



**Priority issues for evaluation research in Science
Granting Councils – Sub Saharan Africa
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The demand for evaluation



The demand for evaluation research or studies is driven by various interconnected forces (and this also applies to Africa):

The emergence of more **democratic** systems lead to greater accountability regimes. It is recognised that government is accountable to the public as far as the provision of certain basic services are concerned, how it spends its money, why certain areas are prioritized, and so on. In order to “account” for its actions, the state then requires policies, systems and interventions to monitor its own performance. This already led Michael Power in 1993 to speak of the advent of the “audit” society.

The spread of the **New Public Management** paradigm from the late 1990’s onwards is another factor in explaining the rise of the demand for evaluations. Essentially it meant that private sector rules and the culture of measuring corporate performance would be applied to public entities (viz. the widespread adoption of new managerialism at universities worldwide in the 1990s)



University rankings or league tables have been around for a long time. The first nationwide university ranking was published in the United States in 1983 by US News and World Report. But it is especially over the past 10 – 15 years, with the advent of growing trends in globalisation and internationalisation and with the new demands of accountability fuelled by NPM and related developments, that we have seen an explosion of university ranking systems. In a recent EU report the authors write:

Despite their many shortcomings, biases and flaws' rankings enjoy a high level of acceptance among stakeholders and the wider public because of their simplicity and consumer-type information' (AUBR Expert Group 2009). Thus, university rankings are not going to disappear; indeed, the number of rankings is expected to increase although they will become more specialised (Marginson, 2011)

The interest in the reports of the various ranking systems (Shanghai, QS, THES, Leiden and many others) is widespread. This is no less true in African higher education where the debate now is - given contextual differences – whether the time is not right for an African rankings system.

The institutionalisation of a research performance culture



Research evaluation and performance appraisal is now accepted as self-evident and rarely questioned. In South Africa this is evidenced by the wide array of evaluations (also in the form of reviews, audit, performance appraisals) at every level of the research system.

- At the individual level all scientists who wish to qualify for research funding from the NRF is required to submit to a comprehensive and quite onerous rating process
- Centres and institutes which receive public funding are required to submit annual performance plans and are regularly externally evaluated
- Major programmes and initiatives (such as funding programmes of the NRF or the science centre initiatives of the DST) are assessed for efficiency, value for money and sustainability
- Systems and field reviews are regularly conducted (e.g. OECD review of the South African science system)

The demand for impact and value for money assessment



But we are also witnessing interesting shifts in the nature of evaluation demands – some of these are driven by changes within the evaluation world, other by outside actors (including the donor and funding agencies who are immensely influential in African science). Two shifts are especially noteworthy:

- The shift from an emphasis on outputs (deliverables) to outcomes and **impact** (or in World Bank terminology – results). It is now generally the case that most funding agencies (either national or international) are not satisfied with standard (performance) monitoring studies which show that a programme has achieved its targets in terms of numbers of publications, presentations, products, etc. The general demand now is to show how the research programme (or the research centre) benefits various stakeholders, including the public. We have always been interested in scientific impact – we are now also expected to show societal impact.
- The shift from an emphasis on effectiveness (demonstrating that we have achieved our outcomes) to demonstrating **value for money** (or similarly acceptable returns on our investment). This again is an illustration of how the corporate culture of measuring business performance has spread to the world of science and research.

The implications for science funding agencies (I)



The shifts described above have significant implications. I will highlight three:

- In order to conduct evaluation studies that can demonstrate impact and value for money funding agencies now need **specialist** theoretical and methodological knowledge. They need to have people who are well-versed in evaluation theory (especially theory-based evaluations and specifically the understanding of concepts such as “theory of change” and “logic models”). They need people who have been trained in evaluation design and methodology (e.g. understanding the different design logics, what indicators are and what their limitations are, and so on).
- Science funding agencies who are required to conduct regular review and evaluation studies therefore have to invest in proper data and information systems. Information about projects, individuals, funding awards, outputs, etc. have to be gathered, standardized and properly managed in order to support the evaluation work of the agency. It goes without saying that this means that capabilities in data management and analysis is presumed.

The implications for science funding agencies (2)



- I would argue that there is an even more important implication for science funding agencies which can be labelled the “strategic” use of evaluation information. Any evaluation study (whether of a project, programme, centre, scientific field, etc.) is only useful to the extent that it assists us to understand the bigger picture of science or research in a country or an institution. It is essential that research performance appraisals or reviews or evaluations feed into improvement of research and innovation strategies, more effective design of research funding instruments, more effective management of programmes and projects.
- We are referring here to what I would call the need for “evaluation intelligence”. An organisation (such as funding agency) must generate and ultimately evaluate intelligence about its own portfolio but – more importantly – about its own role in the achievement of national research goals. This requires an in-depth and systemic understanding of what evaluation results mean and how they should be used within the research system.



The CREST study on the state of science granting councils in 17 African countries in 2014 revealed that many of the existing (and especially recently formed) councils have limited capacity in this area. With the exception of the SA NRF (and a few others), most of the councils do not have in place appropriate information systems to conduct such evaluations. Even where there is a recognition of the need and value for research evaluation studies (which is not true in all cases), the agency usually does not have the in-house capacity and expertise to perform this function and often rely on outside consultants.

The generally low levels of knowledge and understanding in this domain (as evidenced in wide spread misconceptions about what rankings are, or what indicators mean and inappropriate applications of measures such as the h-index and journal impact factors) require urgent attention.

Research evaluation can and should form an integral component of research portfolio management, but it needs to be embedded in proper systems and frameworks and of course a minimal level of expertise and knowledge.



THANK YOU
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