

Chapter 5

Navigating Financial Challenges in Academic Research: Barriers and Solutions

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ABSTRACT

Financial limitations are a critical bottleneck in academic research, impacting innovation, equity, and intercontinental collaboration. This chapter discusses the constraints of the available amount of research funds, focusing on policy interventions, collaborations at the international level, and the possibility of using alternative funding models such as public-private partnerships and crowdfunding. Characteristics that are presented in the Chapter, such as the role that open science and technology play in overcoming barriers and promoting inclusivity, for example. From an equity capacity building and sustainability perspective, the chapter advocates a collaborative effort to reshape funding structures and build global research landscapes. Efforts to address these challenges are of long-term significance in fostering innovation, and may also have longer-term value to academic research.

5.1 INTRODUCTION

Funding is the key concern in academic research because many projects depend on different funding sources to support researchers and sustain them (Thelwall et al., 2023). However, researchers find it challenging to secure adequate funding due to the competitive nature of grants and limited budgets across firms that provide this academic research funding (Kaltenbrunner, 2020). Consistency of funding among researchers is difficult in the research sector, with financial constraints being the key limiting factor to progress in the research project in various research areas.

Academic research has been leading the way to the generation of knowledge of both a theoretical nature and a practical base about the real-world problems being faced, allowing them to be addressed or resolved, thereby leading to societal development (Aranguren et al., 2020).

However, to bring all of these ambitions to reality, there should be sufficient funding, which is the engine of any academic research. For the following reasons, this funding cycle has important implica-

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tions for academic research because it provides appropriate financial support so that researchers can fulfill their academic aims.

5.2 THE IMPORTANCE OF FUNDING IN ACADEMIC RESEARCH

One key aspect of providing funding support to researchers is the provision of the needed resources for academic achievement. The funding enables the researchers to conduct and complete their research studies (Heyard & Hottenrott, 2021).

This support also means that they can locate necessary funding and software as well as databases to produce such impactful and credible data as is required for results. In academic disciplines such as science and technology, research materials such as cutting-edge equipment are needed for conducting experiments and collecting data (Djebbouri et al., 2020; Patil, 2024). Moreover, social science and humanities disciplines need funding that facilitates broader access to survey content, archives, and libraries to support extensive research (Newfield, 2024). The lack of financial support makes researchers feel they cannot get the necessary tools or materials to attain their research objectives or goals, hence limiting them in terms of the study's scope and quality of their research work (Igben & Etadafe, 2023).

Another important aspect of academic research funding is the capacity to attract and retain talented individuals in the educational field. Researchers who are in their early careers depend on grants for financial support to sustain them during their academic endeavors (Gladstone et al., 2022). Postdoctoral grants, scholarships, and fellowships are among the funding supports for these researchers, and they are important because they provide emerging researchers with the financial support and stability to commit themselves fully to their research work (Hartmann et al., 2023). Well-resourced projects can bring together experienced partners and seasoned practitioners, creating a climate in which such people can exchange ideas and innovations. Horta et al. (2021) also stated that the sharing of ideas among these professionals should occur because it has the potential to yield innovative research results that would otherwise not have been possible in a poorly funded research group.

Collaboration among different institutions and across a range of academic disciplines is an area of funding that is crucial. Consequently, academic funding plays a significant role in enabling cooperation across universities, government agencies, and private firms, which in turn fosters the creation of a network where sources of resources, ideas, knowledge, and opinions are exchanged by experts (Chavhan, 2022). Collaborations for international research mainly share complex research projects that require funding so that resource sharing, travel, and communication between global researchers can happen smoothly (Yao, 2021).

In addition, funding is known to be very important in supporting the translation of academic research into practical applications (Williams et al., 2023). For example, academic research like medicine normally requires enough funding to advance the translation of laboratory experiments into clinical trials, which ultimately supports the translation of findings of those experiments into practical applications, mainly developing vaccines and treatments. In the same vein, research work in renewable energy needs funding support to be translated from theoretical models into large-scale implementation.

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