

**Student Perspectives about Their PhD Journey: The Case of Addis Ababa University,
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Abstract

This study was conducted to explore students' views on their PhD journey by gauging the experiences of 164 students pursuing their studies at the four colleges of Addis Ababa University- Ethiopia's flagship institution. The findings indicate that while the student-student and student-faculty relationships, climate of programs and thesis advisory services are positively rated, support systems like availability of financial assistance and resources, workshop and conference presentation, special trainings provided, opportunities for publication of research papers are found to be very weak. It is posited that the success of PhD programs currently run at Addis Ababa University will continue to be challenged unless a significant improvement is made on the support mechanisms put in place.

Keywords: PhD, doctoral education, doctoral programs, doctoral supervision, Addis Ababa University

Background

The personal, institutional and national goals set for doctoral studies are varied and multidimensional in their nature. Contribution to economic and scientific development through innovation (i.e. the production of new knowledge), improved teaching, and research output appear to top the list of reasons why doctoral studies are most often invigorated in many countries. It is widely attested that since the demands of knowledge production and innovation can only be attained through the active participation of a highly trained labour force the need for doctoral graduates is uncontested (Kehm, 2006; Jørgensen 2012; Cloete, Muton, & Sheppard, 2015). The huge capital outlay poured on doctoral education and the increasing presence of PhD holders within and outside academia are more or less rooted in these same justifications.

Triggered by the critical human resource required to catalyze its economic development and institutional needs-not the least of which is its rapidly expanding higher education sector-Ethiopia has increased the production of PhD holders over the last decade. In addition to the manpower need highlighted in its Growth and Transformation Plan II (2015) specific plans set in the 2008 white paper of the Ministry of Education set the need for the expansion of post graduate programs with the major goal of improving the academic qualification of university staff (MoE, 2008). These developments continue to serve as a major boost to the wider introduction of PhD programs in local universities and the training of an increasing number of candidates outside the country.

Changes are steadily increasing both in the number of PhD candidates and the diversity of PhD programs initiated across the various public universities, albeit the rate of success still remains meagre. Currently, local universities award more than 500 PhDs every year up from a low of 21 in 2010/11. As of 2016 more than 3,000 students are pursuing doctoral studies at local universities (MoE, 2016). While the exact number of people studying abroad is not

available, the national trend is tipped towards significantly augmenting the number of PhD holders in the country in the years to come.

Despite the surge of PhD training across most of local universities, little is known about Ethiopian PhD programs and-or the experiences of key stakeholders involved in the process. This study attempts to fill this gap by examining the nature of PhD training as viewed by doctoral students enrolled at Addis Ababa University- Ethiopia's flagship university and the dominant PhD provider in the country.

The shifting landscape of doctoral education: Features and forces of change

Recent global developments indicate that doctoral training is increasingly drawing attention as a subject of policy direction and scholarly pursuit (Jones, 2013; Manidis & Goldsmith, 2018). Fundamental changes have especially been noted in doctoral education over the last two decades driven by evolving national and global developments (Kehm, 2006; Jørgensen, 2012; Cloete et al., 2015).

Given its contribution in the production of highly trained work force critical to knowledge production and innovation, policy directions in many countries focus on strengthening the nexus between doctoral outcomes and initiatives in economic growth that are targeted at enhancing sustainable competitiveness (Kehm, 2006; Jørgensen, 2012; Sabic, 2014; Manidis & Goldsmith, 2018). For instance, European initiatives like the Bologna Declaration (1999) and the Lisbon Strategy (2000) were influenced by the need to make the continent more competitive through the training of high level human power (Kehm, 2006; Jørgensen, 2012; Cloete et al., 2015). The quest for improvements in the provision of doctoral education in North America is attributed to a similar need (Kehm, 2006; Cloete et al., 2015). Governments in the BRICS (Brazil, Russia, India, China and South Africa), are formulating targeted policies and deploying huge resources that would augment doctoral and research output as part of their effort to improve their competitive positions in the global knowledge economy (Cloete et al., 2015). Even in some African countries there are policy directions and concerted efforts aimed at improving the provision of PhD training (Molla & Catebert, 2016).

Doctoral education continues to assume an important dimension particularly in terms of its size, relevance and policy formulations that influence its nature and structure. One major development is the change in the growing number of PhD trainees available across the developed and developing world- especially in countries of emerging economies. In fact, graduate education is becoming multi-polar and its center of gravity is 'gradually moving away from the North Atlantic' (Jørgensen, 2012, p. 8). Europe is known in terms of the highest number of doctorates awarded both in absolute terms and relative to its population; however, when it comes to the rate of increase in the production of PhD holders China, Brazil and India take the leading positions (Jørgensen, 2012). While the US for too long remained the leading nation in terms of PhD graduates, followed by Europe, Australia and Japan (Jørgensen, 2012), China has now surpassed all with the production of more than 50,000 PhD graduates per annum (Nature, 2011).

In addition to numbers the gender and cultural diversity of graduates are also areas where positive changes are being witnessed (Manidis & Goldsmith, 2018). Another development of PhD education, necessitated through the demand and growth of doctoral training, is the absorption of graduates outside academia. Contrary to the earlier tradition of universities being the major destinations, industry and companies are attracting more PhD graduates, especially in developed nations where the production of PhD holders is outstripping the academia's accommodation capacity. For instance, 56% of PhD graduates in Canada, and 50% of graduates in Europe currently serve in public and private sectors outside of academia assuming research and non-research positions (Kehm, 2006; Jørgensen, 2012; Sabic, 2014). This development holds implications for the preparation of PhD candidates since new training modalities should reflect as much diversity as the learners. It is argued that doctoral education should avoid its narrow focus and consider the inclusion of components such as key professional skills, organizational and managerial skills, entrepreneurship skills, and teaching skills that are more reflective of the kinds of positions graduates will assume after the completion of their studies. In addition to exposing doctoral candidates to other sectors and academic cultures, this change is again contributing to the nature of jobs PhD holders are involved in by making the new sectors more knowledge intensive (Jørgensen, 2012; Sabic, 2014).

Despite the paucity of data regarding the development and current landscape of PhD production in Africa (de Laar et al., 2016), the continent shares some of the evolving developments discussed above. Africa's developmental needs unavoidably underpin the demand for more doctoral graduates due to their critical importance in driving economic growth and the shift towards a knowledge society. The crucial importance of PhD programs in improving quality in the African university system is also well established (cf. Cloete 2015; Khodabocus, 2016). That is why governments in the developed and developing world give special emphasis to the growth of PhD programs. There seems to be now an increasing realization that the major needs of building research capacity in Africa can be realized by supporting higher education institutions that should meet local, national and regional challenges (IAU, 2012). Influenced by an interesting array of innovative practices from within and outside the continent, some African HEIs are trying to respond to these changes (Molla & Cutebert, 2016) which will, in turn, contribute to the growth of PhD holders.

However, doctoral studies in Africa exhibit some distinctive features and a variety of challenges compared to the rest of the world. As noted by Harle (2013) this includes the nature of candidates who are often employed, an older age profile among PhD candidates, and the reasons for initiating doctoral programs which mainly pertain to upgrading the qualifications of existing university staff to enable them teach at post graduate levels, and to augment the number of qualified researchers at PhD level. In terms of funding and sponsoring African PhDs the involvement of development agencies and research funding agencies that support doctoral studies as part of their development policy and practice is also a common phenomenon (Harle, 2013; Molla & Cubert, 2016)

It is worthy of note that despite the increasing quest for improving the status-quo, Africa's performance in doctoral education remains very low and even emerging changes in the area are far behind current demands. This is compounded by deficiencies in a range of areas that affect the growth of doctoral education within the continent. To begin with, the majority of countries in the continent are known for spending less on research, innovation and development, and for lack of the strategic policies needed to propel themselves to a better position (ACUP, 2012). Most institutions in the continent similarly face serious challenges with regard to lack of funding, poor quality of supervision, lack of academic freedom, poor link with industry, insufficient PhD programmes, poor physical infrastructures, brain drain, lack of supportive teaching and research environment, and poor strategic positioning of the PhD program (ACUP, 2012; Cloete, 2015; de Laar et al., 2016).

Investigating the doctoral student experience

Relative to the other areas of investigation, gauging the doctoral student experience about success or failure in PhD programs appears to be outstanding perhaps due to the central place doctoral candidates assume in any PhD program. Doctoral students remain key to the production of a significant part of the research output of universities and the backbone of research productivity outside academia (Jørgensen, 2012). The critical role that doctoral students assume in terms of their instrumentality in the discovery and implementation of new knowledge and the continuity of PhD programs necessitates the need for understanding what works and doesn't work in their training (Jones, 2013).

Enrolling in a PhD program can be driven by a multitude of factors such as career development/professional upgrading, intellectual challenge, lack of satisfaction about one's current job, personal agenda, social or family/personal pride, research as politics, and drifting in (Appel & Dahelgren, 2003; Brailsford, 2010; Maldondo et al., 2013). Despite the various interests that drive doctoral studies, the decision to enroll in PhD programs is most often considered to be a risky choice since it can involve a variety of negative outcomes (Brailsford, 2010) and challenges that are sometimes described as a 'rollercoaster of confidence and emotions' (Cotterall, 2013).

Among others, the PhD degree is known for its high level of attrition and stressful demands that can impinge on the academic success and wellbeing of candidates (Appel & Dahelgren, 2003; Brailsford, 2010). Studies made in the US indicate that the national attrition rate for PhD candidates ranges from 30 to 70% (Wasburn- Moses, 2008; Phlato et al., 2012; Jones, 2013). The attrition rate for Europe is around 50% (Sabic, 2014), while a figure from South Africa raises the rate to 88% (Bunting & Shepherd as cited in Garwe, 2015). Due to its implication to individual students, employers and institutions attrition remains a contentious issue in the extant literature on doctoral education (Gardner, 2008).

There are a multitude of factors that can impinge on the success of doctoral education from the perspective of students. While student motivations for pursuing doctoral education is most often dictated by personal interest (Appel & Dahlgren, 2003), the success of most PhD students appear to be mainly determined by student-related and environmental or

organizational factors (Lepp, 2015). Notwithstanding the contextual variations one would expect, students' perspectives on doctoral education have most often been investigated from the point of motives for enrolling in postgraduate programs, student background, working environment, nature of program/research project, support provided and reasons that account for attrition (Spear, 1988/89; Appel & Dahelgren, 2003; Wasburn- Moses, 2008; Vermue & Fokkens- Burisma, 2012; Skovsgaard & Vestermark, 2016). These factors have been mostly investigated in terms of the fit or misfit between the expectations of doctoral students and the norms and practices of their institutions (Pyhalto et al., 2012), constituting the source of positive or negative reactions about overall satisfaction in PhD programs (Spear, 1988/89; Vermue & Fokkens- Burisma, 2012; Skovsgaard & Vestermark, 2016).

Studies that focus on identifying the most influential factors that contribute to the relevance and success of a PhD program highlight the importance of factors such as the nature and structure of the program, the support provided to students, the socialization of candidates and the challenges that PhD candidates face during the course of their training. Factors related to students' capabilities and personal problems, the issue of personal commitment or lack of motivation, the provision of mentorship and support, information and educational facilities, time allotted for the thesis, overall work load, the socialization process, departmental issues (e.g. bad advising, faculty attrition, etc), also have significant influences in determining the success of students (Appel & Dahlgren, 2003; Gardner, 2008; Martinsuo & Turkulainen, 2013).

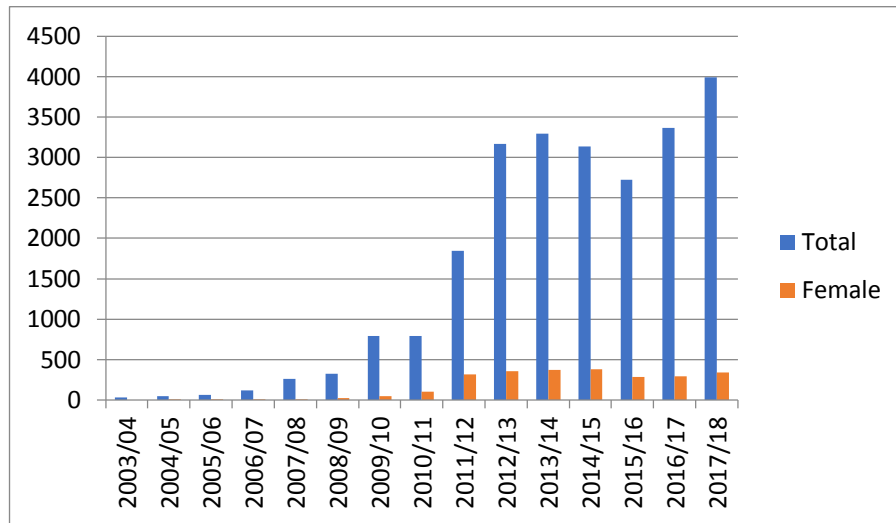
As a complex environment that demands different forms of engagement from PhD students, doctoral studies call for a variety of support schemes that should be availed (Johnston et al., 2016). However, despite the increasing investigations about the various dimensions of doctoral education the support systems available appear to have received little attention in the literature (Greene, 2015; Lahenius, 2013). There are naturally a variety of support services that could be provided during doctoral education including professional development, thesis writing support, housing, orientation, funding, and institutional initiatives.

The Research Context

Higher education in Ethiopia is barely 70 years old having commenced in 1950 with the establishment of the University College of Addis Ababa (now Addis Ababa University). The beginning of post graduate studies dates to 1978 which marks the establishment of Schools of Graduate Studies at the two oldest universities of the country-Addis Ababa University and Haramaya University (then called Alemaya University of Agriculture-AUA). Since the beginning of 2000 other universities have also followed suit in the provision of postgraduate programs across the country. The past decade has especially witnessed a significant increase in postgraduate enrolment in Ethiopian higher education institutions.

Currently there are over 75,000 postgraduate students enrolled in public and private institutions of higher learning. Despite the overall growth of postgraduate enrollment in Ethiopia the PhD share still remains limited. In 2017/18 only 3994 (5.2%) of the total number of students (i.e., 76795) enrolled in post graduate programs attended doctoral programs (MoE, 2018).

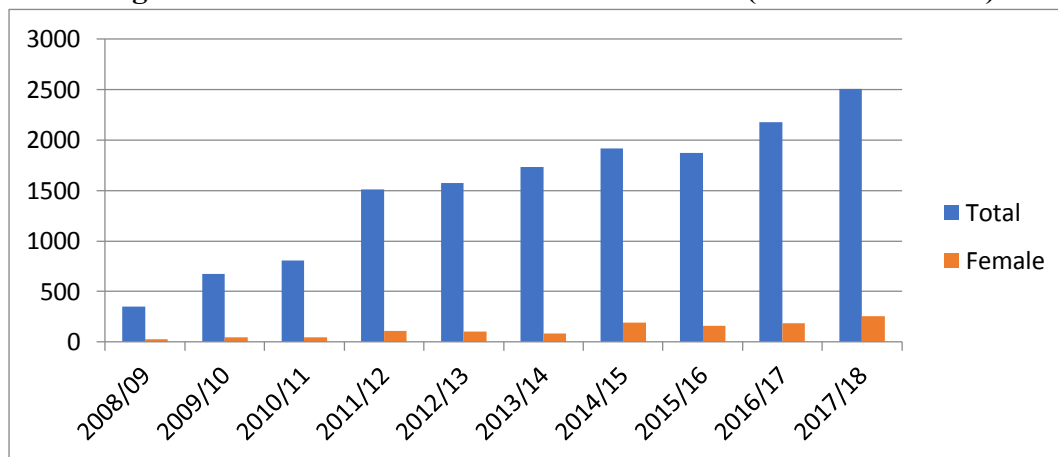
Figure1: PhD enrollment in Ethiopian institutions (2003/04- 2015/16)



As might be gleaned from figure 1, the share of PhD enrollment started augmenting since 2008/09 and especially as of 2011/12. The rapid growth since 2011/12 may be attributed to the government’s focus on the expansion of the program and the increasing involvement of universities other than Addis Ababa University (AAU) in the production of PhD graduates.

Over the last decade AAU’s dominance in terms of enrollment, diversity of programs and graduates still remains unchallenged, despite other universities offering PhD programs. The following figures for the last 10 years show how Ethiopia’s premier university- AAU- remains the powerhouse of the country’s PhD production.

Figure 2. A Decade of PhD enrollment at AAU (2008/09- 2017/18)



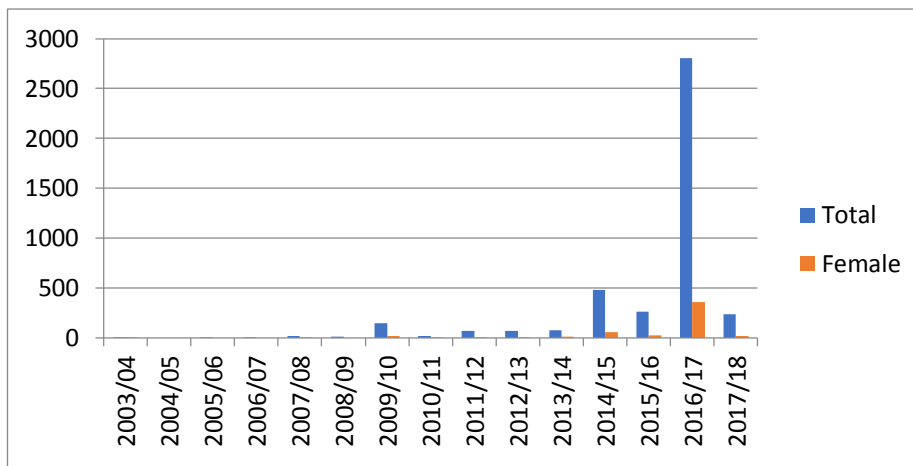
Enrollment by program type

The two most popular streams attended by postgraduate students are Social Sciences and Humanities, and Business and Economics. These programs are attended by 29.6% and 19.65% of the total number of students enrolled. The remaining fields of studies with their rates of enrollment are Natural and Computational Science (15.4%), Engineering and Technology (15.15%), Medicine and Health Sciences (11.9%) and the least attended Agriculture and Life Sciences (8.3%).

PhD graduates

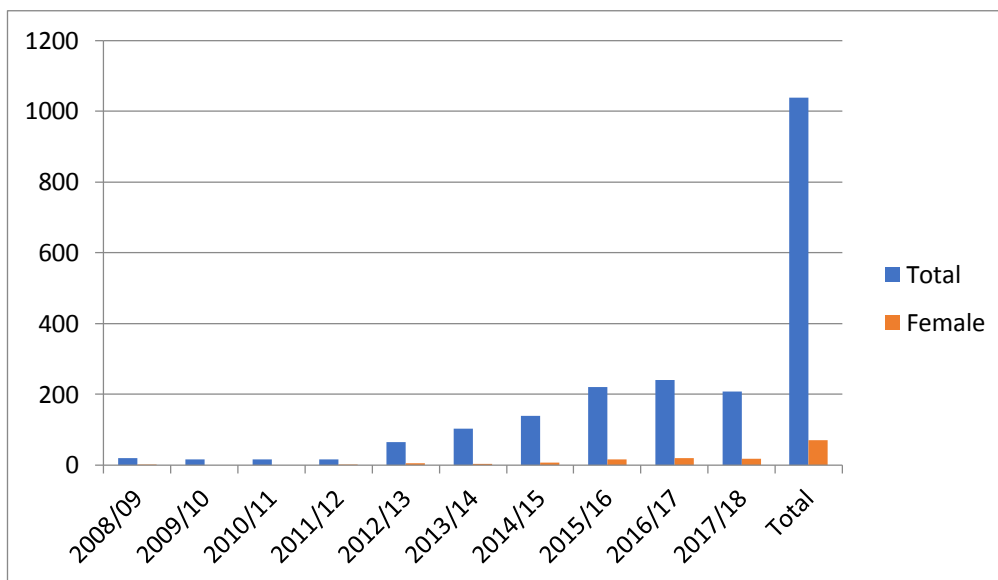
Ethiopian higher education institutions have reached at the level of awarding over ten thousand post graduate degrees per year. In the year 2015/16 a total of 10,468 postgraduate graduate students graduated from public and private institutions. Of these, the majority (84.6%) were from government institutions. It can be seen from the table that female graduates still remain underrepresented, comprising only 18.9% of total graduates. PhD graduates constitute only 263 (2.5%) of the total number of graduates that completed their studies in the same year.

Figure 3. PhD graduates from Ethiopian universities (2003/04- 2017/18)



Again, the AAU remains the biggest university in terms of the share of PhD graduates that it has trained over the last ten years- as may be learnt from figure 4 below.

Figure 4. PhD graduates at AAU



Research Objectives

The objective of this research is to gauge the perspectives of PhD students at AAU towards their training by examining their satisfaction with their programs, and the various forms of support they are provided.

Research Methodology

The research used questionnaire as a principal means of data collection. PhD students were asked to express their views on the major components of PhD training using a Likert scale with five points. In addition to the closed questions the questionnaire included open items that gauged the reasons behind some of the choices respondents made. Quantitative data were analyzed using SPSS software.

Major Findings of the study

Demographics of survey respondents

A survey with questions covering various aspects of the PhD experience was developed and administered online to 200 respondents in four colleges: The colleges of Education, Development Studies, Languages and Information Technology. 164 respondents completed the questionnaire online. The survey had the purposes of gauging the experiences of PhD students and identifying possible areas that might require special attention.

The overwhelming majority of the candidates completed their masters studies at Addis Ababa University while others did theirs in other local universities, and two in foreign universities (one in China and one in India). Quite common to other countries in Africa (Herman, 2015), only 22 (13.4%) of the candidates are female. Respondents that assumed work responsibilities (65) while studying said the hours they covered per week ranged from 2-16 hrs per week. This is in congruence with PhDs offered in other African countries which have the most common features of combining work and PhD related duties.

Most of the PhD programs are attended by candidates drawn from public universities. This is an indication that the programs are still targeted at augmenting the qualification of university staff who are still far below meeting the national requirements set a 30% PhD and 70% masters. The three most important reasons why respondents chose to study were also identified as career development, upgrading one's knowledge and skill, and developing research skills.

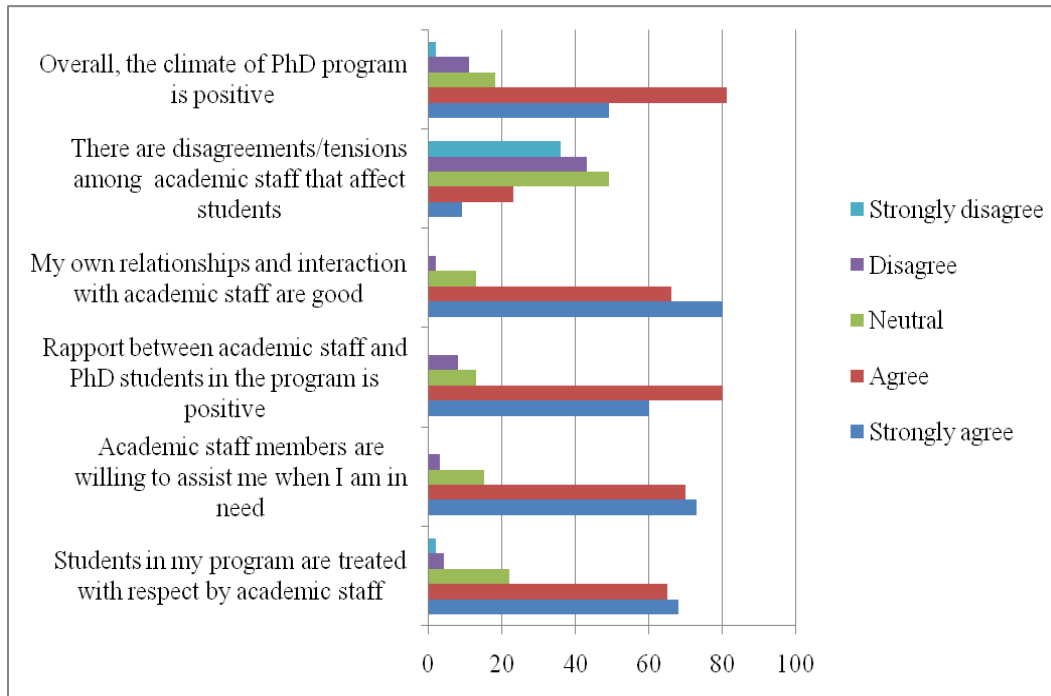
Respondents' views about their PhD journey

The success of doctoral students' engagement is determined by a plethora of individual and environmental factors (Pyhalto et al., 2012). In this study a variety of issues were examined to determine the nature of the PhD programs that respondents were pursuing. The findings below particularly focus on those areas where the availability of support schemes was considered to be critical to student success.

Climate of program

One aspect of the PhD program investigated was the climate of the program which looked at the relationship among students and between students and faculty.

Figure 5: Climate of PhD programs



The findings indicate a strongly positive outcome. Respondents attest that their relationship with staff and other PhD candidates is favourable and they are treated with respect by staff. However, when it came to disagreements/tensions among academic staff the majority of respondents (81) chose to remain 'neutral' and 'agree' with the statement which is perhaps an indication of the lack of internal cohesion among faculty in some departments.

Dissertation advising

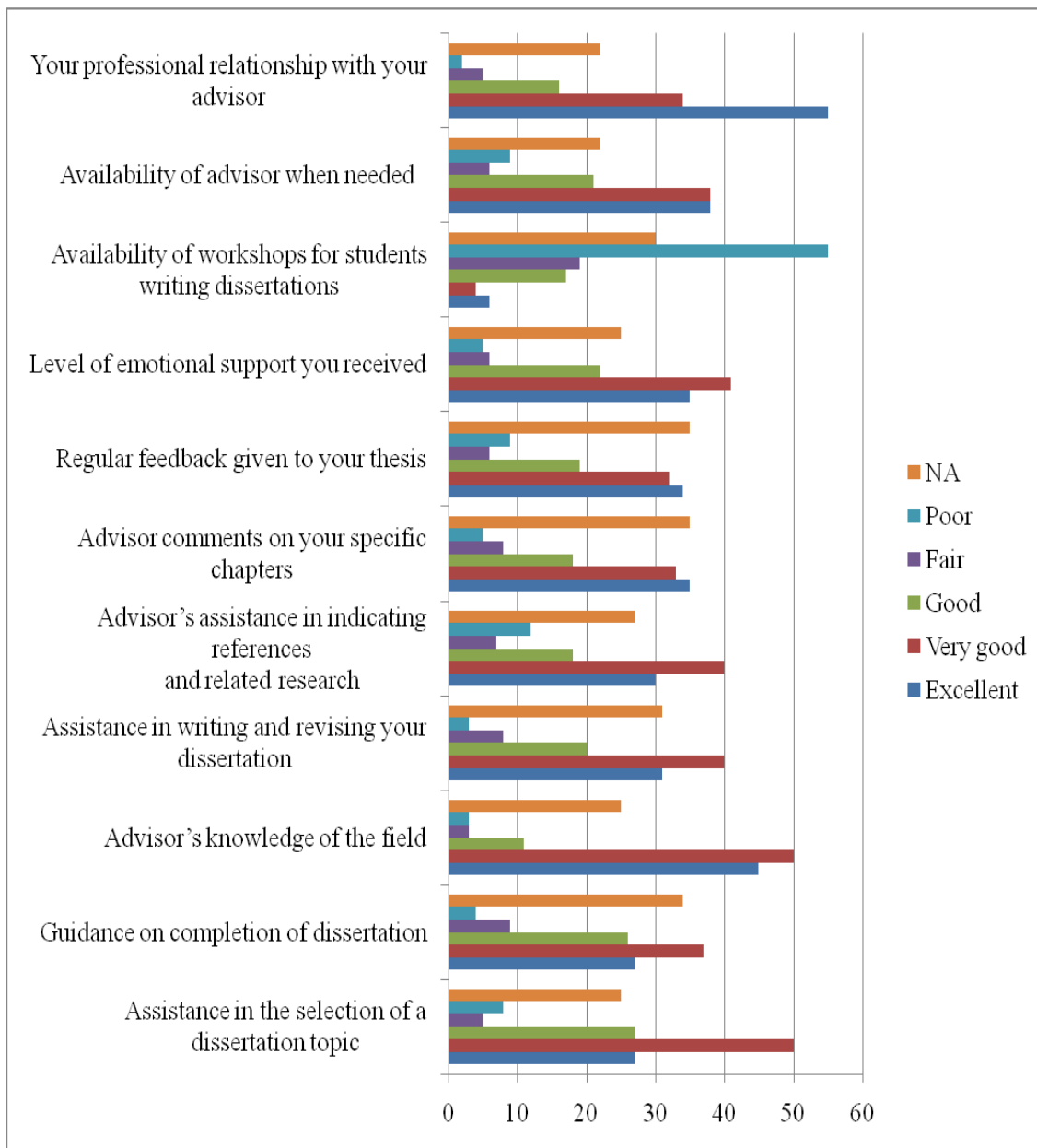
The supervision of students' work remains to be one of the crucial frameworks for the PhD journey (Pyhalto et al., 2012; Cloete, 2015). The doctoral supervisor is also regarded as fundamental to the transition of the doctoral candidate to a future academic or practitioner (Pyhalto et al., 2012). In this regard, the nature and quality of relationship between advisor and the candidate is considered to be critical in the success of the PhD program (Jones, 2013; Loud & Muller, 2014).

The supervisory relationship in the PhD program and the support students received during their dissertation writing was examined in this study using the responses given by 113 respondents who said they are working on their thesis.

Most respondents are positive as regards the overall assistance provided to the dissertation writing process. More than one third of the respondents rated their link with the advisor as excellent and most of the forms of assistance needed from advisors were rated 'very good'.

The only statement negatively rated is the availability of workshops for dissertation writing which appears to be missing in most cases.

Figure 6: Advisory support provided to PhD dissertation



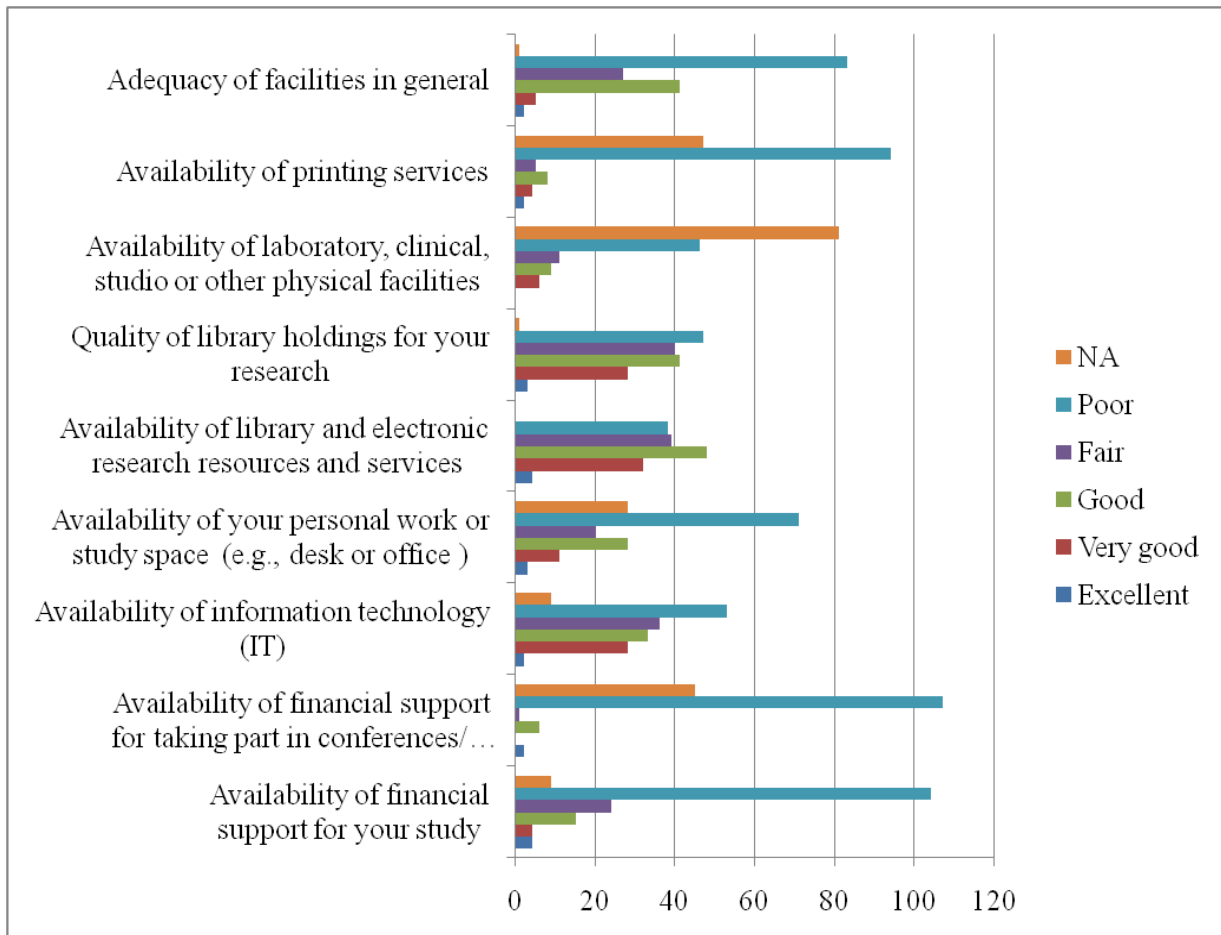
Availability of financial support and resources

Funding can be a critical source of incentive or barrier in doctoral studies (Greene, 2013). The level of access to financial opportunities is assumed to have its own effect in doctoral studies. Where enough funding is not availed candidates could be seriously challenged in accomplishing their responsibilities (Greene, 2013; Sabic, 2014; Cloete et al., 2015)

It was earlier noted that a significant number of respondents are engaged in extra-work to satisfy their financial needs. The answers respondents gave when asked about their level of satisfaction as regards financial support and the variety of resources availed invariably

indicate that most of their ratings fall on ‘poor’ and ‘fair’. This is an indication that most of the PhD programs are quite weak in terms of financial support and resources that are needed to run the programs successfully. Besides the lack of physical facilities like labs students receive little assistance towards attending conferences.

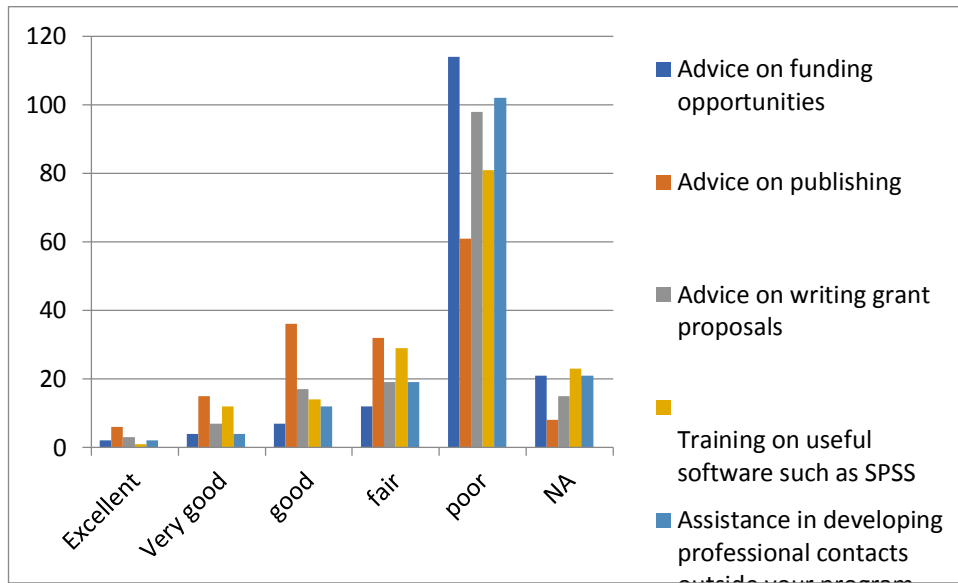
Figure 7: Availability of financial support and resources



Assistance and special training

The same thing is true about the availability of resources and type and frequency of assistance PhD candidates are given as related to publication, training and professional contacts. Most of their ratings indicate that almost all of the programs are poorly rated in all respects. Candidates claimed they are given little assistance in seeking funding, grant opportunities and developing professional contacts that could have enriched their exposure and knowledge. There is also little assistance in offering special trainings that can facilitate the preparation of their assignments and the write up of the final dissertation.

Figure 8: Assistance and training provided to PhD candidates

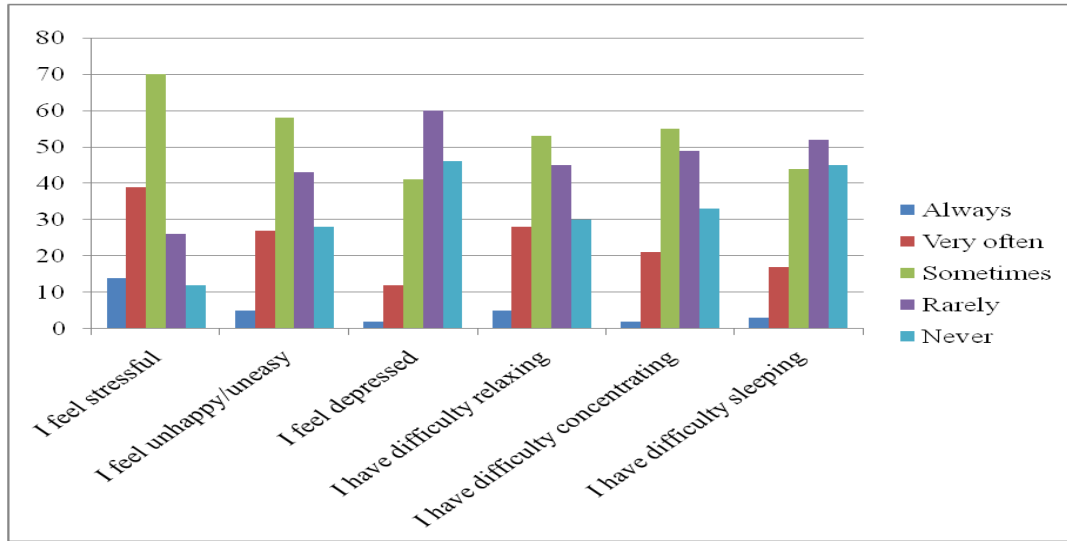


Feelings of stress and emotional trauma

Graduate student life is considered to have stress and emotions that play a complex role in doctoral experiences (Cotterall, 2013). Accordingly, the extent to which PhD students experienced a positive or negative emotional experience with their PhD could determine their success or persistence (Devos et al., 2015; Vermue & Fokkens-Bruinsma, 2012; Skovsgaard & Vestermark, 2016).

A significant number of PhD candidates expressed their frequent feelings of stress and emotional disturbance which could be partly attributed to the amount and nature of work involved in their studies. In almost all cases the number of students who expressed as having no emotional feelings is less than one third of the total number of students responding to each statement. Mulling over the causes and consequences of these stresses requires further investigation, this study indicates that the issue of emotional stress is an important factor that should be given enough consideration when it comes to the challenges faced by PhD students.

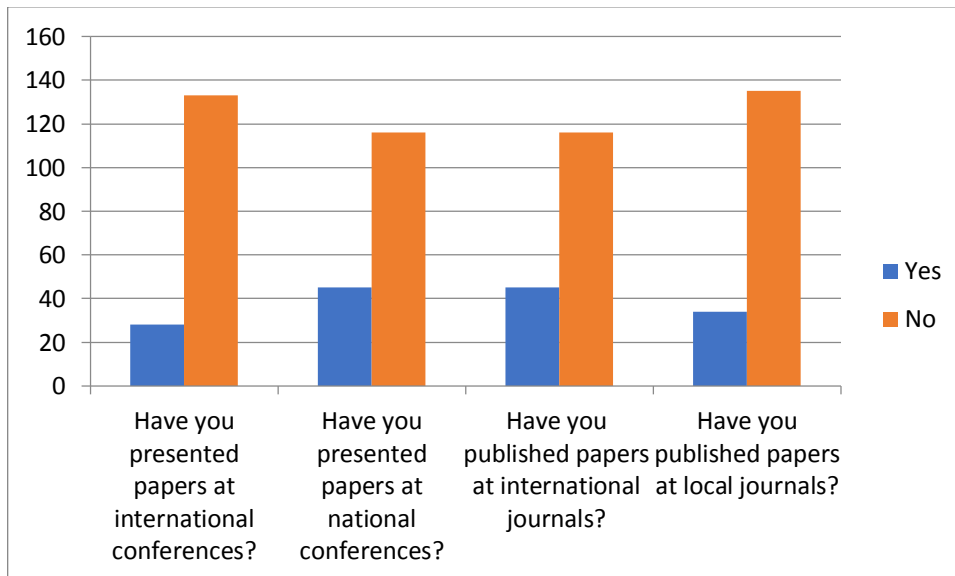
Figure 9: Emotional experiences of PhD candidates



Publication and conference presentation

Venues for seminars and research are considered to be important not only in providing students with additional learning opportunities but also in helping them integrate and network with others. Departments running postgraduate programs are thus expected to arrange various events in order to engage students in the presentation of their research findings that provide opportunities for practicing communication and networking skills and help them to get useful feedback on their work (Johnstone et al., 2016).

Figure 10: Experience in presenting and publishing research papers



The findings of this study further reveal that most of the PhD candidates have limited participation in knowledge generation- a scheme expected to be emphasized at this level. This corroborates with a study made by Maldonado, Wiggers and Arnold (2013) that showed opportunities to publish and research training were rated low by PhD students in Canada.

Candidates' limited participation in these areas can be a serious barrier in terms of acquiring relevant experience since the candidates will be expected to actively participate in research production and dissemination later in their careers. Such deficiencies can also lead to dissatisfaction, stress, isolation and attrition of doctoral students if left unattended (Wasburn-Moses 2008; Jones 2013; Martinsuo & Turkulainen, 2013).

Conclusion

The critical role of PhD training in building the human resource capacity of a country and enhancing research productivity is not debated (Jørgensen, 2012). Driven by the objectives of understanding and enhancing the provision of doctoral education, the need to monitor and evaluate the experience and needs of doctoral students has grown important as these students essential to tertiary level program continuity and because they serve as the backbone in the discovery and implementation of new knowledge (Jones, 2013). It is also assumed that any misfit between doctoral students' expectations and the norms and practices of an institution could affect their persistence and success (Pyhalto et al., 2012).

Concurrent with the global trend the policy directions set by the Ethiopian government and institutional needs that grew parallel to the higher education expansion, the demand for doctoral education continues to grow. The rapidly expanding higher education sector in Ethiopia requires more people trained to fulfill the qualification requirements and conduct research. However, this need is not accompanied by enough preparation of universities that provide training at this level.

This study which explored the situation at the country's oldest and Flagship University revealed that the system appears to be quite weak. This is especially so in terms of funding support and the availability of key resources like labs which hold significant implications to the nature of training being provided. In a similar vein, the contribution of doctoral students appears to be limited in terms of knowledge generation and dissemination as reflected in the limited opportunities availed for workshop and conference presentations and participation in publications.

The findings of the study are in general suggestive of the need for reforming the current model of doctoral education in Addis Ababa University which is found to be deficient in most of its support schemes. National plans and pertinent sectoral or institutional needs cannot be met by merely increasing the number of PhD holders but through conscious institutional efforts, monitoring outputs and working environments to PhD candidates. Otherwise, more PhD holders without due consideration to their productivity and working conditions will simply remain an exercise in futility (Tamrat, 2018).

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