 2018. "Transformation in the wholesale and retail sector in South Africa: the role of internships", *Journal of Business and Retail Management Research*, The Academy of Business and Retail Management (ABRM), 12(4).

Mabeba, S.J. 2019. "The Impact of Internship Programme on Skills Development in the South African Public Institutions: Are Internships Still Relevant?" Paper presented at the 4th Annual International Conference on Public Administration and Development Alternatives, 3-5 July 2019, Southern Sun Hotel, OR Tambo International Airport, Johannesburg.

Mabiza, J., Mahlalela, P. and Mbohwa, C. 2017. "Reducing Unemployment Rate in South Africa through Establishment of Graduate Internship Programmes (GIP)", *Lecture Notes in Engineering and Computer Science*, 2228, pp. 838–841.

Mgaya, K. and Mbekomize, C. 2014. "Benefits to Host Organizations from Participating in Internship Programs in Botswana", *Asia-Pacific Journal of Cooperative Education*, ERIC, 15(2), pp. 129–144.

Mseleku, Z. 2019. *Graduate internship and employment opportunities: A case study of EThekwini Municipality, KwaZulu-Natal, South Africa*. June 2019. Doctoral thesis in Public Policy, School of Sciences, Faculty of Humanities, University of KwaZulu-Natal, Durban.

Ohei, K. N. and Africa, S. 2019. "Investigating the prevailing issues surrounding ICT graduate employability in South Africa: A case study of a South African university", 1, 14 (October 2018), pp. 29–42.

Pop, C. and Barkhuizen, N. 2010. "The Relationship between Skills Training and Retention of Graduate Interns in a South Africa Information, Communication and Technology Company", *Literacy Information and Computer Education Journal*, 1(2), pp. 75–83. doi: 10.20533/licej.2040.2589.2010.0011.

Statistics South Africa. 2021. Media Release *QLFS Q1 2021*. Available at http://www.statssa.gov.za/publications/P0211/Media%20release%20QLFS%20Q1%202021.pdf (Accessed: 19 July 2021). NA