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Is It Germane to Sustain Higher Education Research in The Post-Covid-19 Era?

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ABSTRACT

The COVID-19 pandemic has severely impacted developing countries, causing educational and economic crises globally. This study explores the necessity of maintaining research in Higher Education (HE) amidst the pandemic's disruptions. It questions whether Higher Education Institutions (HEIs) can sustain research post-COVID-19 while balancing essential functions to avoid risks. Despite extensive studies on HEIs' research sustainability post-pandemic, there is a notable gap in understanding the precise strategies needed to balance essential functions, address risks, and foster resilience amid uncertainties. To bridge this gap, the study highlights the importance of reassessing research priorities and methods in the changing HE landscape. A systematic literature review was conducted, gathering relevant literature from various databases. The study employed an exclusion and inclusion design for research selection. It points out that maintaining HE research post-pandemic has not been sufficiently investigated, leaving a critical gap in understanding research practices. The conceptual model, serving as the study's theoretical foundation, offers an organized means of evaluating the need for HE research considering the pandemic's global economic impacts. This study underscores the importance of multi-stage educational research in the post-COVID-19 era, given the interconnectedness of HEIs. It advocates for a flexible and dynamic research environment and suggests comprehensive approaches to anticipate and meet emerging trends in higher education. The study emphasizes that future research should focus on mitigating post-pandemic challenges and preparing for shifts in HE, promoting resilience and creativity in the field.

KEYWORDS

Researchers; Covid-19; Higher Education (HE); Sustainability.

INTRODUCTION

A global catastrophe marked by an educational and economic collapse has been caused by the COVID-19 pandemic's destructive effects on underdeveloped nations (Agu et al., 2021). Due to market factors and ongoing constraints on education, sovereign states are being driven towards deadly rivalries due to this crisis (Buheji et al., 2020). Higher education research is critical in advancing human and societal development in a demanding environment. It is necessary to ask whether Higher Education Institutions (HEIs) can continue supporting research in the post-COVID-19 age while safely juggling all their vital duties. Initiatives like the construction of science academies and millennium centres in Africa and other developing regions are viewed as positive developments (Wang et al., 2021). When imagining the future role of higher education in a post-COVID era, the themes of human and social growth through higher education and research capacities are highly pertinent. In higher education contexts, the involvement of researchers in both reading and research has been a significant factor (Onyeaka et al., 2021). The involvement of academics in research is thought to enhance the entire educational system and advance their professional careers (Brew, 2010). Various facets of academic research practice in higher education, such as academics' knowledge of research and the effects of their findings, have been the subject of several studies. The COVID-19 pandemic has brought to light the potential for experts and even non-specialists to contribute to a worldwide knowledge network without being present where the researchers are working. Future-seekers anticipate that this virtual interaction will continue even after the pandemic. Higher education is facing considerable changes due to the COVID-19 pandemic, according to Maqsood et al. (2021), researchers in education have a unique chance and duty to take the lead in producing excellence (Karakose, 2021). Research can potentially impact educational practices and procedures, yet the relationship between higher education and research is frequently not properly examined. Research on current and vital issues.

Aim of the Study

The present article aimed to critically review the germane to sustain higher education research in the post-COVID-19 era.

Research Question

Why is sustaining higher education research in the post-covid 19 era germane?

Research Gap

Higher Education Institutions (HEIs) have been significantly impacted by the rapid expansion of the COVID-19 outbreak, raising concerns about the future of higher education. However, many HEIs have not adapted their research methodologies to suit the post-COVID-19 era (Maican and Cocoradă, 2021). Tarman (2020) asserts that the pandemic highlighted the need for new directions in various academic disciplines to align with the new realities. Reimers (2022) emphasizes that the COVID-19 crisis underscored the critical role of public education for societies, communities, and individuals, also revealing longstanding global challenges and worsening inequalities. Tarman and Dev (2018) argue for post-pandemic reconstruction,

research excellence, pedagogical innovation, and effective responses to disruptive trends (Wangenge-Ouma and Kupe, 2020). A bricolage thinking approach, as suggested by Blankenship (2020), supports the need for innovation through reworking existing elements. Researchers must evaluate their methods, determine successes and failures, and develop strategies to address challenges. Growing public awareness of poor research practices is eroding trust in academia, necessitating prompt action by HEIs to protect research integrity. Despite recognizing the importance of continuing higher education research post-COVID-19, a significant gap remains in systematically examining the specific challenges and opportunities faced by institutions. The current discourse lacks specificity in addressing the nuanced dynamics affecting research vibrancy and effectiveness in the altered educational landscape. Therefore, further exploration and empirical investigation are essential to understand these dynamics comprehensively and develop tailored strategies. This gap underscores the need for studies that move beyond acknowledging the importance of sustaining research to deeply examine the factors influencing higher education research's success and resilience post-pandemic.

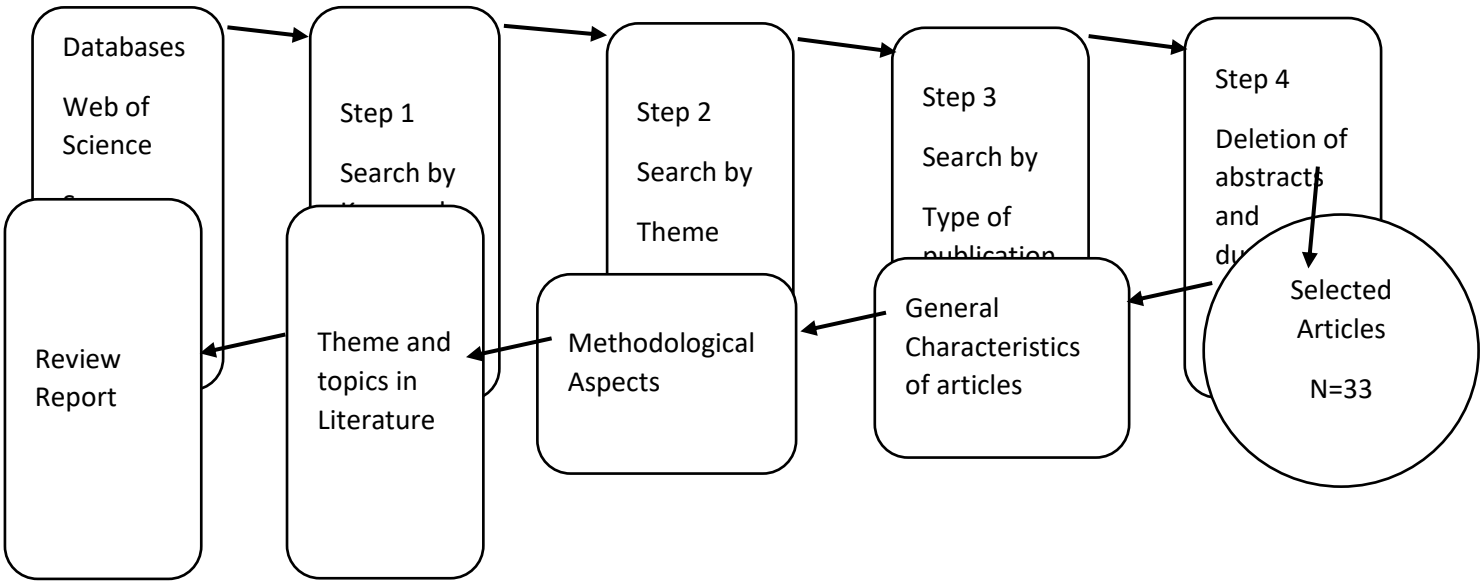
METHODOLOGY

This article used a systematic approach, because it is organised, transparent, and reproducible (Xiao and Watson, 2019). The systematic approach reduces bias and generates reliable findings that can guide conclusions and decision-making by analysing articles and considering all relevant evidence (Snyder, 2019). The research strategy for this study included creating a literature review and doing an extensive literature search. The study's themes were developed systematically, including collecting pertinent material from multiple researchers. This rigorous analysis of the adopted research approach ensured a comprehensive and robust review of the topic. The adopted SLR for this study is diagrammatically expressed in Figure 1 below.

The SLR used for the investigation is depicted in Figure 1. The research process for the analysis started with an internet search for relevant articles on the relevance of library science and information science to sustainable development. The exclusion and inclusion research design was adopted for the in-depth review.

Figure 1.

Systematic Literature Review (SLR) Adopted for the Study



Inclusion and Exclusion Criteria

Inclusion research is a vital approach for ensuring that studies are comprehensive, equitable, and reflective of the diverse realities of different populations. It helps to produce findings that are not only scientifically robust but also socially relevant and impactful. Exclusion criteria in a systematic literature review ensure the relevance, quality, and manageability of the research by focusing on studies directly related to the research questions and excluding irrelevant or low-quality studies. These criteria enhance the review's credibility by reducing bias and ensuring high-quality evidence, while also making the scope manageable and the process standardized and reproducible. As supported by Jones et al., (2018), applying the research design and exclusion criteria, researchers can produce a focused, reliable, and actionable synthesis of the available evidence. After exploring all the databases, 62 papers were obtained through keywords, which decreased to 58 papers after searching through themes. Also, 7 articles were removed from the 58 articles because the articles were not aligned with the themes, leaving 51 articles. The author further filtered the papers by screening for duplicates, and 18 articles were removed, leaving 33 remaining articles.

Quality Assessment Criteria

The 62 papers from the previous step were read thoroughly and checked against quality assessment questions. The author rated the research questions, which received 1 point for “yes,” 0 for “no” and 0.5 for “partial.” Works with 2 or more points were added to the final collection. Papers that scored below 2 were reviewed and re-graded by a team member. Works that still received less than 2 points were excluded.

Document Search Strategy

After compiling the final collection, the author linked each article to his database.

Snowballing

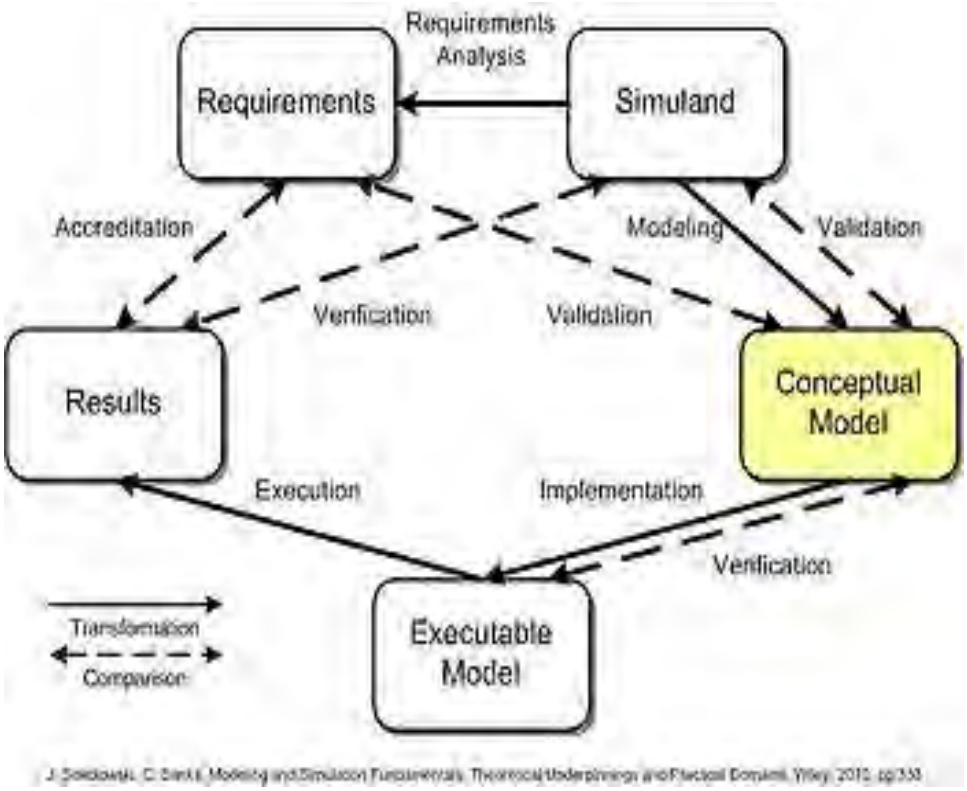
In the context of academic research, “snowball” refers to a method of expanding a literature review or collecting additional references by following references from already identified sources. The author started with some keywords or sources related to the research themes, and then examined their references to find additional sources that may also be related to the research. This process continued iteratively, and each newly identified source led to the discovery of relevant literature. Snowball sampling is particularly useful for discovering lesser-known or recent studies and for researching niche or specialised topics where the existing literature may not be comprehensive, and this is supported by Sharma, (2014).

THEORETICAL FRAMEWORK

Varpio et al. (2020) claimed that the conceptual model gives the study structure, after which research questions or objectives are developed based on theory. The framework or road map for study design is provided by conceptual models (Kivunja, 2018). The use of conceptual or research frameworks in research serves several purposes, including providing a structure for the study, facilitating hypothesis formulation and research question definition, guiding intervention development and data collection instrument selection, and providing direction for explaining study results and addressing gaps identified in the literature (Green, 2014; Ivey, 2015). When modified and articulated, they become a research framework to fit the particular study, interventions, and outcomes (Macdonald et al., 2011).

Figure 2.

The Conceptual Model (Wiley, 2015)



It is impossible to overestimate the significance of the conceptual model in the overall system development life cycle (Fink, 2013). The conceptual model is an essential component of a typical system development plan, as shown in Figure 1. It becomes clear that poor conceptual model development and a weak foundation can result in inadequate implementation of fundamental system attributes, which can cause problems or flaws in the system down the road. These failings are evident throughout the educational system and are frequently attributed to elements like an absence of user research input, imperfect or ambiguous criteria, and changing demands. The poor execution of the core goals of conceptual modelling might be linked to weaknesses in the system design and development process. The significance of conceptual modelling becomes evident in this article, particularly in its ability to mitigate risks and ensure thorough system development in Higher Institutions of Education (HIEs) through adherence to established development objectives and techniques.

LITERATURE REVIEW

Due to the COVID-19 pandemic's restricted access to traditional educational systems, there are now notable learning success gaps across the globe. These deficits are most noticeable in the research fields, where schools lack possibilities for practical, collaborative research projects in both official and informal contexts. As a result, this study emphasises the necessity of continuing research in higher education in the post-COVID-19 age and its importance. The severe disruption of the teaching and learning processes in educational institutions around the world has been caused by the introduction of the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) in late December 2019 in Wuhan, China, which gave rise to the well-known COVID-19. The World Health Organisation (WHO) deemed COVID-19 an international public health emergency on January 31, 2020, and later categorised it as a pandemic. Consequently, numerous. By May 11, 2020, 72% of the world's student population—roughly 1.5 billion children and youth in 188 nations—had been impacted by the closure of HEIs. These numbers are still rising, demonstrating how the teaching and learning process has been affected widely (UNESCO, 2020). HEIs worldwide started converting their courses to online platforms and using various forms of technology-enabled remote learning and teaching as soon as they realised the severity of the pandemic. Nepal is not an exception to the global trend towards online learning, which has replaced traditional lecture-based instruction. Additionally, the nation has been battling COVID-19's difficulties. The COVID-19 epidemic has caused considerable changes in higher education. Research is essential to advance HEIs and society, boost the economy, encourage innovation, and tackle complex global problems (Ciotti et al., 2020). Scholars learn from history, comprehend the current situation, and plan for a secure future through research.

Covid 19 and Higher Education Institutions

The coronavirus pandemic has significantly disrupted the higher education industry, drastically altering the higher education environment globally (Wibawa, 2021). Due to the pandemic, Institutions worldwide are experimenting with remote teaching, learning, and research. To

maintain academic continuity and address budgetary difficulties, higher education institutions (HEIs) have struggled to deliver education in the traditional ways and have hurriedly embraced "emergency remote teaching" (Jones et al., 2018). During this exceptional crisis, universities and other organisations have encountered several challenges (NIHR, 2020). Academic trainees, instructors, staff, administrators, and researchers have all experienced disruption at different career phases due to COVID-19. Although there has been success in adapting education, it is still a field in gradual growth that struggles to keep up with changing expectations and demands. The COVID-19 epidemic is hastening education reform, both locally and worldwide. Educators, students, legislators, and other stakeholders actively work to alter these sectors to meet the difficulties. The global investment in the education sector had already reached $18.66 billion in 2019 and was expected to reach $350 billion by 2025 (World Economic Forum, 2020) before the pandemic. However, the COVID-19 pandemic resulted in the widespread closure of HEIs worldwide, affecting over 1.2 billion students who could not attend lectures or participate in research activities (World Economic Forum, 2020). Research into how universities worldwide have handled the pandemic's issues and made preparations for the following semesters has been scant up to this point (DAAD, 2020). These evaluations are essential to help higher education institutions get through the current lockdown, predicted to last through 2020 and 2021. Sharing knowledge about the experiences of other HEIs and nations can help develop successful initiatives. There are currently only a few empirical academic research looking at how the COVID-19 lockdown's transition to remote learning has affected higher education's instructional practises. Furthermore, there is a shortage of studies evaluating researchers' effectiveness and their work's effects on HEIs between the COVID-19 and post-COVID-19 periods.

Covid-19 Impact on Research in HEIs

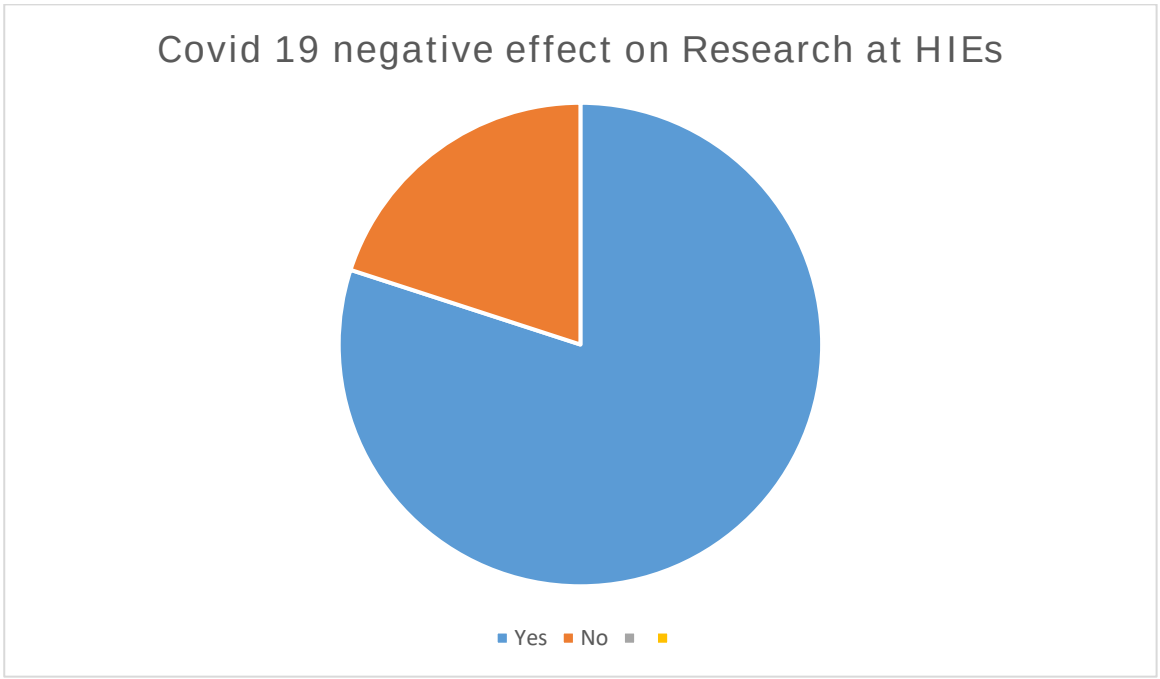
Harper et al. (2020) assert that the COVID-19 epidemic has faced higher education with hitherto unheard-of difficulties, emphasising, in particular, the grave interruptions to on-campus living and in-person instruction. Academic research has also been negatively impacted, which has caused fieldwork to be suspended and necessary and unrelated to COVID-19 research to be quickly shut down (Ciotti et al., 2020). In the post-COVID-19 era, it is critical to support higher education research. This essay will evaluate the impact of this support and the steps that must be taken to enhance research while managing the financial challenges that research universities must manage. The disruptions caused by COVID-19 have affected every aspect of research, creating uncertainties and obstacles for researchers across various fields. Widespread impacts on research activities have been observed, with reports indicating that 57% of life scientists experienced some loss of work by April 2020 (Brew, 2010). This loss has financial implications and consumes additional funding due to the need to repeat experiments (Erickson, 2020; Mervis, 2020).

Research facilities at universities and national research facilities have faced numerous difficulties, especially for projects requiring physical presence and collaboration. Travel

restrictions and varying approaches to the pandemic have made it challenging for international visitors and scientists working at different facilities (Lakshman, 2020). Valuable data and entire projects have been lost during this crisis, hindering research progress (Redd, 2020). Despite these challenges, the federal government has provided flexibility in research funding utilisation and significant research funders are not expected to reduce budgets significantly (Dhawan, 2020). While some research activities have resumed, not all have returned to total capacity. The pandemic has also spurred innovation in research collaboration and scholarly communication but has also revealed limitations in infrastructure and services (Dhawan, 2020). The pandemic's effects on people have been widespread, notably for researchers at different stages of their careers. The growth and advancement of early career researchers in this novel research environment still raises questions. The COVID-19 pandemic has highlighted the gaps in universities' current roles (Watermeyer et al., 2021). According to Deem (2021), the emphasis on teaching may rise at the expense of research since it generates more immediate financial gains rather than legitimate grounds. In higher education, pre-existing problems, including heavy workloads, job insecurity, and salary increases that are below inflation, have been made worse by the epidemic.

Figure 3.

Covid-19 Negative Effect on Research at HEIs (Myers et al. 2020)



The Role of Research at Universities: Why It Matters

Rosowsky (2022) highlights that teaching, research, synthesis, understanding, and service are all integral to the mission of a great university. While teaching is readily understood, research is often misunderstood by those outside the university, leading to misconceptions about resource allocation. This misunderstanding erodes trust, confidence, and support for universities. Universities engage in research as part of their mission of learning and discovery, directly and

indirectly contributing to their primary focus on teaching (Asmundson et al., 2013). Research can take various forms, including scientific research, scholarship, and creative activity, with increasing blurring of these categories. Pursuing new knowledge and understanding in transdisciplinary fields is crucial for addressing complex challenges. The advancement of knowledge through research is vital for any civilisation, and universities serve as concentrated communities of scholars and experts in these activities. Research is intertwined with teaching, as faculty engaged in cutting-edge research inspire and educate the next generation of scholars. The progression of study and discovery is sustained by this cycle. The primary funding source for research expenses is the researchers, who obtain grants from various organisations such as federal and state agencies, foundations, and private businesses. Following their mission and strategic aims, universities may invest in facilities, employees, and equipment to support research operations (Asmundson et al., 2013).

Who benefits?

Students, researchers, and institutions gain from a culture that values study and discovery. In addition to improving classroom instruction, faculty research allows students to participate in research teams and do independent study while being supervised by faculty, frequently for academic credit. Accessing cutting-edge tools and facilities and interacting with top authorities in numerous fields offers beneficial learning opportunities. Students' development and exploration of post-graduate options are facilitated by working together on research projects, co-authoring papers, giving presentations at conferences, and forming contacts. Active research programs greatly benefit higher education institutions (HEIs) (Onyeaka et al., 2021). Engaging in timely and crucial research topics increases institutional visibility and reputation, attracting attention and recognition. When a university becomes renowned for its research excellence in specific fields, it becomes a magnet for students, faculty, grants, media coverage, and philanthropic support. A robust research profile helps shape the university's "brand" in the national and international marketplace, influencing various aspects such as student recruitment, faculty retention, and attracting new investments. Furthermore, research activities conducted by universities have positive impacts on the community, region, and state, particularly for public research institutions. Research directly contributes to economic development by creating clinical, commercial, and business opportunities. Grants and contracts bring resources into the university, supporting faculty, staff, and student salaries, which, in turn, often leads to additional job creation and contributes to the local tax base. Research institutions can entice new enterprises to their areas or states with their expertise, reputations, and facilities (Brew, 2010). University medical centres offer top-notch medical treatment, especially in midsize communities that ordinarily lack access to superior services and cutting-edge infrastructure.

Post-Covid 19 Era and Higher Institution Education

Educational systems are actively preparing for the "new normal" that will characterise the period after COVID-19 (Asmundson et al., 2013). Over time, the term has been used to describe a situation where what was once atypical becomes the norm. It signifies the state following a significant change, replacing the past accepted and chronic state. Recent scholarly works have extensively explored the multidimensional implications of the COVID-19 crisis, including its impact on education, society, economy, and psychology (The Conversation, 2020). Within the realm of education, substantial research has focused on adopting online modalities for instructional delivery during the post-COVID-19 new normal. These discussions have examined digitalised virtual classrooms, online education, mobile learning, and digital learning. Looking through the lens of curriculum studies, these emerging discussions shed light on the opportunities and challenges for education in the new normal. By exploring curriculum possibilities regarding goals, content, approach, and evaluation, educators gain valuable insights into the key issues, decisions, and solutions that must be considered as we approach this new era. The post-COVID-19 new regular presents an opportunity to reassess education goals. One crucial goal is ensuring the curriculum remains relevant, appropriate, and responsive, particularly in preparedness for disasters, diseases, and emergencies (Erickson, 2020; Mervis, 2020). Although existing curriculum goals touch on preparedness competencies for natural disasters, there is a need for a more focused goal that encompasses global disease outbreaks. However, it is unclear whether preparedness for different types of disasters, diseases, and emergencies follows the same approach. In the post-COVID-19 era, it is essential to contextualise preparedness goals within the perspective of the pandemic. In higher education, efforts to expand the role of nursing and other fields in responding to global disease outbreaks have begun. These efforts should be further strengthened and extended to other disciplines such as teacher education, agricultural extension, transportation studies, allied health, and social services. The COVID-19 pandemic exposed gaps in the curriculum, and addressing these gaps involves developing a set of preparedness competencies as a curriculum goal (Hodges et al., 2020). In the context of the restrictions imposed by COVID-19, a new regular curriculum may adopt an integrated approach to content delivery. This approach reduces the number of hours spent on individual subjects while still addressing all curriculum expectations. Educators can design instruction that covers multiple curriculum expectations by integrating content from various subjects. Integration models, such as fragmented, connected, nested, sequenced, shared, webbed, threaded, integrated, immersed, and networked, provide strategies for assimilating skills and concepts across disciplines. This integration approach can alleviate the pressure of covering all content while adhering to the ongoing restrictions. Furthermore, educational systems are considering reducing curriculum content by focusing on teaching essential knowledge. However, defining what constitutes "essential" content presents a significant challenge. Several considerations can guide content selection, including its

significance, relevance to community perspectives and values, and utility in the present and future (Marginson, 2020; UNESCO, 2020).

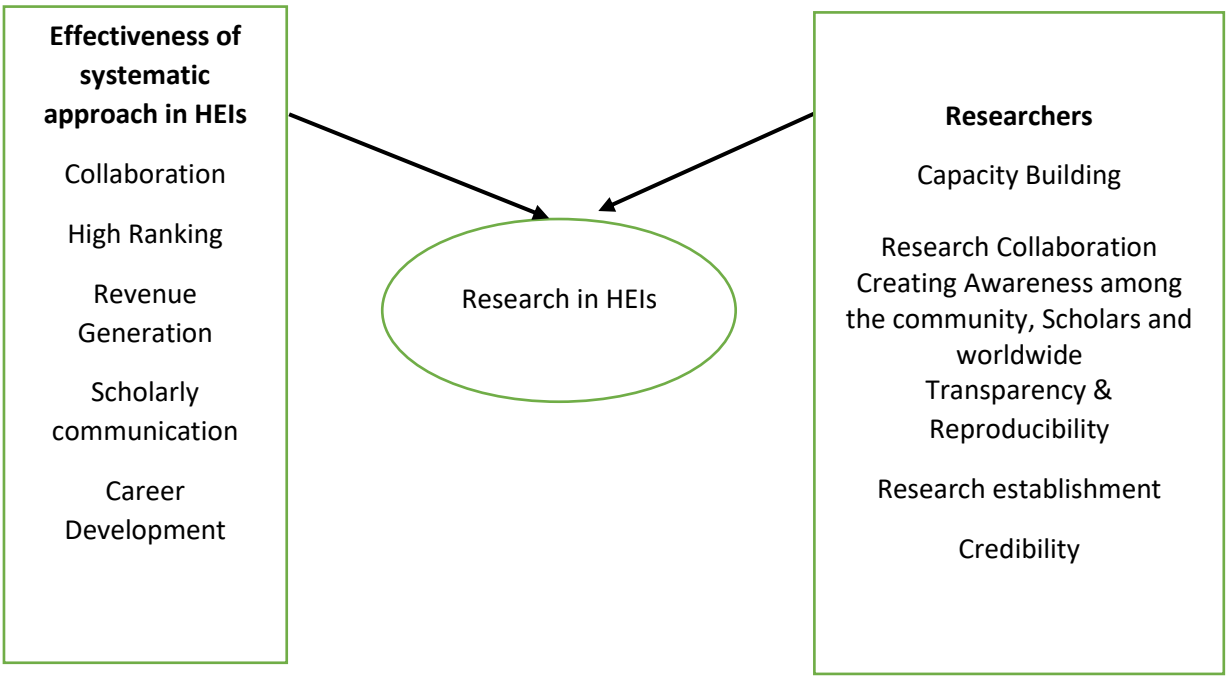
The Aftermath of Post-Covid-19 In HEIs Towards Research

Higher education institutions (HEIs) bring historical knowledge and baggage into the current COVID-19 crisis. This is known as the junction of past, present, and future. Globally, the higher education industry has seen considerable changes due to the pandemic. Scholars like Adam et al. (2020) provided their perspectives on these shifts and what they mean for the higher education environment in South Africa. According to Mamokgethi (2020), the University of Cape Town has developed various strategies to adjust to the present environment, from fully face-to-face to entirely online. The institution saw the value of preparing students and researchers for a future with digital media well before the pandemic. For example, by the beginning of this year, UCT lecturers like Pikoos et al. (2021) had already chosen to record their lectures, seminars, conferences, and workshops. The experiences of the present will be recorded in history books and reflected upon by future generations. It is crucial to take a moment to contemplate the ongoing changes. While some changes may be temporary, decisions made during this time can transform the future. Will the current open and humanistic culture become a mere "COVID limited edition," or will it persist as the new norm? What implications will these new norms have for research? Can the changes witnessed today become lasting transformations? Notably, as research demonstrates its potential to benefit humankind collectively, how can we view research as a global common good rather than a zero-sum game? While there may not be immediate or definitive answers to these questions, addressing them requires a long-term vision, structural changes, and collective commitment from academics, stakeholders, institutions, and countries worldwide. The COVID-19 pandemic reshapes research and reconstructs relationships between researchers, participants, stakeholders, and non-human entities such as knowledge, resources, and publications (Harper et al. (2020). The research community is displaying resilience, solidarity, and humanism. The lockdown period is not a retreat from work but a challenging environment where academics must operate within restrictions and uncertainty. Nevertheless, global research is continually progressing. Academics have quickly adapted to the entire shift to online meetings, research, and instruction. Many demonstrate empathy for and support for their coworkers, participants, and pupils by being open and showing solidarity. Research evaluations, such as tenure track clocks in HEIs, are being delayed, and funding organisations have modified their plans to account for project extensions, adjustments and changes for researchers, students, and researchers. While nations are under lockdown, science is opening up. Funding organisations, publishers, journals, universities, and researchers have all embraced open science practices since the COVID-19 epidemic. Online sharing of publications, classes, archives, and databases promotes the quick spread of knowledge. The pandemic is a turning point that forces colleges to rethink new instruction, learning, and research opportunities. It demands re-evaluating research procedures and teamwork in the higher education industry. Effective institutional leadership is critical in

realising a future-oriented university system. Higher education institutions must redefine the rigid bureaucracies within the system and pursue bold responses to enhance sustainability, relevance, and their contribution to socio-economic advancement in the country (The Conversation, 2020). Figure 3 below illustrates the importance of sustained higher education research, showcasing the interconnected relationship between higher education and researchers.

Figure 4.

The Necessity for Sustained Higher Education Research



The Post-Covid-19 Era and The Changing Landscape of Higher Education

In sustaining higher education research in the post-COVID-19 era, it is essential to consider the changing landscape of higher education and anticipate the emerging research needs and trends (Harper et al., 2020). The COVID-19 pandemic has brought about significant transformations in higher education systems globally, requiring a re-evaluation of research priorities and approaches (Marginson, 2020). Understanding the evolving context and identifying emerging research needs and trends will help inform strategic decisions and ensure the relevance and impact of higher education research in the post-pandemic era. The changing landscape of higher education encompasses various aspects that demand research attention. One key area is the shifting dynamics of teaching and learning, with a significant increase in online and blended learning approaches during the pandemic (Hodges et al., 2020). Research is needed to examine the effectiveness of these new modalities, including pedagogical strategies, student engagement, and learning outcomes. The role of technology in education has become even more pronounced during the pandemic, highlighting the need for research to explore the potential of educational technology and digital tools in enhancing teaching and learning

experiences (Selwyn, 2020). This includes investigating the impact of different educational technologies, such as virtual reality, artificial intelligence, and learning analytics, on student success and educational outcomes. Addressing educational equity and the digital divide among students has become a critical concern during the pandemic (Marginson , 2020; UNESCO, 2020). Research is needed to investigate the psychological and emotional impact of the pandemic on students and faculty, explore practical strategies for supporting mental health in the online learning environment, and develop interventions to promote well-being.. To anticipate emerging research needs and trends, researchers can engage with relevant literature and scholarly discourse in disciplines such as education, technology-enhanced learning, educational psychology, and educational policy. Actively participating in conferences, webinars, and research networks dedicated to higher education research provides opportunities to exchange ideas, share experiences, and identify emerging research themes and areas of inquiry (Harper et al., 2020). Thus, sustaining higher education research in the post-COVID-19 era requires considering the changing landscape of higher education and anticipating emerging research needs and trends. By addressing these areas, researchers can contribute to advancing knowledge, inform policy and practice, and support the resilience and transformation of higher education in a post-pandemic world.

CONCLUSION

This paper explores the impact of the post-COVID-19 pandemic on the relationship between research and higher education institutions (HEIs). The study highlights vital trends crucial for sustaining research in higher education during the post-COVID-19 era. HEIs have experienced significant turmoil, disruption, and, in some cases, chaos over the past seven months. During this time, pressing questions have been addressed. Federal government research-funding agencies such as the NIH and NSF, along with institutions, have tirelessly worked to navigate this unprecedented and unforeseen situation since the global pandemic shook the research landscape in early March 2020. As budgets are slashed, priorities may shift for the government and HEIs.

Nevertheless, HEIs play a vital role in society by supporting the production and dissemination of knowledge that enhances human well-being. This reviewed article emphasises the importance of sustaining research within HEIs. The ongoing pandemic has underscored the critical need for well-funded research that promotes human health and involves collaborations across geographical locations and disciplines. Currently, the future of academic research remains uncertain. However, it is imperative to ensure the continuity of research to maintain the strength and status quo of higher education. This requires a collective effort from all citizens to envision and establish alternative research methods that contribute to global well-being. Creating a more equitable and inclusive system that supports students, researchers, and staff while maintaining flexibility in organisational structures is essential. HEIs should be deeply connected to their broader community, focusing less on competition and fostering greater

collaboration in research, as this is likely to become a priority for revenue generation. Based on the findings, this article recommends sustainable solutions in educational research and the ongoing management of post-COVID challenges, particularly concerning the development of higher education institutions (HEIs). It emphasises the need for further investigative studies and initiatives to mitigate the associated challenges of the post-COVID-19 era and address future transformations in higher education research. These recommendations guide researchers, policymakers, and institutions to navigate the evolving landscape of higher education in the aftermath of the pandemic.

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