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Research capacity strengthening in Africa: Perspectives from the social sciences, humanities, and arts

Obed M. Ogega[a,b,*], Mary Majani[a], Cheryl Hendricks[c], Olumuyiwa Adegun[d,e], Maria Mbatudde[f,g], Charles Muyanja[h], Peter Atekyereza[i], Ngandeu N. Hugue[j], Razak M. Gyasi[k,l]

[a] *Programmes, African Academy of Sciences, Nairobi, Kenya*
[b] *Department of Chemistry and Physics, Mount Saint Vincent University, Halifax, NS, Canada*
[c] *Institute for Justice and Reconciliation, Cape Town, South Africa*
[d] *Federal University of Technology, Akure, Nigeria*
[e] *University of the Witwatersrand, Johannesburg, Wits 2050, South Africa*
[f] *Kyambogo University, Faculty of Science, Uganda*
[g] *Faculty of Environment & Agricultural Sciences, Ndejje University, Uganda*
[h] *Department of Food Technology and Nutrition, Makerere University, Kampala, Uganda*
[i] *Makerere University, Department of Sociology and Anthropology, Uganda*
[j] *UNESCO, Regional Office for Eastern Africa, Nairobi, Kenya*
[k] *African Population and Health Research Center, Nairobi, Kenya*
[l] *National Centre for Naturopathic Medicine, Faculty of Health, Southern Cross University, Lismore, NSW, Australia*

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ABSTRACT

Global and human development and freedoms increasingly thrive on robust and policy-orientated research and related activities. Yet, the African research landscape faces a myriad of challenges which have resulted in a very unequal continent in terms of research and research capacity. The prevailing research inequities and challenges in Africa are even more pronounced in the social sciences, humanities, arts, and related fields (SSHA). Here, the strengths and impact of scholarship in SSHA fields are often overshadowed by deficits and apparent preferential investment in research in science, technology, engineering, and mathematics-related fields. In response, the African Academy of Sciences commissioned a study in 2020 to generate evidence on the SSHA research support landscape in Africa. This paper summarizes findings from literature review, key informant interviews, a bibliometric analysis, a survey with a sample of 670 respondents from SSHA communities in Africa, and a series of focus group discussions. We highlight key messages and make recommendations focussing on lessons learnt, opportunities, needs, and priorities for intervention to enhance significant SSHA research leadership capacity strengthening and, ultimately, minimize research inequalities in Africa.

* Corresponding author.
E-mail address: obed.matundura@gmail.com (O.M. Ogega).

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Introduction

Global and human development and freedoms increasingly thrive on robust and policy-orientated research and related activities. However, the African research landscape is faced with a myriad of challenges resulting in a very unequal continent in terms of research and research capacity [5]. Some of the challenges include disproportionate commitments by countries to enhance their national research capacity [2]; unavailability of adequate research equipment, unreliable and bureaucratic procurement systems; and insufficient capacity enhancement opportunities for researchers and research assistants [7]. Consequently, research strengths and activities tend to concentrate in only a few countries and/or regions, such as South Africa - corresponding to national investments in research [16].

The prevailing research inequities and challenges in Africa are even more pronounced in the social sciences, humanities, arts, and related fields (SSHA). Here, the strengths and impact of scholarship in SSHA fields are often overshadowed by deficits and apparent preferential investment in research in science, technology, engineering, and mathematics (STEM) related fields [6,9,10]. Additionally, SSHA scholars often contend with increasingly large cohorts of undergraduate students in resource-constrained higher education institutions – limiting the availability of dedicated time for research. Hence, deliberate efforts should be made to address the prevailing vast research and development inequalities [15] and, ultimately, boost chances of achieving equitable development in Africa.

In 2020, the African Academy of Sciences (AAS) launched a study to map the status of SSHA research support in Africa. The study was commissioned to inform the AAS' future research programming considering the cross-cutting relevance and contributions of SSHA scholarship to sustainable development in Africa. This paper presents highlights, key messages, and recommendations from the landscape mapping exercise - focussing on lessons learnt, opportunities, needs, and priorities in the SSHA research support landscape in Africa.

Methodology

The study was conducted in two phases, the first of which entailed engagement of the African Humanities Association (AHA; hereinafter the consultant) to map the state of research leadership capacity development in the SSHA in Africa. The consultant reviewed policies and histories and studied good practices around SSHA research leadership capacity development in Africa. Through literature reviews, key informant person interviews, a bibliometric analysis, and a survey sampling 670 respondents from SSHA communities in Africa, a report was produced. The second phase of the study entailed an engagement of a focus group comprising experts and practitioners in the SSHA research leadership capacity development spectrum in Africa. Highlights from the consultancy reports and focus group discussions are presented in the following sections. Study documents, including survey reports and associated protocols, will be available upon request.

Results and discussion

Overview of the SSHA research support landscape in Africa

A report published in 2022 by the African Research Universities Alliance (ARUA) – a network of 16 selected flagship research universities in Africa – showed that SSHA research fields were more popular than other fields of research, in terms of postgraduate student enrolment [17]. Yet, SSHA fields remain significantly underfunded in sub-Saharan Africa [1,6,11] and, where funded, resources tend to concentrate on a few fields such as education, political science, and public policy [9]. In the current study, only 42.4% of the 670 scholars surveyed had at least one form of research funding from their university. On mentorship, a key element in capacity strengthening, only 11.8% of the respondents were satisfied with the kind of mentorship support provided in their institutions. Hence, more investment is required to advocate for, and enhance, research support for SSHA fields and, ultimately, optimize the contribution of SSHA researchers to sustainable development in Africa.

An assessment of bibliometric data from Scopus covering the period 2011–2020 estimated Africa's contribution to global scholarship within SSHA to be about 5% of the global scholarly research output in peer-reviewed journals and books. The assessment showed substantial regional differences with authors based in Southern Africa contributing at least 50% of all publications surveyed. Authors based in West Africa contributed about 17% of the publications while those in North and East Africa contributed about 15% each. Researchers from Francophone and Lusophone countries were poorly represented with the two regions accounting for about 5% of the publications assessed.

Further, the bibliometric assessment showed relatively lower citations for publications made in African journals compared to journals from elsewhere. For instance, African journals recorded about 0.7% of citations per citable documents compared to the global average of 3.5 in SSHA-related publications. This calls for more efforts to make African journals more attractive and competitive to enable them to serve as the most appropriate outlet for contextually relevant research in Africa. More investment is also required to enhance the capacity of editorial teams, increase visibility of the journals, and facilitate access to the publications.

Lessons learnt, opportunities, and priorities in the SSHA scholarship

Availability and access to research funding play a pivotal role in catalysing and enabling research. Unfortunately, many researchers in Africa have limited-to-no access to funding to support their research activities. The unavailability of adequate funding has resulted in limited resources and infrastructure to drive research excellence; inadequate research support systems; and hardly any protected time for research. Other challenges include lack of a well-structured and coordinated system to support mentorship, publications, and career progression [13,14].

The current study established that researchers in the SSHA fields face an additional layer of challenges compared to their counterparts from other fields of research. One of the key issues highlighted from the study's stakeholder engagement activities was a lack of a well-coordinated pan-Africa program or initiative dedicated to supporting researchers in the SSHA fields in Africa. This leaves researchers in the SSHA fields relatively disadvantaged compared to their peers in other fields who obtain relatively more support and, hence, have been able to do more research work. In response, the study recommends an establishment of an initiative dedicated to mobilising and coordinating individual and institutional research support for SSHA. Such an initiative should be embedded in a larger research support programme with a pan-African scope; to benefit from established networks, resources, and systems. Amongst the aspects of SSHA research work that needs coordination is the agenda and priority setting in alignment with local, regional, and global development needs and priorities. In so doing, the role and work done by SSHA researchers across Africa are likely to be amplified and begin to position themselves in discourses around general research support in the continent.

Moreover, gender parity remains an outstanding issue in Africa's education sector [3,12]. For instance, 71.5% of the 670 scholars interviewed in the current study reported to a male Head of Department in their institutions. Some of the gender imbalances seem to be driven by historical systemic inefficiencies [3] while others are caused by inadequate policies that govern aspects such as student enrolment at institutions of higher learning [12]. Hence, deliberate efforts are required to ensure equity and inclusivity in research capacity strengthening investment and commitments in Africa.

The general global interest in transdisciplinary and translational research as a way of addressing developmental challenges underscores the need for meaningful and adequate participation of SSHA researchers. Therefore, there is need to strengthen the research leadership capacity for SSHA researchers for a greater impact. One of the immediate activities to strengthen the research capacity is a targeted and well-coordinated mentorship scheme. The scheme should ensure that adequate resources are allocated to support mentorship activities including expectation setting workshops for both mentors and mentees. In so doing, more SSHA research leaders will begin to emerge and actively contribute to sustainable development in Africa.

More investment is also required to catalyse the generation, dissemination, and communication of knowledge products in SSHA to provide the evidence needed to inform policy formulation and implementation. One of the possible pathways of investment is the provision of publication support and platforms dedicated to researchers in SSHA and related fields. For instance, an establishment of a series of conferences focusing on topical issues of regional and global interest will provide an opportunity for researchers in the SSHA to disseminate their work. Importantly, the involvement of postgraduate students should be a prerequisite for all supported activities to ensure skills transfer and enhanced impact. These interventions, which are often missing in SSHA [8], are likely to highlight and enhance the visibility of the work done by researchers in SSHA.

Additionally, governments in sub-Saharan Africa tend to invest more in STEM subjects than SSHA subjects -largely due to historical biases and perceptions [1]. Hence, there is a need for enhanced and strategic awareness creation to drum up support for SSHA work from governments and the private sector. In so doing, researchers in SSHA will be strategically positioned to benefit from what is increasingly becoming a 'golden age' for social science [4].

Summary and conclusion

The current study confirmed existence of gaps and challenges in the provision of research support for researchers in the SSHA fields across Africa. The challenges range from inadequate availability and access to research funding to limited research support systems, including aspects such as mentorship, publications, and protected time for research. These challenges have resulted in substantial regional differences in terms of research capacities and outputs across Africa.; As a way forward, the study recommends an establishment of a platform dedicated to mobilising and coordinating individual and institutional research support for SSHA across Africa. The platform should be nested in a larger research support program - working in concert with the African Union research and innovation agenda - to benefit from established networks, resources, and systems. Amongst the aspects of SSHA research work that needs coordination is the agenda and priority setting in alignment with local, regional, and global development needs and priorities. In so doing, the role and work done by SSHA researchers across Africa are likely to be amplified and begin to position themselves in discourses around general research capacity strengthening and support in Africa.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

[1] T.A. Aina, Policy analysis and innovation: why the humanities and the social sciences matter for social transformation in Africa, in: Public Policy and Research in Africa, Springer International Publishing, 2023, pp. 9–28, doi:10.1007/978-3-030-99724-3_2.
[2] I. Amadu, B.O. Ahinkorah, A.-.R. Afitiri, A.-.A. Seidu, E.K. Ameyaw, J.E. Hagan, E. Duku, S.A. Aram, Assessing sub-regional-specific strengths of healthcare systems associated with COVID-19 prevalence, deaths and recoveries in Africa, PLoS ONE 16 (3) (2021) e0247274, doi:10.1371/journal.pone.0247274.
[3] J. Baten, M. de Haas, E. Kempter, F. Meier zu Selhausen, Educational gender inequality in Sub-Saharan Africa: a long-term perspective, Popul. Dev. Rev. 47 (3) (2021) 813–849, doi:10.1111/padr.12430.
[4] A. Buyalskaya, M. Gallo, C.F. Camerer, The golden age of social science, Proc. Natl. Acad. Sci. 118 (5) (2021), doi:10.1073/pnas.2002923118.
[5] A. Conradie, R. Duys, P. Forget, B.M. Biccard, Barriers to clinical research in Africa: a quantitative and qualitative survey of clinical researchers in 27 African countries, Br. J. Anaesth. 121 (4) (2018) 813–821, doi:10.1016/j.bja.2018.06.013.
[6] A. Egbetokun, A. Olofinyehun, M. Sanni, A. Ayo-Lawal, O. Oluwatope, U. Yusuff, The production of social science research in Nigeria: status and systemic determinants, Humanities Soc. Sci. Commun. 9 (1) (2022) 1, doi:10.1057/s41599-021-01017-z.
[7] T. El Hajj, S. Gregorius, J. Pulford, I. Bates, Strengthening capacity for natural sciences research: a qualitative assessment to identify good practices, capacity gaps and investment priorities in African research institutions, PLoS ONE 15 (1) (2020) e0228261, doi:10.1371/journal.pone.0228261.
[8] J. Martin-Ortega, We cannot address global water challenges without social sciences, Nat. Water 1 (1) (2023) 2–3, doi:10.1038/s44221-022-00013-0.
[9] N. Molotja, G. Ralphs, A critical review of social sciences and humanities R&D expenditure in South Africa, 2005–2014, S. Afr. J. Sci. 114 (7/8) (2018), doi:10.17159/sajs.2018/20170407.
[10] J. Mouton, The state of social science in sub-Saharan Africa, in: World Social Science Report, UNESCO, 2010, p. 67. https://unesdoc.unesco.org/ark:/48223/pf0000190659. –67.
[11] J. Mouton, The Humanities and Social Sciences in SA: crisis or cause for concern? S. Afr. J. Sci. 107 (11/12) (2011).
[12] G. Odaga, Gender in Uganda's tertiary educational distribution, Soc. Sci. Humanities Open 2 (1) (2020) 100023, doi:10.1016/j.ssaho.2020.100023.
[13] O.M. Ogega, G. Lakey, R. Opisa, B.A. Gyampoh, Strengthening climate research capacity in Africa: lessons from the 'Climate impact research capacity leadership enhancement' project, Reg. Environ. Change 22 (4) (2022) 135, doi:10.1007/s10113-022-01997-x.
[14] T.S. Shinkafi, Challenges experienced by early career researchers in Africa, Future Sci. OA 6 (5) (2020), doi:10.2144/fsoa-2020-0012.
[15] V. Simpkin, E. Namubiru-Mwaura, L. Clarke, E. Mossialos, Investing in health R&D: where we are, what limits us, and how to make progress in Africa, BMJ Global Health 4 (2) (2019) e001047, doi:10.1136/bmjgh-2018-001047.
[16] N. Sobratee, R. Slotow, A critical review of lion research in South Africa: the impact of researcher perspective, research mode, and power structures on outcome bias and implementation gaps, Front. Ecol. Evol. 7 (2019), doi:10.3389/fevo.2019.00081.
[17] M. Waruru, Report shows better research profiles and ongoing challenges, University World News (2022) https://bit.ly/3L1FP1b.