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LINDA DU PLESSIS

North-West University, South Africa

PUTTING THE PLANNING BACK INTO AN ACADEMIC STAFF PLAN

Abstract:

The emphasis on quality in all the roles of a university (teaching, research and community engagement) is a high priority for the sector. Achieving this depends to a large extent on the availability of adequate numbers of capable staff at universities. It is equally important that the staff capacity grows at the same pace as the growth in student numbers and other resource intensive activities at the university. Whilst student enrolment patterns can be accurately planned and monitored, the long term planning of staff poses a bigger challenge. Staff retention and retirements, scarcity of experienced academics, budget restrictions are but a few of the challenges experienced. This problem is not unique to South Africa. The New Zealand university sector also faces changing and challenging times due to two decades of growth in course offerings and student numbers, creating the need to attract a growing number of recruits into the academic workforce over the next decade.

National growth projections in South Africa indicate that over the next five years, 1 232 new academics will need to be recruited each year in order to address challenges relating to the planned expansion of student enrolments, the improvement of staff: student ratios, and the loss of academic staff due to retirement. The development pathway leading to an academic career is long and complex. From the point of view of higher education - that is, from the end of schooling - the pathway typically includes the following stages: undergraduate, Honours, Masters, Doctorate and Post Doctorate. Henceforth, succession planning and building a new generation of academics should be well planned.

To assist with long term staff planning, the researcher developed a model, which considers a range of staff performance indicators and parameters to assist senior management with long term staff planning. The magic trick here is to find real data on the actual staff complement and predicted growth, to better compute the long term academic labour side of the equation. The proposed model has been well received by management and is being refined on an on-going basis as more predictive variables are added to simulate scenarios. The model has already been used to successfully create various scenarios for senior management and has the potential to develop an adequate response to the challenges relating to the size, composition and capacity of academic staff in the higher education staff planning process.

Keywords:

Staff planning, retention, academic career

JEL Classification: C67

INTRODUCTION

The emphasis on quality in all the roles of a university (teaching, research and community engagement) is a high priority for the sector. Achieving this depends to a large extent on the availability of adequate numbers of capable staff at universities. It is equally important that the staff capacity grows at the same pace as the growth in student numbers and other resource intensive activities at the university. Whilst student enrolment patterns can be accurately planned and monitored, the long term planning of staff poses a bigger challenge.

The African continent faces a huge challenge in terms of skilled human resource capacity, which has a debilitating effect on its ability to make strides in the areas of socio-economic and political development (Tettey, 2006). Staff retention and retirements, scarcity of experienced academics, budget restrictions are but a few of the challenges experienced. National growth projections in South Africa indicate that over the next five years, 1 232 new academics will need to be recruited each year in order to address challenges relating to the planned expansion of student enrolments, the improvement of staff: student ratios, and the loss of academic staff due to retirement.

This problem is not unique to South Africa. Nana, Stokes and Lynn (2010) reported the New Zealand university sector faces changing and challenging times due to two decades of growth in course offerings and student numbers, creating the need to attract a growing number of recruits into the academic workforce over the next decade. A project was launched in 2010 to identify and quantify at a strategic level the size and broad mix of the academic staff needed to resource New Zealand's universities to the year 2020, followed by realistic and sustainable strategies for meeting future academic staffing requirements.

The development pathway leading to an academic career is long and complex. From the point of view of higher education – that is, from the end of schooling – the pathway typically includes the following stages: undergraduate, Honours, Masters, Doctorate and Post Doctorate. Henceforth, succession planning and building a new generation of academics should be well planned. It is believed that a long term staff planning staffing framework can make a significant and pro-active contribution to the effectiveness, composition, and sustainability of our university system.

This paper reports on a long term staff planning model that has been developed and is being updated on a monthly basis with data from the institutional data warehouse. A range of staff performance indicators and parameters are used to create scenarios and projections.

PROBLEM STATEMENT

Frameworks such as balanced scorecard in for-profit settings have been increasingly adapted to performance measurement in universities. These frameworks incompletely grab the nature of university settings. Research conducted by Tettey (2006) and Onwunli and Agho (2004) revealed that staff members often feel that long terms staff planning is neglected by institutions and input in to resource requirements are often ignored by management.

This paper aims to develop a framework for staff planning by focusing on performance measurements unique to universities. The research is to determine how the performance of universities can be used to predict longer term staff planning, measured from a managerial perspective and to what extent can a tailored framework be developed for staff planning in a university setting?

As a further step toward clarification of the main research question, sub-research questions are developed:

- Which performance indicators in the literature along with university specific performance indicators can be used in to influence staff planning?
- In which way can a comprehensive longer term staff planning framework be set up?
- What retention strategies can be implemented to support the new generation of academics?

The first part of the paper will focus on a literature overview on challenges experienced with the appointment of academic staff as well as performance indicators used in higher education. The second part of the paper will focus on the research methodology. In the final part of this paper, a staff planning framework will be proposed. The paper ends with a conclusion and recommendation for further.

STAFF CHALLENGES

The following challenges are experienced by Higher Education institutions in South Africa

Inequality of representation amongst existing staff

There are great disparities in relation to the representation of different population groups in academic institutions in both the student and staff sectors in South Africa. In 2012 the overall academic work force in 2012 consisted of 53.2% white staff. African and Coloured groups remain grossly underrepresented, with Africans comprised making up 31.8% of the total in 2012 and Coloured staff 5.1%.

In terms of gender, women constitute 44.6% of the staff in universities, considerably less than their proportion (51%) in the population. Of particular concern is the underrepresentation of women in the senior academic ranks, where they constitute less than a third (29.5%).

Unequal and/or unfavourable staff to student ratios

It can be argued that improved student:staff ratios lead to an increase in quality, throughput and success in the system, and that the current average staff:student ratio is inadequate for the kinds of measures that are necessary to meet the needs of the majority of students currently being admitted to higher education studies.

Qualifications and expertise of existing staff

Use of the doctorate as a proxy for improving the overall quality of educational processes in the system (involving research, teaching and learning, social responsiveness and academic leadership and management) is now widespread in

policy terms. In 2012, just over one third of academic staff in permanent positions held the doctorate. The national target is for 46% of academic staff to hold doctorates by 2018.

A growing but still inadequate postgraduate pipeline

The number of doctoral enrolments has dramatically increased over the years 1994 to 2012 – from just fewer than 5,000 in 2004 to 13,670 in 2012. Despite this growth, South Africa's numbers of doctoral graduates are very low compared to other countries (23 per million of population in South Africa compared to 43 for Brazil, 157 for South Korea and nearly 200 for Australia (ASSAf, 2010 cited in HESA 2011)).

STAFFING SOUTH AFRICA'S UNIVERSITIES FRAMEWORK (SSAUF)

In South Africa, the staff challenge is multi-faceted, having to do with the slow pace of transformation, regeneration and change, the ageing workforce, developments in higher education worldwide that demand ever greater levels of expertise from staff, the relatively under qualified academic staff workforce, and low numbers of postgraduate students representing an inadequate pipeline for the recruitment of future academics.

In 2015 The Minister of Higher Education and Training approved the Department of Higher Education and Training's Staffing South Africa's Universities Framework (SSAUF) in an attempt to address the size, composition and capacity challenges that currently exist with respect to academic staff at South African universities. As part of this project, institutions have to develop long-term staffing plans, taking into account equity, enrolment and strategic size and shape plans (including growth), anticipated retirements of staff, and the usual attrition rates over and above retirements.

This programme will enable universities to recruit specific skills on a needs basis, in a temporary capacity, to address specific gaps as the overall staffing challenge is being addressed, and to support the implementation of other SSAUF programmes underway at the university. The SSAUF consists of four core programmes aimed at preparing a next generation of academic and ensuring capacity in higher educations in South Africa:

Nurturing Emerging Scholars Programme

This initiative will identify students who are beginning to demonstrate academic ability at relatively junior levels (senior undergraduate or Honours), and who might be lost to the system unless structured, attractive prospects and opportunities are available and active recruitment efforts undertaken.

New Generation of Academics Programme

The aim of this programme is to recruit new academics against carefully designed and balanced equity considerations and in light of the disciplinary areas of greatest need, drawing from promising current senior postgraduate students or past students who hold appropriate post-graduate degrees and who have ambitions/can be attracted to become academics.

Existing Academics Capacity Enhancement Programme

This programme will support the development of existing academics, for example through support to complete their doctoral studies or through addressing specific gaps with respect to teaching development, research development, social engagement and academic leadership.

Development Programme

The development programme cuts across the core programmes and supports teaching and research development needs in each programme. This component of the Framework is designed so that the different categories of academics/scholars are supported sufficiently to enable a better chance of success in their development and to ensure greater retention and throughput.

PERFORMANCE INDICATORS

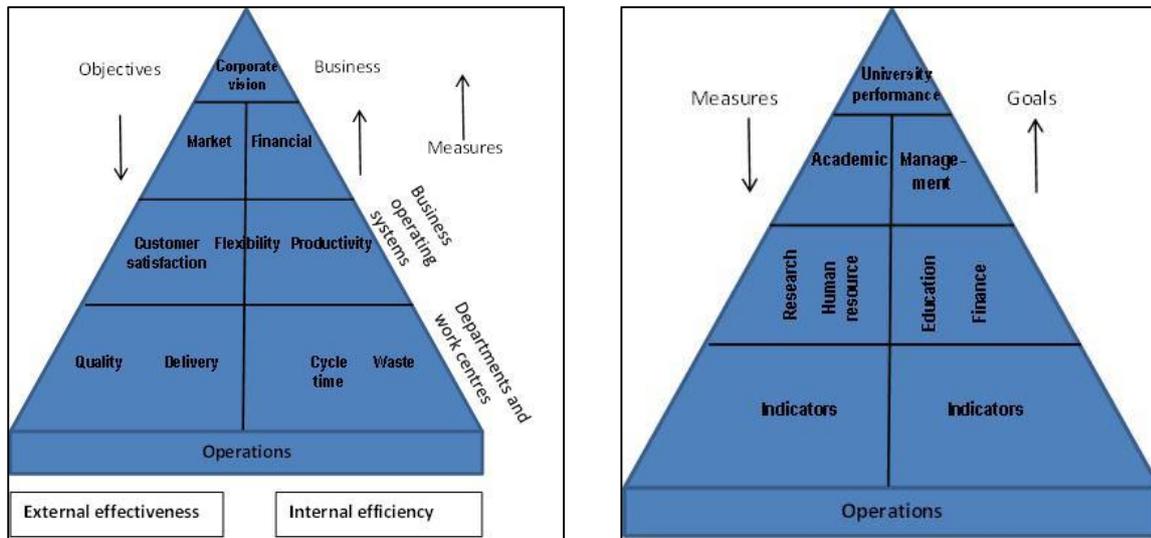
Key performance indicators may provide a snapshot of a university, without wasting much time on volumes of information. The two major advantages are that the information is high-level and can be critical to decision making and it can provide a set of competitive advantages in analysis where the results can be comparable to those in other organizations (Wang, 2010)

Universities seek data from a broad and varied array of sources, including data generated in-house and external databases from government, associations, and commercial providers. This piecemeal approach is often inadequate when it comes to answering the complex questions facing an institution. The data are often “too global” and don’t easily break down across disciplinary or geographic lines.

Institutions also struggle to find or develop comparisons across peer institutions because as one administrator put it, there are “no national standards ... no confirmation of the validity of the numbers.” Since few external datasets come with support, executives say that they and their staff spend a lot of time wrestling with questions about data interpretation (Reuters, 2010).

The following pyramidal framework in Figure 1 was introduced by Cross and Lynch (1992)’s, indicating cascading measures towards organizational objectives. Following the Cross and Lynch’s notion of pyramid, a similar pyramidal performance measurement framework was introduced by Wang (2010) to capture the performance of universities.

Figure 1. Performance measurement framework for organisations and universities



The pyramid is a product of systemic integration of the performance dimensions and indicators into a complete performance measurement framework. At the top of the pyramid, it is the strategic vision with two main performance dimensions (1) academic and (2) management) which are subdivided into research, education, finance and human resources. These sub-divisions bring ensure a more strategic and balanced measurement of performance. At the middle and bottom of the pyramid, other indicators in four sub-dimensions construct an operational view of performance measurement in universities. Information from the indicators at each sub-dimension will be summarized and reviewed by high-level managers to form an overall view on academic and management performance. Performance measurement follows a measure-up model in the framework (Wang, 2010).

According to Bunting and Cloete (2004) the dominant model for the development of performance indicators is a production model linking input, process and output. It is however obvious that no judgemental statement is innocent or purely technical. It entails a statement of underlying value, and a judgement based on it. The selection and use of performance indicators are significantly affected by the broader context, the institutional strategic plan and the resource allocation mechanisms embedded within that.

RESEARCH DESIGN

Document analysis and a review of the annual budget process was conducted to determine (a) the type of performance measures used that influences staff provision and (b) retention strategies used by these institutions.

These performance indicators were incorporated into an initial staff planning model, which was designed, developed, populated and forwarded to all academic middle and senior managers at the institution. Feedback was used to improve the model.

Strategic funding was made available by the Department of Higher Education and training with a specific focus on recruiting black and female academic staff members. Departments applying for positions had to provide convincing evidence of the planning provision to be awarded new posts. The staff planning model was used to drive this process. After completion of the process, feedback was invited that subsequently lead to another refinement of the planning model. The proposed model as well as the feedback and recommendations will be discussed in the next section.

PROPOSED STAFF PLANNING MODEL

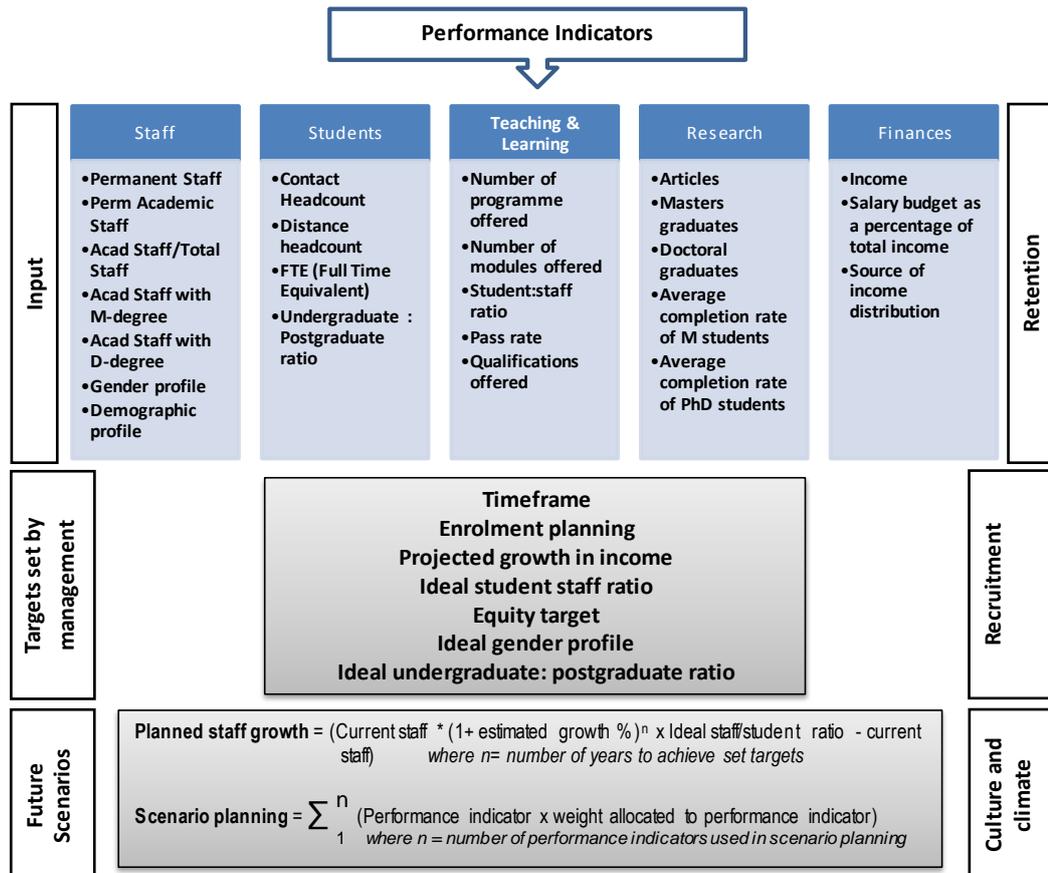
According to Reuters (2010) the top five elements of the ideal data solution should encompass:

- standard definitions;
- broadly accessible data;
- timely updates;
- multiple performance measures; and
- data granularity.

These dimensions are all embedded into the proposed model. The proposed model as outlined in figure 2 consists of four dimensions:

- The first dimension contains the performance indicators. Through consultation a set of performance indicators was agreed upon and all definitions were clear and calculations transparent. A total of 24 performance indicators related to staff, students, teaching and learning performance, research performance and finances are included.
- The second dimension contains the targets set by management. These targets support the strategic plan of the university, but were also informed by benchmarking and national targets.
- Using the current values of performance indicators together with future targets and by providing a timeframe, various scenarios can be created.
- The fourth dimension is the culture and climate of the institution, which directly affects recruitment and retention of staff.

Figure 2. Staff planning model



MODEL ASSESSMENT

The variation in staff provision across the disciplines became noticeable with the summarised view. Some of the variations can be attributed to the different qualifications offered. It is expected that programmes in Engineering, Health Science, Architecture and suchlike will tend to have better staff to student ratios. However, this cannot explain all the differences. Other contributing factors are institutional priorities and/or historical inequalities as well as uneven resource allocation. Figure 3 displays a snapshot of the first screen of the planning model.

Figure 3 Snapshot of the planning model.

School/Research Entities	Staff	Permanent Staff	Perm Academic Staff	Acad Staff/Total Staff	Acad Staff with M-degree/Total Acad Staff	Acad Staff with D-degree/Total Acad Staff	Avg Age of Acad Staff	Female Acad Staff/Total Acad Staff	Black Staff/Total Staff	Student	Contact Student Headcount	Distance student headcount	FTEs	Growth from (n-n-1)	Growth from (n-1 to n-2)	Teaching & Learning	No of Programmes	No of Modules	Student staff: ratio	Research	Articles (n-2)	Masters (n-2)	PHds (n-2)
School of Philosophy	9	6	67%	16%	67%	40	16%	0%	148	45	99	3%	2%		2	15	25		8	9	7		
School of Accounting Sciences	51	40	78%	48%	15%	39	33%	0%	1816										36				
School of Business Management	25	21	84%	27%	68%	39	47%	0%	790										43				
School of Electrical Engineering	23	19	83%	26%	58%	38	11%	5%	450										14				
School of Economics	18	15	89%	31%	69%	35	44%	0%	646										37				
School of Human Resources	18	15	84%	44%	46%	37	49%	16%	630										60				
School of Nursing Sciences	44	26	59%	38%	38%	44	88%	19%	2065										39				

Until now, there has been no simple, unbiased, means of assessing academic units or holding them accountable for their staff profile. This model provides an objective, and measurable, instrument to achieve these ends. The simplicity and transparency of the model mean that even a layperson can follow the planning process in a transparent and objective way.

RETENTION STRATEGIES

Masango and Mpofo (2013) concluded the recruitment of academics is only “half the battle in the war of talent”. The other half of the battle considers the retention of employees. As part of the staff planning process, academic managers also had to indicate retention strategies.

The qualitative responses were analysed and categorised in emerging themes as summarised in table 1.

Table 1. Retention strategies

<p>Employment benefits</p> <ul style="list-style-type: none"> ➤ The University offers housing and medical subsidy as well as group life insurance
<p>Remuneration</p> <ul style="list-style-type: none"> ➤ Market related remuneration (Occupation Specific Dispensation, OSD), Scarce skills allowance ➤ Market related remuneration (i.e. with reference to other academic institutions) is our aim ➤ Work environment ➤ Good time management for staff ➤ Create a good infrastructure for staff. ➤ Provide all the supporting equipment and services the staff need to do their work. ➤ Give recognition for good work

Career advancement

- The opportunity to finish PhD- studies as soon as possible.
- The opportunity to develop skills through attending conferences, research and teaching.
- Collaboration opportunities with international researchers to improve research skills.
- The candidate will be supported to improve their tertiary qualifications to Master's and/or PhD level. A limited teaching load will be given (not more than 20% of the overall task agreement for the first 3 years). Available staff development programs such as the Institutional Course for New Lecturers will be at the disposal of this staff member. An academic mentor from the more senior staff core will be made available to support and facilitate the transition into academia.
- "Exposure to research writing retreat workshops, as well as postgraduate supervision conferences"
- Opportunities to meet their counterparts in other countries and in South Africa
- Support them in various ways such as time, courses, funding and mentoring
- "To retain staff, an individual career path will be designed for each staff member, in consultation with the staff member, including the gaining of own qualifications, support to build a research focus as well as opportunities to gain professional engineering experience as part of an academic career".
- "A number of opportunities for training and research will be available to the candidate in this position. The candidate will join a strong research group in one of the strongest Research Units at the university. The enabling environment created by this network will help develop and instil a research culture with the candidate".
- "Researchers from around South Africa have joined forces to create a cooperative, combined graduate programme, currently hosted at the University of Cape Town, where South African students and students from around Africa and the rest of the world can study under the guidance of some of South Africa's leading scientists. This programme is called the National Astrophysics and Space Science Programme (NASSP) and offers programmes both at the Hons BSc and MSc levels".

Institutional culture

- "The Faculty of Law offers a supportive, open-minded and welcoming culture to diversity colleagues and senior colleagues play a continuing mentorship role in order to support the academic development of new colleagues."

Academic community

- Coordinate and implement a mentor-mentee programme where senior professors in the school are identified to work with young and promising academics.
- Create an enabling environment for academic development.
- To link the staff member with activities of the subject group and the community as soon as possible
- Encouraging participation of staff members in teams with diverse participants.

Resources

- "The subject group has excellent research infrastructure and collaboration with international academic institutions and local research councils"
- Providing a competitive advantage through the sound support systems

FINDINGS AND RECOMMENDATIONS

In any public institution, management has a responsibility to ensure that there is effective and efficient utilisation of resources. One of the functions of management is to lead the university in pursuing its vision and mission in such a way that the set goals could be achieved. The findings of this study show that middle and senior managers realize the importance of staff retention and the setting of career plans for staff members are seen as important. They also agree that a staff planning model has the potential to support and enhance their own planning. The magic trick for successful staff planning is to find real data on the actual staff complement and predicted growth, to better compute the long term academic labour side of the equation. The more involved academic are in the setting of targets, the greater the buy-in into future scenarios. The summarised view of performance indicators of different academic units on one page, were deemed to be extremely informative and valuable.

A staff planning model should adhere to the following criteria:

- It is on-going and not a finalised plan, hence the focus is not necessarily on assessing pre and after. It is about continuous monitoring.
- The staffing plan is focused on the maintaining and improving the core business.
- The influence of other human resource related factors such as recruitment and retention should be considered in the setting of future targets.
- The purpose of the staffing plan should inform indicators that are developed and applied.

The mission, vision and performance of a University play a role in attracting staff. Current capacity of staff and the constrained financial resources are realities that may influence the strategy eg achieving world class status may require greater flexibility in terms of our remuneration policy to ensure attraction of world class staff.

CONCLUSION AND RECOMMENDATION

Faculties and senate are the kingpins of the institution. The most important factor in the staff planning model is the involvement of academic staff in the setting of targets. No national system can prosper without continual monitoring and research that creates the kind of information and analysis around which planning must occur. This research has shown that a staff planning framework with multiple dimensions can assist with scenario planning and clearly highlight staff needs and predict growth trends. The proposed staff planning model has been well received by management and is being refined on an on-going basis as more predictive variables are added to simulate scenarios.

This model has the potential to develop an adequate response to the challenges relating to the size, composition and capacity of academic staff in the higher education staff planning process.

The dependency of universities on state funding and the difficulty associated with enrolment planning are the two major influences on long term staff planning at higher education institutions in South Africa.

Whilst being able to predict staff needs, the research also highlighted the need for more explicit attention to be paid to creating much wider awareness of academic work as a career that is both attractive and attainable for those with ability, and sets out pathways for new and existing staff through which staff can be effectively developed, inducted and supported to embark on and succeed in an academic career.

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