



RESEARCH STRATEGIC PLAN

2024 - 2028



THE AGA KHAN UNIVERSITY

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EXECUTIVE SUMMARY

AKU's mission is to become a globally respected university (with a presence in Pakistan, East Africa, and the United Kingdom) known for its education, research, and community services that prioritise quality, innovation, and access. While it has excelled in health sciences research, the university is now focused on expanding into social sciences, arts, and humanities research while further expanding its health sciences research portfolio. This document outlines a 5-year strategic plan to achieve this expansion by analysing current grant and publication trends and using qualitative feedback from several stakeholders. The objective is to enhance AKU's research capabilities across diverse fields, reaffirming its dedication to academic excellence and societal impact.

Research at AKU has a vision centred on the importance of research, scholarship, and creative endeavours in knowledge creation. AKU aims to cultivate a culture of quality and free inquiry to establish itself as a leading research-driven university with a profound societal impact. Additionally, AKU is committed to aligning its multidisciplinary research in health and social sciences, while ensuring adherence to the highest ethical and regulatory standards.



THE LAST FIVE YEARS... 2017-2022

700*
research grants

\$210 M
in extramural funding

77%+ publications contributing to
UN Sustainable Development Goals (SDGs)

* nearly

In the last five years, AKU has experienced significant growth in research funding and output with nearly 700 research grants amounting to \$210 million in extramural funding received from renowned funding agencies. This represents a substantial increase compared to the period from 2000 to 2004, where research funding was a quarter of the current numbers. The university's research output has also seen a significant increase, with ~1,500 peer-reviewed manuscripts published in 2022, and an impressive seven-fold increase in citations of AKU's work from scholars at other institutions over the past decade. From its inception, AKU scholars have also published at least 148 books with significant impact. Collaboration with other universities has expanded, resulting in publications with colleagues from nearly 150 institutions across 40 countries. Additionally, AKU's research aligns well with the UN Sustainable Development Goals, with more than 77% of publications from 2017 to 2022 contributing to at least one of these goals. In the last 40 years, AKU's research has impacted 5,357 policy documents in 25 countries including 3,603 documents from the WHO, and 511 documents from the World Bank.

The process for research strategic plan development involved meetings with AKU's leaders and researchers to gather insights, eight research town halls, and a survey conducted by the research office. The findings from this process included a gap analysis. A formal Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was then conducted. Input on this SWOT analysis was gathered from various stakeholders including the University Research Council (URC). Feedback from an International External Advisory Committee was incorporated into the research strategy. This analysis of AKU's research portfolio highlighted strengths such as mission-driven research, recent significant research growth and an increase in global partnerships. Weaknesses identified include reliance on a few funders, a limited early-career pool of investigators, inadequate upskilling of research administration staff, and limited core funds availability for promoting research. Opportunities include AKU's presence as part of the AKDN, implementation of the electronic health record system across AKU, AKU's growing assets in terms of research spaces, new programs and growth in new research expertise, and the recent increase in African investment from funders. Threats included factors such as complex research processes, our operations in unstable regions, and brain drain. By capitalising on strengths, addressing weaknesses, seizing opportunities, and mitigating



threats, the university aims to solidify its position as a pioneering research institution with significant contributions to the knowledge society.

The research strategy at AKU is thus built on four key themes. First, the institution aims to identify and cultivate emerging research themes, with a focus on mental health, environmental sciences and studies. This will be complemented by a commitment to other emerging fields like omics/genomics, Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR), data sciences, research in Indian Ocean Studies and politics of resources and mobility, digital innovation, non-formal education including out-of-school children, and human-centred digital pedagogies. Secondly, AKU plans to continue fostering established strengths in domains such as digital humanities (e.g., the Knowledge, Information Technology, and the Arabic Book [KITAB] project), the history of Islamic cultures, and politics and society in contemporary Muslim contexts, early childhood education, teacher training and assessment, maternal, neonatal, and child health, infectious diseases, population health, and non-communicable diseases. For these, the university will put a premium on multidisciplinary research and foster research that leverages the entire AKDN network. The university will strengthen its research facilitation and research governance by investing in research administration. Third, the university seeks to create a supportive environment for the next generation of researchers, emphasising training, mentorship, and career development for early-career faculty to develop human capital and ensure long-term research sustainability. Finally, AKU aims to enhance its global impact by aligning its research portfolio metrics with the United Nations (UN) Sustainable Development Goals (SDGs) framework where appropriate, and improving knowledge dissemination through various mediums including the creation of authoritative journals in the low and middle-income countries (LMICs).

This research strategic plan is fully aligned with the overall 5-year strategic plan for the university. With the successful implementation of this strategic plan, the university aspires to see an increase in: the overall pool of investigators who have secured extramural grant funding, the number of grants submitted, the funding portfolio, and knowledge creation (manuscripts and books) over the next 5 years. Successful implementation will allow the university to solidify its reputation in areas of traditional strength and allow it to be a major player in emerging fields of inquiry. The goal is to create contextually relevant knowledge that improves the quality of life of the populations that AKU strives to serve.

OUR VISION

The AKU will be an autonomous, international institution of distinction, primarily serving the developing world and Muslim societies in innovative and enduring ways.

OUR MISSION

We are committed to the development of human capacities through the discovery and dissemination of knowledge, and application through service.

OUR VALUES

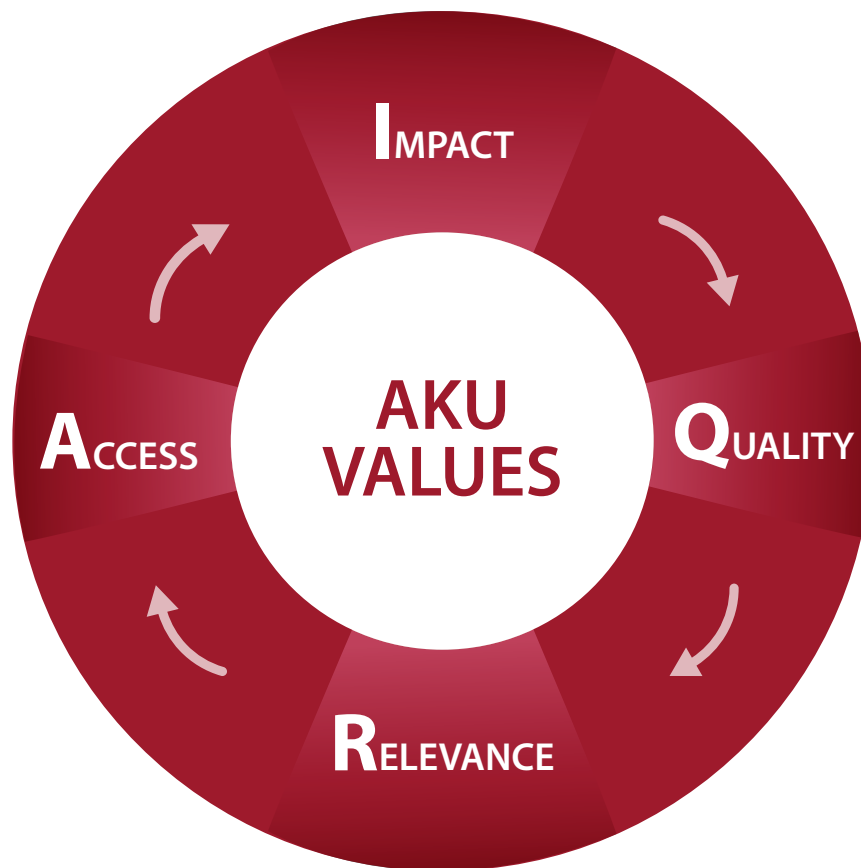
In achieving its mission as an international institution, AKU operates on the core principles of Impact, Quality, Relevance and Access.

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**PURPOSE OF THE AKU
RESEARCH STRATEGY**



The goal of the Research Strategy is to enhance AKU's research capacity, enabling it to make significant contributions in diverse fields, and furthering its commitment to academic excellence, knowledge generation, and societal impact. AKU recognizes the vital role of research, scholarship, and creative endeavours in the generation of knowledge. By fostering a culture of quality and free inquiry, we aim to elevate AKU's position as a leading and innovative research-led university, with a profound impact on society and policy.



AKU has consistently aimed to establish itself as an esteemed international university, renowned for its programs in education, research, and community service that uphold the values of impact, quality, relevance, and access. With a strong foundation in achieving international recognition for the quality of its research in health sciences, the University is now focused on expanding its capabilities in social sciences, arts, and humanities research.

The purpose of this document is to thus, outline a 5-year strategic path for the development of a comprehensive research plan for AKU that is aligned with its values of Impact, Quality, Relevance, and Access (IQRA).

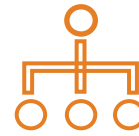
02

PROPOSED RESEARCH THEMES TO GUIDE AKU RESEARCH FOR THE NEXT 5 YEARS



**IDENTIFYING &
CULTIVATING EMERGING
RESEARCH THEMES**

01



**IMPROVING ON RESEARCH
STRENGTHS, COORDINATION &
GOVERNANCE**

02



**ESTABLISHING A
SUPPORTIVE ENVIRONMENT
FOR THE NEXT GENERATION
OF RESEARCHERS AT AKU**

03



**ENHANCING AKU'S IMPACT IN
THE KNOWLEDGE SOCIETY BY
IDENTIFYING CONTEXTUALLY
RELEVANT RESEARCH METRICS
AND IMPROVING KNOWLEDGE
DISSEMINATION**

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Based on the discussions held with key stakeholders and the analyses provided above, the following four themes are envisaged to guide our research agenda for the next 5 years.



1. IDENTIFYING AND CULTIVATING EMERGING RESEARCH THEMES

Our institution is committed to remaining abreast of emerging themes that hold relevance for the societies in which we operate. Specifically, we acknowledge the increasing significance of mental health and environmental sciences. To this end, our Brain and Mind Institute is strategically positioned to drive research focused on mental health. Our research facilities in Arusha (Tanzania) and the Link Road campus in Karachi will serve as pivotal project sites, further supported by the collation of AKU resources across its campuses in the areas of environmental sciences/studies and climate change. In augmenting our research, we will support emerging themes in stem cell research, genomics/omics, the use of CRISPR-based technology to solve relevant health problems in LMICs, bioinformatics, big data, digital innovation, research in the Indian Ocean Studies and politics of resources and mobility, non-formal education including out of school children, and human-centred digital pedagogies. We will continually seek input from our stakeholders, including the communities we serve to create knowledge that is contextually relevant and directly addresses the needs of the communities.

Many Global North governments emphasise university-industry partnerships for applied research and entrepreneurship, benefiting universities financially. In the US, technology transfer offices promote entrepreneurial activity but often do not cover their costs. Despite challenges, LMIC universities can contribute to innovation, especially in mobile technology, software development, 3D printing, and renewable energy. We will develop and streamline our pipeline of patents with good business plans to ensure their wide dissemination. Our Technology Innovation Support Centre (TISC) is keenly looking into possibilities on the above.

Lastly, with the implementation of the electronic health records across AKU, we will leverage, strengthen, and extend our use of data science to further the concept of a 'Learning Health System,' where evidence informs care and care informs evidence.



2. IMPROVING ON RESEARCH STRENGTHS, COORDINATION AND GOVERNANCE

a) Continuing to Foster Areas of Established Strength: Our unwavering commitment lies in directing our collective efforts towards domains where we possess a solid foundation. These domains encompass but are not limited to digital humanities (e.g., the KITAB project), the history of Islamic cultures, and politics and society in contemporary Muslim contexts, early childhood education, teacher education and assessment, population health in the domains of maternal, neonatal, child and adolescent health, cancer, infectious diseases, and non-communicable diseases, incubation hubs for clinical research e.g., the establishment of Clinical and Translational Research Incubator (CITRIC) in Pakistan, trauma and emergency medicine, and early childhood development. To ensure that we continue to excel in these areas and create new knowledge and impact, we will put a premium on research that cuts across disciplines and takes place across AKU campuses. Recognising the collaborative nature of research, we will also continue to strengthen our academic partnerships with local and international universities and AKDN entities/agencies, including AKHS to enhance the impact of our research on quality of life in developing countries. The flow of information from the 'developed' to the 'developing countries' and vice versa would be reinforced to ensure equity and contextual relevance to the communities we serve. We will allocate research-related resources to projects that are multidisciplinary and fully leverage AKDN to maximize the positive, near-term impact on health and the broader well-being of the communities we serve.

b) Improve Research Governance: We also recognise that with the exponential growth of our research portfolio in these domains, there is a need to invest in making our research processes more end-user-centric and to invest in human capital (grant administrators) to improve our research governance capacity. We will therefore establish training pathways to elevate the skills and leadership capacity of our research office staff across various regions. This will be supplemented with a constant evaluation of our research processes to make them more user-friendly.



3. ESTABLISHING A SUPPORTIVE ENVIRONMENT FOR THE NEXT GENERATION OF RESEARCHERS AT AKU

We recognise that the long-term success and sustainability of AKU's research portfolio hinges upon the cultivation of human capital in LMICs. Consequently, we will develop intramural funding models and leverage existing extramural funding mechanisms to ensure sustainable research pathways for our early career research faculty members in health sciences, social sciences, and liberal arts and humanities. These efforts will encompass allocating resources for training and career development and creating mentoring frameworks that align with the local context. We will do this keeping in mind the diverse needs of various schools and institutes across AKU in health and social sciences, providing time protection, and offering project support to enable early career researchers to engage in comprehensive professional growth. Moreover, we will devise innovative models to recruit and retain post-doctoral researchers as research faculty and establish pathways to ensure that they receive adequate time protection and mentoring resources to grow into independent researchers.



4. ENHANCING AKU'S IMPACT IN THE KNOWLEDGE SOCIETY BY IDENTIFYING CONTEXTUALLY RELEVANT RESEARCH METRICS AND IMPROVING KNOWLEDGE DISSEMINATION

To ensure the contextual relevance of our research output and that our quality indicators speak more authentically to impact the communities we serve, we intend to employ the UN SDGs framework as a metric to gauge success where appropriate. This will help us define an agenda of applied research aimed at solving real-life problems across the entire spectrum of human development. We will seek to integrate the SDGs into all stages of our research as appropriate, ranging from design to implementation to dissemination. We will develop metrics to assess AKU's contributions to UN SDGs in research and implementation science, ensuring that research achievements from health sciences, social sciences, and humanities are comprehensively captured. We have set up a Research Metrics Working Group, which is to meet on a quarterly basis to identify and monitor relevant metrics. While we work on existing areas of strength, we will not compromise on the generation of new ideas to lead innovation and bring improvement to the quality of life of the communities we serve. Lastly, we will formulate a robust strategy to effectively communicate and disseminate our research findings to diverse audiences, utilising various mediums such as print materials, social media platforms, research magazines, scholarly journals, and news media outlets. In this regard, AKU will take a leading role in establishing authoritative journals in health and social sciences, adhering to the highest editorial standards, to disseminate LMIC research to a global audience.

03

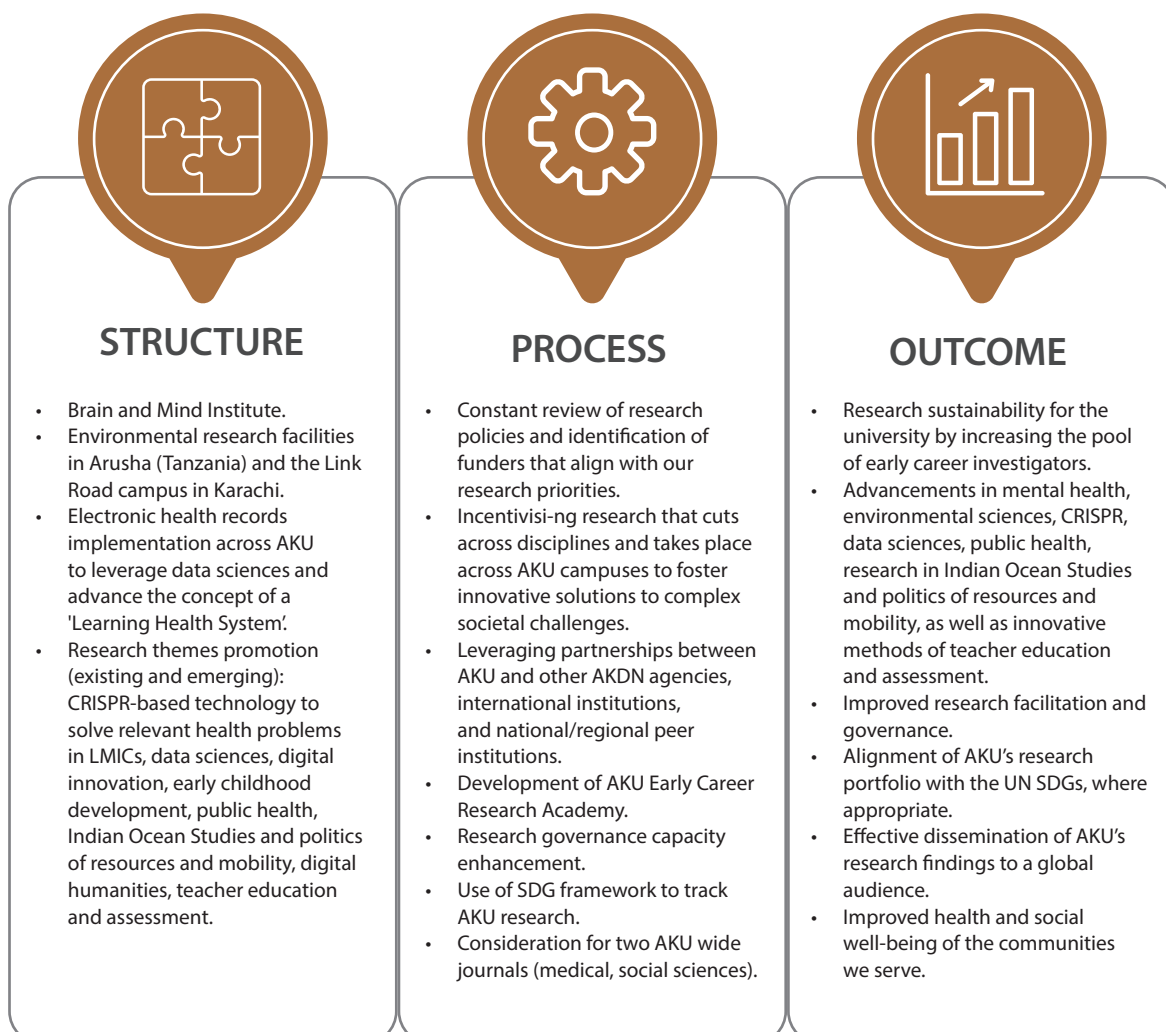
DONABEDIAN'S FRAMEWORK: STRUCTURE, PROCESS, AND OUTCOME MODEL TO GUIDE AKU'S RESEARCH AGENDA



To guide our thinking, provide structure to our efforts, and summarise our findings above, we used the Donabedian's Framework, a time-tested and widely acclaimed model, to be a guiding force that aligns well with our proposed research goals and objectives.

Developed by Avedis Donabedian, a visionary physician and researcher, this framework offers a holistic perspective, emphasising the three fundamental dimensions of quality assessment: Structure, Process, and Outcome. Although initially designed to assess and improve quality of healthcare, the Donabedian model provides an organised framework to measure and improve quality of any organisational outcome that requires improving structures and organisational processes. By applying this framework to our research goals at AKU, we aim to enhance the effectiveness, efficiency, and impact of our research endeavours, ultimately contributing to the betterment of the communities we serve.

By applying Donabedian's Framework to its research activities, AKU aims to continually improve the quality and impact of its research efforts, address emerging societal challenges, and contribute to the well-being of the communities it serves.



04

**ASPIRATIONS FOR
RESEARCH AT AKU**



With the successful implementation of the AKU's research strategic plan, we aim to achieve the following results by the end of 2028.

Develop and maintain a robust research governance framework and a well-thought-out research strategy to manage the growth of a research portfolio in collaboration with international partners.

Increase the number of faculty investigators who have secured a grant by providing them with support and resources to develop competitive grant proposals via the Early Career Research Academy and other research initiatives. This will include training on grant writing, mentorship, and access to funding opportunities.

Increase the number of grants submitted by simplifying grant submission processes and encouraging faculty and researchers to apply for funding from a variety of sources, including government agencies, foundations, and industry partners.

Increase the research portfolio funding (5-year average) to include new and emerging areas of research, as well as to deepen our expertise in areas such as population health, environmental studies, mental health, data sciences, and research in Indian Ocean Studies. This will be done through a combination of internal investment, external funding, and partnerships with other institutions.

Increase publications by supporting faculty and researchers to publish their work (manuscripts, books, and policy documents) and to fully capture the impact of this work using traditional metrics as well as newer metrics that capture societal discourse.

AKU is committed to achieving these aspirations to become a leading research university in the developing world. By strengthening its research infrastructure, developing its research capacity, and expanding its research portfolio, AKU will be able to make a significant contribution to knowledge production and to the improvement of the quality of life of people in the developing world.



CONCLUSION

Building on the research themes identified in this strategy document, we will implement the actionable steps needed to make the strategy a success. Successful implementation of this strategic plan will allow the university to solidify its reputation in the areas of traditional strength and allow it to be a major player in the emerging fields of inquiry. The goal is to create contextually relevant knowledge that improves the quality of life of the populations that AKU strives to serve.



aku.edu/research

research.office@aku.edu

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