



Transforming Higher Education: Tackling Financial Constraints and Academia-Industry Gaps

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ABSTRACT

The goal of this study is to give Pakistan's smartest kids game-based learning tools that can help the country's economy and society grow. But progress has stalled due to weak administrative structures, chronic underfunding, poor management, outdated courses, and significant differences between men and women. The main goal of the project is to identify and fix these basic problems so that the way gaming is taught can change, and it should have a significant impact. Drawing on Human Capital Theory and Institutional Theory, this study formulates a theoretical framework and implications for the construction of a modern education system that is open to learning from everywhere. The data came from semi-structured interviews and a focused literature study. NVivo then put the pieces that were previously scattered together to form a whole that made sense. Five long-standing problems were found: chronic underfunding, bad management, disorganised courses, widespread gender bias, and weak links between education, business, and research. The situation, above all, illustrates the interdependence of these difficulties and their habit of making the necessary reforms hard to implement, thus limiting the employment prospects of the graduates. Alternatives, such as different models of educational financing, new leadership, standardized curricula, pay equity, and stronger connections between universities and industry, can help to solve the issues. The current research result delivers directions to implement the reform in game education for both teachers and administrators. The report says that changing how the business is set up will not only make it run more smoothly, but it will also help make schools that are among the best in the world at finding and developing talent.

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1. Introduction

Higher education has been seen as the most effective way to change the economy and society for quite some time. It is how people improve their living conditions and develop the country in an indirect way. Universities are the lenders of human capital, providing that "specialised knowledge and technical skills." Not that it wouldn't be good for business: It would, and it would happen. But in poorer countries like Pakistan, scarcity of infrastructure limits the facilitation by earning a higher-level degree. Also, workers capable of facing modern economic challenges are believed to be those in whom investment was made, according to Human Capital Theory (Becker, 1975). One example is South Korea, which has heavily invested in higher education as it turned its economy from a poor state with low income to one that now relies on knowledge. In addition to that, Rind and Malin (2021) cite that in Pakistan's business sector the absence of potential is partially due to under capitalisation and mismanagement.

Public schools and their students both have a lot of problems because they are badly run, which makes it hard to learn and think of new things. Politics, unnecessary red tape, and a lack of openness have all had a negative impact on how the government now functions. The Institutional Theory by North says that people act in a certain way because of rules, other people, and society as a whole. If a school is bad with money, then it might not be able to meet the standards with respect to other countries. In order to help new ideas, grow you definitely need a good direction. What essentials to be happen for Pakistan's academic system to be on the same level compared with the best in the world?

Lessons certainly no longer meet the needs of the information economy, which is an additional enormous problem. When inquired in 2023, Asad et al. (2021) believed that they were stagnantly taught in schools through memorisation instead of critical thought and applied practice. People who practice these approaches won't prepare well in job markets that change speedily. Computer Science, for example, usually global universities are instigating innovative programs for instance AI, Data Science, and Sustainability, however Pakistani universities are still following the unchanged old curricula. This situation usually makes it extra challenging for their graduates to be engaged. The divergence of trends indicates that local and global job-readiness curricula need to be rewritten periodically (Iqbal et al., 2021). The slack connection between the academy and the industry hinders the application of knowledge. To solve this problem, there should be well-planned internships, joint research projects, and regular seminars by industry experts at universities. The concerns mentioned above, however, would lead to the generation of new concepts, address the problem of skilled labor shortage, and produce graduates better equipped to handle the challenges posed by the world (Junejo, Memon, & Mohammad, 2018; Rind & Malin, 2021). For example, working together across fields in green energy could benefit both technology and graduate school. Inequality between men and women is still a big problem in Pakistani higher education. Policies that include gender, targeted marketing, funding expressly for women, and tangible assistance, such as on-campus childcare and skill development courses, may help to bridge the degree disparity between men and women (Batool, Sajid, & Shaheen, 2013; Pasha, 2024). Putting kids with experienced female teachers helps them stay in school and move forward. But sustained change across the entire sector relies on three entities working together: universities, businesses and government. They must generate greater levels of funding, reinforce institutions, and create new sources of income (Jamal et al., 2025; Malik et al., 2022). All these factors would contribute to more insightful and effective infrastructure planning and research, thus lessening reliance on erratic government support. For example, taking a cue from the funding models of foreign universities would increase the income. The rules governing promotions greatly influence the quality of education and staff motivation. A plan is made for a scheme that combines the TTS award with the BPS in Security. This would protect trust and reward the best practitioners. According to Khan and Christensen (2021), colleges and universities should set up clear and fair ways for students to get promoted in order to promote academic success and gain worldwide recognition.

1.1. Problem Statement

Higher education in Pakistan has a lot of problems, some of which are structural and some of which are cultural. These problems keep it from doing its job of helping the country grow. Institutional inefficiencies and waste are hindering the cycle of destruction. Unstable funding, poor leadership, outdated curriculum, gender wage gap, or weak connections between education and industry: These are some of the problems that have been around forever. However, the unstable funding situation is the worst of all. State funding of public colleges is a major issue, yet it is not as significant as one might imagine: it is minuscule and involves a power game. Few people consider the suppression of academic misconduct a serious issue, yet these limits are crucial to any gradual effort to increase research capacity and staff development/international collaboration, making institutions more attractive to the rapidly globalizing HE market (Jamal et al., 2025). This country lags far behind others in the diversity of its funding sources (such as charity, endowments, or business partnerships). Umar, Khan and Malik (2024) even within a single region - in India - countries are now considering mixed finance as a way to move away from reliance on state funds. This makes research more competitive.

Incompetent governance worsens financial troubles by undermining the credibility and independence of institutions. The political nature of appointments, along with the bureaucratic

decision-making, has further strengthened the cultures of underperformance, incompetence, and favouritism (Usman, 2014). Things get worse for schools that don't value theory when they try to hire good managers and teachers. This can hurt their image for being great in the classroom. It is said in the Institutional Theory that bad leadership not only makes it harder to hold people responsible, but it also cheats the system and makes it less useful. The longstanding divide between academia and industry is also responsible for this. Even though Pakistan produces a large number of graduates every year, most of them are not equipped with the skills required for employment in a highly automated, digitalized, and international job market. This mismatch in skills leads to a high percentage of unemployment among graduates and a reduced ability to generate new ideas. For example, the delayed addition of new disciplines, such as artificial intelligence and renewable energy, to college courses indicates that the industry can't keep pace with market demands. The gap between the abilities of graduates and the needs of the economy will continue to widen unless there is more cooperation through internships, co-developed courses, and research projects driven by businesses (Junejo, Memon, & Mohammad, 2018).

Higher education is not the only arena where men and women have disparate opportunity-the stories of men and women greatly differ as social constraints, restrictive mobility, and poor school support systems hinder female students, especially those from poorer sections of the rural community, from gaining equal education opportunities (Batool, Sajid, & Shaheen, 2013): all of these factors make education less inclusive and lessen its full utilization, which in turn thwarts the nation from tapping half of its nation's latent potential. Comparative Evidence from comparable development settings indicates that mentoring schemes targeted to specific groups, gender-friendly facilities, and scholarship packages can significantly increase female participation and retention (Pasha, 2024). The Pakistani government shows no interest in a joint pan action commitment to standardised practices that will result in the educational equality of men and women, thereby creating a vicious cycle that perpetuates gender disparity in access to education. All of these issues show how the problems in higher education in Pakistan are linked. Having a broader, more world view is the only way to deal with the problems. Governments should do a lot to help with this. They should make sure there are many long-term ways to pay for it, change the power system to one that is open and fair, make sure that education meets the needs of the market, help schools and businesses connect, give men and women equal chances, offer mentoring programs, and give women scholarships. General public from all over the world still need to work together on these projects for them in order to certainly benefit the economy nurture. More or less people contemplate that Pakistan must let additional people go to the institutions so that the country is considered to be more artistic and set to strive in the global market. Therefore, this is the correct approach to ensure things.

1.2. Research Objectives

Why is it so hard-hitting for Pakistan's higher education to progress and nurture? That is what this paper is exactly focusing about. Excessively red tape, old methods of teaching and learning, enormous income disparities amongst men and women, and also the fragile business connections make it inflexible to progress. Things are usually taken care of in a way which is based on the realities after these discussions. Specifically, an institution ought to be more in step with what public need and what employers want. There should also be examination on schools more frequently to validate they can make payment of their bills. An enormous portion of growth is creating people more supportive. This is clear when you think about what small businesses need to learn in school. We are going to use the Institutional Theory (North, 2010) and the Human Capital Theory Becker (1975) to show that businesses and society can grow when they spend money on education. The main point of this study is to make Pakistan's college system more adaptable, affordable, open, and long-lasting.

1.3. Research Significance

At this point, researchers are very important because they figure out what is holding back growth in higher education. The study should also find out what issues need to be fixed in schools and with the country's growth. Some of the problems that need to be fixed are bad leadership, schools that are too old, unfair gender roles, and not enough connections between higher education and business. Yes, this study may want to address these roadblocks to higher education when, as a country, we become socio-economically immobile. It provides concrete

suggestions to inform policymakers, leaders of different educational institutions, and stakeholders in transforming institutions to achieve better learning outcomes and increased employability among graduates (Usman, 2014). According to the study, amongst other factors (which are equally important), it has also criticised the huge gap between industrial and academic requirements, which it believes is responsible for the skills gap observed in our graduates. Additionally, the study supports a growing body of opinion worldwide that higher education is an important part of promoting growth and creativity. Because of this, these kinds of trends need a new program, and for universities and businesses to work together more. By genuinely prioritising skills and curriculum reform while also working very closely with industry, Asad et al. (2021) would both improve graduate employment prospects and offer solutions to pressing national problems. This has set the pace for the emergence of new industries in a technology- and green innovation-based framework that can make Pakistan a winner on the global market. The survey also checks to see how diverse and fair the university is for both men and women. The increasing probabilities for women may possibly be upright for mutually the business and society all in all. More or less of the ideas are action, institutions that allow together boys and girls in, and neighbourhood support groups that support multiplicity. Women can get credit for their skills and academic success in college through projects like this one. In general, the paper demonstrates that higher education can offer Pakistan a successful, equitable, and inclusive future. It interrogates the problem at its roots and proposes evidence-based change, providing a better educational structure for national transformation.

2. Literature Review

2.1. Related Work

In Pakistan, the higher education system is still affected by financial challenges that make the system ineffective. According to Jamal et al. (2025), the high dependence of the sector on school fees and sporadic government funding makes it even more difficult to afford access to education especially by individuals with low-income families. Due to this, the level of financial instability is high which not only slows the expansion of educational opportunities, but also studying and development of newer ideas. Funding is lacking and this makes colleges unable to compete at the global level. The authors opine that deals with the government and the business entities, and even gifts made by the rich will enable the colleges and universities to stabilize their financial position. These steps have been especially helpful in other developing countries, where universities have been able to improve their studies and resources by working with business partners. Governance issues and outdated curricula continue to be major obstacles for Pakistan's higher education sector. Khan, Bibi and Khan (2018) say that two main problems that lower performance, reduce freedom, and change results are political decisions and a lack of openness. These problems with the government make teachers less happy and have a negative impact on the student experience. According to Institutional Theory (North, 2010), which posits that open government is crucial for fostering efficiency and innovation, the writers advocate for hiring individuals based on their skills and regularly reviewing their performance to make organizations more accountable and trustworthy. The other major problem is that the material should be revised.

Asad et al. (2021) also note that the curriculum of most Pakistani schools is dated and is excessively focused on memorization, as opposed to the creation of real-world and critical thinking abilities. A major cause of the skills gap among graduates is that firms do not have the required skills. The report advises colleges to include new topics to their curricula like digital transformation and sustainability, to enable the students to find employment upon their graduation. One of the ways the universities will help students respond better to the challenges of today is to make certain that their education programs are in line with the needs of the business. In this case, universities in Pakistan can seek the world of universities whereby courses are always being revised to accommodate new technologies. This would make college graduates have the skills they need in order to compete in the global market.

Lack of strong university-industry partnership is a major innovation and graduate employability hindrance in Pakistan. Junejo, Memon and Mohammad (2018) highlight the significance of the partnership between the business and the school in the context of creating innovations and improving the job prospects of more graduates. The skills gap can be addressed by joint research programs, internships, and projects organized by businesses; they are all effective to make sure that college programs meet market requirements. Though there is a wide divide between academia and business in Pakistan, there are some opportunities that

they can work together successfully. It is not only hard to comprehend how to create and sustain these links in a particular social, economic, and political setting of Pakistan, but it is also hard to notice the value of them. Ineffective institutional governance and gender discrimination continue to be issues in the higher educational circuit in Pakistan. According to Batool, Sajid and Shaheen (2013), social and cultural restraints exist that disproportionately affect women more than men, especially in rural settings. Women are less likely to attend college due to restrictions on access to educational apparatus, as well as socially defined roles of women. These issues are made even worse by the lack of gender-sensitive support systems and laws. This makes it hard for women, especially those from underrepresented groups, to get into and finish college. Bari says that tutoring and community service projects can make a difference, especially in higher education. College might be more open and fair for both men and women if these issues were fixed. The feminist view about education indicates that all children need to be assisted by the policies and programmes in order to eradicate the gender gap in institutes. This is wherever the judgements that cannot be supported come in. There were also individuals responsible at the universities and schools did not perform their jobs. Usman (2014) mention that universities have ruthless leadership and a management system that creates it inflexible for public to reflect and performance. Furthermore, they cannot even agree on their own what to do about enormous things. They don not contemplate that forming clear directions for the programmes and groups will definitely seizure leaders into champions. They also believe that it will certainly make leaders well at their jobs and frequently accountable. These notions are consistent with best practices in educational leadership. Good governance is linked to better results for the school and better study skills(Ahmed, Azhar, & Mohammad, 2024; Mohammad, 2015a, 2015b).

Insufficient research funding and ineffective academic career structures hinder progress in Pakistan's higher education field. Malik et al. (2022) propose that research and development should receive more funding in order to instill a creative attitude in schools and universities. The authors indicate that the private and the public sector can possibly contribute substantially to the development of meaningful research projects. It can start enabling institutions to tackle the most urgent problems in Pakistan, such as social and economic inequality, environmental safety, and the technological development, by making it easier to enable researchers to obtain funding and collaborate. Teacher growth and development policies also play a prominent role in how well students perform at school and their satisfaction with their education. Khan and Christensen (2021) discuss the problems related to the Tenure Track System (TTS) and the Basic Pay Scale (BPS). They demonstrate that as much as TTS is good in spurring research output, it does not provide adequate job security. Conversely, BPS promises employment and not rewards of good performance. The authors favor an approach that incorporates the strengths of the two approaches. This would make teachers feel safe and encourage them to do their best job. A place where students can do well in school should offer recognition for achievement and clear paths for growth, according to those who say this.

2.1. Gap Analysis

There is abundant data on issues in Pakistani higher education, but many gaps remain. Debates often revolve around funding and governance, but we lack analysis to determine whether solutions such as public-private joint ventures or charitable giving are effective (Jamal et al., 2025). The investigation conducts a detailed analysis of the advantages and disadvantages of various higher education financing models in Pakistan to address this problem. Although the need to revise the curriculum is acknowledged, only a handful of studies from Pakistani universities have reported the use of industry-facilitated programs (Asad et al., 2021). The current research examines the issues encountered in practice and the potential future of curriculum restructuring, primarily considering ecology and artificial intelligence as fields to be included. Moreover, the "gap between academia and industry" is not well comprehended. Although there is a lot of literature on the benefits of collaboration, there is still a lack of understanding of how to maintain such partnerships in the Pakistani ecosystem. Our study aims to draw practical implications for the strengthening of the academia-industry linkages (Junejo, Memon, & Mohammad, 2018). Disparities in higher education based on gender have been the topic of numerous research papers; however, the role of these three factors - gender, socio-economic status (SES), and geographic location - has not been fully understood yet. This study focusses on the issues confronting low-income women and suggests solutions to promote gender equality (Batool, Sajid, & Shaheen, 2013).

3. Research Methodology

3.1. Research Design

A qualitative study method was used to look into the issues with higher education in Pakistan for this work. A qualitative approach works well for this study. It looks into issues like not enough money, bad management, gaps in the curriculum, and differences between men and women. These are all very difficult problems that can't be summed up in numbers. One of the best things about qualitative study is that it records the experiences and ideas that drive seed bearers. This helps us understand the problems that higher education in Pakistan faces as a whole better. Theme analysis is the primary mode of data analysis. This approach may help you spot themes, trends, and connections. It also shows how issues are interconnected and how well institutions do their jobs. Khan and Christensen (2021) argue that research should focus more on interviews / structured observation / document analysis, all of which allow the researcher to follow up on ideas while never forgetting the work's core motivation.

3.2. Data Collection

Data collection for the present study was conducted through document analysis and semi-structured interviews. It relies on both primary and secondary sources. Academicians, administrators, students, and politicians were interviewed. This guarantees that the data comes from multiple angles, resulting in a more comprehensive and therefore more convenient outcome. The participants are English-speaking students from private and public schools in Pakistan, selected through purposive sampling. It is ensured that only those with the necessary knowledge and skills are allowed to participate. An interview guide includes topics such as long-term financial sustainability, leadership, creating lessons that really work, and equal salaries for both genders. Authoritative resources, for instance position papers, academic journals, and university reports are moreover employed. These objects improve greatly more significance and superiority to the talk. You can also acquire about the contextual, organisation, as well as modifications in higher education by studying about it. In the context of both scale and depth, this all-incorporating technique turns out enormous outcomes. The research employs diverse types of information to explore essential complications in Pakistani higher education (Iqbal et al., 2021).

3.3. Data Analysis

Thematic analysis is a technique used for exploring qualitative data. It supports experts to categorize main tendencies and thoughts that give the impression over and above once in the material. Assuming out what these themes signify supports us to better recognize the complications. These results are then carefully and clearly recorded by grouping facts according to their subject importance. Because this is an iterative, evolving process, it is often necessary to refine themes as the study progresses. After the themes are identified, they are carefully re-evaluated to gain a better understanding of the problems. Specialised software such as NVivo is used to systematically code and manage qualitative data, ensuring the research is complete and makes sense. When this approach is used in a research setting, it helps people get a clear picture of the problems that make it harder to get a college education in Pakistan. Looking at the data from different sources, like conversations, papers, and comments, and comparing the results is a good way to make sure they are correct. This robust, all-around approach, grounded in prior research, provides a broad view of the problems in Pakistani higher education and, most importantly, explores possible ways to address them (Asad et al., 2021).

4. Research Findings And Discussion

4.1. Results

There exist five leading complications regarding higher education in Pakistan spotlighted: lack of funds, the government's inaction, conducting short-term remedial workshops, gender variations, weak linkages amongst the university and the business world (Iqbal et al., 2021). These outcomes not merely substantiate the study's objectives; however, they offer in-depth insights regarding fundamental concerns.

- **Financial Constraints:** Traditionally, it's hard-hitting to form future planning and innovate. According to Jamal et al. (2025), strengthening financial sustainability in public universities requires diversifying income sources, increasing public contributions, and streamlining financial management processes to reduce instability and improve long-term planning.

- **Governance Inefficiencies:** The government does not effort better for the reason that leaders can only guess whatsoever they require and people retain deceits. This will absolutely effect people with less believing of the administration and its ability. Khan, Bibi and Khan (2018) recommend employing formed on the aptitudes and capability in order to progress the competence of administration and also to condense double-dealing.
- **Curriculum Gaps:** Old fashioned courses will render it more difficult to find employment as a graduate. Participants pointed out that they needed to add new content and improve content, including digital transformation and sustainability, to match the demands of the job market more closely (Asad et al., 2021).
- **Gender Disparities:** Women find it more difficult to enter college due to cultural and gender discrimination, particularly in villages. In order to achieve female equality, it was proposed that community involvement and teaching should be employed (Batool, Sajid, & Shaheen, 2013).
- **Weak Academia-Industry Linkages:** The skills gap in graduate numbers might be due in part to the fact that colleges and businesses do not cooperate in the way that they ought to. Respondents demanded collaborative research, seminars, and training on the business to further align the academic curricula with the work requirements, as well as to increase employability (Junejo, Memon, & Mohammad, 2018).

Table 1: Frequency of Themes Identified in Thematic Analysis

| Theme | Frequency of Mentions |
|-----------------------------------|------------------------------|
| <i>Financial Constraints</i> | 28 |
| <i>Governance Inefficiencies</i> | 18 |
| <i>Curriculum Gaps</i> | 22 |
| <i>Gender Disparities</i> | 15 |
| <i>Academia-Industry Linkages</i> | 20 |

This table refers to the number of times the individual subjects were considered during the theme analysis. On this basis, insufficient funding and unfinished classes surfaced as the most important issues that were voiced concerning the consequences they make for problems in higher education in Pakistan. The responses thus yield a lot of information regarding the functioning of structural constraints and can be useful in arriving at better policy recommendations.

5. Discussion

Findings from the study reveal crucial information regarding the internal issues that Pakistani higher education suffers from, which hinder its development. The problem is there was no funding for finance, and they would be saying we'd have to look at alternative revenue so that the colleges could live for quite a bit of time." Banks have long realised that their fluctuating finances are a major issue (Jamal et al., 2025). Charity and public-private agreements are listed as sources of funding, which shows that people know the government can't pay for all of higher education in Pakistan. There are problems with the way the system is run, but other things are just as important. It's factual that Khan, Bibi and Khan (2018) consider awful policy judgements or closed groups unable to find the credibility and authority. Pakistani higher education institutes enlist are based on capabilities and aptitudes occasionally assess their achievement in order to improve the structure. To nurture academic talent, institutions require specific individuality. In this research, the curriculum irregularities specify an undesirable gap amongst university education and industrial demands. Asad et al. (2021) claim that curricula ought to be rationalized from the time when the content is insufficient. The researchers also intended to perceive how outdated curricula initiated variations amongst the academy and business; and also to create academic programs which are exactly relevant to today's market conditions. Furthermore, AI and the environmental studies courses could support students in order to find employment nippily and revolutionize. Differences between men and women have also been named as a problem, especially in poor and rural places. Batool, Sajid and Shaheen (2013), who looks at gender movement at the intersection of economic factors and place, backs this up. The findings hint at mentorship and community engagement as means to alleviate this inequity and promote gender diversity within higher education.

Study the priority issues of poor women and find the answers for them. After the identified skill gaps have been closed and employability has improved, a link with industry needs to be established. The results will provide a basis for developing mutually beneficial relationships with Pakistan, especially in collaborative research, internships, and industry-sponsored training. Qualitative methods alone hinder generalisation and introduce potential bias, given the non-probabilistic sample used in purposive sampling. The next generation of research will benefit from mixed-methods approaches in collaboration with policymakers and industry leaders, as well as from quantitative surveys to triangulate findings.

6. Conclusion

According to the researcher of this paper, inadequate funding, weak governance, incomplete syllabi and curricula, gender imbalance, and insufficient interdisciplinary connections are five systemic emergent factors undermining higher education in Pakistan, thereby hindering its national development and innovation. These interacting structural problems are eroding institutional efficiency and graduate quality, as well as restricting student participation in an inclusive manner. Several financial sources, openness, gender-awareness among teachers, and collaboration between education and business are all possible answers. This could make higher education in Pakistan more flexible, open to everyone, and competitive on the world stage. Higher education reform in our country needs to have a greater impact, so the management aspect of the current reform process needs to be examined to identify underlying problems. This article suggests that the application of these technologies should be examined immediately and continuously, especially in mixed-methods settings, and that constraints affecting marginalised communities should be alleviated. Because it is effective, this sort of study is carried out throughout the process of laws and social norms being altered. Furthermore, a long-term collaboration between universities and enterprises ought to enhance innovation and job opportunities for Pakistani graduates. Moreover, addressing skill gaps and worker capabilities development are better tactics for knowledge economy growth, according to the report.

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