

Systemic Barriers to Demand-Driven Higher Education in Developing Economies: A Stakeholder Perspective

1. Mirza Muhammad Bilal Baig

Institute of Quality & Technology Management,
University of the Punjab, Lahore, Pakistan
Email: mbbaig24@gmail.com

2. Prof. Muhammad Usman Awan

Institute of Quality & Technology Management,
University of the Punjab, Lahore, Pakistan

3. Dr. Rab Nawaz Lodhi

Hailey College of Commerce,
University of the Punjab, Lahore, Pakistan

4. Dr. Atif Hussain

Institute of Quality & Technology Management,
University of the Punjab, Lahore, Pakistan

Abstract

Higher Education Institutions in developing economies are faced with the chronic challenges of matching their output to the needs of the labour markets thereby leading to high rates of graduate unemployment, underemployment and skills gaps that have impeded economic growth. Although demand-driven education has been promoted as one of the solutions, no systematic consideration of the barriers to implementation based on the perspectives of stakeholders has been conducted. The current research adopts a qualitative exploratory research design, which applies the focus group approach in exploring the systemic barriers to the demand-driven higher education reform. In August–September 2025, two focus group discussions were held with twenty education stakeholders, comprising university leaders, policymakers, quality assurance professionals, and senior faculty members. Seven interrelated categories of barriers were identified in the reflexive thematic analysis, which consist of governance and institutional coordination gaps, curriculum obsolescence, resource constraints, industry-academia disconnect, sociocultural exclusions, technology integration deficits, and demographic pressures. Results have shown that these barriers are systematic and not confined, creating reinforcing loops that perpetuate educational-labour market mismatch. The first source of institutional coordination arises when there is a gap in institutional coordination that is defined by the dispersed dissemination of demand information among regulatory agencies, thus, ensuring that the universities do not get access to integrated labour market information. Resource inequities, both limit the capacity of innovation and rationalize the existence of outdated programmes. The research provides context-specific information

about implementation barriers within resource-scarce contexts and provides empirically-based suggestions to policymakers aiming to achieve educational reforms in developing economies.

Keywords: Demand-driven education; Higher education reform; Graduate employability; Developing economies; Thematic analysis; Stakeholder perspectives

1. Introduction

The challenge that Higher education institutions (HEIs) in the developing economies face is how to produce graduates whose skills are relevant to the labour market demands. This mismatch can be seen in high unemployment rates among the degree holders, extensive underemployment, and the skills mismatch that continues to limit the development of the economy (International Labour Organization, 2024; UNESCO, 2024). The issue has been aggravated because the world is becoming economically integrated, and the educational system needs highly specialized skills, whereas the institutions have found it difficult to modify their curriculums and methodologies towards such specialization (World Bank, 2024).

The institutions are designed to function as drivers of social mobility and economic change. When functioning well, universities produce human capital that is required to drive innovation, increase productivity and competitive advantage in knowledge-based economies (Carayannis & Campbell, 2012). However, there is growing evidence in developing regions that shows a systematic misalignment between outputs of education and the needs of the employment sector (Dicker et al., 2019; Tomlinson, 2012). Graduates also often have a lack of practical skills in addition to their formal qualification, and employers also cite challenges in finding qualified candidates (Harvey, 2001).

Higher education, being demand driven has therefore been proposed to solve this structural mal-alignment. The idea proposes the development of curricula, methods of teaching and institutional interests on the basis of systematized evaluation of labor market demands rather than traditional academic conventions (Yorke, 2006; Knight & Yorke, 2003). Advocates hold that this strategy will boost graduate employability, boost economic productivity, and return on educational investment (Barnett, 1994).

Nevertheless, adopting demand-based models in the developing-economy setting is a challenging matter. There is a mismatch between the technological development and the capability of the institution to adapt. The graduates exceed the labour markets because of demographic pressures. Digital infrastructure separates urban and rural, poor and rich. There is institutional coordination failure that does not facilitate dissemination of demand information. The implementation capacity is constrained by resource constraints (Marginson, 2013; Boni, 2023; Altbach et al., 2009).

Existing literature has already reported on such challenges, especially the consequences of these challenges; the levels of unemployment, differences in earnings, and mismatches in qualifications. The majority of studies utilize quantitative designs: surveys on employer satisfaction, econometric studies of wage premises, and graduate tracers of employment performance (Schomburg & Teichler, 2006; International Labour Organization, 2018). Though useful, these methodologies offer minimal information about the processes that give rise to observed patterns or stakeholder views of education-systems that implement reforms. **Table 1** is a

Table 1 *Limitations of Previous Studies*

Reference	Primary Focus	Key Insights	Identified Gap Relevant to This Study
Uzair-Ul-Hassan & Noreen (2013)	Graduate skill mismatch	Identified mismatch between graduate competencies and employer needs in technical and economics disciplines	Relies on quantitative surveys; does not explore institutional, governance, or implementation challenges from stakeholder perspectives
Khan et al. (2022)	Education–earnings mismatch	Demonstrates how educational mismatch affects labor market outcomes and earnings	Uses secondary datasets; lacks qualitative insight into systemic barriers preventing alignment
Pholphirul (2017)	Vertical and horizontal mismatch	Highlights consequences of mismatch on employment quality	Case-specific and outcome-oriented; does not examine how or why institutional alignment fails
Matsuda et al. (2019)	Skill demand analysis	Identifies skill shortages using job portal data in high-demand sectors	Focuses on employer demand only; neglects supply-side institutional and governance constraints
Mustafa (2022)	Curriculum relevance	Notes outdated curricula and weak industry linkages in engineering education	Descriptive and sector-specific; lacks integrated, multi-domain analysis of implementation challenges
Cai et al.	University–	Explores	Primarily

(2017)	industry collaboratio n	collaboratio n mechanisms in innovation systems	based on developed contexts; limited attention to developing- economy governance and resource constraints
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Source: Authors' creation

This study addresses these gaps by directly involving education stakeholders in order to learn about particular barriers that arise in aiming at improving labour market responsiveness in higher education. Two focus group sessions involving twenty expert participants from university leaders, policymakers, quality assurance professionals, and senior faculty were held. Using thematic analysis, the study engaged the views of the participants systematically to build a coherent picture of the barriers to implementation within the setting of the developing economies.

2. Methodology

2.1 Research Design

The current study was a qualitative exploratory study with the aim of explaining the meaning of barriers to demand-driven higher education to the stakeholders in the education sector and their conceptualization. The methodology appraisal is that of the interpretivist perspective, which acknowledges that the views of stakeholders are realized by the means of the experience and institutional context of the profession (Creswell, 2014; Patton, 2015). It was considered that the focus-group methodology was suitable, since group work enables a more subtle interrogation of complicated questions than the individual interview; group members co-create meaning and uncover the ambiguity in dialogue (Morgan, 1996; Liamputtong, 2011).

2.2 Participant Selection and Sampling

The purposive sampling was used to select participants. The deliberate selection of individuals was used instead of random selection in the selection process based on their expertise in the field of education governance, teaching and quality management which provide respondents with the ability to cast informed views concerning problematic issues in the system (Hammarberg et al., 2016). The sample comprised 20 participants distributed across two focus groups.

Participants included university leaders (n=5), higher education policymakers (n=6), quality assurance professionals (n=4), and senior faculty members (n=5). Ages ranged from mid-30s to mid-60s. Experience in higher education spanned from 10 years to over four decades. Both genders were covered, yet complete gender parity was considered as a study limitation.

2.3 Data Collection Procedures

The data was collected (two focus-group sessions) during the period of August-September 2025. The first session was conducted in person with the local stakeholders, thus, taking advantage of the benefits of physical co-presence to encourage open dialogue and the use of nonverbal communication. The second session took place online, which offered the opportunity to include geographically dispersed stakeholders, including global

participants predominantly from developing economies, thereby enhancing geographic and contextual diversity.

Both sessions were audio and video recorded with explicit informed consent.

The two sessions were audio- and video-taped with express informed consent. Verbatim transcriptions were prepared by professional transcribers, and then compared with the original recordings to establish both its accuracy and completeness. **Table 2** contains the key questions which were used as the focus-group questions.

Table 2 Core questions guiding focus group conversations

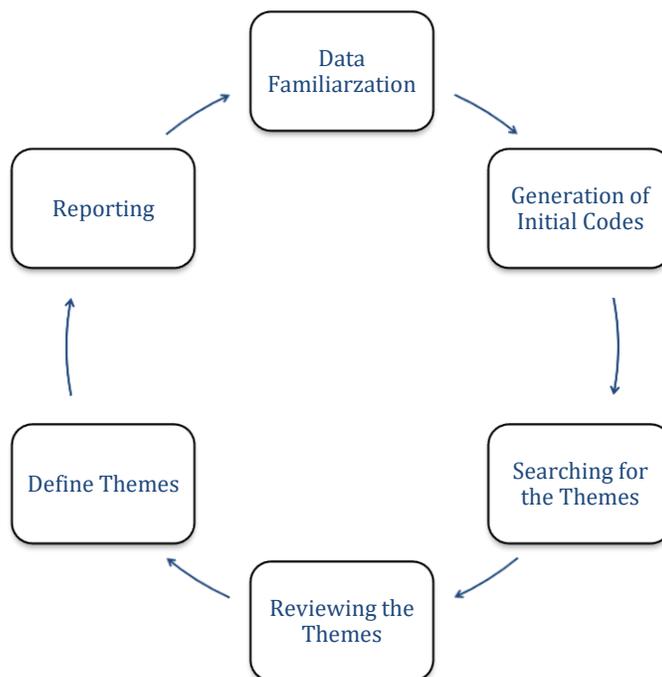
#	Discussion Prompt
1	Drawing on your experience, what systemic problems keep universities from producing graduates who actually meet current job market needs?
2	How specifically do governance structures, policy environments, and institutional cultures contribute to these problems? Can you share examples of reform efforts that failed because of these barriers?
3	What unique obstacles whether cultural, economic, or structural do developing-economy contexts present that we must address to move toward more responsive education systems?
4	If you could prioritize two or three actionable changes most likely to overcome these barriers, what would they be and why those specifically?

Source: Authors' creation

2.4 Analytical Approach

Thematic analysis approach as outlined by Braun & Clarke (2006) was used to analyze the data. This methodological approach acknowledges that researchers are not neutral but instead are actively involved with participants in the meaning making process by bringing interpretive intervention to the data. **Figure 1** shows six iterative steps in the analysis process.

Figure 1 Six-phase iterative process of reflexive thematic analysis



Source: Braun & Clarke (2006)

Phase 1 involved identification of the initial codes by

reading and re-reading the transcript, which allowed the creation of initial impressions and the initial understanding of the dataset. Phase 2 involved systematic labelling of meaningful segments using descriptive codes, thus, capturing certain concepts, experiences, or observations expressed by the participants. This granular coding also gave over 200 preliminary codes out of the whole dataset.

Phase 3 entailed the analysis of patterns between codes and categorization of similar codes into tentative themes. To illustrate, the terms like old syllabi and syllabuses are outdated, slow in revising syllabuses, industry not consulted etc. subconsciously formed a cluster, which implies that curricular obsolescence is a thematic construct. Phase 4 involved critical review of the emerging themes to ensure that they were coherent with the coded data in the entire dataset. The themes were reviewed by two members of the research team working independently to declare to the analytical rigour and to discuss the potential divergent interpretations.

Phase 5 was fine tuning of the provisional categories to seven final themes as shown in Table 4. Thematic saturation was achieved by the end of the second focus group; no new themes were identified, only more and more illustrations of the previously identified patterns. Phase 6 involved synthesis of the findings, which included illustrative quotes to base the interpretations on the voice of the participants. **Table 3** illustrates the complete analytical progression from initial codes through axial codes and sub-themes to final themes.

Table 3 *Building themes from the ground up: examples of our analytical progression*

Initial Codes (Open Codes) (n=218 total)	Axial Codes (n=52 total)	Sub-themes (n=21 total)	Final Themes (n=7)
Lack of coordination between government and private institutions Lack of national education policy Inconsistency in policies Eroded autonomy of regulatory bodies Lack of national-level planning and dissemination	Weak governance and regulatory oversight Inconsistent and mismatched educational systems Lack of coordination and planning	Fragmented demand information systems Weak inter-agency coordination Absence of unified labor market intelligence	Governance and Institutional Coordination Gaps

Misalignment between education and job market demands
 Lack of uniform education system
 (7 representative codes from 31 total)

Curriculum not updated with industry requirements
 Outdated curriculum and lack of practical skills
 Outdated laboratory equipment
 Lack of exposure to modern technology
 Generalized testing and lack of specialization
 Outdated curriculum and pedagogy
 (6 representative codes from 28 total)

Lack of funding for education
 Outdated laboratory equipment and practical

Outdated curriculum and pedagogy
 Mismatched skills and industry demands
 Neglect of practical training

Systemic issues in access and funding
 Underinvestment in technical education

Outdated content and materials
 Bureaucratic revision processes
 Theory-practice disconnect

Infrastructure deficits
 Urban-rural disparities
 Obsolete

Curriculum Obsolescence

Resource Constraints and Inequities

training
 Lack of
 infrastru
 ctu
 re for
 technical
 training
 Disparities
 in
 provincial
 education
 funding
 Access and
 affordabilit
 y issues
 Out-of-
 school
 children
 and lack of
 primary
 education
 (6
 representati
 ve codes
 from 35
 total)

Challenges
 in funding
 equity

equipmen
 t and
 resources

Disconnect
 between
 stakeholder
 s
 Lack of
 linkage
 between
 industry
 and
 education
 Industry-
 academia
 disconnect
 Mismatch
 between
 industry
 needs and
 academic
 output
 Lack of
 coordinatio
 n between
 education
 and
 industry
 needs
 (5
 representati
 ve codes
 from 24

Weak
 industry-
 academia
 collaboration
 Mismatched
 skills and
 industry
 demands

Limited
 systemati
 c
 collabora
 tion
 Absence
 of
 partnersh
 ip
 incentive
 s
 Mutual
 distrust

Industry-
 Academi
 a
 Disconne
 ct

total)

Societal attitude favoring white-collar jobs Dependence on parents for education funding Access and affordability issues in education Lack of career counseling and guidance Lack of career counseling at school level

(5 representative codes from 29 total)

Outdated curriculum and lack of exposure to modern technology Lack of infrastructure and resources for technical training Outdated laboratory equipment Lack of focus on technical skills

(4 representative codes from 18 total)

Societal bias against vocational training Inadequate support systems for students Systemic issues in access and funding

Neglect of practical training and safety Underinvestment in technical education Outdated curriculum and pedagogy

Vocational education stigma Economic access constraints Gender-based limitations

Limited digital tool adoption Urban-rural digital divide Inadequate infrastructure

Sociocultural and Economic Barriers

Technology Integration Deficits

Overproduction of graduates in certain fields
 Population pressure on education and job markets
 Decreasing demand for Pakistani workers internationally
 Brain drain and lack of global skills
 Mismatch between graduates and industry needs
 (5 representative codes from 33 total)

Overproduction and lack of specialization
 Brain drain and lack of global preparedness
 Mismatched skills and industry demands

Labor market absorption capacity
 Graduate oversupply
 Insufficient labor market intelligence

Demographic Pressures and Market Saturation

Source: *Authors' creation*

Note: This table presents representative examples from the complete coding process. Initial codes (n=218) were generated through line-by-line analysis of focus group transcripts. Axial codes (n=52) grouped related initial codes. Sub-themes (n=21) identified patterns across axial codes. Final themes (n=7) represent the interconnected barrier categories. Numbers in parentheses indicate representative samples shown versus total codes generated in each category.

2.5 Ethical Considerations

The written informed consent was signed by each participant after a detailed briefing was conducted on the objectives of the study, research methods, use of data, and protection of confidentiality. The study informed the participants that they had the right to pull out of the study at any point without any negative consequences. To protect confidentiality, any identifying information was removed out of the transcripts, and quotations were included in the findings in generic role descriptors as opposed to specific institutional affiliations.

3. Results

The analysis determined a chain of thematic challenge categories that are interrelated systemically that limits the implementation of demand driven higher education in the developing economies. These themes represent systemic constraints inherent in higher education systems, rather than isolated technical issues. Respondents have repeatedly noted that these categories of challenges interrelate and support each other thus creating a system of endemic mismatch between higher education outputs and labour market demands. All these categories of thematic challenge create a systemic configuration that limits the ability of higher education

systems to be receptive to reforming workforce demands. **Table 4** presents the final thematic framework, delineating the seven challenge categories along with their analytical definitions.

Table 4 *Final thematic framework: Systemic barriers to demand-driven higher education*

Theme	Definition
Governance and Institutional Coordination Gaps	Structural fragmentation among regulatory and planning bodies responsible for workforce development, resulting in contradictory policy signals and absence of integrated labor market intelligence systems accessible to universities. This includes disconnection among the Higher Education Commission, Planning Commission, Bureau of Emigration, and provincial authorities, each operating with separate mandates and data systems without systematic coordination mechanisms.
Curriculum Obsolescence	Systematic lag between curricular content and contemporary skill requirements, characterized by outdated technical content, excessive emphasis on theoretical knowledge over applied competencies, and bureaucratic revision processes requiring years to implement even minor adjustments. This obsolescence persists due to limited access to labor market intelligence and weak industry input into curriculum design.
Resource Constraints and Inequities	Inadequate and inequitably distributed financial, physical, and human resources that constrain institutional capacity to modernize programs, update facilities, and provide quality education. This includes stark disparities between well-resourced urban institutions and under-resourced rural campuses, creating effectively differentiated educational systems despite common regulatory frameworks.
Industry-Academia Disconnect	Absence of systematic, substantive collaboration between universities and employers despite rhetorical commitment to partnership. This disconnect stems from structural misalignment of incentives—universities optimize for research publications while employers lack motivation to invest in educational partnerships—resulting in mutual distrust and superficial engagement limited to occasional guest lectures rather than curriculum co-design or sustained cooperation.
Sociocultural and Economic Barriers	Cultural values, economic constraints, and social stratification systems that systematically exclude certain populations from educational opportunities and devalue particular educational pathways. This includes persistent stigma against vocational education despite superior employment outcomes, economic barriers preventing talented students from disadvantaged backgrounds from accessing education, and gender-based limitations constraining women's educational and career choices.
Technology Integration	Limited meaningful incorporation of digital technologies and contemporary tools into curricula and pedagogical

Deficits	practices, despite workplace expectations for technological proficiency. This includes persistence of traditional lecture-based instruction, inadequate digital infrastructure particularly in rural contexts, and insufficient faculty capacity or institutional support for technology-enabled learning approaches.
Demographic Pressures and Market Saturation	Structural imbalance between graduate production and labor market absorption capacity, exacerbated by inadequate labor market intelligence systems. Universities produce thousands of graduates for oversaturated fields while undersupplying growing sectors, contributing to youth unemployment that reflects insufficient employment opportunities rather than solely skills deficits. This challenge operates at a systemic economic level beyond educational reform alone.

Source: Authors' creation

3.1 Governance and Institutional Coordination Gaps

Governance emerged as a foundational barrier to demand-driven higher education, not through overt political interference, but through persistent institutional fragmentation and coordination failures among bodies responsible for workforce planning and regulation. Participants consistently highlighted the absence of an integrated governance mechanism for generating, sharing, and translating labour market demand information into actionable guidance for universities.

A senior administrator explained:

“The Higher Education Commission establishes academic standards. The Planning Commission develops skill requirement forecasts. The Bureau of Emigration tracks overseas employment. Provincial governments maintain workforce agencies. Each operates with its own mandate and data systems. What’s missing is systematic coordination and information sharing among these bodies.”

This fragmentation produces contradictory and often competing signals for universities. A quality assurance professional noted:

“The HEC emphasizes research output and rankings. The Planning Commission identifies priority economic sectors. Provincial authorities focus on local employment. These priorities don’t always align, and universities lack clarity about which signals to prioritize.”

The absence of integrated labour market intelligence further constrains institutional responsiveness. As one policymaker acknowledged:

“We maintain extensive data on overseas employment, sectoral growth forecasts, and employer surveys. But this information remains siloed within organizations. Universities cannot easily access comprehensive intelligence about current and emerging skill requirements.”

Overall, the lack of a unified demand-information dissemination mechanism limits universities’ capacity to respond strategically to labour market needs. As a provincial university administrator summarized:

“We want to be responsive, but accessing current information requires approaching multiple agencies with different data formats and update frequencies. What we need is a centralized platform where regulatory bodies share labour market intelligence systematically and universities can access integrated demand information to inform program planning.”

3.2 Curriculum Obsolescence and Revision Inertia

The discussion of curriculum obsolescence was present in all the discussions; it was usually stated with frustration. An engineering dean stated:

"I examine our computer science curricula and find content that was relevant ten years ago but is completely outdated today. We're teaching programming languages that industry stopped using a decade ago. Our graduates enter the job market unprepared for technologies employers actually use."

The problem extends beyond outdated technical content. A business faculty member noted: *"Students can recite macroeconomic theories without difficulty. Ask them to analyze an actual company's quarterly financial report or develop a realistic marketing strategy? They struggle because we haven't taught them applied analytical skills. The disconnect between theoretical knowledge and practical application is substantial."*

According to the participants, the process of curriculum revision was marked with a high amount of bureaucracy and a gradual decision-making process. To facilitate changes in universities, it takes the approval of several committees and external bodies; a change in a few aspects can require several years, when the relevance might have further decreased.

3.3 Resource Constraints Enabling Cascading Failures

Resource constraints take the form of an obstacle that helps in perpetrating various other obstacles. Disparity in institutions was continually highlighted. One regulatory officer explained the scenario in the following way:

"Paying a visit to a flagship urban university, one would see modern buildings, properly furnished laboratories, sufficient library facilities, and faculty faculty of decent proportions; on the other hand, a country campus will contain broken machinery, old-fashioned library libraries, lack of faculty and deteriorating infrastructure. In this way we successfully have two entirely different educational systems that are governed by one regulatory system."

A rural institution administrator stated that:

“Even though there may be a laboratory of science, the equipment is either too old or not working at all, so students are not expected to perform experiments but only to be exposed to the viewed demonstrations. It is impossible to have competent graduates who have no hands-on experience with modern tools and methods”.

The availability of resources limits the capacities of innovation. Universities that are short of funds are unable to invest in modern technologies, update curriculum material, give their faculty professional development, and forge industry partnerships that necessitate institutional investment. At the same time, the constraints are taken to promote the status quo, we cannot afford to modernize turns into an excuse to continue using outdated methods.

3.4 Industry-Academia Disconnect Despite Rhetorical Commitment

The lack of connection between universities and employers continues regardless of the continuum rhetoric of partnerships. There is little systematic engagement between universities and the sector; one respondent observed that”

“Universities did request sector representatives to come in as guests on lecture or career fair occasions, but rarely did they systematically participate in curriculum design, supervision of student projects, or development of internship programmes. Both parties are often talking about cooperation, yet there is no significant collaboration.”

Another participant noted,

“There is a kind of mutual anti-intellectualism. Academics are seen as disconnected from real problems, while industry actors remain in their own ivory towers. This lack of trust makes genuine collaboration very difficult.”

The structural incentives enhance the separation: the criteria of academic promotion focus on research publications rather than industry experience, while companies require clear benefits before investing time mentoring students or providing curricular input, leading to lack of depth of partnership.

3.5 Sociocultural Barriers Creating Systematic Exclusions

Selective exclusions within a sociocultural and economic restriction create a close-door policy to education and determine the right to academic options. Discrimination of vocational education is repeated even when its employment success rates are better; administrators note that:

“Parents demand traditional university education even when vocational training is more appropriate to the skills and interests of the students and society perceives vocational education as lower quality, despite the reality of employment opportunities and wages.”

One participant emphasized the compounding role of economic disadvantage, noting that:

“Brilliant, talented students not attending school because of economic reasons; the lack of sufficient financial leads to the systematic marginalization of students based on their economic backgrounds rather than their talent.”

Gender based constraints were also highlighted. As female participant explained:

“Cultural demands regarding the way women should study and work restrict their options without references to their ability and so, systematic underrepresentation in specific areas occurs.”

3.6 Technology Integration Deficits Despite Digital Imperative

Technology integration or its absence is a major problem. Most institutions do not invest seriously in digital resources beyond basic computer-literacy education with faculty reporting that:

“We still rely on traditional lectures and textbooks yet employers are seeking familiarity with collaboration applications, data-mining resources, and cloud-computing platforms.”

This is compounded by the digital divide between urban and rural settings; provincial administrators note that:

“Universities in larger cities have sufficient internet access and access to technology, where in rural campuses accessibility to the internet is unreliable and the equipment is outdated, thus inhibiting the adoption of online learning resources and technology-enabled pedagogies and reinforcing the already existing disparity between urban and rural institutes.”

3.7 Demographic Pressures and Labor Market Absorption Capacity

Systemic pressures underlie all other challenges, with demographic trends placing significant strain on the education-to-employment pathway. A policymaker explained:

"We produce thousands of graduates annually into labor markets that cannot possibly absorb them all. Youth unemployment continues rising not solely because graduates lack appropriate skills, but because insufficient jobs exist even for appropriately skilled workers. Educational reform alone cannot solve structural economic problems."

This demographic pressure interacts with inadequate labor-market intelligence systems; universities lack reliable data on skill demand patterns, sectoral growth projections, or emerging occupation categories, leading to oversaturated fields and undersupplying growing sectors. According to one respondent:

“The curricula are frequently determined through incomplete information and old-fashioned assumptions on labor-market needs, and graduates end up jobless with the degrees that were promised to secure them a job.”

4. Discussion

The findings reveal an interconnected system wherein barriers to demand-driven higher education reinforce one another in self-perpetuating cycles. This systemic nature has significant implications on comprehension of implementation challenges as well as intervention design.

The salience of a lack of institutional coordination is an important finding. In contrast to the common emphasis on political intrusion into the autonomy of universities, the governance problem in this case emerges due to structural fragmentation of regulatory and planning agencies. Higher Education Commission, Planning Commission, Bureau of Emigration and provincial authorities all have workforce development mandates that they maintain but without a structured coordination mechanism. This kind of fragmentation hampers universities to have integrated labour-market intelligence in order to make informed planning of the programs as shown in the literature (Carnoy et al., 2013; Tilak, 2008).

The phenomenon of curriculum obsolescence has been widely reported under different circumstances (Barnett, 1994; Marginson, 2013; Barnett & Coate, 2005). According to the participants, this obsolescence is caused by the combination of fragmented governance arrangements that hinder the access to labor-market knowledge, resource limitations restricting the possibility to refresh content and methods, and poor relationship with industry partners that do not provide adequate input on skills needs. Thus, the improvement of curriculum relevance should take these enabling conditions into consideration at the same time, instead of paying attention to the content of the curriculum only.

Limited financial resources underpin many other challenges in higher education, as highlighted in studies on educational inequality (World Bank, 2024; World Bank, 2018). Limited investment leads to self-reinforcing

loops: poor facilities and obsolete equipment lead to lower quality of education, which subsequently leads to lower graduate employability, undermining public trust in higher education, and undermining the political motivation to invest more. This cycle has to be broken through sustained and sufficient funding with proper accountability measures that enhance proper use of the resources.

The industry-academia disconnect, despite verbal promises of collaboration, does not indicate communication failure, but structural incompatibility. Universities are driven by research and publication, as well as academic equivalents of prestige, instead of industry involvement, whereas companies do not have incentive frameworks which compensate investment in learning partnerships. To fill this gap, institutional designs that provide true incentives to cooperate and not just to urge parties to cooperate with each other in the face of conflicting interests are required (Perkmann et al., 2013; Laurillard, 2012).

Structural exclusions are revealed through equity and sociocultural barriers, which restrict access to education among marginalized groups. This is evidenced by consistent vocational stigma despite the availability of better job opportunities and how the cultural values can override labor-market information. Gender based restrictions, economic access barriers and urban-rural inequalities conjoin to create systematic exclusions. These aspects of equity have to be explicitly addressed in education reform as opposed to assuming that gains will trickle down and benefit the population (Walker & McLean, 2013; Marginson, 2011).

The interconnected nature of barriers supports conceptualizing education as a system requiring integrated coordination rather than piecemeal interventions (Senge, 2006). The demographic stresses, where the number of young people grows at a faster rate than the labor-market absorption capacity, bring into focus the fact that educational reforms in themselves can never solve the structural economic problems. Unless there are enough employment opportunities, no university would be able to produce employable graduates irrespective of the level of skills.

4.1 Implications for Policy and Practice

The findings hold a number of implications to policymakers and institutional leaders who are seeking to improve on the responsiveness of the labor-market. The governmental reforms, especially the creation of systematic coordination systems between regulatory and planning institutions, are essential preconditions. Developing combined labor-market information systems available to universities would allow planning programs by evidence instead of making choices based on fragmentary or conflicting signals.

There is a need to streamline the processes of curriculum revision, and quality needs to be assured. The years-long bureaucracy of making small changes cannot coexist with the quick change in skills that needs to be done. Universities must have a mandate to make prompt curriculum changes in quality frameworks instead of extrapolating consent to all changes.

The resources investments should be made in terms of infrastructure shortages as well as equity gaps-involving geographic and socioeconomic gaps that generate differentiated educational experiences. Investment based on non-equity considerations threatens to increase the current disparities between urban institutions with sufficient resources and under-resourced rural campuses.

Academia-industry partnerships need to be structurally inspired, not exhorted. Colleges must have promotion policies that take into account industry activity; businesses must have some form of recognition or other benefits that make investment in partnership worthwhile. Without congruent incentives, teamwork will be merely surface-based despite the verbal dedication.

Importantly, these issues are systemic, which implies that a single intervention cannot produce significant outcomes. In the absence of coordinated governance, adequate resourcing, and meaningful collaboration with industry, curriculum reforms alone yield limited impact. Therefore, successful interventions require the simultaneous approach that touches upon and manages several, interconnected obstacles, instead of going through them as a chain or as individual issues.

4.2 Limitations

There are a few limitations that should be mentioned. The research was based on the views of experts of 20 study participants in two focus groups. Although these participants carried a lot of knowledge and a variety of experiences, they might not likely reflect all the views of the stakeholders, especially the voices of the students or the employers. There was a single country context of geographic scope. Although the findings are likely applicable to other developing economies because they experience the same problems, it may be restricted by the specific contextual elements. The online group allowed geographic inclusivity, but some could have been left out of the process due to low levels of digital inclusion, therefore, selection bias towards digitally-connected stakeholders could have occurred. Lastly, this consisted of exploratory research that determined issues without empirically assessing the effectiveness of interventions.

4.3 Future Research Directions

The study opens several avenues for future research. Large scale quantitative research might be able to measure the levels of the barriers outlined herein on a broader range of institutions and to establish which variables best predict successful or unsuccessful reform outcomes. These efforts would also allow the validation as well as expansion of the qualitative observations, which would have been made in this study, and hence the generalization of the results statistically.

Future studies can also employ the implementation research to provide empirical data on the interventions that are efficacious in specific contextual conditions. International comparative studies would particularly help in identifying the universal and country-specific issues and, thus, to help in the design of context-sensitive policy interventions. Longitudinal research designs are also necessary to evaluate the temporal changes in the barriers as well as the sustainability of the outcomes of reforms.

5. Conclusion

In developing economies, the mismatch between higher education and labor markets is not restricted to the content of the curriculum or how the courses are taught. In the interviews with 20 education stakeholders, seven related groups of barriers were identified, including gaps in governance and institutional coordination, curriculum obsolescence, resource limitations, industry-academia disconnect, sociocultural exclusions, technology integration lack, and demographic pressures.

The problem of governance coordination (such as the lack of integration of demand information dissemination

between regulatory and planning authorities) became one of the root issues that did not allow access to integrated labor market intelligence by universities. Limitation of innovation capacity is also accompanied by justification of maintenance of ageing strategies because of resource constraints. The problem of industry-academia disconnect exists in spite of rhetorical investment in partnership due to structural incentives which do not favor collaboration. Sociocultural barriers generate structural exclusions that create access and pathway restrictions. There is low integration of technology even in the increasing digital skill demand. Demographic pressures on the labor market exceed the capacity of absorption of labor markets regardless of the level of skills among graduates.

This study offers context-sensitive evidence by focusing on the voices of practitioners by qualitative inquiry regarding the reasons responsive education models are hard to apply within resource-constrained environments. The interrelated, holistic quality of barriers implies that effective interventions need to focus on many reinforcing factors at once and not seek to implement reforms sequentially and without interrelation. The identified challenges are not insurmountable barriers but the chances to redesign the system. The developing economies that have large numbers of youths can benefit significantly by having educational systems that can generate the right graduates. To achieve this potential, there is a need to have systematic coordination arrangements among the regulatory agencies, sufficient resources allocated fairly, industry associations through the use of compatible incentives and overt consideration of equity aspects so that the benefits become available to the marginalized groups. The way forward requires multi-faceted and integrated interventions where education is seen as a multi-faceted system and not a production process that converts inputs to outputs.

Data Availability Statement

The corresponding author can make available qualitative data supporting this study to reasonable request and with appropriate ethical approval protecting participant confidentiality.

Funding Statement

This research received no financial grant from any funding agencies in the public, commercial, or not-for-profit sectors.

Ethics Statement

In this study, no experiment was carried out on human or animal subjects. The inclusion in the focus groups was voluntary and all participants signed an informed consent form. The study was conducted in line with the ethical standards of American Psychological Association (APA) of qualitative research. The approval of an institutional review board was not required, as participants took part voluntarily and contributed in their personal capacities.

Credit Author Statement

Mirza Muhammad Bilal Baig: Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Writing original draft

Muhammad Usman Awan: Visualization, Formal analysis, Draft review & editing, Supervision.

Rab Nawaz Lodhi: Data collection coordination, Transcription verification, Data curation

Atif Hussain: Formal analysis support, Formatting and technical editing.

Declaration of Competing Interest

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

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