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Developing a Faculty Research Culture in Higher Education: A South African Perspective

Abstract

An increase in research productivity is of vital importance in the development of countries worldwide. However, when research outputs are measured, many higher education faculties neither meet the expectations regarding quality nor quantity despite the increasing drive towards publications. This paper examines how academic managers can reform a prevailing weak or average research culture. Research and innovation managers such as deans, research directors and research professors may benefit from implementing the principles of the innovation value chain to transform a specific research culture characterised by low morale and a lack of outputs. Based on the author's experience and relevant scholarly literature, it is argued in this paper that a general passive or negative attitude amongst faculty members who are expected to produce research outputs, can be converted to a vibrant environment characterised by positive attitudes and increased research productivity.

Keywords: research culture, research productivity, innovation value chain, research management

Introduction

After pointing out the global demand in higher education towards increased research productivity, Niemczyk and Rossouw (2019, pp. 309-310) found that "research production requirements have an impact on individual scholars as well as institutions who are ranked according to their research performance". Findings of the above mentioned authors' inquiry indicate that "the majority of the participants were aware of the demands placed upon them in terms of research productivity; however, not all recognised the benefits associated with it". These findings show the discrepancy between the need for increased research productivity on the one hand, and the reluctance or inability of many scholars to meet such intensified demands.

It is, however, not necessarily reluctance or inability among staff members that hampers research productivity. Higher education institutions that more recently made a shift from a focus on teaching and learning to research did not have time to establish an effective research culture (Pratt, Margaritis & Coy, 1999). Sunder (2008, p. 81) added that "in many emerging economies, there are few universities and even fewer business schools with a robust tradition of research". Referring to teacher education institutions, Hill and Haigh (2011) pointed out that in countries such as South Africa, Australia and New Zealand academics involved in teacher training have only recently become part of higher education institutions with an established focus on the research. This shift "placed pressure on teacher educators to become 'research active'" (Hill & Haigh, 2011, p. 1). These authors believe that teacher educators "can increase and deepen their research productivity with support in ways that build on, rather than break down, their existing identities".

In this paper the potential benefits for the research manager embedded in the theoretical framework of the innovation value chain strategy, as proposed by Hansen and Birkinshaw (2007), is explored. The possible implementation of the value chain approach to successfully establish a research culture in a higher education setting is considered. To test the viability of employing and applying the innovation value chain principles in research management, the core tasks are juxtaposed against the six critical tasks associated with the innovation value chain strategy. The author draws from his personal experience as past director of a research entity in a faculty of education in South Africa.

Building a research culture in higher education

In many higher education institutions, "research activity and performance are coming under greater pressure and scrutiny" (Billot, 2010, p. 37). The institutional management creates the drive to accomplish increased research outputs, and the question asked by Billot is whether "the strategic intent of the institution resonates through the institution in alignment with the development of a supportive research culture". There is a need for a basic institution-wide research culture before the culture can be effectively developed on faculty or research entity level. Marchant (2009) went further by specifying the importance of governments to develop research and a research culture at university level.

Building a research culture needs a carefully planned strategy. In order to build a research culture and infrastructure, McRoy, Flanzer and Zlotnik (2012) distinguished four aspects that are of central importance to succeed: the building of research capacity, the creation of an essential infrastructure, the building of collaborations through community partnerships, and the funding of research.

McRoy, Flanzer and Zlotnik (2012, pp. 153-170) concluded their work by pointing out the importance of sustaining the infrastructure, capacity and culture. These aspects are consistent with that identified by Marchant (2009). Over and above the importance of national support, Marchant (2009) regarded the following as important elements towards the development of a research culture:

- Specialised research leadership and administration, which includes support from the Vice Chancellor, and a powerful head of research steering a centralised research office;
- Local or sub-unit factors characterised by strong leaders with research and management skills;
- Human resource management policy, procedure and processes, which (a) give value to research by means of rewards, (b) provide internal, unattached or open research funding, (c) offer specific assistance with grant applications and publications, (d) reduce teaching and administrative workloads, and (e) foster collegiality and a positive group atmosphere through frequent communication and teamwork.

The research manager needs to follow a set process and a specific strategy in order to eventually succeed in developing a research culture in a faculty or a research entity.

The innovation value chain

Hansen and Birkinshaw (2007, p. 1) conducted an extensive survey amongst executives and nonexecutive employees in order to develop the innovation value chain, which is primarily a business oriented model. In the innovation value chain, the focus on innovation revolves around the sourcing, selection, development and spread of ideas in order to produce better products and facilitate an advantage over competitors. According to the innovation value chain approach, innovation is a sequential process during which managers perform six critical tasks, each representing a link in the chain:

- internal sourcing of ideas;
- cross-unit sourcing of ideas;
- external sourcing of ideas;
- selection of ideas;
- development of ideas; and
- companywide spread of the idea.

While many companies act in various creative ways to bring about innovation, not all are successful. Generally, they have no shortage of ideas, however, not all experience the expected success to eventually create and market a new product. In the analysis of innovative processes in a large number of companies, Hansen and Birkinshaw (2007) identified a variety of challenges and obstacles, one of them being the approach where the internal prerogatives and priorities prevent members to consider external ideas. The "not invented here" syndrome may prevent innovation when engineers are convinced that external ideas were inferior to their own. Hansen and Birkinshaw (2007, p. 1) also reported an insular culture instead of "sourcing ideas externally".

For successful production and innovation an adequate number of ideas have to be generated. However, one counterproductive approach found was to try develop too many ideas into products at the same time. "Because managers did not screen the ideas properly – funding the best ones and killing the others – few ideas took hold, and new ones just kept coming." It appears that the ideal approach is to spend all the necessary time and energy on a limited number of well selected ideas. Such an approach requires proper strategic planning.

The research manager's duties and challenges

Central to the challenge of creating or developing a research culture, stands the research manager, particularly the dean of the faculty who, in the final instance, is held responsible for research productivity in the faculty. Pratt, Margaritis and Coy (1999, p. 43) found that, besides decentralised university management, that "strong leadership at the dean level" is critical in developing a research culture. Deans appoint deputy deans for research, research directors and research professors, who have as their core duties the facilitation of processes to ensure a well-developed research culture. The dean of a faculty however, is involved in a variety of other academic components of the faculty, with research being one of them. The discussion in this paper will focus on the research entity level within the faculty, managed by a research director.

The core research related duties of research managers were identified through an analysis of the official task agreements of research directors in a faculty of education in a large South African university:

- innovation within the research program;
- development of a strategic research program for the entity;
- procuring adequate external funding;
- coordinating the utilisation of resources;
- marketing of expertise;
- recruiting of collaborating researchers;
- planning of staff structures;
- quality assurance; and
- promotion of the entity's image.

These tasks are next juxtaposed against the six critical tasks associated with the innovation value chain strategy. The author builds the discussion on his personal experience as research manager in a faculty of education.

Innovation

Hansen and Birkenshaw (2007) advocated that innovation lies at the heart of their strategy. A comparison between the six value chain tasks and the established core tasks show the potential for the utilisation of innovation value chain principles by the research manager. In cases of a lack of a vibrant research culture, significant innovative changes will be necessary to develop and institute such a culture. The first duty of research managers in the faculty is specified as innovation. It can be rightly stated that an innovative approach will be essential for the success of any action taken by a research manager, irrespective of which core duty is at stake. This is true in a context where a research culture has already been established, and even more so when the prevailing research culture is absent or unhealthy.

Internal and cross-unit sourcing

The first two innovative value chain tasks for the manager are internal sourcing and cross-unit sourcing of ideas. The development of a strategic research program for the entity, as one on the tasks to be performed by a research director, should ideally be done by tapping into the sources within the entity – the creativity of the members. The development of a strategic program should include the evaluation of and building upon the previous annual cycle, especially regarding research outputs. Project groups within the entity, while functioning with relative autonomy, meet during strategic planning in order to share ideas while working through the previous year's strategic plan. Advice from more experienced scholars is requested. During such a session targets should be set for the next year, which includes Master's and PhD study supervision and publishing scholarly articles in reputable journals.

During strategic planning, roles and responsibilities of members are also considered and finalised, as part of the manager's task of utilisation of resources and planning of staff structures. The research director should facilitate the proper involvement and buy-in of the members by creating an enabling environment and an atmosphere conducive to voicing ideas, which may include criticism of previous

practices. The challenge for the leadership during strategic planning is not to be overly sensitive for criticism and to stay open for new ideas, even if they do not correlate with personal preferences.

External sourcing

Hansen and Birkinshaw (2007, p. 1) warned against an institution maintaining an insular culture or developing a "not invented here" attitude, precluding the institution to benefit from external influences. In a research entity such external sourcing will include human resources as well as research funding without which such an entity cannot achieve its goals. Two core tasks of a research director is to procure adequate external funding and recruit collaborating researchers. Put into practice, entity leadership should make it possible for individual members and project groups to move beyond internal processes and a focus on the local, to an external national and international vision.

The primary outward movement is to develop an international network, from which external sourcing of ideas can emerge. Members are encouraged to utilise national and international conferences and other meetings to establish solid scholarly networks. As part of the movement to utilise external sources, international scholars should be invited to become part of the entity activities, bringing in fresh ideas and new approaches based on their international experience. This forms part of the promotion of the entity's image, which is one of the manager's core tasks.

Project groups should receive seed money and mentorship, which enables them to develop a project to such a level where external funders may become interested in putting available large amounts for research.

Selection

While many excellent ideas may be generated during strategic planning, all cannot be developed or pursued. Careful selection processes and setting of priorities are of crucial importance. While a research entity as a whole is not in the same way as businesses dependent on the generation and selection of new ideas, the basic principle is still valid: the setting of priorities. During scholarly discourses members from other project groups get the opportunity of voicing their perceptions about scholarly ideas currently being developed within the project groups. This kind of feedback enables the principal investigators in each of these projects to determine or reconsider their priorities when tough choices have to be made.

The director has to make decisions as to how the budget and other resources such as time and energy can be spent best to ensure the maximum research outputs. In South Africa the relative weight of outputs regarding state subsidy generated often determines the priority given to such an effort.

Hansen and Birkenshaw (2007, p. 4) warned against the effect of tight budgets, but a limited budget does not need to stand in the way of reaching research targets. Careful selection and prioritising of needs within the budget should be done, and funding should be distributed evenly among the project groups. Only those research ideas that meet criteria associated with high quality scholarship should be funded, encouraged and supported by the entity.

Development

Once the selection process, characterised by the elimination of less viable ideas, has been completed, the development of these ideas should be done in a focused way. From all the tasks associated with the value chain, this is the one that takes up the most time. The research manager should stay involved to ensure quality control and simultaneously show trust in the project groups' ability to progress with reasonable autonomy. Quality is normally ensured by requiring project groups to submit well developed project applications, where the research design, parameters and intended outputs are agreed upon in the approval phase, after which the project group proceeds with the activities as planned. A director should, in collaboration with the entity leadership, ensure that the development of research ideas, as portrayed in project applications, demonstrate scientific rigour and are worth researching. Proper quality control in the selection and development phase is also a core task of research director. Without quality control, some ideas laboriously developed into draft papers do not stand a chance of being published in a reputable journal, irrespective of the effort put into the development and researching of such ideas.

Entity-wide spread of ideas

Hansen and Birkenshaw (2007, p. 5) pointed out that, especially in large companies, concepts

> *... that have been sourced, vetted, funded, and developed still need to receive buy in – and not just from customers. Companies must get the relevant constituencies within the organization to support and spread the new products.*

This diffusion process might be one of the major challenges, seeing that not all members or groups are equally ready for innovation or innovative ideas. If resistance to change is wide-spread, the proper development of a new product may be seriously hampered. The spread of the idea or concept is also an important element of marketing, which is the ultimate test for the original idea.

In the research entity, ideas nominated during the selection process should be taken back to project groups for further development to the extent that they will fit into the established focus or vision of that project group. This feedback from the strategic planning to the group can be integrated with the selection process: the project group might have the specialised knowledge to best decide which ideas are the most suitable to pursue, and which ideas should be eliminated or postponed.

Conclusion

Hanson and Birkenshaw (2007) affirmed the established truth: that the company's capacity to innovate is only as good as the weakest link in its innovation value chain. An entity should be aware of the tendency to neglect the weakest link and to focus too much on the strong links. Hansen and Birkinshaw (2007, p. 6) explained: "Indeed, our research suggests that a company's capacity to innovate is only as good as the weakest link in its innovation value chain", which suggests that the ideal strategy is to identify shortcomings in the system and to focus on strengthening those. The already strong links will "look after themselves".

In the academic context one major obstacle can be a narrow-minded approach, where little room is left for innovation, and those involved in the leadership are satisfied with the status quo. To the other extreme, innovation can be overemphasized just because it is an important element in creating an improved research climate. The research director has to balance the influx of new ideas with approaches that have been established and have proven themselves to be successful. Members may be more productive and find more fulfilment in the maintenance of their already well-developed foci, making progress with their products in a more conventional fashion.

In conclusion, a research manager in higher education can fruitfully employ the innovation value chain as a strategy towards the development of a vibrant and productive research climate.

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