

PROBLEMS OF RESEARCH IN PAKISTAN AT THE LEVEL OF UNIVERSITIES/ INSTITUTIONS

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ABSTRACT: *These findings aim to shed light on some of the HEIs' notable research accomplishments in recent years, as well as to identify and discuss some of the main challenges and roadblocks that have impeded their progress. This research's recommendations are shaped by the findings of this investigation. In the contemporary Knowledge Era, the importance of research and innovation in advancing the country's development and economic prosperity is self-evident, and it doesn't need to be explained. The higher education sector is critical to the improvement of a country's national innovation system in a knowledge economy. An important objective in this research is the evaluation of Pakistani HEIs' current research status, as well as their research performance, as well as their weaknesses and strengths. Another goal is to determine whether Pakistani HEIs can act as catalysts for the development of new innovations to meet the country's expanding and shifting needs. Over the last several decades, universities in various developing countries have transformed into research-based institutions. A country's economy and society's shift to a knowledge-based economy rely heavily on research, as has been repeatedly stated. Some of these concerns and obstacles that these institutions face, however, are seldom discussed. Even if some progress has been made, we can observe that the situation is still far from ideal in Pakistan, especially when it comes to innovation and commercialization-related research. In order to improve the country's research and innovation scenario and performance it is needed to make a strategic move in the right direction, based on a complete understanding of the present situation. This is where the current study helps.*

Keywords: Research, Universities in Pakistan, Higher Education Commission, Academic Vision, Approach of research

INTRODUCTION

Research is all about discovering what you don't already know. Everyone has some knowledge, but no one has all the information. Adding insult to injury, you may be relying on information that is inaccurate. Using a Mixed Plan of Work demands the use of both qualitative and quantitative data generation/collection approaches because of the research themes. A few examples are faculty surveys conducted online, qualitative in-depth interviews, and the examination of secondary/administrative data and key documentation. All of Pakistan's provinces and public and private universities are included in the study's sample.

In an environment where people are free to discuss and debate new ideas, regardless of how absurd they may appear, such a mentality might evolve. Think of it as an exercise in clarifying one's mental process and eliminating faulty assumptions from one's mind.

The importance of research and the need for universities in poor countries to become research-based institutions has been a serious topic for many decades. Research and many other university tasks have been declared to be vital for the growth of a country's economy and the shift to a knowledge-based society [1-6]. It is essential for a knowledge-based society that universities increase the volume and quality of their research [7]. Following the prompt, many developing countries have rehabilitated their higher education systems by increasing research spending and establishing structures such as Malaysia's Multimedia Super Corridor (MSC) and the Philippines' Cyberservice Corridor (PCC), both of which are moving towards an economy that is knowledge-based [8]. To strengthen their economies and transform their societies into knowledge-based ones, other countries like Pakistan are eager to restructure their institutions and make them research-based [9-11]. Qualitative interviews and document analysis are used to investigate the efforts taken by the Higher Education Commission (HEC), Pakistan's strong regulating and finance

organisation for universities, to improve those institutions' research capacity. University academics' dissension is seldom heard by HEC or the government, despite the fact that there have been significant changes in the research environment. The intellectual community and those involved in university research and development in Pakistan, as in many other developing countries, lack the freedom to discuss the fundamental challenges that universities face and the underlying philosophical issues that underlie higher education in these countries. Few qualitative studies have been undertaken at the grassroots level to get teachers' views on the difficulties they face and the linkages between those concerns. Aiming to fill these gaps, this article hopes that HEC will take these concerns into consideration and involve relevant university employees in the decision-making process while striving to solve some of these challenges. Funding and its successful application, academic freedom, and the relevance of research in society were found to be the main obstacles to research expansion at Pakistani universities in this study. Before we get started, we'll go over some fundamental terms and discuss relevant studies. There will next be an evaluation of the current state of research in Pakistani institutions, followed by a discussion of HEC reform proposals relating to university research. As a follow-up, the main obstacles to Pakistani universities' ability to do research are discussed. Some solutions to these problems are provided, and the university experiences of Pakistani students are contrasted with those of students throughout the world.

Perception of Research at the Universities/Research Institutes

University research quality in general and at Pakistani institutions, in particular, is lacking in the literature. Despite the fact that higher education research is rightfully considered a rising subject [12], things are far worse in a poor country like Pakistan. Between 1980 and 2012, 66% of Asia's 244 institutes of higher learning engaged in higher education-

related research produced a single publication and 15% published two papers in research journals. For the most part, there are no more than four institutes of higher education in Pakistan that are active in research publishing, and they are not among the top 10 countries in terms of publication rates. A lack of information on how Pakistani universities do research, where they do so, what they have achieved so far, and where improvements might be made as a result means that little research has been done. Research universities, world-class universities, and society or economy founded on knowledge are indisputable concepts. Because of this, it is imperative that we first clarify what these terms mean to us. While emphasizing the importance of higher education for developing countries and the expansion of university research agendas, Kapur and Crowley [14] caution us against using the words "knowledge economy" and "knowledge-based society" without qualifications. Because "information is different from conventional commodities, necessitating alternative organization and distribution channels," some claim that the knowledge economy is separate from the old industrial economy. When it comes to "global public goods," it has many characteristics with them, but it is not subject to the "law of scarcity" (Stiglitz, 1999 in Kapur and Crowley 2008, p.14). According to others, the term "knowledge economy" alludes to a new kind of relationship between knowledge output and the economy, rather than a new production process. However, according to Bastalich [15], the Knowledge economy is nothing more than an attempt by politicians to redefine the relationship between ideas and the economy. Policy environments that fail to recognize and encourage the unique nature of university knowledge development and innovation are undervaluing universities' significance and role in a democracy. The knowledge economy demands a new kind of knowledge creation and dissemination organization, regardless of the viewpoints expressed here. In spite of all the hype around the "knowledge economy," there is still a lack of understanding of how and if it works in poor countries. This is most likely due to the shaky relationship between ambitions for higher education and personal gain [14]. Higher education statistics in developing countries are scarce to say the least. The definition of "research universities" states that institutions of higher learning committed to the creation and dissemination of knowledge in a wide range of disciplines and fields, with the necessary facilities to support research at the highest possible level are known as "research universities" [5]. In order for countries to participate and benefit from scientific advancements, they should construct and link their research institutes to the global scientific network. World-class schools produce highly sought-after graduates, cutting-edge research, and technology transfer if they have a strong faculty and student body, enough resources, and an effective administration [4]. Research universities and/or world-class universities in underdeveloped countries sometimes do not have these necessary traits, such as Pakistan. When addressing Pakistani institutions, we avoid using these categories and instead focus on "enhancing research at Pakistani universities." It's no secret that universities face a wide range of challenges, from a lack of funding to an unsustainable research culture to a lack of academic freedom,

but these concerns are magnified in impoverished countries. Some Pakistani institutions' case studies illustrate that there are challenges that are peculiar to the country's situation. There are a number of important factors that should be considered, including funding, academic freedom, quality assurance, leadership and administration, knowledge organization, increasing research culture at the universities, and education of Muslim cultures and civilizations, primarily religion [16]. These challenges must be extensively investigated if research at Pakistani universities is to be expanded and transformed into research-based or world-class institutions in particular.

Plan of Research Work

This research included gathering and analyzing documentary sources (both primary and secondary) as well as interviews with renowned academics from seven Pakistani universities. For studies in which theoretical knowledge is lacking, the overall design of a study generally employs a grounded theory approach [17]. The significance of research in higher education, as argued by Ashwin [18], is not uncommon, yet there are few research findings that generate specific concepts. Since the data collected and examined in this study is part of an overall research project on the general purposes and ideals of higher education in Muslim contexts, the bulk of this research was published in a book [16]. Muslim civilizations, which have a rich history and a complex philosophy, face several challenges today. Due to the nature of the book, there isn't much time to delve into some of the challenges that universities face. In this paper, I'll examine data on Pakistani institutions' research culture and the challenges researchers there face. Interviews with academics from seven universities, including the University of Punjab; Karachi; Aga Khan; Hamdard; Lahore of Management Sciences; UMT; and National College of Arts, will be utilized to compile this paper's qualitative findings. More than the university or a particular institution, their well-recognized research, significant experience working at universities throughout Pakistan and overseas, and understanding of the larger concerns institutions confront in regard to research were the determining reasons in the selection of a sample group. The interviewees are referred to by their university titles or jobs in this essay. It was determined that the research methodology and qualitative interviews may be improved upon. Thoughts such as walking into the field with no prior preconceptions [17] were challenged. Triangulation techniques were used to verify the reliability of the tools used for data collection as well as the validity of the data gathered and analyzed. Attempts were made to eliminate personal biases, make accurate analyses and judgments, and check the plausibility of the claims based on existing knowledge. Using an extensive literature review, as well as interview transcripts, observations, and records, the researcher was able to confirm the respondents' claims. Despite the fact that this study did not give more broad concepts, it was able to provide a full understanding of the issues faced by the communities from which it was derived. The value of research to society, academic freedom, and enough funding were among the issues that came up. According to the poll, these are the main impediments to the growth of research in Pakistani universities. Since many institutions in Pakistan and

other developing countries have similar antecedents, histories, or organizational structures, the findings from this study might have 'the language of explanatory power' [19] with respect to these institutions.

Facts and Findings

The near-zero tolerance for criticism in Pakistan is likely the most significant impediment to research and high-quality higher education in Pakistan. We have a hierarchical structure in place at every level of society, including at home, school, college, university, and business.

What Pakistani Universities' Research Environment Looks Like Since the establishment of the first university in Pakistan, there have been debates over whether universities should be research or teaching organizations. According to orientalist scholars and local intellectuals, in the 1880s the Institution of Punjab was set up to promote knowledge development and transfer in native languages. For their part, British colonial officials and administrators wanted it to be an English-language institution for training government officials and workers for the colonial economy [20,16]. However, despite the seeming victory of orientalists and local intellectuals, it gradually became more of a teaching institution in the following decades. An academic professor from the University of Punjab said to me that the university's original mission was to spread knowledge and provide a conducive atmosphere for academic endeavors such as research and the holding of seminars and conferences. Changes at Punjab University may be traced back to the subcontinent's broader social and political tendencies, the region's split into two states, and policies set forward by those governments. While Pakistan was still a relatively young country, it was clear from the start that educational institutions in Karachi and elsewhere were established to meet the needs of the newly formed state of Pakistan, and this trend has continued to this day [21]. However, research has always been an important part of the mission and vision of these institutions. High-quality research was carried out in the early universities in Punjab, Karachi, Sindh, and other places in Pakistan. Two former students of Punjab University went on to win Noble Prizes [16] for their work as academics and researchers. However, throughout the last several decades of the previous century, professionals I've met have expressed their dissatisfaction with Pakistan's institutions' research conditions. Because none of their colleges made it into the top 100 in the world, they considered it to be of inferior quality. There was a dearth of rigorous "critical approaches" in research conducted at various public institutions in Pakistan, according to the respondents, who characterized the culture of research in Pakistani universities as "conformist." Money, academic freedom, the relevance of research in society, quality assurance, marketing research findings, and a lack of adequate policies and processes are all impediments to research dissemination [16]. Some of these challenges have already been dealt with, but others remain and need to be addressed by the government, the HEC, university administrations, and society as a whole.

Intellectuals and government agencies were alarmed by universities' "lack of research culture" and the low quality of their research, so they changed present restrictions and gave universities more freedom to enhance their research quality.

Liberated from state control, Pakistan has had the ability since the 1980s to develop private institutions. Many universities, such as Aga Khan University, Lahore University of Management Sciences, and Hamdard University, place a high value on research. Researchers at these schools are renowned across the world for their high-quality work, which serves as a good model for public universities. While the Higher Education Commission (HEC) is the most conspicuous backer of Pakistani institutions' research expansion (HEC).

Promotion of Research at Universities by Higher Education Commission (HEC)

Pakistan's higher education institutions have undergone several transformations under the direction of the Higher Education Commission (HEC) since the turn of the millennium. This commission was created in 2002 as a replacement for the Pakistani government's University Grants Commission (UGC). When it comes to higher education administration and coordination, it was granted more autonomy and independence. For more than half a century, HEC's extensive reforms have produced dividends in the areas of faculty, quality assurance and access to higher education, contemporary IT infrastructure and technology, and remuneration for staff members. It is notable that HEC's efforts to enhance teaching and learning are focused on research that is critical to the economy and industry of the nation. Dr. Ata ur-Rahman, the then-chairman of HEC, was instrumental in securing finances from both foreign and local sources and donors from the commencement of HEC's existence. HEC funding for universities has substantially fallen since 2008, particularly in the years after 2010. (We'll get to it in a minute.) HEC, on the other hand, is committed to helping Pakistani universities improve the quality of their research. This is how HEC chairman Mukhtar Ahmed sums up the development in Pakistani academics' research capacity: HRD programs for MS, Ph.D., and post-doctoral research, as well as the International Research Support Initiative Program, have sent or sponsored more than 6,000 academics overseas. 4000 of them have completed their schooling and returned to Pakistan. In spite of the fact that more than 5000 indigenous scholarships have been awarded, over 1200 students have completed their doctorates. A further 1000 candidates were expected to be selected in Phase II of the Indigenous Ph.D. Fellowships in 2012-13. p. ii of the Higher Education Commission's report from 2013 "Research and Development" at HEC focuses on "four key areas, including (a) research promotion at universities, (b) capacity development of researchers and professors, (c) help to institutions in promoting research, and (d) research commercialization," according to HEC. Research at universities is encouraged by the National Research Program for Universities (NRPU), which pays professors with research grants. Only 94 applications received funding for the 2012-13 fiscal year; 141 were turned down and 566 are still being reviewed. In addition to this, the Pakistan-US Science and Technology Cooperation Program as well as the HEC-British Council Strategic Partnership in Research and Education are being worked on. Universities in Pakistan are also aiming to become Associate Members of CERN [22], the European Organization for Nuclear Research. It is hoped that this

funding would help researchers and academics to present their findings at national and international conferences. Academics, researchers, and scholars may benefit from the Textbook and Monograph Writing Scheme. Organizing seminars and conferences provide chances for research collaboration and dissemination. Scientific instruments may be borrowed and reimbursed by universities, as well as applied for laboratory equipment financing. HEC spends more than Rs 900 million (8.9 million USD) a year on e-resource subscriptions for Pakistani universities, giving them access to electronic research papers from 478 institutions. HEC uses international benchmarks and standards to evaluate the quality of research publications generated by universities and degree-granting organizations (Higher Education Commission, 2013). Connecting academic research with business and industry is facilitated by a variety of mechanisms. Academics and budding entrepreneurs alike might benefit from the support of the BICs, which serve as business incubators. It has been established that eight BICs exist, each at a separate university. Research in higher education is supported through 27 ORICs (Offices of Research and Innovation and Commercialization) located in public and private institutions, all of which are held to strict standards of performance and accountability [11]. The Higher Education Commission (HEC) makes initiatives to guarantee that Ph.D. holders contribute to Pakistani society for at least 5 years. People who graduate from HEC's postgraduate scholarship program and then leave Pakistan have been vocal about their dissatisfaction with the program's reasoning. Others worried that scholars who did not contribute to Pakistani society would just benefit themselves and have no effect on the nation as a whole. It's fair to say that HEC's programs to boost research at public and private colleges have helped universities overcome some of these roadblocks. Collaborative efforts have been bolstered by greater financing; the quality of research has improved; support structures for distributing findings and commercializing research have been built. When compared to India, Pakistan has a substantial gap in research output [23], but Pakistan is catching up to Iran and Malaysia in this regard, and its scientific indicators are looking well. Thus, HEC has been able to establish a research culture at universities and encourage them to take advantage of the available resources for advancing research.. Although the government or HEC seldom hears from intellectuals and university professors, they have highlighted a number of persistent obstacles to university research growth.

Hurdles and obstacles for the promotion of Research at Universities

Despite the success stories above, there are additional areas for development, some of which HEC has acknowledged and others that opponents have suggested. Researchers I met in Pakistan pointed out other, more significant problems with enhancing university research quality. Academic independence, financial support, and the social impact of research are only a few of the issues that have been raised. HEC's perseverance in lobbying the government to increase higher education financing, as well as a partnership with international funding organizations, may be able to alleviate Pakistan's continuous worry about money and its effective

use. [24] Professor Ata ur-outstanding Rahman of HEC is credited for channeling the majority of Pakistan's foreign aid money towards university and research goals, resulting in a rise in scientific research output, according to the professor. As is the case in many impoverished countries, he thought that some of this money was misused and ended up in the hands of a corrupt politician or an incompetent university administration. It didn't last long, and with the change in Pakistan's government in 2010, funding for higher education has dropped dramatically once again. HEC is working with the government to address this pressing problem. While money was ample, especially between 2000 and 2006, some claim that it was spent on unnecessary expansions, tenured professor salaries, and unrealistic relationships with foreign schools [25] He added that the institution had learned from its failures and had shifted its focus to effective management of money, attaining equity in growth, emphasizing quality, and expanding relevance in research. [26] Jawaid Laghari Prospective scholarship candidates have expressed their dissatisfaction with HEC's tardy response to their inquiries about the status of their applications in previous years. People in foreign countries who are getting HEC scholarships often complain about the length of time it takes to receive their tuition payments. More than half of the 674 research proposals filed in 2013-14 were still under review in 2014, which means university instructors would have to wait a long time for their work to be completed. Perhaps the lengthy process of selecting and appointing HEC's chairman in 2014 had a role in these issues.

Postgraduate students and university employees are discouraged from doing research because of the absence of appropriate funding, the wasteful use of resources, and the delays in disbursing funds. Because of the small number of students enrolled in university, many of the brightest students choose to study the sciences, business, and information technology (IT). According to a vice-chancellor, low-resource colleges can't aspire to do high-quality research with less than 7% of students enrolled. 'Humanities and social sciences tend to attract lower pupils, hence there is little likelihood of acquiring high-quality research from them,' said another teacher.

The majority of students who picked social sciences, arts and humanities, and religious education because of a lack of education and an abundance of seats chose these fields, according to most studies. None of the 481 university-based research initiatives indicated in the National Research Program for Universities pertain to humanities or social sciences research. It's also interesting to note that the number of projects approved (153 projects) and rejected (118 projects) is about equal. Consequently, more funds should be allocated to university faculty resources and support structures in order to assist them in producing high-quality research projects.. It's worth noting, however, that HEC is willing to support excellent research projects from private institutions. "It was time for the HEC to consider subsidizing those private organizations who manage resources successfully" [16] because they spend money wisely and intelligently manage their resources. HEC seems to have taken into account the suggestions made by professors from private institutions.

With 73% of Rs 86.4 billion (US\$856.4 million) allocated to higher education in the 2013-14 fiscal year, it should do better than other educational sectors in principle. Even after accounting for the government's 8.7 percent inflation rate, the budget actually shrinks by 11%, or Rs 78.9 billion (US\$ 782.1 million). Because appropriate funding is connected to high-quality research, it is one of the most crucial factors in enhancing university research quality.

Academic vision

Most university faculty members questioned feel that academic freedom is directly tied to both funding and societal factors. To a greater extent, a university may pursue research with more freedom if it is financially independent. Institutions of this kind are also adept at limiting political and religious sway. Schools in Karachi and Punjab such as Aga Khan College for Women and the Lahore School of Management Sciences include Hamdard College for Women [16]. The universities mentioned above are susceptible to a wide range of public influences.

Rectors of Pakistan's leading universities compared academic freedom at universities to the wider freedom of Pakistani society, and concluded that "universities thrive in open and democratic communities." According to this idea, "universities thrive in communities that are open and democratic." This provides little opportunity for universities to thrive. If the state isn't democratic, you can't expect much from the university. This means that if society does not fund universities, they cannot exist as islands of free thought or laboratories where ideas and proposals may be developed before being put into practice. We don't have that kind of relationship; civilizations are run by an elite, as well as by institutions that aren't bothered with academic input. We don't consult our professor of International Relations or his research while making decisions on our country's foreign policy, for example.'

University think tanks perform research for society and policymaking, but "universities and society do not have that type of link," he said. He argues that "we cannot expect good institutions to create knowledge and provide responses to social challenges" if a society is "not functional and democratic." Politicians and religious organizations, meanwhile, become involved in university affairs, hindering the free conduct of research at universities. An academic dean sharply criticized the government's or political parties' meddling in the day-to-day operations of colleges and universities, which he said undermines their image and trust and creates a perpetual struggle for them. It is his opinion that 'political involvement in university matters should be removed' Political influences come in various kinds. The first is when the government steps in and tells a university what it should or shouldn't be doing. The government also has a hand in the selection of high-ranking administrators at universities (...) A second problem is that political parties become involved and try to influence events at universities (...) As long as the political party's student wing maintains certain norms of behavior and discipline, there is nothing wrong with having one. "Political organizations should not interfere with university administration" means they should not ask for political favors from the university and the teaching staff, or that they should not interfere with the teachers' judgment on

who should be given good grades, who should be given first or second place, who should be admitted and so on. 'This is a huge undertaking.' "

It has been nearly impossible to completely eradicate student political activism at Pakistani universities, but a longstanding ban on students forming unions has worked, and the level of violence perpetrated by various students' political and religious groups has decreased significantly since the late 1980s and early 1990s. Some academics are in favor of the restriction on student political activity, while others are against it. The student wing of religious organizations and political groups, on the other hand, exerts its own influence on colleges. Students were first encouraged to become "better Muslims," but as other secular political parties have done, they started to utilize other methods, including violence and the imposition of their ideas on others. Haq's 'Islamization' of universities was one of Zia ul goals. Ansar's (1976-87). Since then, colleges have been required to provide courses in Islamic Studies, which is not inherently immoral. On the other hand, scholars had anticipated more inventive and liberating approaches to teaching this subject [16]. In addition, religious and political parties exert an impact on academic freedom through exerting societal pressure. Critics and innovators in Islamic studies face opposition from religious political organizations fiercely defending their faith and its dogmas. In spite of the fact that they may be more tolerant of certain religious scholarship, a researcher advised me that openly criticizing the belief system would be frowned upon by these organizations:

If a student at a university speaks anything about God or the Prophet that goes against the Islamic faith, he would be expelled and he will not be tolerated' The basics of Islam cannot be questioned, even if you are a jerk about your religion, pray, or complain that Islam is out of style. Pluralism is present in society at all levels, and this is true for the whole society as a whole. You may be forgiven for being an academic for writing an essay saying that religion is unjustifiable and that rationalism means this and that. But for speaking up in a classroom and making the same argument, you will be faced with hostility.

One reason the more conservative religious organizations may not fight the researchers over their publication is that the majority of them are published in English, rendering them unavailable to the broader public. Even though Fazlur Rahman, a well-known Islamic scholar, is one of Pakistan's most prominent academics, there may be other causes for the country's tolerance of academic research and publication. Many religious organizations' concerns about critical thinking damaging religion are unwarranted, according to another scholar, since the early centuries of Islam were a time of critical thought in science, philosophy, religion, theology, and the humanities.

Most cases of academic independence may be traced back to the financial health of an institution. Because of their financial independence from the government, some universities in Pakistan enjoy academic freedom. There is more academic latitude at the National College of Arts (NCA) compared to the Punjab University's Institute of Art and Design (IAD). According to a professor, the reason behind this is as follows.

At NCA, students have more latitude to pursue their own ideas than they would at other institutions. There is only one public institution in the nation with a reputation for academic independence from government control and mullah influence among students and faculty alike, and that university is NCA. While NCA was formed in the same time frame as the Punjab University Institute of Art and Design, there is a huge disparity in quality. However, if you reach the Institute at Punjab University via NCA, you'd be entering a separate time zone, as PU has a significantly higher presence of state power than NCA. Academic freedom in our schools allows us to question authority figures like the government, the military, and even religion. State control, orthodoxy, and so forth prevent them from doing that at PU; their appointments are made from the top down and so on.'

NCA's are becoming more scarce as the federal government and political parties tighten their grip over educational institutions. There are significant repercussions for institutions when educational and research operations are interrupted.

The approach of Research in Society

Social progress in general is also a factor in the research strategy, which is based on literacy levels, as well as on the ability to communicate research findings to the general public in terms that are understandable to the general population.

In the minds of some participants, the expansion of the country's most important educational institutions is not a concern of the general public. However, they point out that a large percentage of people are poor, therefore they don't have access to higher education or a research career, and hence don't profit from it. Since they are unable to access and interpret the research data, they are unable to make a decision on their value. Some wealthy people, on the other hand, do not make a point of supporting their female children's long-term educational goals or encouraging them to pursue scientific jobs [16]. Affluent Pakistanis, on the other hand, are less inclined to fund Pakistan's universities and scientific advancement. The Dean of an institution remarked on Pakistani donors living overseas who don't respect public universities: 'The Pakistani rich [people] donate a lot of money in the name of God, in the name of khayrat, charity,' stated the dean of an institute' (...) There have been millions of dollars in donations from Pakistani expatriates living in the Middle East as well as the US, Canada, and Europe. As a reward from Allah, they reason, they would get a reward (sawab) if they donate to the mosque... Because they don't think public service and institutions are valuable, I asked you to donate to Karachi University or Sindh University many times while living in England. In spite of this, they have an unfavorable view of public universities; they are mostly university graduates, but their thinking is constrained(...)'

According to him, affluent mosques often change carpets and pavers because they have so much money, but the wealthy don't spend it on education or research. Families with significant financial resources, especially those based outside of Pakistan, send their children to study at prestigious institutions in their home country. This boosts the financial resources available to Pakistani colleges and universities[16]. Despite this, as many respondents noted, these institutions do

not always invest in research advancement. The general public is unaware of the kind of research that universities do or the skills and potential that universities have to address society's larger concerns, according to a few survey respondents who called them "ivory towers." In addition, critics have mentioned academics undertaking research for the purpose of advancement, faculty jealousy and a lack of collaboration, institutions that don't foster research, "tortuous procedures of collecting financing" for research, and the gap between academia and industry. As a consequence, it seems that there is little cross-institutional coordination. There is a lack of effort by universities to interact with business or society as a whole, as well.

Discussion

Research, on the other hand, thrives on debate. It thrives when different groups are able to openly express their divergent opinions. When juniors are prevented from speaking in front of their elders, it inhibits their ability to learn and grow. We can't conduct significant research in Pakistan unless we address the following issues:

In contrast, the argument is the lifeblood of research. As long as diverse groups are able to freely argue their differences, it flourishes. It's suffocating when juniors aren't allowed to talk in front of their seniors. Our educational institutions must foster a culture of open dialogue and free exchange of ideas before we can hope to do major research in Pakistan.

All of HEC's major initiatives have resulted in various beneficial and positive outcomes and outcomes. There is a basic question concerning the term "Impact" raised by the most recent research: Is there any evidence that H EI research has had a positive influence on Pakistan's society or economy? For a country like Pakistan, where there are many barriers to overcome, research should be directed by development needs and priorities and help to resolve societal problems and challenges..

There are several challenges faced by higher education institutions (HEIs) when it comes to research innovation and commercialization. Poor academic-to-business relations are a major obstacle to the commercialization of research generated by Pakistan's higher education institutions. It is evident that another key difficulty confronting the commercialization of research generated by Pakistan's higher education institutions is the poor relationship between academia and business. Apart from concerns with attitude, ability, and policy context Another key problem impacting Research Collaborations and Linkages at HEIs is the broader culture and setting, especially in public sector organizations – i.e. bureaucracy, top-down approach, and large power distance. As a result, research in general and research collaboration, in particular, are harmed as a result.

More modern labs and equipment, as well as improved facilities to perform high-quality and international-standard experiments, were cited in connection to overall research management concerns as one of the most pressing challenges faced by academics and the commercial sector. Procurement procedures (for equipment purchase) have been noted as a major impediment to the research project's smooth running and timely completion.

- When it comes to helping academics and higher education institutions with innovation and commercialization, ORICs have a small workforce and little leadership. There is a pressing demand for individuals with strong marketing and management skills, as well as links to (and understanding of) business. A further "dissonance" exists between the declared goals of promoting innovation, entrepreneurship, and social impact on the one hand while recognizing "impact factor journal articles" on the other. Because of the dominance of Science and Technology Studies, important areas like Social Sciences have been overlooked. No matter how much work is put into integrating rural areas, there is still more to be done before this sector can be considered capable.

- An significant issue is brought up in the report: Is it possible to foster a culture of research and development in a higher education institution? Have the HEIs been successful in creating a "culture of research"? To a large extent, the response is not very encouraging. One cannot address issues about research culture and productivity without also taking into account the kind and quality of research education provided by HEIs.

Even if we didn't have such an atmosphere, we could still learn, but it wouldn't be innovative or relevant to our people's needs. When faced with such challenges, it's easy to fall back on "safe" topics or areas of study that have previously been explored.

Students' ability to think independently was one of the most difficult challenges I encountered in my many years of experience in higher education, both in public and private institutions. Students would have to be persuaded for months before they would begin to express their opinions.

Fewer than a quarter of the students who earned MPhil degrees in my department ended up pursuing PhDs; many never developed into independent thinkers.

As a prerequisite for advancement, most students completed the MPhil. After becoming assistant professors, they stopped doing research.

After that, promotion is based on seniority, not performance.. In their minds, there was no need in doing any more research since they would ultimately be professors and department heads if they simply sat there in their seats for long enough.

Pakistan's Medical and Dental Council (PMDC) has recently linked promotions to the publication of research papers, however, this has only led to the formation of journals whose only purpose is to create studies that would lead to promotions for members of the profession in Pakistan. As you are well aware, we get a kick out of undermining and undercutting the goals of watchdogs big and small, for better or worse.

As a consequence, senior academics, such as deans and heads of departments, bear a significant amount of responsibility. Vice-chancellors and other leaders of institutions must, above all, help to create a welcoming environment for students and younger faculty members at their schools.

According to the findings, universities in Pakistan face a number of key obstacles to enhancing research, including a lack of financial resources and inefficient use of those resources, as well as a lack of academic freedom and the relevance of research to society. Due to the lack of resources, Pakistani universities may not be able to accomplish HEC's

aim of becoming research-oriented institutions and making Pakistan a knowledge-based society. For the period of five years between 2005 and 2010, "the Medium Term Growth Framework I (MTDF I) focuses on the internal development of institutions of higher learning," according to HEC (MTDF II 2010-2015, p.4). To what extent do you think Pakistani academic institutions may be considered world-class now? To call a university a "world-class" or "research institution" is a challenging task, given the characteristics of such a facility [4-5] and the issues with university research discussed in this article.

Universities' ambition to "build economies, communities, and leadership" is admirable, and HEC's support for them to "engage stakeholders to play their due share in the development of Pakistan" is great as well!

[32]. Some private universities in Pakistan, as well as other institutions, are involved in outreach programs and projects. As a result, these institutes do research in a range of areas, including education and health, some of which are of high quality.

There is a large disparity in the number of research funds granted to the sciences and IT, as well as the number of scholarships for PhDs abroad, according to HEC's Annual Reports. In the view of HEC, the lack of high-quality research in the social sciences and the arts may be attributed to poor research ideas, which are seen as a result of deficiencies in undergraduate instruction. The participants in this survey, on the other hand, thought that this was due to a lack of knowledge in elementary and secondary school. Sciences are preferred by students who are smart and come from reputable public and private schools, whereas humanities and social sciences are preferred by those who are less brilliant.

Finally, it has been argued that historically, universities, particularly in Europe in the eighteenth and nineteenth centuries, were not at the forefront of knowledge creation [33], but rather benefited from the relatively well-developed economies and industries of the time. This argument was made at the conclusion. A developing economy necessitated that institutions make big modifications and alter their programs. With this "forced" role, colleges grabbed it with both hands. Because of their role in the development of communities, industries, and economies in the industrialized world, universities have grown into knowledge producers. Without a considerable investment in higher education, Pakistani institutions would not be able to compete with the best in the world. Universities throughout the world are having a hard time convincing society and the government that their research is worthwhile and worthy of funding. Almost all research institutions are funded by the government, with the exception of a few private universities. This is due to the view that universities are a public good. University education is a private good that should be paid for by the individual, according to the neoliberal economic perspective since the 1980s. In contrast, student tuition payments fall short of covering the costs of research institutes.

It's possible that poorer countries, like Pakistan, may benefit from these two additional ways. As a starting point, consider how Altbach [5] suggests that universities get funding. In

many cases, research universities are part of a broader academic system that includes a wide range of post-secondary schools with varied roles in society and finance patterns, according to the author (p.5). That's why the German government is struggling to keep up with its numerous research universities, he explains. Countries like the United States and the United Kingdom, which have diverse higher education funding systems, have had remarkable success in setting up their research institutes. As a second step, state and university authorities should collaborate to elevate universities from their current status as just academic institutions to ones that can compete globally. As Salmi [4] says, universities should take the initiative to engage with organizations like the World Bank in order to get technical and financial assistance. A knowledge-based society can only be achieved by supporting universities in their research, finding new ways to organize university research, and increasing university research funding.

Conclusions

As a consequence, the findings of this research are expected to be useful to the Pakistani government, the Higher Education Commission (HEC), university administrators and faculty, as well as other institutions in developing countries.

Institutions in developing countries may learn from HEC's reform initiatives and how to address similar problems in their own countries' educational systems.

As a researcher, you thrive when you can connect with others who share your interests. Ideally, the group should be made up of people from a variety of professions, not just one. A more open interchange of views is encouraged. Compared to single-discipline institutions, universities have a significant edge here.

Government support of public research organizations has eliminated a key barrier to progress. Because it's long overdue, the decision deserves applause. After then, it's on to universities to deliver on their promises.

To be honest, I'm worried about running out of funding before we can do any "useful" research at all. We should not mistakenly believe that doing research is an end unto itself. Our elected officials need to know the facts in order to make the best decisions they can.

When applied to real-world challenges, the results of the research are only useful if they are used to produce "evidence-based decisions."

In addition, I'm disturbed by a situation that affects both now and the future at the same time. How many of the researchers who are presently getting funding will keep working on their projects in the future? Is it just a means to an end for them to go forward in the company? Only time will tell how the answer to this quite tough question will be.

Recommendations

Following our examination of the findings and discussion, we offer the following suggestions to the government, the HEC, and the universities in Pakistan, which may be valuable for institutions in other developing countries:

A greater share of university budgets should be set out for research. The fact that public colleges are funded by the government does not give the government the ability to intervene in their operations.

University administrators and faculty should work together to create an environment that encourages the conduct of high-quality research while also ensuring academic freedom is not curtailed by political or religious pressures. Quality research in all fields (education, arts and sciences, healthcare, industry and technology) should be given equal weight in peer-reviewed journals and promoted for publishing in those journals that have high rankings. Universities should do research that evaluates and suggests solutions to society's economic, political, ideological, socio-cultural, and religious challenges. As a consequence of the research, the federal government should use academics to help make decisions and develop policies. The Ministry of Education (MoE) and HEC should collaborate with all higher education institutions. Those Islamic madrasas that provide graduate and doctoral degrees, for example, should be included as part of larger studies on higher education. Professors and students at these madrasahs aren't being actively engaged since neither the Ministry of Education nor the Higher Education Commission has devised appropriate mechanisms for doing so. The gap between religious and secular colleges remains wide open because of a lack of communication and participation with such institutions, and mutual hostility persists. • Those in charge of expanding university research and society as a whole should critically assess some of the terminology employed, and be cautious when linking higher education with economic growth. Universities serve as think tanks, but they aren't to blame for a society's lack of advancement in the economic realm. Universities should link with businesses and build bridges with the communities they serve. Because of the study's results and conclusions, specific recommendations are given to enhance the research and innovation capacity of HEIs. As a result, the following themes and subcategories have been proposed:

- Research impact/outcomes
- Commercialization/academic-industry relationships
- Research management
- Research capacity development
- Research cooperation, links, and sharing
- Research education

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