

African Population and Health Research Center, Inc.

**Alumni Career Tracker:
Market Feasibility Study Report**

May 2017

EXECUTIVE SUMMARY

The impact of universities and higher education institutions in Africa is not well known because there lacks a consistent and systematic graduates tracking mechanism. Keeping track of alumni career progression and maintaining contact is an important concern among higher education institutions (HEIs). Through tracking, the professional capacity of the alumni and the relevance of the curriculum can be validated. Further, HEIs may reap benefits such as alumni giving back to their alma mater by maintaining close relationship with its alumni.

This present study sought to assess the market attractiveness, institutional capacity, technical capacity and the financial viability of an alumni career tracker (ACT). A suitably designed career tracker has the prospect of being implemented by universities, governments, employers and research institutes. APHRC seeks to provide an ACT if the demand in the market warrants.

The study adopted a descriptive, cross sectional research design and employed both qualitative and quantitative approaches. For qualitative data, the survey employed key informant interviews to collect data from deans and heads of departments of various universities, commissions in charge of university education, agencies that fund education and APHRC officers. As for quantitative approach, a questionnaire was designed to collect data from heads of departments of various universities and research institutes and samples of alumni across the continent.

The population of the survey was drawn from the following regions; East Africa (Ethiopia, Kenya and Uganda), West Africa (Nigeria) and Southern Africa (Malawi). The respondents were categorized into HEIs officers, Alumni, funding agencies, APHRC, and national education regulatory bodies. Appropriate data collection instruments were prepared that had the requisite information desired by the survey. The data collection instruments included questionnaires, interview guides and key informant interview schedules.

The data collection exercise obtained responses from 57 HEIs officers, 139 alumni and 4 APHRC officers. Out of the 57 officers surveyed, 25 indicated that their universities are tracking their graduates. The 25 respondents who indicated to be tracking graduates come from 19 universities in 5 countries. The main kind of tracking that the universities are doing is tracer studies. Other universities considered having alumni associations as a form of tracking. The data shows that there are only very few universities doing tracking in the true sense of the word.

The data collected shows that out of 139 alumni respondents only 38 (27.3%) are being tracked by the universities. Further, the survey shows that few African universities are tracking their graduates, with only 7 out of 15 of them tracking their graduates. Even then, the form of tracking reported among these African Universities is tracer studies, invitation to attend alumni association functions, requests to give to the University and occasional newsletters sent to alumni. Clearly very little ACT takes place among HEIs and there is an opportunity for APHRC to meet this need.

The HEIs officers reported the following benefits of tracking in order of importance; revising curriculum, giving back by alumni, marketing the university and measuring the university impact in society. The data shows that HEIs appreciate the need for ACT given the stated benefits.

The findings also indicate that 62% of alumni that are not being tracked are willing to be tracked. This illustrates the potential for tracking as a majority of the alumni not being tracked are positive towards ACT. The format of ACT tracking used by universities in order of importance are emails, websites and social media. On the part of the alumni, the main format of ACT in use is mobile phone, emails and website online forms. For the HEIs not tracking graduates, the format of ACT preferred would be web based, followed by emails, and paper based/ surface mail. Other formats that would be considered include short messaging service and social media. Further, as demonstrated in the survey data, a similar trend was noted from alumni respondents when asked what form of tracking they would prefer if the university wanted to track them. It is, therefore, apparent that APHRC should consider a platform that would combine website, email and mobile based applications as it would reach the majority of alumni and find wider acceptance among HEIs.

Close to forty percent (41%) of the universities sampled preferred to procure ACT while another 41% prefer to subscribe to the ACT, with 12% preferring to develop their own ACT. Clearly the majority of HEIs prefer to procure or subscribe to ACT. The survey notes that subject to costs and suitability, that HEIs are willing to procure or subscribe to ACT. Furthermore, 72% of the universities would like to procure ACT within one year. This is an indication of immediate demand for ACT.

The survey shows that it is mainly private universities and new public universities that are tracking their graduates mainly for purposes of marketing their institutions. The established HEIs and specifically government HEIs seem to be complacent in tracking their graduates. However, this situation is changing with reduction in funding from most governments whereby the established HEIs are now having to compete for students in order to meet their funding needs. The need for HEIs to track their alumni for marketing purposes is becoming apparent among these HEIs besides alumni being a potential source of funding for the universities. This presents an opportunity for APHRC to introduce ACT.

An evaluation of APHRC shows that it has sufficient skills and resources to bring the ACT to the market. The organization has prior entrepreneurial experience in data management initiatives and has growing professional networks, highly competent personnel, and financial resource mobilisation capacity that can absorb a new venture such as the ACT. APHRC is committed to being a reservoir of data as demonstrated by the Microdata portal implementation and a clear policy guideline on data provision, access and sharing. The above initiatives are evidence of the globally recognised prowess and passion for data collection and management by APHRC. Further, APHRC has over 100 global partner organizations consisting of universities, research institutes, NGOs and government agencies spread across the continent. The networks are

useful for marketing the ACT and increasing its acceptability. In terms of sustainability of the ACT, it is proposed that APHRC develops an ACT that is widely acceptable. Although APHRC will initially raise funds for the establishment of the ACT, it should be designed to grow without continuous subsidy by encouraging users to pay for the service. The financial projections show that the ACT will break even in the fourth year and will require an initial capital outlay of USD 305,000.

The research shows that given the current ICT staffing levels and utilisation, the better option for APHRC is to sub-contract the development of the ACT rather than develop it in-house. Further, the survey recommends that the ACT be hosted on the cloud. Having obtained an indication of the alumni information required by the universities and the related volumetrics, a preliminary data schema would need to be developed as the basis for tendering for a sub-contractor to develop the tracker application.

Based on the survey, the report recommends that APHRC goes ahead and implements the ACT project given that the market, technical, financial, and organizational aspects of the tracker point to this direction. However, there is need to sensitize and market the product among HEIs pointing out the potential benefits of adopting a modern web-based ACT. This will increase the number of subscribing HEIs leading to sustainability of the project.

TABLE OF CONTENTS

Executive Summary	i
Table of Contents	iv
Abbreviations and Acronyms	viii
2. INTRODUCTION	1
2.1 Background and Overview of Literature Review	1
2.2 Statement of the Problem	2
2.3 The Objectives of the Assignment	3
2.4 Research Questions	3
2.5 Scope and Significance of Study.....	3
2.6 Limitations of the study.....	4
3. SURVEY METHODOLOGY	4
3.2 Study Design	4
3.3 Population.....	4
3.4 Data Collection.....	5
3.5 Questionnaires	5
3.6 Data Analysis and presentation	6
3.7 Pre-testing of Data Collection Tools.....	6
4. RESULTS AND FINDINGS.....	6
4.1 Introduction	6
4.2 Sample Characteristics	6
4.3 Demand for Alumni Career Tracker	8
4.4 Technical Feasibility	19
4.5 Organizational Feasibility	22
4.6 Financial Feasibility	24
5. CONCLUSIONS AND RECOMMENDATIONS	26
REFERENCES	29

APPENDICES:

Appendix 1: Head of Department/ Academic Dean Questionnaire.....	30
Appendix 2: Alumnus Questionnaire.....	39
Appendix 3: Head of ICT Questionnaire	50

LIST OF TABLES

Table 4.1: Officer's Distribution.....	6
Table 4.2: Country of Residence of Alumni.....	7
Table 4.3: Alumni Gender Distribution.....	8
Table 4.4: Universities from where alumni are tracked.....	10
Table 4.5: Proposed Timeframes.....	22
Table 4.6: Financial Projections.....	25

LIST OF FIGURES

Figure 4.1: Alumni Age Distribution.....	8
Figure 4.2: Universities tracking graduates	9
Figure 4.3: Alumni being tracked	10
Figure 4.4: Benefits of tracking to institutions	12
Figure 4.5: Alumni's willingness to be tracked.....	12
Figure 4.6: Format of ACT used - Officers	13
Figure 4.7: Format of ACT used- Alumni	14
Figure 4.8: Information sought by HEIs- Officers.....	15
Figure 4.9: Information sought by HEIs- Alumni	15
Figure 4.10: Preferred Form of ACT- Officers.....	16
Figure 4.11: Preferred format of ACT -Alumni.....	17
Figure 4.12: Use of ACT information.....	17
Figure 4.13: Preferred method of acquiring ACT.....	18
Figure 4.14: Procurement of ACT timeline	18
Figure 4.15: Improvements required on ACT.....	20

ABBREVIATIONS AND ACRONYMS

- ACT - Alumni and Career Tracker
- ADDRF - African Doctoral Dissertation Research Fellowship
- AERC - African Economic Research Consortium
- APHRC - African Population and Health Research Centre
- CARTA - Consortium for Advanced Research Training in Africa
- HEIs - Higher Education Institutions
- IUCEA - Inter-University Council for East Africa
- KOAB - The graduate survey cooperation project (<http://koab.uni-kassel.de/en/koab.html>)
- NVIVO - A qualitative data analysis (QDA) computer software package produced by QSR International
- PASGR - Partnership for African Social and Governance Research
- SPSS - Statistical Package for the Social Sciences (software used for data analysis)
- SSA - Sub-Saharan Africa

2. INTRODUCTION

2.1 Background and Overview of Literature Review

An alumni career tracker (ACT) is a system that traces, over time, the career pathways of graduates and their interactions with the respective higher education institutions (HEIs). This may take the form of surveys that trace back graduate careers over several years, cohort studies, or longitudinal surveys. The primary motivations for a career tracker are: (i) to determine the quality of skills acquired by the graduates; (ii) to benchmark with other institutions, which may lead to ranking; (iii) to understand career movements of graduates with respect to their training; and (iv) to provide information to relevant stakeholders, for example, employers, education funders, and policy makers.

Keeping track of alumni career progression and maintaining active interactions with the alumni are important objectives for universities since an effective ACT provides a basis to assess and evaluate programmes of universities (Ereno, 2016). Further, the professional capacity of the alumni can be determined by profiling through the ACT. Through ACT, the relevance and market value of degree programmes can be validated, not just in a particular country but also worldwide. An ACT also has the potential to identify the geographical spread of graduates.

We reviewed some illustrative alumni career tracker systems with a highlight of relevant perspectives concerning market viability, technical feasibility, financial feasibility, and organisational feasibility that inform this study. The desk research reveals existence of only a handful of alumni career tracking systems in Sub-Saharan Africa. Some of the Alumni and Career Systems in use in a number of countries include INDOTRACE, KOAB, REFLEX, UNITRACE, and DEHEMS. These systems are mainly used in the European Union and incorporate a combination of methods for data collection that include interviews and personalised mails (European Training Foundation, 2016). The respondents to these ACT systems include alumni, officers in the HEIs, research and funding agencies, and higher education regulatory bodies. Efforts to implement some of these ACT systems outside the European Union include one at Moi University dubbed “Moi University Tracer Study (MUTRACE)”, which was conducted between 2010 and 2012. The DAAD’s UNITRACE has also been used outside Europe including Africa.

A number of institutions that have carried out ACT have enumerated some of the challenges. These include missing contacts of graduates or if available, they are not active. The study used online questionnaire as the cheapest method of conducting such a survey. However, this poses numerous challenges because most of the graduates may not have access to the internet or even if they do, they may not have money to access the internet. The other challenge is that by design, ACT questionnaires are bulky and this sometimes acts as a disincentive for the alumni. All these challenges combine to reduce the response rates of the ACT.

The response rate in the UNITRACE study was at 13%, which is relatively low compared to the international average of 25 to 40 % response. Experience shows that online surveys achieved

response rates that were much lower than the paper-based ones with online surveys achieving 33% compared with 56% for paper surveys. The proposed solution to improve response rates is employing more than one method of data collection including focus groups, interviews, and administered questionnaires. The use of smart phones and online forms different from email attachments are useful tools. Tracking should be a continuous process to avert loss of contacts occasioned by long time gaps between graduations and the tracer studies. These lessons of experience would inform the development and implementation of the envisaged ACT. Other countries such as Hungary have, by law, established a mandatory graduate career tracking system which is national and centralized. This legal approach is one the regulatory bodies in Africa could consider if it enhances attainment of the objectives of an ACT at a country's policy making level.

Modern technological trends dictate that a robust career tracker system should be built and deployed via the web and/ or mobile telephony. That way the users can easily access and update the pertinent data, as well as interact with the HEIs and funding agencies, on a wherever- whenever basis. This study, therefore, seeks to explore the feasibility of adopting proven technologies towards specification of a superior system. The options include the use of social media, such as FaceBook, Instagram, WhatsAapp, Twitter, Imo, and Viber as online tools.

The literature available reveal two approaches for acquiring a career tracker; a collaborative or a solo venture. Examples of collaborative ventures include the German graduate survey cooperation project (KOAB) with 90 participating higher education institutions. Clearly, this underscores similar needs and requirements, and the pursuit for a financially sustainable system. Examples of solo ventures include: (i) the South African career tracker by a private recruitment company, MPC Recruitment, for job seekers to update their CVs; (ii) the Wellcome Trust career tracker to track its graduates. This study seeks to assess the feasibility and acceptance of a collaborative approach over solo initiatives by individual HEIs.

With respect to the regularity of ACT, the literature available shows that annual surveys are conducted in Switzerland, United Kingdom, Netherlands, and Italy. Periodic surveys at intervals of three to four years are conducted in France and Germany. This demonstrates that in European countries, there is robust demand for alumni career tracker. A similar demand is conceivable in Sub-Saharan Africa albeit with a few challenges. The KOAB project has 90 participating institutions. This research envisages the APHRC ACT to be on a similar scale.

This study and a review of literature shows that career tracking is at a very nascent stage with most institutions using paper-based rather than electronic systems to track their graduates. This paper-based system poses several challenges including inefficiency, prohibitive costs, and is time consuming compared to an electronic ACT system.

2.2 Statement of the Problem

Little is known regarding the impact of academic programs and HEIs to the society and industry in Africa. Many questions need to be answered. For example, what careers do the graduates pursue and how are those careers related to university education? To what extent are the HEIs contributing

to development, research and innovation? It has been observed that programs and institutions rely mostly on supply and demand forces and government support for their existence. It is conceived that an ACT will allow scientific monitoring and evaluation of alumni and this is likely to revolutionize education provision on the continent towards relevance and being market-driven. The idea of a viable and widely used ACT that uses current electronic technologies, therefore, requires exploration.

It is thought that a feasibility study will maximize on available resources and provide evidence based recommendations. This study seeks to assess the market, the institutional capacity, technical feasibility, and the financial viability of an ACT. A suitably designed career tracker has the prospect of being implemented by university, governments, employers and research institutes.

2.3 The Objectives of the Assignment

The overall objective of the assignment was to conduct a feasibility study for an ACT across Sub-Saharan Africa (SSA) for APHRC. Specifically the survey sought to determine the organisational capacity in terms of sufficiency of skills and resources, to assess the market attractiveness of such a product/service, to find out the technical feasibility, and finally to assess the financial viability of developing and implementing an ACT.

2.4 Research Questions

The research sought to answer the following questions;

1. How many universities are carrying out an ACT?
2. What challenges are these universities facing in implementing ACT?
3. For the universities that are not carrying out an ACT, why are they not doing it?
4. Would universities pay for career tracker if the service was availed them?
5. How much would universities be willing to pay for ACT?
6. What information are universities looking for in an ACT?

2.5 Scope and Significance of Study

A feasibility study is an analytical tool that includes recommendations and limitations, which are utilised by decision makers when determining if a business concept is viable (Drucker1985; Hoagland &Williamson 2000; Thompson 2003). APHRC required that a study on the feasibility of establishing an ACT that will be used by the HEIs in Africa. APHRC is known to administer the African Doctoral Dissertation Research Fellowship (ADDRF) and the Consortium for Advanced Research Training in Africa (CARTA). These programs have produced more than 100 PhDs since their establishment in East, South and West Africa. These alumni require to be tracked. The work with HEIs has exposed APHRC to the fact that very few HEIs track their graduates and, therefore, the need to provide an innovative solution. Since APHRC is desirous of developing an

electronic Career tracker that will be used by the HEIs, this feasibility study seeks to assess opportunities, the potential problems, the various scenarios of resolving these problems and the cost/benefit analysis of the ACT as a business.

2.6 Limitations of the study

The study was constrained by a number of factors. First, a number of HEIs were not responsive to requests to collect data in their institutions. These institutions were replaced by similar institutions and it is believed that the data collected is representative of the HEIs in Sub-Saharan Africa. Secondly, it was difficult establishing contacts in Cameroon and the consultant had to replace this with Ethiopia. Finally, there was a national strike in South Africa and this necessitated its replacement with Malawi. Despite these changes, the consultant is of the opinion that the data collected represents the population to the extent that inferences can be made about the population.

3. SURVEY METHODOLOGY

This section sets out various steps, methods and procedures that were followed in executing the study, in order to achieve the objectives of the study.

3.2 Study Design

The study adopted a descriptive, cross sectional research design and employed both qualitative and quantitative approaches. For qualitative data, the survey employed key informant interviews to collect data from deans and heads of departments of various universities, commissions in charge of university education and APHRC. As for quantitative approach, a questionnaire was designed to collect data from heads of departments of various universities and research institutes and samples of alumni across the continent.

3.3 Population

The population of the survey was drawn from regions in which APHRC operates. These are East Africa (Ethiopia, Kenya and Uganda), West Africa (Nigeria) and Southern Africa (Malawi). The study respondents were categorized into two main groups, namely HEIs officers and Alumni.

From each of these regions, universities with large number of student population were purposively sampled to be included in the study. Among these were universities in each country which are already tracking their graduates so that lessons can be learnt from their experiences. These officers included Vice Chancellors, Deputy Vice Chancellors, Directors of HEIs, Deans of Students, Heads of Departments, Academic Deans and or the person in charge of tracking careers of graduates. Key informant interviews were carried out with commissions in charge of university education in each of the countries sampled. In addition the study collected data from alumni in the region.

Apart from HEIs, the feasibility study also covered funding agencies and institutions involved in training and funding masters and PhDs. These included DAAD, Inter-University Council of East Africa, and Ministry of Education Malawi, Partnership for African Social and Governance Research and African Economic Research Consortium.

Data was also collected from APHRC to understand the organizational capacity to drive and manage the career tracker. Specifically, the consultant sought to assess the number and staff competencies in the field of information technology, physical facilities in terms of office space and space for computer servers and financial ability to run the programme among other details.

3.4 Data Collection

The consultant designed appropriate data collection instruments to collect the data from the respondents that had the requisite information desired by the survey. The data collection instruments included questionnaires, interview guides and key informant interview schedules. Specifically the survey collected data from the following groups with their respective data collection instruments indicated.

Group of Respondents	Data Collection instrument
Heads of academic departments/Academic deans	- Questionnaires
Deputy Vice Chancellors Academics	- Interview guide
Dean of Students	- Questionnaires
Heads of Research Institutes	- Interview guide
Commissions in charge of University education	- Key informant interview guide
APHRC	- Interviews

3.5 Questionnaires

The consultant developed questionnaires to collect data from the various groups above. The questionnaire sought to answer the following questions; how many universities are carrying out an Alumni Career Tracker? What challenges are they facing? For the universities that are not carrying out an Alumni Career Tracker, why are they not doing it? Would Universities pay for career tracker if the service was availed them? How much would they be willing to pay? What information are universities looking for in an Alumni Career Tracker?

3.6 Data Analysis and presentation

Both quantitative and qualitative data was analysed using STATA and Microsoft Excel. The information captured was first entered into the STATA system and analysed with output being transferred to Excel for generation of tables, and charts.

3.7 Pre-testing of Data Collection Tools

The data collection tools were pretested at Africa Nazarene University and Daystar University. Based on the feedback of the pre-test, the data collection tools were adjusted accordingly.

4. RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the findings from the survey. The objectives of the survey were to determine the market feasibility/attractiveness of ACT, determine the technical requirements of ACT, establish the financial viability of ACT and finally to determine organizational capacity of APHRC to implement the ACT. Descriptive data was generated from the questionnaires and is presented in tables and charts. Qualitative data is presented in narrative form. The section ends with conclusions and recommendations for APHRC.

4.2 Sample Characteristics

The data collection exercise obtained responses from 57 HEIs officers and 139 Alumni. Of the HEIs officers surveyed majority were head of departments (14) followed by deans of students, ICT departments and alumni officers (9 respondents each). Table 4.1 below shows the various officers involved in this survey.

Table 4.1: Officer's Distribution

Officers Category	Frequency
Head of department	14
Dean of students	9
ICT department	9

Officers Category	Frequency
Alumni officer	9
DVC academic affairs	8
Funding Agencies and promoters	5
Marketing research capacity officer	2
Head of Finance	1
Total	57

The survey data also shows that there were more male respondents among the officers than females. The gender distribution of the officer category was 73.7% male and 19.3% female with 7.02% not indicating their gender. This is an indication that HEIs comparatively employ more male than female probably owing to the fact that the female gender have not had sufficient education opportunities in the higher education sector in Africa.

The countries of residence for the alumni respondents were Ethiopia, Kenya, Malawi, Nigeria and Uganda with majority coming from Nigeria (86) followed by Ethiopia (29) as Table 4.2 below illustrates.

Table 4.2: Country of Residence of Alumni

Country of residence of Alumni	Frequency	Percent
Nigeria	86	61.9
Ethiopia	29	20.9
Uganda	14	10.1
Kenya	6	4.3
Malawi	4	2.9
Total	139	100.0

The gender distribution among the alumni was 69.1% male and 30.02% female reflecting a similar gender trend as officers. Table 4.3 below illustrates the gender distribution among alumni respondents.

Table 4.3: Alumni Gender Distribution

Gender	Frequency	Percent
Female	42	30.2
Male	96	69.1
No Response	1	.7
Total	139	100.0

Figure 4.1 illustrates the age distribution of alumni respondents surveyed. As shown in the table, the majority of alumni surveyed were aged 30 years or below (38.85%) followed those aged between 31 and 40 years at 32.37%. The data below may reflect the recent growth in number of students admitted to universities in Africa.

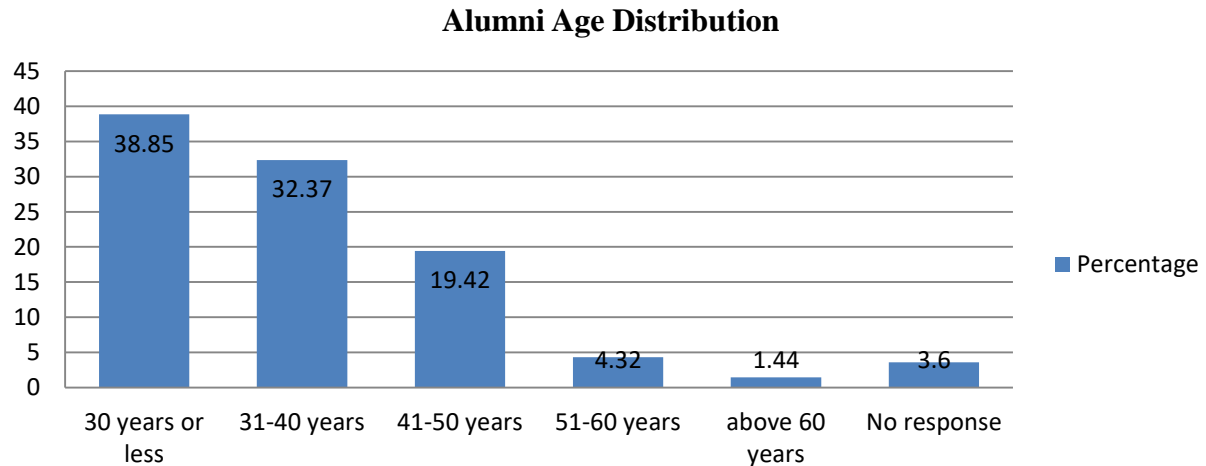


Figure 4.1: Alumni Age Distribution

4.3 Demand for Alumni Career Tracker

(a) Tracking of graduates

This section presents the findings regarding the main question of this study which was to establish the market attractiveness of ACT. To ascertain this, the study sought to determine whether

universities are tracking graduates, how they are doing it, what information they are seeking and the benefits of tracking. In addition the study sought to establish if the graduates themselves were being tracked, what type of information was being sought from them by the tracker and level of satisfaction with the tracking experience.

The survey was carried on HEIs officers comprising alumni officers, heads of departments and deans of schools. Out of the 57 officers surveyed 25 (43.9%) indicated that the university is tracking its graduates, 26 indicate they are not tracking and 6 did not respond. The 25 respondents who indicated to be tracking its graduates come from among 19 universities in 5 countries. The main kind of tracking that the universities are doing is tracer studies done periodically as a requirement by national university education regulators. Others considered alumni networks and associations as a form of tracking. Data from the alumni (Figure 4.3) presented later on in this report shows that 27.3% reported being tracked. More Universities (43.9%) report tracking their graduates compared to 27.3% of the alumni who reported being tracked. This discrepancy may be explained by the understanding of what an ACT comprises among the Universities. The universities perceive tracking to include any form of contact they have with alumni including invitations to university functions and formation of alumni associations. Alumni on the other had seem to have understood tracking to mean a periodic follow-up to determine placement and career progression.

Figure 4.2 shows the number of universities tracking their graduates as indicated by the survey data.

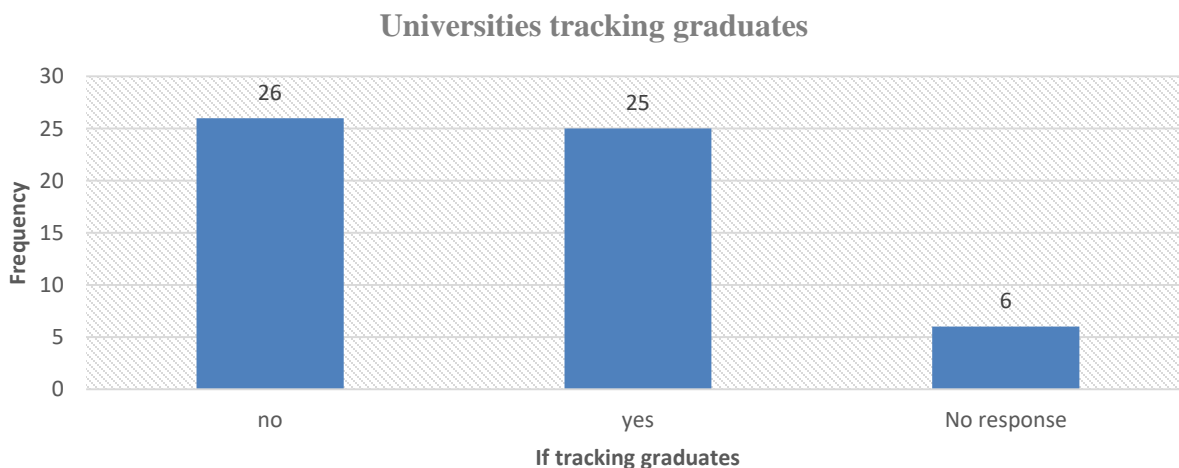


Figure 4.2: Universities tracking graduates

The survey shows that it is mainly private universities and new public universities that are tracking their graduates mainly for purposes of marketing their institutions. The established HEIs and specifically government HEIs seem to be complacent in tracking their graduates. However, this

situation is changing with reduction in funding from governments with established HEIs now having to compete for students in order to meet their recurrent expenditure. The need for HEIs to track their alumni for marketing purposes is becoming apparent among these HEIs besides alumni being a potential source of funds for the universities. This represents an opportunity for APHRC to introduce ACT.

(b) Alumni being tracked

Figure 4.3 below illustrates the distribution of the responses by alumni on tracking. The survey data shows that out of 137 alumni respondents, 38 (27.3%) are being tracked by the universities compared to 93 are not being tracked while 8 did not respond.

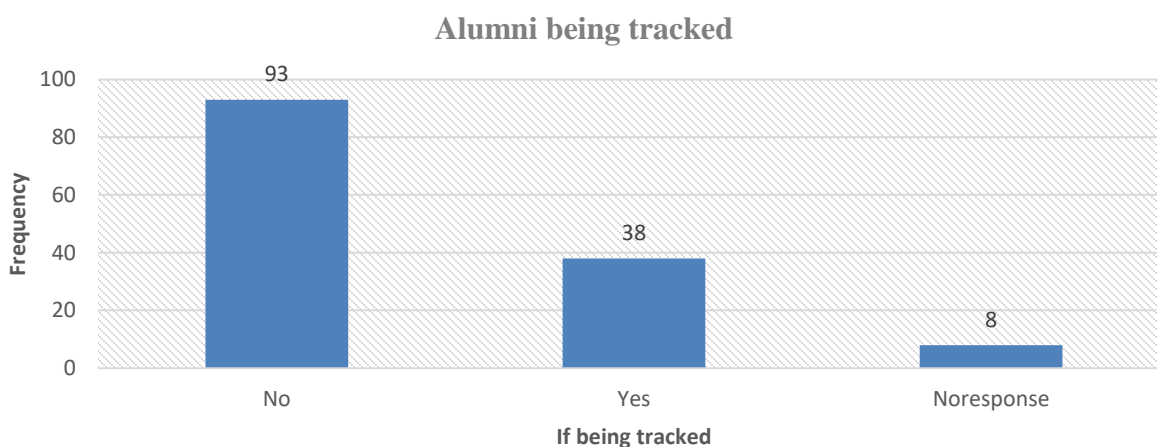


Figure 4.3: Alumni being tracked

Table 4.4 shows the list of universities tracking their alumni and the country of location. As the list of universities tracking alumni shows, very few African universities are tracking graduates.

Table 4.4: Universities from where alumni are tracked

University	Country
Adekunle Ajasin University	Nigeria
Antwerp University	Belgium
Baylor University	United States
Bowen University, Iwo	Nigeria
Duquesne University	United States
International Health Sciences University	Uganda
Leeds University	United Kingdom
Makerere University	Uganda
Multimedia University	Kenya

University	Country
Norwegian University Of Science And Tec	Norway
Osun State University	Nigeria
Torch Trinity Graduate University	Ethiopia
University Of Sheffield	United Kingdom
University Of South Wales	United Kingdom
University Of Westminster	United Kingdom

The researchers also noted that out of the 15 alma mater tracking their alumni, only 7 of them are in the African continent. Even then, the form of tracking reported is tracer studies, invitation to attend alumni association functions, invitation to give to the university and occasional newsletters sent to alumni. The implication of this data is that though 27.3% of alumni reported being tracked, it is clear that the percentage of African Universities tracking their alumni is far less than 27.3%.

(c) Benefits of Tracking

In order to understand the need for tracking, the study asked the respondents to identify the benefits of tracking. Figure 4.4 shows the frequency of responses on the benefits of tracking to the HEIs. The HEIs officers showed that both revising curriculum and giving back was equally important (14 responses each). Marketing university (13 responses) and measuring university impact in society (12 responses) are also reported as important. In addition to these benefits the officers indicated other benefits as being benchmarking, feedback from employer, linking alumni together and meeting statutory requirements. Interviews with most university officers pointed to the fact that most universities will reach out to alumni with the aim of fund raising. Unfortunately, the idea of fund raising is not one that alumni are enthusiastic about. During the data collection, it became clear that some of the alumni did not have a very good experience while students in their various universities. The Universities should therefore first seek to build relationships with their alumni before asking for funds from them.

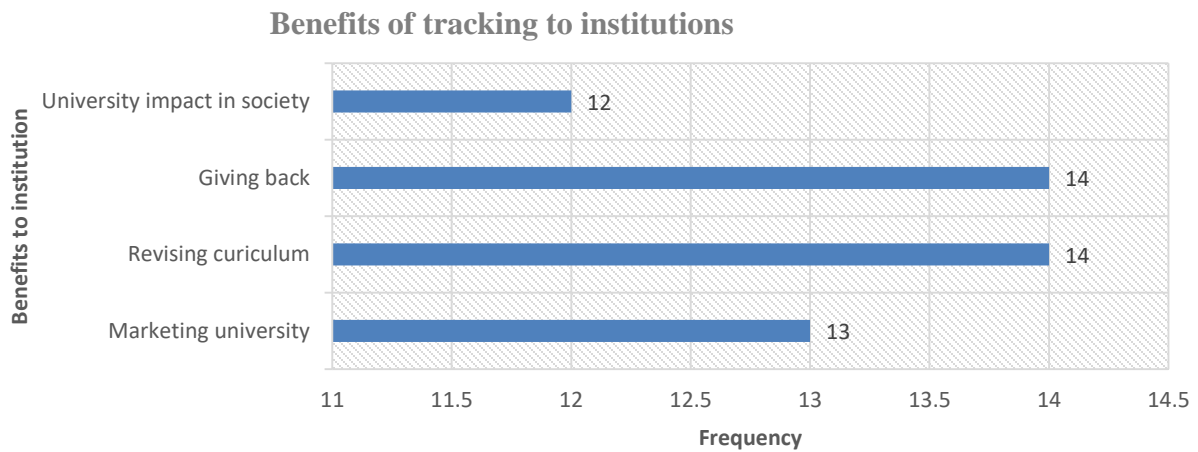


Figure 4.4: Benefits of tracking to institutions

(d) Alumni’s willingness to be tracked

Figure 4.5 indicates alumni's willingness to be tracked. As the results show 62% are willing to be tracked, 8% are not and 30% did not responded to this question. This illustrates the potential for tracking as majority of alumni not being tracked are willing to be tracked.

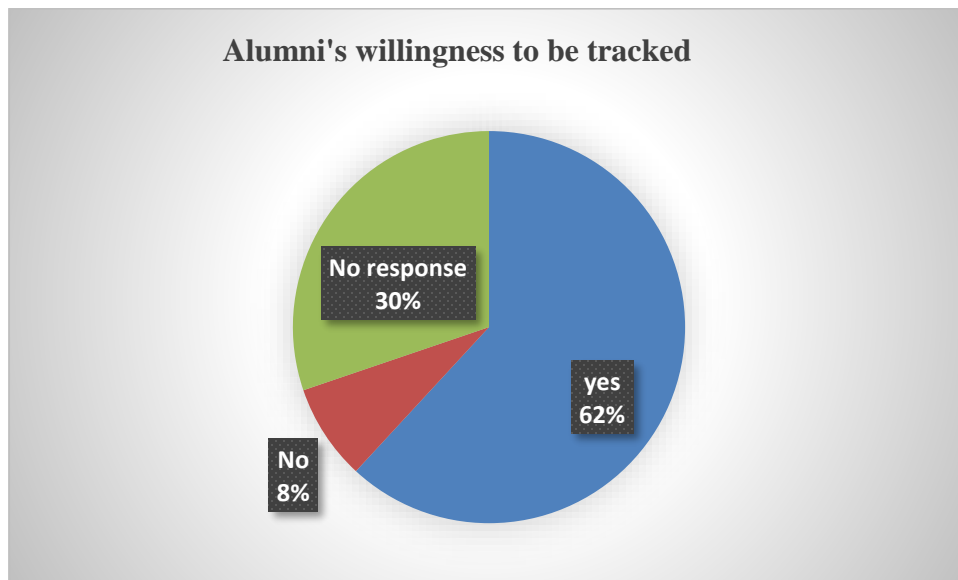


Figure 4.5: Alumni's willingness to be tracked

(e) Format/type of ACT in use by HEIs

The study sought to determine the format of tracking used by HEIs. The survey asked respondents to indicate the methods their universities were using to track them. Figure 4.6 below shows the responses. The data shows that the format of ACT used by HEIs among officers is emails, websites and social media. In addition some respondents indicated they were being tracked using paper based or surface mail, short messaging services, verbal replies and social media.

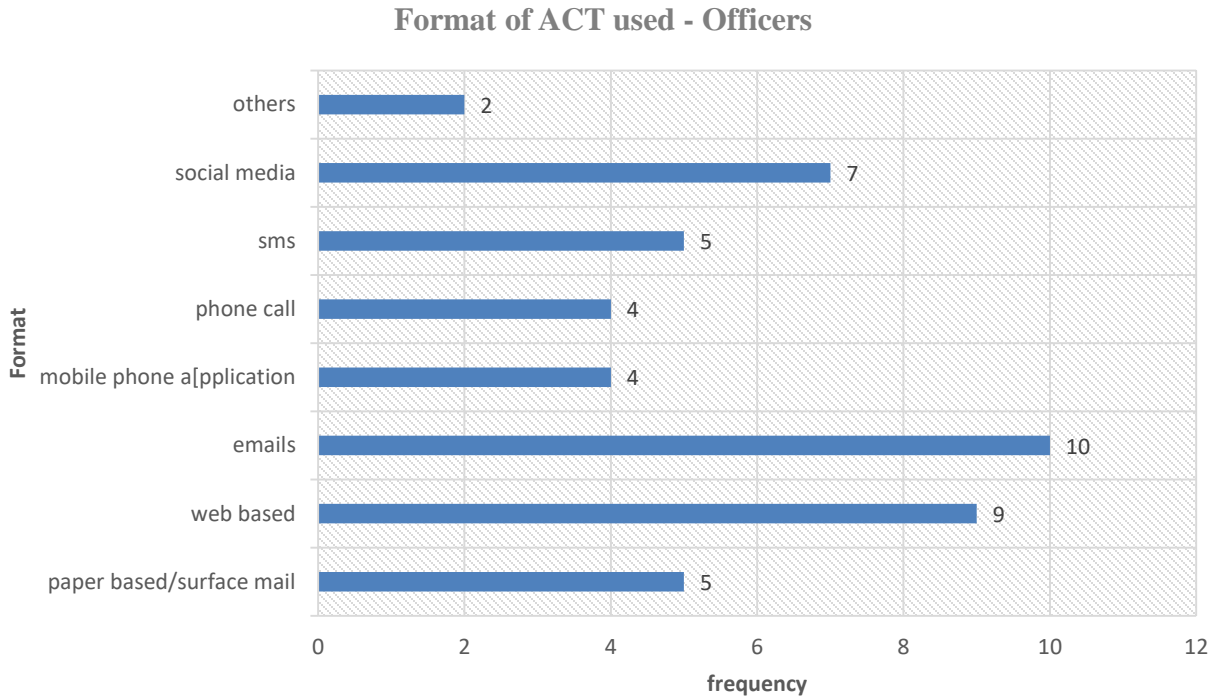


Figure 4.6: Format of ACT used - Officers

On the part of the alumni, the main format of ACT in use is mobile phone, emails and website online forms. Figure 4.7 illustrates the distribution of the responses by alumni surveyed. The data is consistent across officers and alumni on the format of ACT. These are mainly websites, emails and mobile phone applications. These are the format of ACT that APHRC should consider.

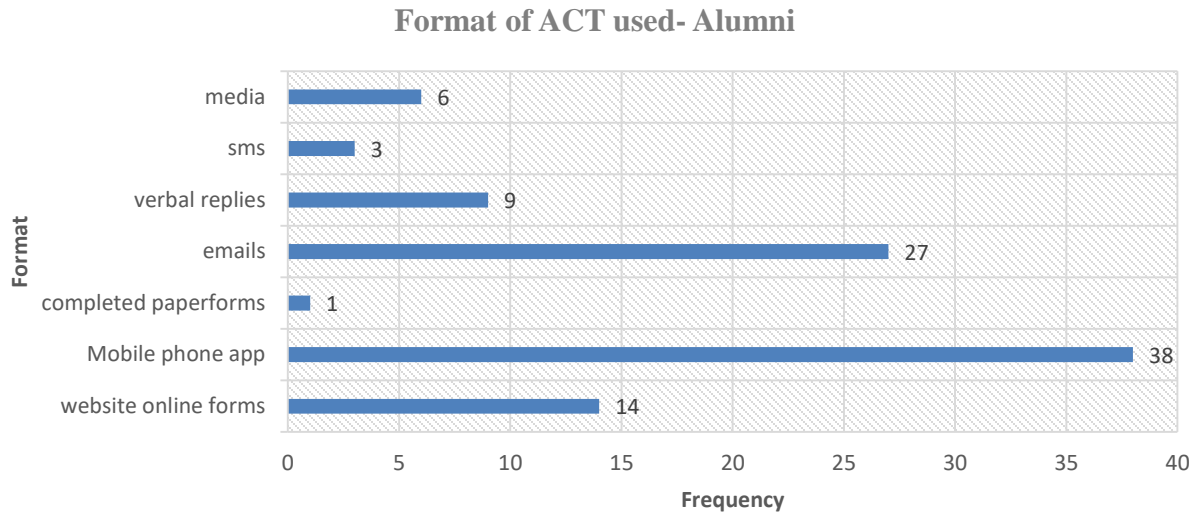


Figure 4.7: Format of ACT used- Alumni

Looking at both officers and alumni with respect to format of ACT, there seems to be agreement among the two groups with respect to the commonly used formats of email and website. However the alumni reported more use of mobile phone based platforms while the University officers reported more of paper based systems. It is possible that the alumni may have been influenced by what they desire rather than what is currently in use.

(f) Information Sought in ACT according to HEI officers

Figure 4.8 shows officers' response on information sought while Figure 4.9 shows alumni response on information sought by HEIs with respect to ACT. The data shows that universities sought information regarding respondent's career progression, relevance of training in the marketplace, period it took to get a job and quality of training provided. Officer and Alumni respondents showed similar trends with regards to information sought by the HEIs.

Information sought by HEIs- Officers

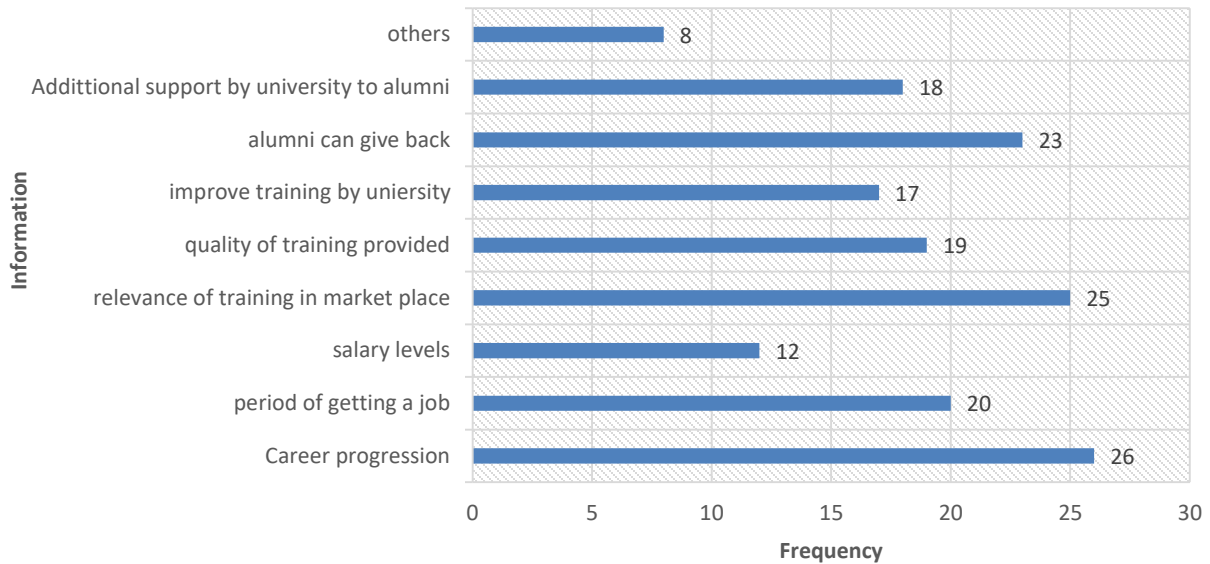


Figure 4.8: Information sought by HEIs- Officers

Information sought by HEIs- Alumni



Figure 4.9: Information sought by HEIs- Alumni

(g) The preferred form of ACT for those not tracking

For the HEIs not tracking graduates, the study sought to determine the form of tracking that they would prefer if they were to track their graduates. Figure 4.10 shows the distribution of responses on the preferred format of tracking. The format of ACT preferred would be web based (15)

followed by emails (14) and paper base/ surface mail (13). Other formats that would be considered included short messaging service (8) and social media (6). The data is similar to the data from HEIs that are already tracking their alumni.

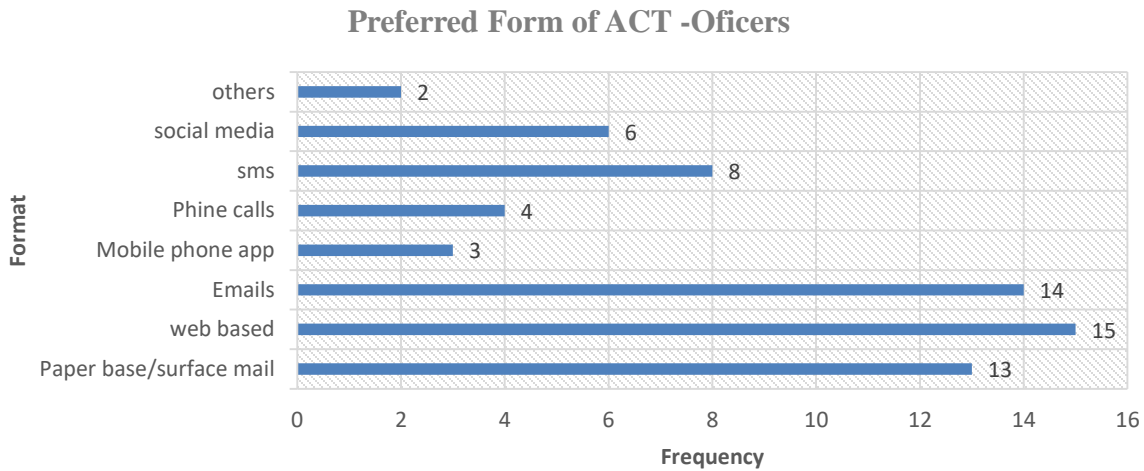


Figure 4.10: Preferred Form of ACT- Officers

Further, as demonstrated in the survey data, a similar trend was noted from alumni respondents when asked what form of tracking they would prefer if the university wanted to track them. Figure 4.11 shows that if alumni were to be tracked they would prefer emails (78), web based platforms (43) and mobile phones (38) respectively. The data shows that for both officers and alumni that are not being tracked, there is no significant difference between the intended formats of tracking and those that are already in use.

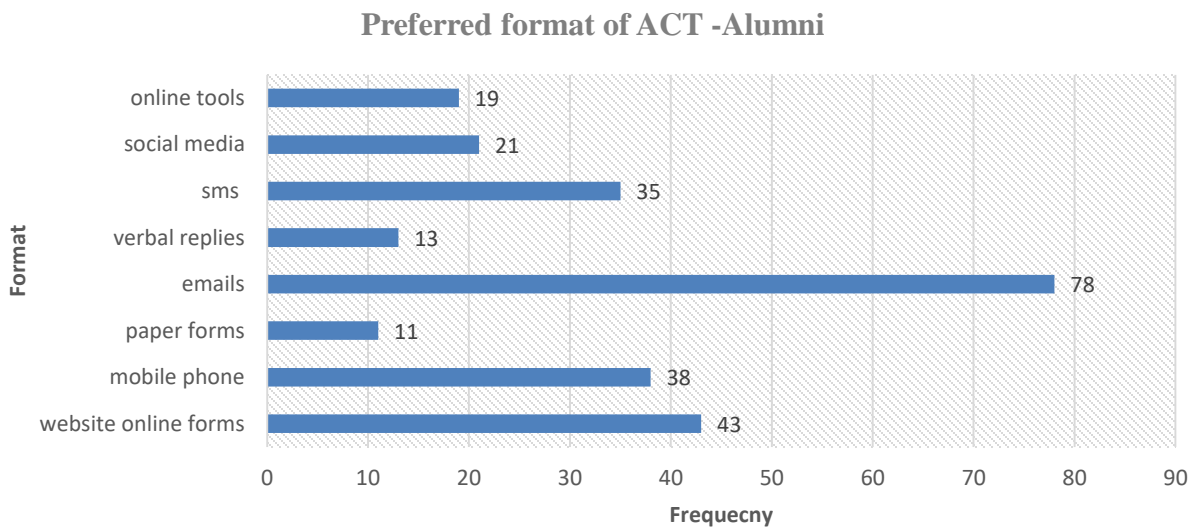


Figure 4.11: Preferred format of ACT -Alumni

(h) Use of the information generated from ACT

The survey sought to understand how universities used the information obtained from alumni. The results showed that HEIs were using information as a tool for marketing the university, revising curriculum, measuring university impact in society and encouraging alumni to give back. In addition the respondents noted that information obtained was being used for policy development, to place students for internship, networking, tracer studies and creating opportunities for alumni to volunteer their services to the HEI.

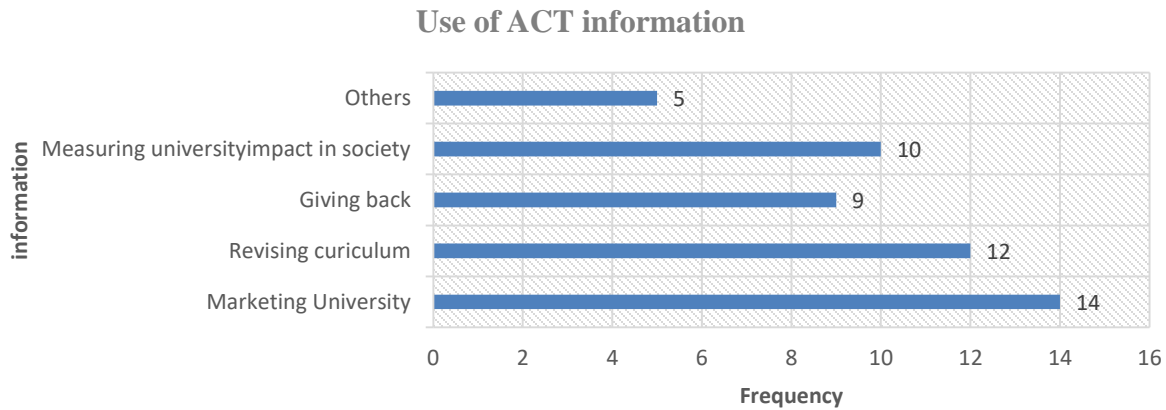


Figure 4.12: Use of ACT information

(i) Acquisition of ACT

The study sought to determine the preferred methods of acquiring ACT system. Figure 4.13 below illustrates the methods of acquiring ACT as indicated by officer respondents. The study shows that universities preferred to procure (41%), subscribe (41%) or develop (12%). Clearly HEIs are not keen on developing the ACT which means that APHRC should seek to fill this gap by either developing one and hosting it for HEIs or by developing it and getting universities to subscribe to it.

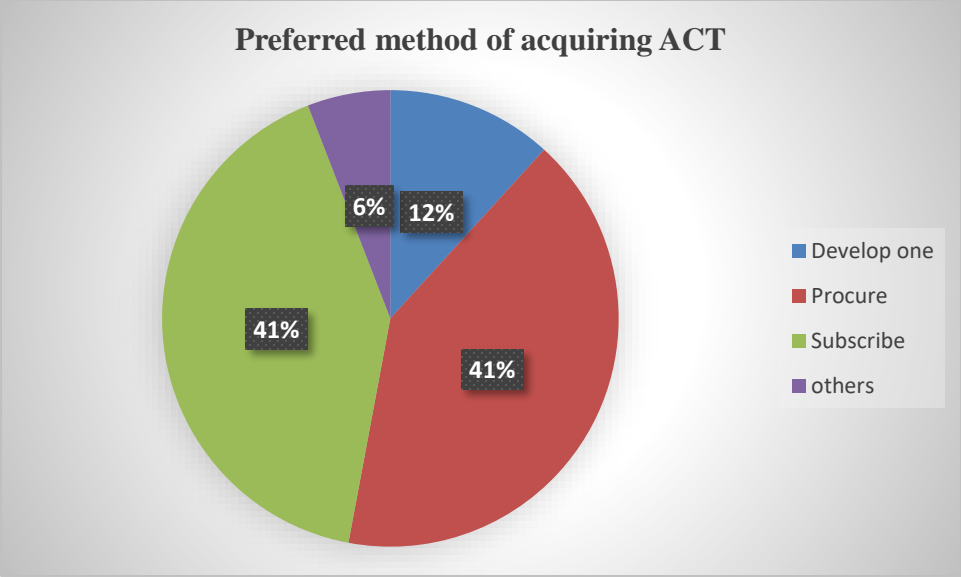


Figure 4.13: Preferred method of acquiring ACT

(j) Urgency of Procuring ACT

The study sought to determine how soon the HEIs intended to procure ACT. Figure 4.14 presents this data showing that 72% of HEIs officers would like to procure ACT within one year, 14% after 3 years and 14% within 2-5 years. Clearly majority are ready to procure the ACT within a year implying almost immediate demand for ACT among the HEIs.

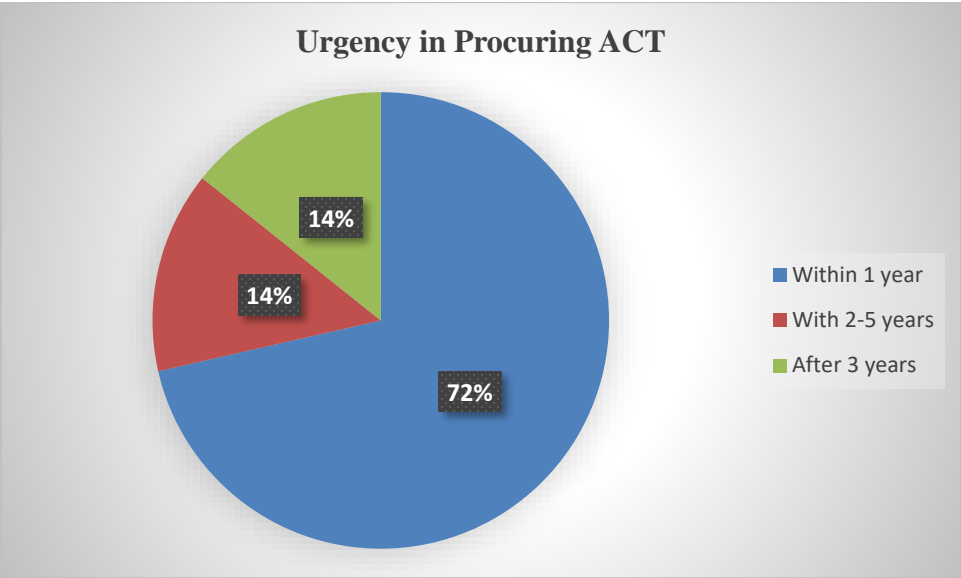


Figure 4.14: Procurement of ACT timeline

4.4 Technical Feasibility

The survey sought to determine the technical feasibility of using an electronic system to effectively track diverse aspects of HEIs alumni in sub-Saharan Africa. The existing formats of ACT have already been discussed and presented in Figure 4.6 and Figure 4.7 above as reported by the officers and alumni.

(a) Feasibility of using an online system to track the alumni in Sub-Saharan Africa

The key requirements for web-based solutions include: (i) internet connectivity; (ii) web-designers; (iii) servers to host the database and application; and (iv) application developers. The sampled universities have internet connectivity, even though in some cases the speeds and reliability is inadequate (Tables Q3.4; 3.7 of ICT Questionnaire). There is evidence that web-based applications have been implemented elsewhere such as in banks and government institutions. One example of web-based ACT is in Germany and specifically the KOAB which was earlier discussed.

In the case of mobile applications, a key requirement is mobile telephone provider. There is at least one telephone provider in the countries where Universities provided data; Airtel has a presence in each of the sampled countries thereby permitting a seamless roaming across the countries. Notable applications deployed on mobile phones include: money transfers (Safaricom's Mpesa; Airtel's Money); mobile banking (e.g. Equity's Equitel) among others.

A hybrid solution would encompass deployment of the ACT on both the web and mobile phone. Based on qualitative feedback from the sampled respondents, there is a case for deploying an alumni career tracker on different ICT platforms in line with preferred formats of interacting with such a tracker. The diverse preferences seem to be influenced by how individuals have embraced ICT technologies and their socialisation across the sampled regions. The preferences reported from the survey include emails (using uploadable forms), mobile phone applications, and web-based forms.

For the universities that are tracking, the method of acquiring a tracker is depicted in Figure 4.6 and Figure 4.7 earlier presented. Improvements sought are shown in Figure 4.15 below. These could be met through a modern web-based solution, which emerges as the preferred format Figure 4.10 and Figure 4.11 by the officers and alumni from those universities that wish to acquire a tracker.

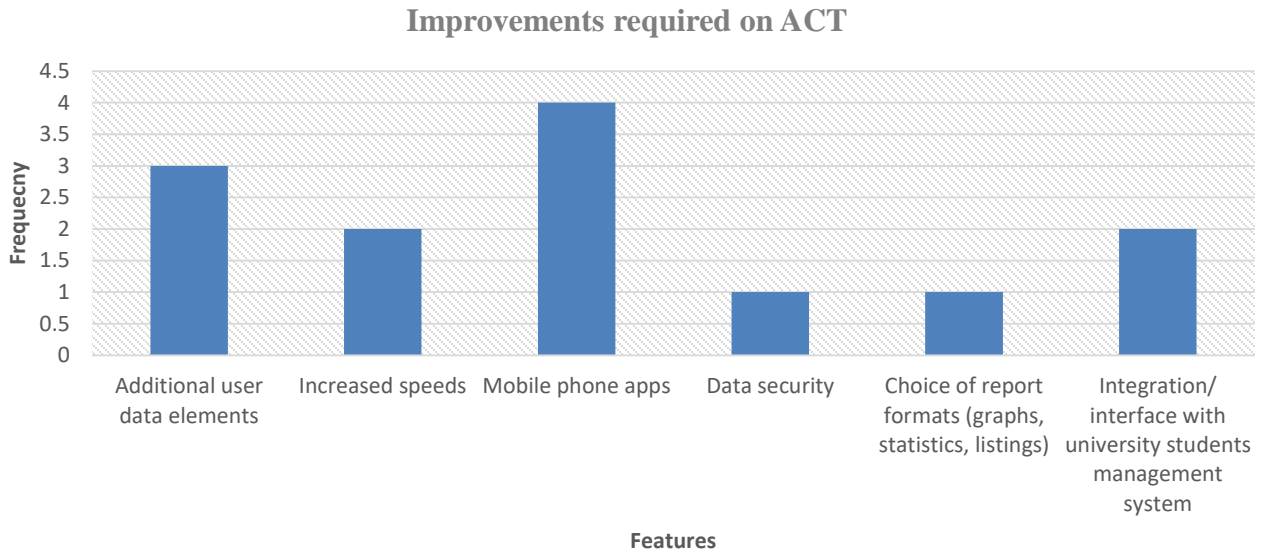


Figure 4.15: Improvements required on ACT

(b) Potential application development challenges

The potential challenges in developing a web-based solution depends on the options chosen which include: (i) developing one in-house; or (ii) sub-contracting.

The current ICT staff utilisation at APHRC on existing tasks has been rated at between 80-100%. It would therefore take relatively more time to develop a system given the limitations in terms of human resources. If this option were to be pursued, some additional staff would need to be recruited, which in itself has lead times. After development of the application, it is envisaged that not all additional staff would need to be retained. This option (of developing own ACT in-house) in the opinion of the consultant is not the best.

The development of the tracker could be sub-contracted to competent developers. In this scenario, APHRC would oversee the timely technical delivery of the application. The current staff utilisation would cope with such a demand. This is the option that the consultant recommends.

(c) Potential implementation challenges

The potential challenges in implementing a web-based solution depend on the options chosen which include: (i) manage-host; or (ii) sell and service.

Besides system upgrades, a significant additional bandwidth would be required beyond the existing 20MB/s to an estimated 4TB/s for about 400,000 alumni with 5% visitors daily (20,000), based on a commonly used ratio of 1MB/s per 100 students in some universities. The cost could be prohibitive given currently 20mb/s bandwidth costs USD230 per month. A viable option is to sub-

contract the hosting on the cloud whereby the annual cost is estimated at between USD3,000-5,000. That way, APHRC would not have to worry about the server capacity and bandwidth challenges.

Additional staff would be required to complement existing staff, in particular: (i) a database management expert; and (ii) customer support employee to respond to enquiries within the working hours across Africa, separated by 3 hours. A two-shift customer service of three persons each would suffice.

(d) Macro ICT Challenges

At the time of the study there were no known developments in the ICT sectors in the sampled countries that might hinder development and implementation the proposed solution. On the contrary, there were initiatives that would support implementation of ACT such as laying of fibre optic cables and funding from donors to support internet connectivity among HEIs.

(e) Technical Capacity and Implementation Support

The technical and implementation support is contingent upon the options for developing and implementing the proposed tracker, as discussed above.

(f) Financial Resources

The cost and expenses estimates of proposed ACT are presented under the financial feasibility heading.

(g) Proposed Implementation Timeframe

Table 4.5 below provides timeframes for developing and implementing proposed ACT, based on the assumption that: (i) APHRC will sub-contract the development of the application; (ii) APHRC will opt for cloud hosting of the database and the application.

Table 4.5: Proposed Timeframes

Task	Q1	Q2	Q3	Q4	Q5	Q6
Develop application system specifications	»»					
Tendering for application development	»»					
Acquisition of application development		»»				
Testing the application			»»			
Enlisting pilot universities-1				»»		
Piloting implementation				»»		
Enlisting other universities-2					»»	
Implementation at other universities-3						»»

(h) Further work required

Having obtained an indication of the alumni information required by the universities and the related volumetrics, a preliminary data schema would need to be developed as the basis for: (i) tendering for a sub-contractor to develop the tracker application; and (ii) estimating the required server data storage capacity, if the manage-host option were to be adopted. Technically, the understanding is that extra server data storage can simply be added, as would be the RAM.

4.5 Organizational Feasibility

APHRC has sufficient skills and resources to bring the ACT to the market successfully. This is based on review of documentation and data from interviews conducted at APHRC which shows that it has the necessary management competence and resource sufficiency. Specifically, APHRC has a clear vision and a 5 year strategic plan that expresses the commitment to implement the core functions of the organisation. It has prior entrepreneurial experience in data management initiatives and has growing professional networks, highly competent personnel and financial resource capacity that can absorb a new venture such as the ACT.

(a) APHRC Capacity in Data Management

From its vision APHRC has majored in research development in the continent and is committed to being a reservoir of data as demonstrated by the Microdata portal and clear policy guidelines on data access and sharing. The Microdata portal is “a web based platform designed to publish metadata and documentation and share qualitative datasets from research studies by the Centre since its inception in 2001. The datasets are freely made available in widely used and easily

convertible formats (e.g Stata, SPSS) to all partners, researchers, academicians and post-graduate students (for their thesis related work). This is a clear indication that APHRC has the capacity to handle much data such as that which will be generated by ACT.

The APHRC guidelines on data access and sharing “premises its data access and sharing practices on the principle that data is a public good and should be made available to all authorized users in a timely manner and in a user-friendly format. Equally, any individual or organization using or seeking to access APHRC data will be required to abide by strict conditions. In this regard and with respect to ACT, it is proposed that the data generated for any HEI will be the copyright of the HEI and can only be used with permission from the client HEI.

Further, APHRC and Washington DC based Centre For Global Development teamed up to make a working group that identified the underlying political economy issues related to the collection, analysis and use of data for policymaking. In their report they recommended among others “To built institutions that can produce accurate and unbiased data.” The report concluded that “Nowhere in the world is the need for better data more urgent than in Africa.” This clearly indicates APHRC commitment to providing accurate data that can be used for decision making by HEIs. The primary data collected in the survey shows the paucity of data with regard to ACT and APHRC would make a significant contribution in this field.

The above initiatives are evidence of the globally recognised prowess and passion for data collection and management by APHRC. It may be said that APHRC can competently procure and manage data for ACT for use by HEIs.

(b) Human Resource and Networks

APHRC staff is a team of highly qualified research scientists, IT technologists that appreciate the scope of an Alumni Career Tracker. APHRC is currently managing two complementary programs, namely the African Doctoral Dissertation Research Fellowship (ADDRF) and the Consortium for Advanced Research Training in Africa (CARTA). The two programs seek to build and strengthen the capacity of African universities and individuals to locally produce well-trained and skilled researchers and grounded scholars who will contribute to solving population and health challenges in Africa. The two programs have produced more than 100 PhDs who are on the trajectory to becoming research leaders and change agents in their institutions. These research leaders could be a useful resource in the marketing and use of the ACT in their spheres of influence. These alumni through the doctoral and post-doctoral research projects are influencing policy making in their respective countries and institutions. An effective ACT will boost these efforts and provided a dynamic network of sharing data, ideas and research needs.

Further, APHRC has over 100 global partner organizations consisting of universities, research institutes, NGOs and government agencies. The Universities in Africa include the top ranking ones on the continent such as Makerere University, University of Nairobi, University of Ibadan among

others, distributed evenly from West Africa, Southern and Eastern parts of the African continent. The networks will prove useful for marketing the ACT and increasing its acceptability.

(c) The Importance ACT to APHRC

The management at APHRC considers ACT as an important idea based on the following;

1. The ACT will enhance the visibility of APHRC among its networks and partners.
2. The ACT will provide a systematic and consistent way for APHRC to accumulate data about its alumni with a view to using the data to make decisions regarding the programs it is running.
3. The ACT will be useful for HEIs in Africa to track its alumni and create networks that will establish the Alumni associations, a task that all universities are working on.
4. The ACT is envisaged as an important tool for introduction and promotion of African philanthropy as alumni will be given opportunity to give back to their Alma Mater.
5. Effective tracking has the potential for initiating programs that are relevant for the market and this has the potential to spur development in Africa.
6. Finally ACT will assist APHRC gauge its impact in society through widened engagement.

(d) Sustainability of ACT

APHRC officers interviewed are of the opinion that the ACT should be developed and managed in a way to ensure relevance, acceptability and financial sustainability to the market. The ACT should find wide acceptance. This may include having job adverts on the ACT site, scholarships, prizes, recognition, open collaborations and research grants opportunities. This will create value for the subscribing HEIs given these benefits. Although APHRC will initially raise funds for the establishment of the ACT, it should be designed to grow without continuous subsidy by encouraging users to pay for the services.

The data collected from interviews shows that APHRC has the required physical, human and technical resources to launch the ACT. The APHRC campus on Kirawa road Nairobi has sufficient office space to host the ACT. The IT infrastructure will require minimal upgrades to implement the ACT and there is rich human resource of highly qualified research scientists, IT technologists and administrators more than capable of overseeing the running of the ACT.

4.6 Financial Feasibility

This section discusses the revenue and expenses after rolling out the ACT. In the survey, the HEIs had indicated that on average they spend US\$ 8,000 per annum on ACT. However HEIs that are not tracking are willing to pay an average of USD 11,000 for ACT per year. In determining the break-even point, we have used a conservative figure of US\$ 5,000 per annum as the amount that

HEIs are willing to pay. We also assume that in the first year, 20 HEIs will be enlisted in the pilot. Table 4.6 shows the financial projections.

To develop, implement and operate a career tracker requires specific human resources. Base on the technical evaluation on the human needs which is fully defined in the technical section of this report the following will be human resource requirements. To implement ACT APHRC will require one database manager and six customer support personnel with skills and competences in operating a large scale database. There will be related costs training of the said personnel (see technical feasibility section).

The objective of this study was to determine the financial viability of establishing ACT. To achieve goal this report provides an analysis of the capital requirement for facilities, equipment, inventories and human resources for establishing ACT.

Table 4.6: Financial Projections

Time	Expenses			Revenue		
	Item	Cost	Total	Number of HEIs	Subscription fee	Total
Year One	Development of ACT	200,000	305,000	20	0	0
	Personnel cost	100,000				
	Cost of hosting ACT	5,000				
Year Two	Personnel	150,000	175,000	40	5,000	200,000
	Hosting	5,000				
	Maintenance	20,000				
Year Three	Personnel	150,000	175,000	60	5,000	300,000
	Hosting	5,000				
	Maintenance	20,000				
Year Four	Personnel	150,000	175,000	90	5,000	450,000
	Hosting	5,000				
	Maintenance	20,000				
Grand total			830,000			950,000

The analysis in table assumes that APHRC will host the ACT in the cloud, an option that will save on office space and cost of servers etc. In the second year, it is expected that with proper marketing of ACT, the number of subscription will grow by 100% to 40 HEIs. In subsequent years, the number of HEIs will grow by 50%. The projections show that in the 4th year, the project will be past break-even point. From this analysis, APHRC requires about US\$ 305,000 to finance the development of the ACT as well as run it in the piloting period.

5. CONCLUSIONS AND RECOMMENDATIONS

The overall objective of the assignment was to conduct a feasibility study across Sub-Saharan Africa for APHRC with respect to ACT. Specifically the survey sought to determine the organisational capacity of APHRC to implement the ACT, to assess the market attractiveness of ACT, to find out the technical requirements and finally to find out the financial viability of implementing ACT.

The data collection exercise obtained responses from 57 HEIs officers and 139 Alumni. Out of the 57 officers surveyed, 25 indicated that university is tracking graduates. The 25 respondents who indicated to be tracking graduates come from 19 universities in 5 countries. The main kind of tracking that the universities are doing is tracer studies. Other universities considered alumni associations as a form of tracking. There are only very few universities doing tracking in the true sense of the word. There will be need to sensitize the HEIs on ACT and the benefits thereto.

The survey shows that out of 139 alumni respondents only 38 are being tracked by the universities. Further, the survey shows that few African universities are tracking their graduates with only 7 out of 15 of them tracking their graduates. Even then, the form of tracking reported among these African Universities is tracer studies, invitation to attend alumni association functions, invitation to give to the University and occasional newsletter sent to alumni. Clearly very little ACT takes place among HEIs and there is an opportunity for APHRC to meet this need among HEIs.

The HEIs officers reported the following benefits of tracking in order of importance; revising curriculum, giving back by alumni, marketing the university and measuring the university impact in society. The data shows that HEIs appreciate the need for ACT given the benefits mentioned above.

More than sixty percent (62%) of alumni that are not being tracked are willing to be tracked. This illustrates the potential for tracking as majority of alumni not being tracked are positive towards ACT.

The format of ACT tracking used by universities in order of importance is emails, websites and social media. On the part of the alumni, the main format of ACT in use is mobile phone, emails and website online forms. For the HEIs not tracking graduates, the format of ACT preferred would be web based, followed by emails, and paper based/ surface mail. Other formats that would be considered include short messaging service and social media. Further, as demonstrated in the survey data, similar trend was noted from alumni respondents when asked what form of tracking they would prefer if the university wanted to track them. It may be necessary for APHRC to consider a platform that would combine website, email and mobile based applications as it would reach the majority of alumni and find wider acceptance among HEIs.

The study showed that universities preferred to procure ACT at 41% and another 41% prefer to subscribe to the ACT, with 12% preferring to develop their own ACT. Clearly majority of HEIs prefer to procure or subscribe to ACT. Subject to costs and suitability, HEIs are willing to procure or subscribe to ACT. The data collected further shows that 72% would like to procure ACT within one year. This is an indication of immediate demand for ACT.

The survey shows that it is mainly private universities and new public universities that are tracking their graduates mainly for purposes of marketing their institutions. The established HEIs and specifically government HEIs are complacent in tracking their graduates. However, this situation is changing with reduction in funding from government with established HEIs now having to compete for students in order to meet their recurrent expenditure. The need for HEIs to track their alumni for marketing purposes is becoming apparent among these HEIs besides alumni being a potential source of funds for the universities. This represents an opportunity for APHRC in introducing ACT.

The survey shows that APHRC has sufficient skills and resources to bring the ACT to the market. The organization has prior entrepreneurial experience in data management initiatives and has growing professional networks, highly competent personnel and financial resource capacity that can absorb a new venture such as the ACT. APHRC is committed to being a reservoir of data as demonstrated by the Microdata portal implementation and a clear policy guideline on data provision, access and sharing. The above initiatives are evidence of the globally recognised prowess and passion for data collection and management by APHRC.

Further, APHRC has over 100 global partner organizations consisting of universities, research institutes, NGOs and government agencies distributed all over the continent. The networks are useful for marketing the ACT and increasing its acceptability. In terms of sustainability of the ACT, it is proposed that APHRC develops an ACT that is widely acceptable. This may also include providing incentives such as having job adverts on the ACT site, scholarships, prizes, recognition, open collaborations and research grants opportunities. This will create value for the subscribing HEIs given these extra benefits. Although APHRC will initially raise funds for the establishment of the ACT, it should be designed to grow without continuous subsidy by encouraging users to pay for the services. The financial projections show that the ACT will break even in the 4th year and will require an initial capital outlay of USD 305,000.

The best option for APHRC is not to develop the ACT but rather to sub-contract the development given the current ICT staff levels. Further, the survey recommends that the ACT be hosted on the cloud. Having obtained an indication of the alumni information required by the universities and the related volumetric, a preliminary data schema would need to be developed as the basis for tendering for a sub-contractor to develop the tracker application.

Finally, the consultant recommends that APHRC goes ahead and implements the ACT project given that the market, technical, financial, and organizational aspects of the tracker point to this

direction. However, there is need to sensitize and market the product among HEIs portraying the potential benefits of adopting a modern web based ACT for HEIs. A consistent increase in the number of subscribing HEIs will lead to sustainability of the project.

REFERENCES

- Assessment & Evaluation in Higher Education. (2008, 06). 33(3), 301–314.
- Educatio Public Services Non-profit LLC. (2010). Retrieved from Educatio Public Services Non-profit LLC: https://www.felvi.hu/pub_bin/dload/DPR/
- Egesah, O. B., & Wahome, M. (2012). Conducting Graduate Tracer Studies for Quality Assurance in East African Universities: A focus on graduate voices on quality culture. *A journal of educational and practice*.
- Egesah, O. B., Wahome, M., Langat, E. K., & Wishitemi, B. (2014, 09 08). University graduate tracer studies (UNITRACE): Methodological lessons and utilization selected results in Kenya. *Journal of international academic research for multidisciplinary impact factor*, 2(8), 393.
- Ereno, e. a. (2016).
- European Training Foundation. (2016). *Carrying Out Tracer Studies*. European Centre for the Development of Vocational Training/ International Labour Office.
- Frawley, D., & Harvey, V. (2015). *Graduate Surveys: Review of International Practice*. Higher Education Authority.
- Galliber, J. N., Stewart, T. V., Patbak, P., Werner, J. J., Dickinson, L. M., & Hickner, J. M. (2008, 04). Data Collection Outcomes Comparing Paper Forms With Personal Digital Assistants (PDA). *Annals of Family Medicine*, 6(2).
- INCHER-Kassel. (2017, 02 22). Retrieved from <http://koab.uni-kassel.de/en/koab>
- Leisher, C. (2014, 05 21). Retrieved 05 16, 2017, from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.658.3732&rep=rep1&type=pdf>
- Nulty, D. D. (2008). *The Adequacy of Response Rate to Online and Paper Surveys*. Griffith University, Queensland.
- Schomburg, H. (2004). *Hand Book for Graduate Tracer Studies*.
- Universitas Indonesia. (2017, 5 7). Retrieved from https://www.Indotrace.ui.ac.id/index.php?option=com_content&view=article&id=10
- Universitat Duisburg Essen. (2017, 05 17). Retrieved 05 16, 2017, from <https://www.uni-due.de/zfh/unitrace2.0.php>

Appendix 1: Head of Department/ Academic Dean Questionnaire

Alumni Career Tracker Feasibility Study: Data Collection

Respondent: Head of Department/ Academic Dean

University: _____

Ownership: Public Private

Country: _____

Interview

Date: _____

Consultant: _____

Part 1. Preamble

Qdata Enterprises (Qdata) have been commissioned by the African Population and Health Research Center (APHRC) to conduct a feasibility study for an alumni career tracker (ACT) to track graduates from higher education institutions (HEIs). You have been selected as one of the crucial respondents. We appreciate your participation and input into the study, which should take you about 20 minutes. We assure you of utmost confidentiality and that the data will only be used for the ACT study. Therefore, kindly provide candid replies to the questions.

Please tick “✓” in the box against the applicable answer(s) to a question where options are provided. You will skip several questions depending on whether the university is already running a career tracker or not. Therefore, the questionnaire is not as long as it might seem.

Part 2. Respondent Profile

Gender.....:	[1] Male	[2] Female
Position		
Years worked in the position:		

Part 3. Questions

Section I. Getting Started		
3.1	Do you track your graduates?	[1] Yes [2] No
3.1.1 If “No”, please skip to Section III (page 34).		

Section II. For a university that has an alumni career tracker				
3.2	What type of ACT are you using? Tick all that apply.			
	<input type="checkbox"/>]1 Paper based/ surface mail <input type="checkbox"/>]2 Web based <input type="checkbox"/>]3 Emails <input type="checkbox"/>]4 Mobile phone application <input type="checkbox"/>]5 Phone call <input type="checkbox"/>]6 Short text message (SMS) <input type="checkbox"/>]7 Social media <input type="checkbox"/>]8 Other: Specify			
3.3	For how long have you been tracking your graduates?	[1] 5 years or less	[2] 6 to 10 years	[3] Over 10 years
3.4	Who oversees ACT in the university? Tick all that apply			
	<input type="checkbox"/>]1 DVC Academics <input type="checkbox"/>]2 Dean of Students <input type="checkbox"/>]3 Registrar <input type="checkbox"/>]4 HODs <input type="checkbox"/>]5 Alumni officer <input type="checkbox"/>]6 Marketing department <input type="checkbox"/>]7 Quality Assurance <input type="checkbox"/>]8 Other: (Specify)			

3.5	What information do you seek for in tracking your graduates? Tick all that apply					
	<input type="checkbox"/>]1 Career progression <input type="checkbox"/>]2 How long it took to get a job <input type="checkbox"/>]3 Salary levels <input type="checkbox"/>]4 The relevance of the training in the market place <input type="checkbox"/>]5 The quality of training received <input type="checkbox"/>]6 How the university or institution can improve its training <input type="checkbox"/>]7 Support it receives from the University <input type="checkbox"/>]8 How the alumni are supporting their university <input type="checkbox"/>]9 Other: Specify					
3.6	How do you incentivise/encourage the alumni to give information? Tick all that apply.					
	<input type="checkbox"/>]1 Prizes/ awards <input type="checkbox"/>]2 Recognition <input type="checkbox"/>]3 Other: Specify					
3.7	How frequently do you track your graduates?					
	<input type="checkbox"/>]1 6 Months or less <input type="checkbox"/>]2 Yearly <input type="checkbox"/>]3 Every 2 years <input type="checkbox"/>]4 Every 5 years <input type="checkbox"/>]5 Every 10 years					
3.8	How much does it cost the university (in USD) to track your graduates per cycle?					
3.9	Kindly rate your experience in the use of your ACT concerning:					
3.9.1	Cooperation of alumni? (on a scale of: 1= Low, ...5= High)					
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">[1]</td> <td style="width: 20px; text-align: center;">[2]</td> <td style="width: 20px; text-align: center;">[3]</td> <td style="width: 20px; text-align: center;">[4]</td> <td style="width: 20px; text-align: center;">[5]</td> </tr> </table>	[1]	[2]	[3]	[4]	[5]
[1]	[2]	[3]	[4]	[5]		
3.9.2	Affordability of acquiring and operating the alumni career tracker? (on a scale of: 1= Bad, ...5= Good)					
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">[1]</td> <td style="width: 20px; text-align: center;">[2]</td> <td style="width: 20px; text-align: center;">[3]</td> <td style="width: 20px; text-align: center;">[4]</td> <td style="width: 20px; text-align: center;">[5]</td> </tr> </table>	[1]	[2]	[3]	[4]	[5]
[1]	[2]	[3]	[4]	[5]		

3.9.3 Support by the university management? (on a scale of: 1= Poor, ...5= Good)	[1]	[2]	[3]	[4]	[5]
3.10 How has the information from the ACT benefited the University? Tick all applicable.					
<input type="checkbox"/>]1 Marketing the university <input type="checkbox"/>]2 Revising curriculum <input type="checkbox"/>]3 Giving back by alumni <input type="checkbox"/>]4 Measuring the university's impact in society <input type="checkbox"/>]5 Other: Specify					
3.11 What challenges has the university faced in tracking its alumni? Tick all applicable.					
<input type="checkbox"/>]1 Financial constraints <input type="checkbox"/>]2 Inadequate capacity <input type="checkbox"/>]3 Technological challenges <input type="checkbox"/>]4 There is no policy <input type="checkbox"/>]5 Other: specify					
3.12 Would you prefer to continue to manage the alumni career tracker or would you rather outsource the service?					
3.12.1 Explain your response to the question above?	[1] Manage	[2] Outsource	[3] Other: Specify		
3.13 Thank you. Please move to Section IV (page 36).					
Section III. For a university that does not have an alumni career tracker					
3.14 In your view, why is the university not tracking the graduates?					
<input type="checkbox"/>]1 Financial constraints <input type="checkbox"/>]2 Inadequate capacity <input type="checkbox"/>]3 Technological challenges <input type="checkbox"/>]4 There is no policy to track					

<input type="checkbox"/>]5 We have never thought about it <input type="checkbox"/>]6 Other: specify						
3.15 Has your university made an official decision to track your graduates?				<input type="checkbox"/>]1 Yes	<input type="checkbox"/>]2 No	
3.15.1 If “Yes”, at what level has the decision been made to track graduates? Tick all that apply.		<input type="checkbox"/>]1 Departmental	<input type="checkbox"/>]2 Senate	<input type="checkbox"/>]3 University council		
3.16 What type of ACT would you prefer if you were to start tracking graduates? Tick all that apply.						
<input type="checkbox"/>]1 Paper based/ surface mail <input type="checkbox"/>]2 Web based <input type="checkbox"/>]3 Email based <input type="checkbox"/>]4 Mobile phone application <input type="checkbox"/>]5 Phone call <input type="checkbox"/>]6 Short text message (SMS) <input type="checkbox"/>]7 Social media <input type="checkbox"/>]8 Other: Specify						
3.17 How would you prefer to acquire an ACT?		<input type="checkbox"/>]1 Develop one	<input type="checkbox"/>]2 Procure one	<input type="checkbox"/>]3 Subscribe to one	<input type="checkbox"/>]4 Other: Specify	
3.18 How soon would you procure a new ACT?		<input type="checkbox"/>]1 Within 1 year	<input type="checkbox"/>]2 Within 2-3 years	<input type="checkbox"/>]3 Over 3 years		
3.19 Kindly rate the potential benefits of an ACT to the University? (on a scale of: 1= Little, ...5= Very much)		<input type="checkbox"/>]1	<input type="checkbox"/>]2	<input type="checkbox"/>]3	<input type="checkbox"/>]4	<input type="checkbox"/>]5
3.20 In your view, how would you use the information from the alumni career tracker to benefit the University? Tick all that apply.						
<input type="checkbox"/>]1 Marketing the university <input type="checkbox"/>]2 Revising curriculum <input type="checkbox"/>]3 Giving back by alumni <input type="checkbox"/>]4 Measuring the university’s impact in society						

<input type="checkbox"/>]5 Other: Specify
<p>3.21 What challenges would the university face in running an ACT? Tick all that apply.</p> <p><input type="checkbox"/>]1 Financial constraints</p> <p><input type="checkbox"/>]2 Inadequate capacity</p> <p><input type="checkbox"/>]3 Technological challenges</p> <p><input type="checkbox"/>]4 There is no policy to track</p> <p><input type="checkbox"/>]5 Other: specify</p>
<p>3.22 What information would you seek for in tracking your graduates?</p> <p><input type="checkbox"/>]1 Career progression</p> <p><input type="checkbox"/>]2 How long it took to get a job</p> <p><input type="checkbox"/>]3 Salary levels</p> <p><input type="checkbox"/>]4 The relevance of the training in the market place</p> <p><input type="checkbox"/>]5 The quality of training received</p> <p><input type="checkbox"/>]6 How the university or institution can improve its training</p> <p><input type="checkbox"/>]7 Support it receives from the University</p> <p><input type="checkbox"/>]8 How the alumni are supporting their university</p> <p><input type="checkbox"/>]9 Other: Specify</p>
<p>3.23 How frequently (in years) would you track your graduates?</p> <p><input type="checkbox"/>]1 6 Months or less</p> <p><input type="checkbox"/>]2 Annually</p> <p><input type="checkbox"/>]3 Every 2 years</p> <p><input type="checkbox"/>]4 Every 5 years</p> <p><input type="checkbox"/>]5 Every 10 years</p>
<p><input type="checkbox"/>]6 How would you incentivise/encourage the alumni to give information? Tick all that apply.</p> <p><input type="checkbox"/>]7 Prizes/ awards</p> <p><input type="checkbox"/>]8 Recognition</p> <p><input type="checkbox"/>]9 Other: Specify</p>
<p>Section IV. Wrap-up Questions</p>

3.24 How many graduates does the university need to track?						
3.25 On average, how many students graduate annually?						
3.26 Kindly rate the future prospects of an ACT in the higher education sector? (on a scale of: 1= Low, ...5= High)		[1]	[2]	[3]	[4]	[5]
3.27 How many other institutions are you aware of that are tracking their graduates?						
3.27.1 Which ones?						
3.28 As an alumnus, has your university been tracking you?						
[]1 Yes						
[]2 No						
3.29 If "Yes", what form of ACT was used? Tick all that apply.						
[]1 Paper based/ surface mail						
[]2 Web based						
[]3 Emails						
[]4 Mobile phone application						
[]5 Phone call						
[]6 Short Message Service (SMS)						
[]7 Social media						
[]8 Other: Specify						
3.30 What information was the university seeking to know from you? Tick all that apply.						
[]1 Career progression						
[]2 How long it took to get a job						
[]3 Salary levels						
[]4 The relevance of the training in the market place						
[]5 The quality of training provided						
[]6 How the university can improve its training						
[]7 How the alumni could give back to the university						
[]8 Additional support the alumni could receive from the university						

<p>[] 9 Other: Specify</p>
<p>3.31 Is there something else about alumni tracking that you wish to let us know?</p>
<p>You have come to the end of the questionnaire. Thank you very much for your time and the information provided.</p>

Appendix 2: Alumnus Questionnaire

Alumni Career Tracker Feasibility Study: Data Collection

Respondent: Alumnus

**Last University/
Polytechnic attended:** _____

Interview Date: _____

Consultant: _____

Part 1. Preamble

Qdata Enterprises (Qdata) have been commissioned by the African Population and Health Research Center (APHRC) to conduct a feasibility study for an alumni career tracker (ACT) to track graduates from higher education institutions (HEIs). You have been selected as one of the crucial respondents. We appreciate your participation and input into the study, which should take you about 20 minutes. We assure you of the utmost confidentiality and that the data will only be used for the ACT study. Therefore, kindly provide candid replies to the questions.

Please tick “✓” in the box against the applicable answer(s) to a question where choices are provided. Where there are no choices, feel free to respond in your own words. You will skip several questions depending on whether the institution is already running an alumni career tracker or not; the questionnaire is, therefore, not as long as it might seem.

Kindly respond to all the questions even if it means stating “not applicable” or “do not know”.

Part 2. Respondent Profile

Gender.....:	[1] Male	[2] Female		
Age (years).....:	[1] 30 years or less	[2] 31-40 years	[3] 41-50 years	
	[4] 51-60 years	[5] Above 60 years		
Nationality.....:				
Current country of residence:				
Current occupation.....:				
Employment.....:	[1] Employed	[2] Entrepreneur	[3] Unemployed	

In the table below, please indicate the universities or polytechnics attended and degree obtained:

University/ Polytechnic Name	Country	Year Graduated	Degree Obtained
1.			[1] Bachelor [2] Master [3] Doctorate [4] Post Doctorate
2.			[1] Bachelor [2] Master [3] Doctorate [4] Post Doctorate
3.			[1] Bachelor [2] Master [3] Doctorate [4] Post Doctorate
4.			[1] Bachelor [2] Master [3] Doctorate [4] Post Doctorate

Part 3. Questions

Section I. Getting Started	
3.1 Has any of the universities or polytechnics you attended been tracking you?	[1] Yes [2] No
3.1.1 If “no”, please move to Section III (page 46).	
Section II. For Alumni Tracked	
3.2 How many universities or polytechnics have been tracking you?	
3.2.1 Which ones?	

3.3	When were you last tracked? <input type="checkbox"/>]1 Within the last 2 years <input type="checkbox"/>]2 Between 2 to 5 years ago <input type="checkbox"/>]3 Between 6 to 10 years ago <input type="checkbox"/>]4 Over 10 years ago
3.4	How frequently has the university or polytechnic been tracking you? <input type="checkbox"/>]1 Every 6 months or less <input type="checkbox"/>]2 Every year <input type="checkbox"/>]3 Every 2 years <input type="checkbox"/>]4 Every 5 years <input type="checkbox"/>]5 Every 10 years <input type="checkbox"/>]6 Other: Specify.
3.5	Are you happy with the frequency of tracking? <input type="checkbox"/>]1 Yes <input type="checkbox"/>]2 No
3.6	If "No", what frequency of tracking would you prefer? <input type="checkbox"/>]1 Every 6 months or less <input type="checkbox"/>]2 Every year <input type="checkbox"/>]3 Every 2 years <input type="checkbox"/>]4 Every 5 years <input type="checkbox"/>]5 Every 10 years <input type="checkbox"/>]6 Other: Specify.
3.7	For the following questions that relate to your tracking experience, which one of those universities or polytechnics would you prefer to provide more information on?
3.8	Kindly indicate the reasons for preferring that particular university or polytechnic to track you? Tick all that apply. <input type="checkbox"/>]1 Most recent in tracking me <input type="checkbox"/>]2 Most consistent in tracking me <input type="checkbox"/>]3 Had more positive experience during the study <input type="checkbox"/>]4 Other: Specify

3.9 For how long has the university or polytechnic been tracking you?

-]1 For less than 2 years
-]2 For 2 to 5 years
-]3 For 6 to 10 years
-]4 Over 10 years

3.10 What method(s) has the university or polytechnic used to reach you? Tick all that apply.

-]1 Emails
-]2 Phone calls
-]3 Short Message Service (SMS)
-]4 Social media
-]5 University website notices
-]6 University bulletins and publications
-]7 Surface mail
-]8 Advertisements in the media
-]9 University functions (e.g. graduation ceremonies)
-]10 Other: Specify

3.11 What method or format of tracking have you used to give information to the university or polytechnic? Tick all that apply.

-]1 Website online forms
-]2 Mobile phone applications
-]3 Completed paper forms
-]4 Emails
-]5 Verbal replies over the telephone
-]6 Short Message Service (SMS)
-]7 Postings via the social media
-]8 Other: Specify

<p>3.12 What information has been sought from you by the university or polytechnic? Tick all that apply.</p> <p><input type="checkbox"/>]1 My career progression</p> <p><input type="checkbox"/>]2 Whether employed or entrepreneur</p> <p><input type="checkbox"/>]3 How long I took to get a job</p> <p><input type="checkbox"/>]4 Salary levels</p> <p><input type="checkbox"/>]5 The relevance of the training in the market place</p> <p><input type="checkbox"/>]6 The quality of training received</p> <p><input type="checkbox"/>]7 How the university or polytechnic can improve its training</p> <p><input type="checkbox"/>]8 How I could give back to the university or polytechnic</p> <p><input type="checkbox"/>]9 Additional support I could receive from the university or polytechnic</p> <p><input type="checkbox"/>]10 Other: Specify</p>						
<p>3.13 What motivates you to give the information requested? Tick all that apply.</p> <p><input type="checkbox"/>]1 Prizes/ awards</p> <p><input type="checkbox"/>]2 Recognition</p> <p><input type="checkbox"/>]3 The memorable time I had at the University</p> <p><input type="checkbox"/>]4 Other: Specify</p>						
<p>3.14 Kindly rate your overall experience in interacting with the ACT? (on a scale of: 1= Bad, ...5= Good)</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; border: 1px solid black; text-align: center;">[1]</td> <td style="width: 20%; border: 1px solid black; text-align: center;">[2]</td> <td style="width: 20%; border: 1px solid black; text-align: center;">[3]</td> <td style="width: 20%; border: 1px solid black; text-align: center;">[4]</td> <td style="width: 20%; border: 1px solid black; text-align: center;">[5]</td> </tr> </table>	[1]	[2]	[3]	[4]	[5]
[1]	[2]	[3]	[4]	[5]		
<p>3.15 How much time would you be willing to spend in responding to an ACT?</p> <p><input type="checkbox"/>]1 Less than 10 minutes</p> <p><input type="checkbox"/>]2 Between 11-20 minutes</p> <p><input type="checkbox"/>]3 Between 21-30 minutes</p> <p><input type="checkbox"/>]4 Between 31-60 minutes</p> <p><input type="checkbox"/>]5 Other: Specify.</p>						

3.16 What method of publicity would you recommend to the university or polytechnic to reach you for Alumni Career Tracking? Tick all that apply.

-]1 Emails
-]2 Phone calls
-]3 Short Message Service (SMS)
-]4 Social media
-]5 University website notices
-]6 University bulletins and publications
-]7 Surface mail
-]8 Advertisements in the media
-]9 Graduation ceremonies
-]10 Other: Specify

3.17 What form of ACT would you prefer? Tick all that apply.

-]1 Website online forms
-]2 Mobile phone applications
-]3 Completed paper forms
-]4 Emails
-]5 Verbal replies over the telephone
-]6 Short Message Service (SMS)
-]7 Postings via the social media
-]8 Other: Specify

3.18 What information sought by universities or polytechnics might you not be willing to share in an ACT? Tick all that apply.

-]1 My career progression
-]2 How long I took to get a job
-]3 Salary levels
-]4 The relevance of the training in the market place
-]5 The quality of training received
-]6 How the university or polytechnic can improve its training
-]7 How I could give back to the university or polytechnic
-]8 Additional support I could receive from the university or polytechnic
-]9 Other: Specify

3.19 Thank you. Please move to Section IV (page 49).

Section III. For Alumni Not Tracked

3.20 You said your university or polytechnic has not been tracking graduates. What do you think are the possible reasons for that? Tick all that apply.

-]1 Financial constraints
-]2 Inadequate capacity
-]3 Technological challenges
-]4 There is no policy to track
-]5 Do not know
-]6 Other: specify

3.21 Are you willing that your university or polytechnic tracks your career and progress as an alumnus?

[1] Yes	[2] No
---------	--------

3.21.1 If "No", why are you not willing to be tracked? Tick all that apply.

-]1 Bad experiences during my programme
-]2 Bad reputation of the university or polytechnic
-]3 Better association with other universities or polytechnics
-]4 Has been detached for too long
-]5 Too busy
-]6 Poor health to participate meaningfully
-]7 Financially constrained to participate meaningfully
-]8 Geographically too detached
-]9 Other: Specify

3.21.2 You may now skip to Section IV (page 49).

3.22 What frequency would you recommend that the university or polytechnic tracks you?

-]1 Every 6 months or less
-]2 Every year
-]3 Every 2 years
-]4 Every 5 years
-]5 Every 10 years
-]6 Other: Specify.

3.23 How much time would you be willing to spend in responding to an alumni career tracker?

-]1 Less than 10 minutes
-]2 Between 11-20 minutes
-]3 Between 21-30 minutes
-]4 Between 31-60 minutes
-]5 Other: Specify.

3.24 What method would you prefer the university or polytechnic to use to reach you? Tick all that apply.

-]1 Email
-]2 Phone call
-]3 Short Message Service (SMS)
-]4 Social media
-]5 University website notices
-]6 University bulletins and publications
-]7 Surface mail
-]8 Advertisements in the media
-]9 Graduation ceremonies
-]10 Other: Specify

3.25 What method or format of tracking would you prefer to the university or polytechnic use to give the requested information? Tick all that apply.

-]1 Website online forms
-]2 Mobile phone applications
-]3 Completed paper forms
-]4 Emails
-]5 Verbal replies over the telephone
-]6 Short Message Service (SMS)
-]7 Postings via the social media
-]8 Online tools used (e.g. Survey monkey)
-]9 Other: Specify

3.26 What would motivate you to give the information requested? Tick all that apply.

-]1 Prizes/ awards
-]2 Recognition
-]3 The memorable time I had at the University
-]4 Other: Specify

3.27 What information are you WILLING to give to you university or polytechnic? Tick all that apply.

-]1 My career progression
-]2 How long I took to get a job
-]3 Salary levels
-]4 The relevance of the training in the market place
-]5 The quality of training received
-]6 How the university or polytechnic can improve its training
-]7 How I could give back to the university or polytechnic
-]8 Additional support I could receive from the university or polytechnic
-]9 Other: Specify

3.28 What information sought by universities or polytechnics might you NOT BE WILLING to share in an alumni career tracker? Tick all that apply.

-]1 My career progression
-]2 How long I took to get a job
-]3 Salary levels
-]4 The relevance of the training in the market place
-]5 The quality of training received
-]6 How the university or polytechnic can improve its training
-]7 How I could give back to the university or polytechnic
-]8 Additional support I could receive from the university or polytechnic
-]9 Other: Specify

3.29 Of what potential benefit (value) do you anticipate the envisaged ACT to be to you?

1. Receive recognition by the university or polytechnic
2. Feel connected with the university or polytechnic
3. Receive career or scholarly references from the university or polytechnic
4. Other: Specify.

Section IV. Wrap-up Questions

3.30 What measures would you propose that would make it possible for all alumni to participate and respond in a tracker?

3.31 What techniques would you propose that would facilitate quick and timely responses from the alumni?

3.32 What other suggestions or comments do you have concerning alumni tracking?

Well, you have come to the end of the questionnaire. Thank you very much for your time and the information provided.

Appendix 3: Head of ICT Questionnaire

Alumni Career Tracker Feasibility Study: Data Collection

Respondent: Head of ICT

University: _____

Ownership: [1] Public [2] Private

Country: _____

Interview Date: _____

Consultant: _____

Part 1. Preamble

Qdata Enterprises (Qdata) have been commissioned by the African Population and Health Research Center (APHRC) to conduct a feasibility study for an alumni career tracker (ACT) to track graduates from higher education institutions (HEIs). You have been selected as one of the crucial respondents. We appreciate your participation and input into the study, which should take you about 15 minutes. We assure you of utmost confidentiality and that the data will only be used for the ACT study. Therefore, kindly provide candid replies to the questions.

Please tick “✓” in the box against the applicable answer(s) to a question where options are provided. You will skip several questions depending on whether the university is already running a career tracker or not. Therefore, the questionnaire is not as long as it might seem.

Part 2. Respondent Profile

Gender.....:	<input type="checkbox"/> [1] Male	<input type="checkbox"/> [2] Female
Position		
Years worked in the position:		

Part 3. Questions

Section I. Getting Started		
3.1 Do you track your graduates?	<input type="checkbox"/> [1] Yes	<input type="checkbox"/> [2] No
3.1.1 If “No”, please skip to Section III (page 54).		

Section II. For a university that has an alumni career tracker					
3.2 How long have you been tracking your graduates?					
[] 1 Less than 2 years					
[] 2 Between 2 to 5 years					
[] 3 Between 6 to 10 years					
[] 4 Over 10 years ago					
3.3 How did you acquire your tracker?	[1] Developed one	[2] Procured package	[3] Other: Specify		
3.4 In what format or method have you been receiving the requested data from the alumni? Tick all that apply.					
[] 1 University website online forms					
[] 2 Mobile phone apps					
[] 3 Completed paper forms					
[] 4 Email texts					
[] 5 Verbal replies over the telephone					
[] 6 SMS					
[] 7 Postings via the social media					
[] 8 Online tools (e.g. Survey monkey)					
[] 9 Other: Specify					
3.5 How would you rate the adequacy of software support in the running of your tracker? (on a scale of: 1= Poor, ...5= Good)	[1]	[2]	[3]	[4]	[5]
3.6 How would you rate the adequacy of hardware support in the running of your tracker? (on a scale of: 1= Poor, ...5= Good)	[1]	[2]	[3]	[4]	[5]
3.7 If applicable, how would you rate the adequacy of internet in the running of your tracker? (on a scale of: 1= Poor, ...5= Good)	[1]	[2]	[3]	[4]	[5]
3.8 If applicable, how would you rate the adequacy of mobile telephony communications in the running of your tracker? (on a scale of: 1= Poor, ...5= Good)	[1]	[2]	[3]	[4]	[5]
3.9 How would you rate the adequacy of systems integration in the running of your tracker? (on a scale of: 1= Poor, ...5= Good)	[1]	[2]	[3]	[4]	[5]

3.10 How would you rate the adequacy of hardware capacity in the running of your tracker? (on a scale of: 1= Poor, ...5= Good)	[1]	[2]	[3]	[4]	[5]
3.11 How would you rate the adequacy of the other factors in the running of your tracker? (on a scale of: 1= Poor, ...5= Good)	[1]	[2]	[3]	[4]	[5]
<p>3.12 What specific additional user features or improvements would you be looking for in a new online alumni career tracker?</p> <p>[] J1 Additional user data elements</p> <p>[] J2 Increased speeds</p> <p>[] J3 Mobile phone apps</p> <p>[] J4 Data security</p> <p>[] J5 Choice of report formats (graphs, statistics, listings)</p> <p>[] J6 Integration/ interface with university students management system</p> <p>[] J7 Other: Specify</p>					
<p>3.13 How does the University verify the data supplied by the graduates? Tick all that apply.</p> <p>[] J1 Send email requests to authenticating entities (affiliate institutions, referees, publishers, employers)</p> <p>[] J2 Establish system prompts for undertaking of accuracy and accountability</p> <p>[] J3 Differentiate confirmed and unconfirmed statuses of data</p> <p>[] J4 Maintain indicators for breach of integrity once identified</p> <p>[] J5 Assume data is authentic</p> <p>[] J6 Other: Specify</p>					
<p>3.14 For the additional user features required, what would be your preferred mode of acquisition or development?</p> <p>[] J1 Enhance existing system</p> <p>[] J2 Acquire a new system</p> <p>[] J3 Develop in-house a new system</p> <p>[] J4 Other: Specify</p> <p>3.14.2 Explain your response to the question above?</p>					
<p>3.15 Thank you. You may now move to Section IV (page 55).</p>					

Section III. For a university that does not have an alumni career tracker

3.16 In your view, why do you think the university has not been tracking its graduates? Tick all that apply.

-]1 Financial constraints
-]2 Inadequate capacity
-]3 Technological challenges
-]4 There is no policy to track
-]5 Do not know
-]6 Other: specify

3.17 In what format or method would you prefer to receive the required data from the alumni if you were to start tracking? Tick all that apply.

-]1 University website online forms
-]2 Mobile phone apps
-]3 Completed paper forms
-]4 Email texts
-]5 Verbal replies over the telephone
-]6 SMS
-]7 Postings via the social media
-]8 Online tools (e.g. Survey monkey)
-]9 Other: Specify

3.18 How would you prefer to acquire a tracker?

-]1 Develop one
-]2 Procure package
-]3 Outsource/ Subscribe
-]4 Other: Specify

3.19 What technological challenges would the university face in running an alumni career tracker? Tick all that apply.

-]1 Software challenges
-]2 Hardware problems
-]3 Low Internet speeds
-]4 Mobile telephony communications
-]5 Systems integration challenges
-]6 Other: Specify

3.20 What specific features would you look for in an ACT? Tick all that apply.

-]1 Full alumni data elements (employment, academic awards, publications, policy inputs)
-]2 Increased speeds
-]3 Data security
-]4 Choice of report formats (graphs, statistics, listings)
-]5 Integration/ interface with university students management system
-]6 Other: Specify

3.21 How would the data for new graduates be first captured onto the system? Tick all that apply.

-]1 Sign ups by graduates
-]2 Data entry by university staff
-]3 Data uploads from internal systems
-]4 Other: Specify

3.22 How would the University verify the data supplied by the graduates? Tick all that apply.

-]1 Send email requests to authenticating entities (affiliate institutions, referees, publishers, employers)
-]2 Establish system prompts for undertaking of accuracy and accountability
-]3 Differentiate confirmed and unconfirmed statuses of data
-]4 Maintain indicators for breach of integrity once identified
-]5 Other: Specify

3.23 How would you prefer to acquire an ACT?

-]1 Develop one
-]2 Procure
-]3 Outsource/ Subscribe
-]4 Other: Specify

Section IV. Wrap-up Questions

3.24 What are the operating systems installed and running at your University? Tick all that apply.

-]1 Windows Server
-]2 Linux
-]3 Unix
-]4 Other: Specify

3.25 In your view, what would be the minimum system specifications to run efficiently a web based ACT? 3.25.1 Server.....: 3.25.2 Bandwidth:
3.26 In your own estimate, how much would the university be willing to spend on a good online alumni career tracker, in USD?
3.27 What is happening or is expected to happen in the ICT sector that would be an ENABLER in the development and implementation of an ACT? Tick all that apply. <input type="checkbox"/>]1 Government ICT project <input type="checkbox"/>]2 Policy change <input type="checkbox"/>]3 Other. Specify
3.28 What is happening or is expected to happen in the ICT sector that might HINDER the development and implementation of an alumni career tracker? Tick all that apply. <input type="checkbox"/>]1 Government ICT project <input type="checkbox"/>]2 Policy change <input type="checkbox"/>]3 Other. Specify
3.29 What other suggestions or comments do you have concerning alumni tracking?
You have come to the end of the questionnaire. Thank you very much for your time and the information provided.