

The Mismatch Between Education and Labour Market Demands and Its Impact on Youth Unemployment in Pakistan

By

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DECLARATION

I certify that this dissertation:

1. does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university
2. and the research within will not be submitted for any other future degree or diploma without the permission of Flinders University; and
3. to the best of my knowledge and belief, does not contain any material previously published or written by another person except where due reference is made in the text; and
4. Generative artificial intelligence has been used for outlining and editing purposes in my dissertation, and it has been duly acknowledged.

Signed.....

Date.....06/09/2025

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ABSTRACT

The dissertation examines the critical issue of a mismatch between education and labour market demands in Pakistan focusing on critical factors contributing to the problem and impacts on youth unemployment. Using qualitative secondary data analyses derived from comprehensive literature review the study identifies interconnected themes such as outdated curricula, inadequate vocational training, rapid technological advancement, limited industry academia linkage, and governance failure. Thematic analysis reveals reoccurring manifestations of mismatch- such as field of study mismatches, qualification mismatches and skill mismatches and their socio-economic impacts. The study explores that the mismatch is not only an oversight but a systematic problem that compromise the human capital utilization, creates economic and social implications. Pakistan's education system is not aligned with the changing labour market demands. particularly in technical and digital skills. The study concludes that there is an urgent need of implementation of comprehensive multi-sectoral policy approach and reforms that integrate updated curricula, enhance industry academia linkage and good governance to bridge the gap between education and labour market demands.

CHAPTER 1: INTRODUCTION

1.1 Background and Context

The International Labour Organization (ILO 2024) reports that global unemployment is rising with over 5% of the world's workforce unemployed. The growing crisis of unemployment has raised concerns among policymakers and researchers. They are seriously concerned about the rising challenges of unemployment and its implications for the world. This has promoted research to investigate the causes and solutions for unemployment. Pakistan, as the world's fifth most populous country globally with almost 241 million people, is no more an exception from this challenge. The country faces youth-dominated demographics with approximately two thirds of its population under the age of 24. While youth represent high potential for economic development, it also creates severe challenges if not properly integrated into the labour market.

The United Nations highlights youth participation as crucial for national development, emphasizing the role of young people as major human resources, key drivers of economic growth, technological development and social transformation. However, the Pakistan Economic Survey 2023-24 revealed that nearly 4.5 million individuals (about twice the population of New Mexico) are unemployed, with youth aged 15-24 facing 11.1% unemployment rate – The highest in the country.

Unemployment is defined by the OECD as the state where a person is actively seeking but unable to find a paid job opportunity (Winkelmann, 2014). Multiple factors contribute to youth unemployment globally, ranging from technological advancements to globalization and overpopulation to lack of educational deficiencies. Despite education being a fundamental right and foundation of acquiring marketable skills, there is growing evidence highlighting that educational education systems including Pakistan's are not fully equipped with competencies required by markets.

This dissertation explores the issue of mismatch between education and labour market demands –a discrepancy between the skills acquired by individuals and skills sought by employers. This mismatch can manifest in different forms including field of study mismatch, skill obsolescence, skill gap, overeducation and undereducation. (McGuinness et al., 2018). The phenomenon is acute particularly in Pakistan, where many individuals are unable to find a gainful employment due to the mismatch between education and labour market demands (Imtiaz et al., 2020).

This study adopts the concept of education and labour market demands mismatch proposed by (McGuinness et al., 2017), who divided it into three forms, (1) Qualification mismatch, where educational qualification of a person does not align with the job requirements. It can be

overqualification or underqualification. (2) Skill mismatch, where a person lacks specific skills required by the job and (3) Field of study mismatch, where a person is employed in an area which is not related to his educational qualification. This framework serves as foundation to evaluate mismatches both globally and in Pakistan's context.

1.2 Problem Statement

Despite the recognition of the crisis of youth unemployment in Pakistan the existing policies responses have been ineffective to address the challenging problem and its underlying causes. The mismatch between education and labour market demands is one of the key factors contributing to the problem. This mismatch stems from the deficiencies within the education system and sometimes labour market dynamics. Pakistan's education system fails to produce graduates with skills aligned to the market demands resulting in substantial skills gaps and unemployment (Ahmad & Khan, 2018).

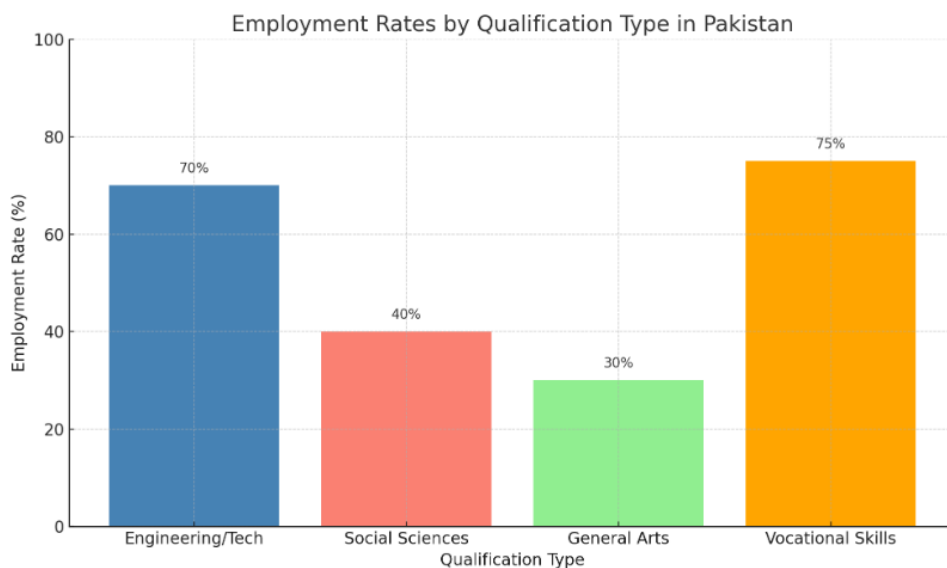


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1.3 Rationale of the Study

This study is motivated by the plight of rising youth unemployment in Pakistan which creates socioeconomic challenges for the development of the country. While (ILO 2024) forecast a rise in

global unemployment which can pose multifaceted challenges for the developing countries (ILO, 2024). The situation in Pakistan is alarming due to high number of youth population and potential challenges for the future of the country. Though there are multiple studies which have recognized and discussed the problem of mismatch (Ahmad & Khan, 2018; Aziz et al., 2014; Biner, 2012) but still there is limited understanding of the certain elements of the specific mismatches in the context of Pakistan. Therefore, the primary aim of this study is to explore the nuanced aspects of the mismatch between the educational system and labour market demands in Pakistan.

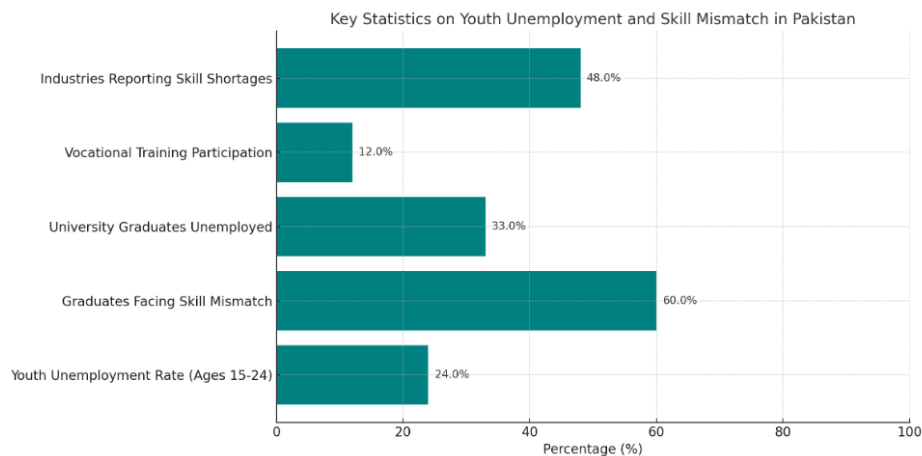


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It seeks to identify key factors that contribute to this disconnect, such as outdated curricula, lack of vocational training, and limited engagement between industry and academia. Moreover, the study investigates how these mismatches directly contribute to rising levels of youth unemployment, and what consequences they may have on the broader socioeconomic landscape of the country.

1.4 Research Aim

The aim of this research is to explore the nature and extent of the mismatch between education and labour market demands in Pakistan and investigate its contributing factors and consequences particularly regarding youth unemployment and to recommend evidence-based policy interventions to bridge this gap effectively. It will examine whether the mismatch is due to:

- Lack of technical or vocational training
- Outdated academic curricula
- Limited soft skills (communication, critical thinking, etc.)

- Inadequate practical exposure (internships, apprenticeships)

1.5 Research Objectives

- To identify and analyze the mismatch between educational outputs and labour market demands in Pakistan.
- To examine the key factors—structural, institutional, and socio-cultural—that contribute to the education-labour market mismatch.
- To assess the impact of this mismatch on youth unemployment and underemployment in Pakistan.
- To evaluate current education and labour market policies aimed at improving alignment and reducing graduate unemployment.
- To propose policy interventions and strategic reforms that can bridge the gap between education and labour market requirements in Pakistan.

1.6 Research Questions

1. What is the mismatch between education and labour market demands?
2. What are the factors contributing towards the mismatch between education and labour market demands in Pakistan?
4. To what extent does the misalignment between educational outputs and labour market requirements influence the incidence of youth unemployment in Pakistan?
5. What evidence-based policy interventions are most effective in mitigating the disconnect between educational provision and labour market demand within the context of Pakistan?

1.7 Research Method

This study uses comprehensive review of existing literature as a primary method. This literature includes policy documents, scholarly articles, media reports and other publications related to education and labour market demands of Pakistan, available through online databases. With these reports this study acquires data from reputable resources like world bank reports, International Labour organization (ILO) reports, surveys of Pakistan Bureau of Statistics (PBS). Using this comprehensive literature review approach this study suggests some evidence-based policy recommendations necessary for the transformation of education and labour market demands.

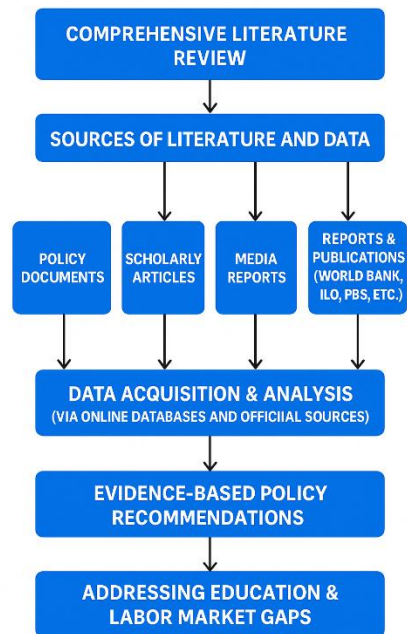


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1.8 Dissertation Structure

This dissertation is organised into six chapters. The research problem, aim, objectives, and the significance of the study are introduced in chapter 1. Chapter 2 presents previous literature on mismatch between anti-education labour market, theories of study and global perspectives. Chapter 3 describes the methodology used for research, which involves design, sources of data, as well as analysis methodologies. The findings of the study have been given in chapter 4 based on empirical evidence. Chapter 5 follows with a critical account that relates to findings in literature and theoretical implications. Finally, the concluding chapter, 6 summarizes the insights and makes policy recommendations, aligning education and the demand in the labour market in Pakistan.

CHAPTER 2: LITERATURE REVIEW

2.1 The Relationship Between Education, Labour Market Demands, And Unemployment

The relationship between education, labour market demands, and unemployment is complex and has multiple dimensions. It involves multiple factors ranging from the quality and relevance of exploring different insights from studies to providing a comprehensive understanding of how education can influence market dynamics and unemployment. Education plays a crucial role in the market outcomes. It is often considered that people with higher levels of education might get better employment opportunities and higher wages. For instance, studies have mentioned that people who attain higher degrees are more likely to enter the market with higher salaries compared to the ones who get a lower degree (Albarico & Galigao, 2024; Ernesto Caroleo & Destefanis, 2017). It is crucial to note that this might be because a higher level of education is often associated with a better level of skills and knowledge to meet the needs of the labour market. However, these studies might be influenced by specific factors which I think are crucial for better understanding such as areas of study and time-period. Additionally, these studies do not account for the influence of social and economic background and individual earning potential, which plays a significant role in education attainment.

Moreover, the quality of education and relevance are also critical for the betterment of labour markets. An education system matching the needs of the labour market is more likely to reduce unemployment. For example, programs that are closely related to industry needs have proven that the unemployment rate can be improved (Lopes et al., 2023; Purnomo et al., 2024). Moreover, this sort of program not only reduces unemployment but also the skill gap and ensures graduates acquire skills needed by labour markets. However, there are multiple other factors like economic conditions, governmental policies, and demographics which influence unemployment. Additionally, it is necessary to understand and investigate which sectors of the industry need an alignment with the education system to improve employability and better outcomes.

Where education impacts the labour market demands, labour markets also influence the education system. The rapid evolution of labour market demands has changed the direction of the education system. For instance, the rise in digital skills in the labour market has increased the demand for digital studies in educational institutions and so is the case with green technology where the education system is forced to adopt the market needs (Mandragelia, 2023; Yusvana, 2025). This rapid evolution of the labour market has created challenges for the education sector where it has become difficult for them to adapt to ever-changing market dynamics and curriculum.

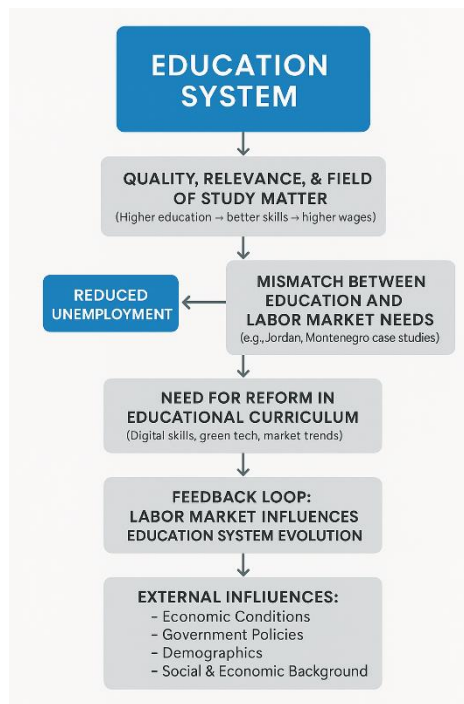


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However, the mismatch between labour market demands and the education system might increase unemployment. Take an example from Jordan where the increase in university enrollment led to a surplus of graduates in the labour market in certain fields which increased unemployment in the country (Alawamleh et al., 2019). Similarly Montenegro has seen a similar situation where the education system has been criticized for producing a large number of mismatched university graduates whose degree do not match with the needs of labour markets leading to high unemployment or underemployment. (Jovović et al., 2017). Mismatches indeed create unemployment, but this mismatch may allow people to learn new skills and make them aware of the actual labour market demands and influence their future career and educational choices. However, there is a need to investigate how these educational institutes are neglecting required market needs and critical skills. Additionally, multiple other factors might also influence the relationship between education, labour market needs, and unemployment, for example, economic crisis or political instability.

2.2 Brief Overview of The Education and Labour Market Mismatch and Youth Unemployment

The mismatch between education and labour market demands along with potential impacts on unemployment is a topical issue in the policy debate throughout the world. Politicians and market forces show a growing concern that skills taught in educational institutes cannot meet the fast-

changing demands of markets, impacting growth and development (Comyn & Strietska-Ilina, 2019). The mismatch represents a discrepancy between what skills graduates possess from educational institutes and what are the demands of labour markets (ILO,2020).

The mismatch is a complex phenomenon and can manifest in different forms, a study done by McGuinness et al. 2017 explains various manifestations of the mismatch using data from the European Skill and Job Survey 2017 and found that overeducation, undereducation, skill obsolescence, skill shortage, skills gap are some of the manifestations of the mismatch (McGuinness et al., 2017). ILO and OECD in the “Global Skills Gaps Measurement and Monitoring Report 2023” identify the mismatch on the base of an imbalance of skills and qualifications and they concluded that mismatch can be classified into qualification mismatch, skill gaps, over-skilling, and under-skilling. However, the classification and measurement of the mismatches in the studies seem to be subjective because both studies use data from specific countries while the other countries might have different manifestations due to different educational and labour market conditions. Moreover, skill assessment also overlooks the value of knowledge and transferable skills. So other countries and regions might have different forms and manifestations of the mismatch.

These forms and manifestations as highlighted by (McGuinness et al., 2017) and (ILO 2024) have severe consequences for the people entering the labour markets, especially the young people. They are more vulnerable to it due to a lack of experience and evolving skill sets. While there is no doubt about the fact that mismatch contributes to the challenges for young people, many other systematic problems such as poor economic conditions and lack of career guidance also make it difficult for young people to enter the labour market, and these studies seem to overlook all those factors.

Moreover, another study by Cervantes and Cooper, (2022) explained that the mismatch may lead to severe labour market outcomes for young people, particularly in securing gainful employment. They further highlight that the mismatch can extend beyond employment prospects to long-term unemployment and even underemployment and sometimes low-wage employment. (Cervantes & Cooper, 2022). However, the study did not mention that the relationship between mismatch and these outcomes might not be as simple as it seems. Multiple other factors like economic condition, socioeconomic background, and availability of jobs can also significantly impact the employability prospects of young people. Beyond these market outcomes, there might be multiple other potential psychological and social problems that could create implications for young people, so research could be done to measure the potential psychological and social problems created by the mismatch between education and labour market demands.

The severity of the issue extends beyond individual prospects, creating problems for global economies. High rates of youth unemployment caused by the mismatch of education and labour markets can lead to social unrest, human capital loss, and economic stagnation. (Manacorda & Petrongolo, 1999). Not only in developed countries the matter is particularly serious for developing countries like Pakistan, due to a large number of youth populations. In such cases, the mismatch creates serious challenges for the country. As the article by Xiaohui Hou, (2010) highlights the education system of Pakistan does not necessarily produce graduates equipped with skills aligned to the labour markets which potentially contributes to the high rate of unemployment and poverty. (Xiaohui Hou, 2010). While the article highlighted the educational factors impacting unemployment and poverty, it did not specify the labour market factors like lack of investment and industrial collaboration and structural problems which also exacerbate the issue of unemployment. Moreover, misalignment between education and market demands not only impacts individuals but also undermines the national ability to utilize human resources for better development. Additionally, the lack of vocational training and misalignment between industry and academia are crucial points to consider. Resolving the issue of the mismatch between education and labour market demands is not just important- It is Crucial.

2.3 Global Perspectives on The Mismatch Between Education and Labour Market Demands

1. The disconnect between education and labour markets has significant implications for both individuals and global economic development.
2. This mismatch has become a widespread global issue, contributing notably to rising unemployment rates.
3. Major international organizations such as the **World Bank**, **OECD**, and **ILO** have repeatedly emphasized this issue in their reports.
4. These organizations highlight its adverse effects on:
 - Employment opportunities
 - Individual well-being
 - Overall economic growth

2.3.1 The European Union (EU):

There is a noticeable mismatch in the European Union (EU) countries multiple studies have highlighted the issue, as (Pompei & Selezneva, 2015) analysed the mismatch between education and occupation at the country level among young people (aged 15 to 34). They have studied the mismatch in 21 EU countries and found different forms of mismatches in education and occupation. The study

mentioned that countries like Finland, Belgium, France, and Estonia have high education mismatch on the other hand countries like Portugal, Cyprus, and Denmark remained lower in education and occupation mismatch (Pompei & Selezneva, 2015). However, it is crucial to question whether these averages hide several regional disparities in access to education and employment opportunities. Moreover, the study was conducted in 2015, and in 2025 the education system and labour markets have witnessed drastic changes as the rise in the digital economy, artificial intelligence, globalization, and multiple others have changed the direction of the education system and labour markets. However, the methodology used in this paper to analyze the country-level mismatch seems to be particularly good because it has divided the young people into five categories self-employed, employee, unemployed, inactive, and in education.

Another article by (Gina Cristina Dimian, 2017) highlighted the mismatches at both educational and occupational levels and mentioned that occupational mismatches create more implications than educational mismatches, especially for the youth and people with low education by increasing unemployment rates. Moreover, “The European Social Fund Study” found that there are serious problems with education and job mismatch in EU countries associated with high unemployment rates (Veronica Vecchi, 2014). The report identifies two kinds of mismatches, overeducation, and under-education, indicating that some countries even have 50 percent of youth either over-educated or under-educated. The report presents thoughtful insights, but it is an oversimplification of the issue because categorizing the mismatch into only two categories and ignoring all the other factors like skill gaps, skill relevance, and labour market requirements are the weak points in the report. Moreover, focusing just on over and under-education might fail to acknowledge the various structural barriers hindering people from attaining education and employment.

In addition, a study by the European Commission 2019 discusses the concept of skill mismatch and its implications for unemployment and productivity of young workers.

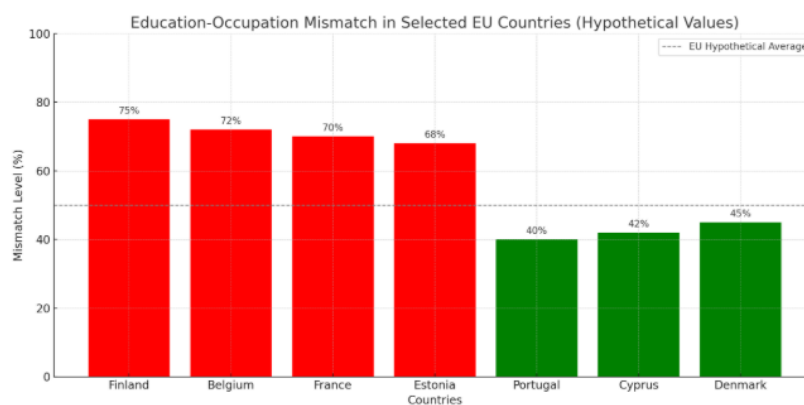


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The paper demonstrated that there is a negative relation between skill mismatch and productivity. (Vandeplas & Thysen, 2019). On the other hand, the paper explains that if there is a skill shortage it might increase productivity as firms may invest in increasing the workforce productivity to meet their needs. So, multiple reports and studies highlight the issue of mismatch in the European Union countries exploring its link with youth unemployment. While there is a need to research and focus on certain educational and labour market factors like cultural and geographical barriers, the gig economy, and market fragmentation to get more thoughtful insights about the mismatch between education and labour market demands.

2.3.2 The Organization for Economic Co-operation (OECD):

The mismatch between education and market demands is a persistent challenge for the OECD countries. Early research such as Manacorda et al., 1999) identified the mismatches in OECD countries, particularly in Britain and the USA. While this study noted that it did not create certain unemployment issues as it did in EU countries. However, it is a critical point whether the study still has relevance and significance for the evolved global labour market. Critically, I think the study might not have relevance in the current globalised world. More recent research by (McGowan and Andrews, 2015) highlighted the critical role of policy in addressing skill mismatch in 22 OECD countries using the OECD Survey of Adult Skills. Results show that different policies are associated with skill mismatch, for example, policies that help job market fluidity and job-worker match are crucial to addressing skill mismatch (Müge Adalet McGowan and Dan Andrews, 2015). The implementation of policy is presented as a solution to the mismatch problem in OECD countries which is quite good but there is need to mention the specific policy in the broader context of mismatch to address the problem in a precise way.

Moreover, another publication by “OECD Global Forum Publication” explored the skill mismatch and the relationship between mismatch and productivity by using data from OECD’s Program of International Assessment of Adult Competencies (PIAAC) survey and found that a significant number of workers in OECD countries experience skill mismatch for example in France 20 % workers are found mismatched with 9% workers under-skilled and 11% over-skilled. While Germany, Italy, and Spain showed higher percentages of mismatched worker force (Brun-Schammé & Rey, 2021). The publication presents comprehensive analyses of the mismatch, but these mismatches might be due to the low skill of individuals, and the question is whether they address governance issues, low investment in education, training issues, and other educational problems.

2.3.3 The Low- and Middle-Income Countries:

The mismatch between education and labour market demands in low and middle-income countries has become a significant problem characterized by the disparity between skills and qualifications of workers. According to Systematic Tracking of Exchanges in Procurement (STEP) Skill Measurement Program Data collected from twelve low- and middle-income countries, many workers are found overqualified for their jobs, which means their qualifications are more than the qualifications required for the job. This results in wastage of human capital and underutilization of skills (Handel et al., 2016). While this is not always true as we discussed above, overqualification might have some positive aspects and it may allow people to acquire new knowledge and skills easily. And it may increase productivity as discussed below in the next heading.

On the other hand, a study done by (Quang & Tran-Nam, (2019) in Vietnam presents evidence of qualification mismatches and highlights that a substantial portion of the rural workforce is undereducated due to limited access to formal education in these areas which affects their earnings negatively. While the overeducated workforce does not get high wages either (Quang & Tran-Nam, 2019). This shows the complex interplay of regional disparities and lack of quality education access for the people highlighting the necessity to address the issue. The mismatch contributes to high unemployment among young people, especially fresh university graduates as seen in Jordan where it is evident that university enrollment has not matched with jobs available in the labour market rising unemployment rates (Ismail et al., 2020) highlighting that there is a very low level of collaboration between industry and education system. In the case of Thailand's field of study mismatch, over-education and under-education are prevalent impacting their monthly incomes (Pholphirul, 2017). While one can see the mismatch examples in all three countries (Jordan, Vietnam, and Thailand) all three countries might have different manifestations of the mismatch and require different solutions, and drawing cross-country analyses might be challenging.

2.4 When Mismatch is not a mismatch- The Perception

It is often considered that skill mismatches create implications for the labour market and exacerbate unemployment. Numerous studies have explored its impact on economic growth, productivity, and innovation. While overeducation is also considered negative due to its association with underemployment and low wages. Where overeducation has some negative impacts, research has highlighted its positive aspects for certain cases for example a study conducted in Malaysia concluded that overeducation and overkilling create positive changes in the regional labour market it led to an

increase in productivity levels and innovation in the labour market (Zakariya et al., 2021). However, the study may not apply to another place because of its limited time frame as it does not study the long-term market trends and changes. Moreover, it is only focused on Malaysia which can limit its applicability to any other location.

Similarly, another study conducted in different Turkish industrial sectors found that overeducation positively influences labour productivity and suggests that having employees with higher degrees than the required ones can increase the productivity of the industrial sector (Yanikkaya & Tat, 2023). The study further highlighted that overeducated workers may be more willing to learn and adopt new skills because better educational background might help then for better problem-solving skills. However, the study is focused on certain manufacturing industries. It cannot be generalized because a highly technologically advanced industry might not benefit from overeducated workers. So, this is a limitation of the study and cannot be generalized.

When it comes to economic growth education mismatch is often considered a negative aspect but the mismatch specifically the overeducation might have some positive outcomes as a study investigating the role of overeducation in the regional economic growth and human capital in European countries found that overeducation is more strongly linked to the regional economic growth than the traditional measures as they have the potential for the innovation and creativity (Ramos et al., 2012). This challenges the common and negative notion of overeducation because it can be an investment in human capital for better economic growth while it cannot be generalized in the global scenario due to its broader implications because it creates unemployment.

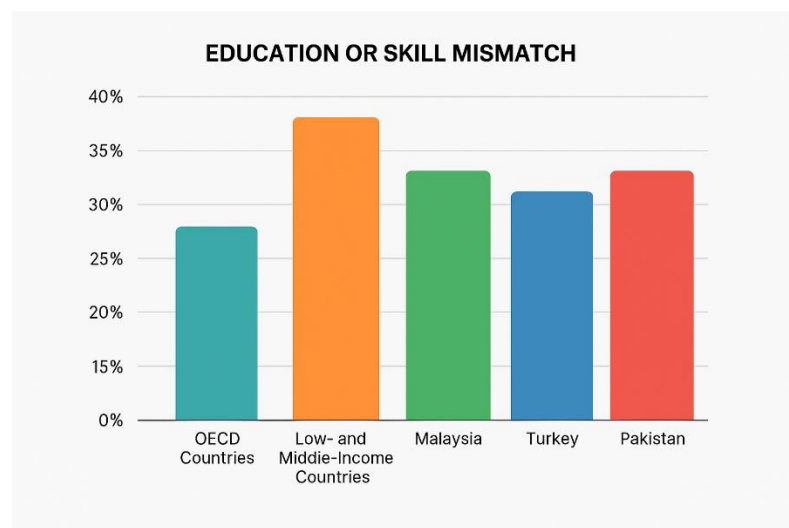


Figure 6: Author's own creation.

However, the mismatch, especially overeducation, can be complex and context oriented. Where it can cause underutilization of skills and wage penalties, it has the potential for economic growth, productivity, and innovation. Countries can benefit from it by mitigating its implications and implementing effective policies.

2.5 Pakistan: The Mismatch Maze

While the mismatch can be witnessed across the globe, countries like Pakistan face unique challenges in matching their education system with the labour market demands, especially due to the large youth bulge and developing economic structure. Pakistan has been experiencing education and job mismatch, qualification mismatch and field of study mismatch. Approximately one-third of graduates face a mismatch between their qualifications and the job they hold. (Farooq, 2011, 2017). Moreover, the study further highlights that about one-fourth of the graduate's experience skill mismatch which means some of them are over-skilled or under-skilled, resulting in frustration, job dissatisfaction, and low wages. However, these studies did not mention the informal sector of the economy which may have different skill demands, for instance, gig workers, small-scale farmers, and unregistered small businesses. Additionally, concerning trends can be seen in the women graduates where they are more unlikely to find a relevant job, according to the Pakistan Integrated Household Survey 2002 (PIHS) only 26 percent of females participate in the labour market in comparison to 88 percent of male participants. (Aslam, 2009). This suggests that females are less likely to end up entering the labour markets due to different gender and societal norms. Critically the low participation of females in labour markets is not only due to cultural norms but various other societal barriers also participate as limited access to quality education, unsafe public transportation, and equal employment opportunities. The low female participation in the labour market also impacts the national economic growth by not allowing almost half of the population to fully contribute.

2.6 Primary Factors Contributing to Mismatch Between Education and Labour Market Demands in Pakistan

Multiple factors contribute to the mismatch between education and labour market demands in Pakistan, ranging from outdated curriculum to rapid technological advancement and socioeconomic factors to bad governance all these factors contribute to the mismatch which are discussed below.

Outdated Curriculum: An outdated curriculum is one of the primary contributors to the education and labour market mismatch in Pakistan as evidenced by a study that mentioned that the Pakistani education system is not in full accordance with the labour market needs and curriculum fails to equip students with certain skills required by labour markets (Rashid & Sajida Mukhtar, 2012).

Additionally, outdated curricula neglect certain labour market needs, employability training, and industry collaborations. While most educational institutes lack adequate focus on skill training (Daka et al., 2023). Moreover, students often lack skills like critical thinking, research abilities, and communication skills which are the primary skills to get gainful employment. The deficiencies of these skills arise due to outdated curricula that fail to teach students these skills (Uzair-ul-Hassan & Noreen, 2013). These studies accurately highlight the issue of outdated curriculum which is often linked with many other developmental problems like lack of adequate teacher training, low funding in education, bureaucratic hurdles, and lack of policy implementation. And addressing the curriculum problem may not be sufficient without addressing all the other issues. Additionally, with the rapid advancement of technology and evolving global skill demands the issue of outdated curricula is particularly concerning in the case of Pakistan and there is dire need to address the issue to mitigate the implications of it.

Lack of Focus on Technical and Vocational Education: The lack of technical education is one of the factors contributing to the mismatch. This stems from poor infrastructure, socioeconomic factors, and societal perceptions. Khan & Ali, (2024) highlighted that many people especially those with high social status in Pakistan do not want their children to get technical or vocational education (Khan & Ali, (2024). Such sort of societal problems needs to be addressed as these people consider getting vocational training as a lower level of skills or sometimes a low standard of education. As mentioned in a study where people of the high class often consider vocational education as a second-class or inferior education as compared to general education (Uzair-ul-Hassan & Noreen, 2013). People with such a mindset might lack understanding and economic potential for such skills as they are considered a useful source of earnings in developed countries. Critically, this issue is deeply rooted in Pakistani society because unlike the developed countries the earning potential of individual technical and vocational education is less in Pakistan. This societal attitude neglects the opportunity for immediate employability, especially in a country with a high youth population and rising unemployment rate.

Additionally, infrastructural and institutional challenges also contribute to the lack of focus. Technical and vocational education institutions often lack modern equipment, technology, industrial linkage, and professionally trained teaching staff which hinders the skill development of students. Furthermore, gender disparity also plays a role in the lack of focus as boys are more likely to get Technical and vocational education as compared to girls due to multiple societal challenges. Ashraf et al., 2024; Bano et al., 2022). This not only deprives women of workforce participation but limits the opportunities for women leading long long-term implications not only for individuals but for national development.

Limited Academia- Industry Linkage: The disconnect between education and market demands is further widened by the limited interaction and linkage between academia and industry. An article published in the *Journal of Human Resource and Labour Market* highlighted that the limited academia and industry linkage results in graduates with low research skills and fewer employment opportunities (A. Ashraf & Javaid, 2024) This disconnect hinders the transfer of knowledge and skills between the two sectors leaving the graduates unprepared for the labour market needs. The article presents constructive and thoughtful insights into the gap between industry and academia and mentions the need for immediate policy change to resolve the issue.

Moreover, the absence of industry linkage in the academic sector results in students who are not professionally trained for real-world challenges. This can be seen in the Engineering and IT sectors where modern practical skills are required to meet the market needs (Baig et al., 2018; Malik et al., 2021) In short, limited academia and industry linkage create a serious gap in the market leading to high unemployment and underemployment among fresh graduates (Pervez et al., 2023). This lack might be due to limited incentives from the industrial sector for graduates and the education system. And rapid advancement of certain sectors. Bridging the gap between industry and academia is crucial for sustainable partnerships and mitigating the risks of mismatches in Pakistan.

Rapid Technological Advancements: In addition to the existing contributing factors the evolution of technology also exacerbates the mismatch between education and market demands. The rapid evolution of technology means that some skills taught in educational institutes become irrelevant or outdated by the time students complete their degree highlighting the need for rapid advancement of study curriculum (Karakolis et al., 2022) Moreover, a study by (Santoso, 2022) concluded that rapid technological advancements leads to the skill obsolesces where individuals lack advance knowledge and skills required for the job exacerbating the skill mismatch. The study also highlighted that the advancement of technology raises unemployment which may become a permanent issue for society as can be seen in the current era where we can see machines replacing humans and doing work more effectively than humans like data processing and computer coding and many others.

Furthermore, the integration of artificial intelligence into the industry has further complicated the educational landscape of Pakistan, as traditional degrees may not train the students with certain AI roles necessary for industrial needs (Alexander & Belloni, 2024) On the other hand advancement of artificial intelligence can increase the skills levels of people by enabling personalized educational experiences. However, without proper alignment and significant reforms in education and industry, this mismatch may persist. The rise of artificial intelligence raises concerns about creating a “Digital Divide” where people without knowledge are further marginalized from the labour markets.

Moreover, the upcoming implications of artificial intelligence must be considered in the curriculum to prepare the students for the upcoming challenges of artificial intelligence.

Gender Disparity: Gender disparity plays a significant role in the mismatch between education and occupation especially in the case of Pakistan. Studies have shown that the majority of Pakistani women face difficulty in attaining education and getting gainful jobs (Mohsan Iqbal et al., 2025). While there is no doubt about the fact that Pakistani women face difficulty because of many governance and developmental problems. Moreover, multiple social and demographic issues with cultural customs and barriers hinder access to education and the labour market for the women of Pakistan (Farooq, 2011). Studies have shown that despite rising female literacy, gender segregation in occupations exists, preventing women from getting high-paying jobs (Khan et al., 2023). Though literature highlights the issue of gender disparity in a comprehensive way, it lacks focus on political and institutional barriers and policies that perpetuate gender disparity beyond the cultural context. Moreover, it is crucial to investigate the role of the education system itself in perpetuating the gender divide and limiting the role of women in job markets.

Economic instability: Economic instability of Pakistan is one of the primary contributors to the mismatch affecting both economic growth and market demands. Economic constraints further widen the education and labour market mismatch, leading to a workforce that is not properly trained for the market demands. Labour markets are influenced by the economic conditions of the country while studies have mentioned that macroeconomic instability leads to low quality, less pay, and limited employment opportunities for the workforce (Ali & Rehman, 2015; Robalino & Cho, 2012). While the connection between economic stability and education is complex and bidirectional, on one side economic instability creates challenges for the education system while on the other hand improvement in the education system contributes to the economic stability of a country. Additionally, it is important to how economic instability leads to brain drain which further exacerbates the mismatch between educated and skilled workers. Moreover, a poor economic system can fund educational institutions adequately which further widens the mismatch and create a vicious cycle of poor educational and market labour market outcomes, unemployment, and poverty.

Governance issues: Pakistan has been facing serious governance challenges in education and labour market alignment and the mismatch between education and occupation is deeply connected with the governance problems. Bad governance including poor institutional structure, lack of coordination between federal and provincial institutions, and lack of accountability leads to poor policy implementation (Akram et al., 2020; Faiz, 2023). The study did not particularly mention in what exact way bad governance impacts the mismatch between education and labour market demands. While the

lack of coordination can be due to the limited resources and lack of clear communication between the institutions. Moreover, the lack of good governance and institutional inefficiency has created an alarming difference between rural and urban education systems where Rural areas often lack trained teaching staff and sometimes no staff at all in many schools and this disparity created a space for a private education system which further widens the gap between different social groups. (Akram, 2020; Zohaib Hassan Sain & Rene. M. Babiera II, 2023).

However, none of the studies have mentioned how unchecked private education schools and colleges are perpetuating the mismatch by not providing quality education and the skills required for the market. The persistence of governance issues suggests that it might be intentional to keep certain groups of society under a poor education system to get some political benefits. Finally, the failure to address the governance issue may not only hinder social development but also hinder the economic development of the country.

2.7 Summary of the Chapter

The mismatch between education and labour market demands impacting youth unemployment is a complex global problem with multiple manifestations as mentioned above. Pakistan is no longer an exception multiple factors like Outdated curriculum, lack of technical and vocational training, limited industry and academia linkage, and socio-economic and cultural barriers are perpetuating the mismatch in Pakistan hindering socio-economic development and human capital utilization. Multiple global and regional studies have explored its different negative and positive aspects while Pakistan's context demands a comprehensive approach to address the issue by not only doing educational reforms but also broader governance and economics, focusing on the need for collaboration between all the institutions for the better social and economic development of the country.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter outlines a methodological structure to analyse education and labour force requirement mismatches and their unemployment effects on youth in Pakistan. Due to the research dimensions, a qualitative secondary research design is the appropriate methodology. The chosen research method lets researchers perform in-depth contextual evaluations of official materials and academic texts from scholarly articles. This research analytically combines data from dependable sources to evaluate the structural problems in Pakistan's educational and job markets.

The following parts explain the core research philosophy and critically define the design methodology used in this project. They also cover data sources, inclusion and exclusion criteria, and analytical approaches. Finally, ethical implications and study boundaries are addressed.

3.2 Research Approach

The current research applies a qualitative secondary research approach specifically the literature review, because this methodology works best when studying education and labour market disparities in Pakistan's educational context. Through the process, researchers can let secondary data analysis produce natural research outcomes rather than starting with predetermined hypotheses (Thomas, 2003). The research methodology contributes to achieving insights into youth unemployment factors stemming from structural and systemic realities between education and employment systems. The researcher uses personal reasoning to recognize frequent patterns and interpret deep meanings in real-world aspects reported across existing literature sources.

The researcher derives meaning from textual data by examining different qualitative sources, such as policy documents, academic studies, and institutional reports, instead of quantitative data which is considered best for qualitative research approach as highlighted by (Ugwu & Hyginus, 2023). A detailed analysis finds specific information that reveals policy gaps, educational deficiencies, and market requirements that affect youth employment problems. These methods generate complete knowledge about the development of present situations by historical forces alongside political and institutional factors. The paper uses source pattern analysis to reach detailed contextual findings that enhance academic knowledge regarding education reform and labour policy development in Pakistan-style economies (Khushik, 2018, p.2).

3.3 Research Design

Qualitative secondary data analysis (SDA) serves as the research design to examine data collected earlier by other research entities, through secondary data analysis, the research methodology provides a suitable approach to examining Pakistan's educational workforce inconsistencies. It gives access to diverse, relevant information beyond regular primary data collection requirements. Multiple secondary data sources, academic literature, government reports, policy documents, and international organizational publications supply qualitative knowledge about youth employment structures.

Underlying the SDA design is an exploratory framework that is also thematic (Hengst & Sherrill, 2021). The framework uses data analysis to recognise repeated patterns that focus on skills gaps, curricular issues, policy malfunction, and shifting labour market needs. The research design examines how educational systems relate to employment development. This design allows researcher to evaluate different views between institutions, including government agencies, research think tanks and international bodies. Through an intense examination of the study, the author thoroughly explains how education-market offset concerns develop into enduring challenges that fuel unemployment among young people.

3.4 Data Sources

The research relies exclusively on secondary qualitative information from numerous well-established sources. The study draws its data from academic papers, together with policy documents, world agency publications, and documents produced by non-governmental organisations and research think tanks. *The International Journal of Educational Development*, together with the *South Asia Economic Journal* and *Asian Development Review* and their peer-reviewed content, deliver an academic analysis of South Asian education systems, socioeconomic issues, and labour market trends, specifically about Pakistan. The National Education Policy (2017), the Pakistan Economic Survey, and the National Human Development Report present official statistics and governmental viewpoints regarding Pakistan's education system and employment sector.

The World Bank, ILO, and UNESCO extensively analysed the analyses for Pakistan and the Global Employment Trends for Youth reports. The Pakistan Institute of Development Economics (PIDE), Sustainable Development Policy Institute (SDPI), and ASER Pakistan join local think tanks and NGOS that generate educational and employment research findings through their specialised expertise. The research relied on credible sources that maintained relevance and recent publication dates, primarily focusing on literature from 2013 to 2023.

3.5 Data Collection Procedures

Like other secondary qualitative research, there were no field activities for primary data collection through interviews, surveys, or focus groups. Systematic desktop research served as the data collection method, combining the identification, selection and organisation of existing literature and reports focusing on the mismatch of Pakistan's education and labour market demands.

The research adopted an extensive database search through Google Scholar, JSTOR, SpringerLink, and Taylor & Francis Online. Users can find peer-reviewed journal articles and institutional studies on these platforms. I searched for academic literature using four key terms: "youth unemployment in Pakistan," "Skill mismatch in Pakistan," "education-labour mismatch," "education and labour market mismatch," and finally, "vocational training."

Data retrieval included academic databases and official information from the Ministry of Federal Education and Professional Training (Mofept), the Higher Education Commission (HEC), and the Pakistan Bureau of Statistics. The official documents, police reports, and national surveys from these sources displayed how the state shaped education and employment strategies.

Thematic studies and reports from the United Nations Development Programme (UNDP), UNESCO, the World Bank, and the International Labour Organisation (ILO) were collected. These organisations frequently deliver extensive examinations and multinational data comparisons, strengthening the study.

The analysis gained additional depth through reports from the Pakistan Institute of Development Economics (PIDE) and Sustainable Development Policy Institute (SDPI) alongside think tank documents from the Brookings Institution.

3.6 Data Analysis Techniques

According to Braun and Clarke (2006), the research project applied qualitative thematic analysis to analyse the data. The researchers selected this method because it provided adequate flexibility and effectiveness in discovering patterns and meanings from textual information as mentioned by (Sovacool, Iskandarova, and Hall, 2023). Through thematic analysis, the researcher processed extensive secondary data systematically while extracting essential areas related to this education-workplace gap in Pakistan. Six structured process phases let the team achieve rigorous qualitative material interpretation.

The researcher spent time understanding data contents through multiple readings of selected texts to discover initial observations and important recurring concepts during the familiarization process. The researcher employed initial coding to label meaningful statements directly aligned with the research questions and phrase concepts with descriptive codes. The researchers noted three main terms: "skills mismatch," "curriculum irrelevance," and "graduate unemployment."

For the third step, researchers grouped corresponding codes into expanded categories. The key concepts studied in the research were the educational system's weaknesses, employee workforce concerns, and government program mismatches. Using this phase, the researcher performed a theme review to check that the obtained themes properly reflected the data while maintaining clear distinctions.

The fifth step of defining themes required the researcher to simplify and provide analytical names for the thematic categories, leading to labels such as "Disconnect between Academia and Industry" and "Policy Gaps in Skill Development." The sixth phase of the methodology included writing, which combined thematic findings into broader discussions. All collected themes were analysed thoroughly before researchers connected them to existing studies to build a unified explanation of how

educational deficiencies generate youth joblessness in Pakistan. The analytical method provided a framework for a valid context-based interpretation of secondary qualitative data.

3.7 Ethical Considerations

The decreased ethical issues in secondary research do not eliminate the need to follow moral principles supporting study credibility and research integrity. The research applied various ethical measures to handle secondary data usage while maintaining openness, respect, and responsible conduct throughout the project as is explained by (Tripathy, 2013).

Every source in the research study was derived from publicly accessible materials or publications that obtained essential permissions. Reputable publications, official reports, and peer-reviewed journal articles formed the basis of this research since they were obtained from validated platforms and databases. The publishers of these sources had already established a process for quality assurance before publication.

Among the primary ethical factors we considered was maintaining proper observance of copyright regulations and intellectual property rules. The research materials came from legitimate sources, and the researchers obtained permission to reproduce any content (Resnik, 2024). Appropriate citations were provided to prevent academic dishonesty, which might result from failing to recognise sources correctly.

Each idea and its corresponding data extracted from third-party works received correct attribution to the original academic authors to demonstrate transparency and avoid misinterpretation.

No human participants were involved in this study, so the research did not require consideration of informed consent or data privacy matters. Public sources and existing documents served as primary sources in this project, resulting in low ethical risks because participants faced no exposure. Every standard of moral conduct remained in effect during data research and the final report presentation.

3.8 Justification for Methodological Choices

The qualitative secondary studies research methodology was selected to match project objectives with operational benefits. The research examines educational and labour market supply versus demand mismatches in Pakistan, which causes youth unemployment problems and requires a combined analysis of education systems, employment conditions, and governmental policies. A broad perspective on the problem is possible through secondary data because it gathers information from

existing research publications and governmental reports related to multiple components of the investigation.

The main strength of secondary research methodology is that it reveals vast datasets to researchers (Perez-Sindin, 2017). Primary collection methods would have been time-consuming and costly to acquire information from the World Bank, ILO, and UNESCO organisations. The reports and studies deliver beneficial information about worldwide patterns that concentrate on Pakistan, thus proving critical to grasping national trends versus global developments.

A qualitative secondary approach proves both timesaving and cost competitive. Finding adequate funding, combined with logistics support to conduct field interviews or surveys, becomes necessary to reach participants when there is no funding for the research (Cheong et al., 2023). Using existing sources enables researchers to execute extensive evaluations without requiring a fieldwork budget.

Using existing research materials provides ethical safety because the method does not require involving human participants during data collection (Kapp, 2006). The present research depends on academic publications and available reports for data collection. Thus, it does not demand Institutional Review Board (IRB) clearance because vulnerable populations are not included in the study, making this method safe in terms of ethics.

3.9 Limitations of the Methodology

Despite its valuable properties, qualitative secondary research methodology has multiple shortcomings. The research method has two main limitations: it does not use primary source data and may contain possible biases in secondary resources.

The research has a crucial drawback due to its absence of primary source documentation. Without employing interviews or surveys as direct data collection methods, researchers fail to gain valuable first-hand information from people who work in Pakistan's education and labour markets. The analysis rests on interpreting data that might not capture authentic experiences or perspectives of young people, educators, and employers, thus distorting the study's depth of analysis.

This project has a significant drawback because it relies exclusively on published material. The study's findings depend on pre-existing research and reports, but these limitations could affect the complete assessment of the obtained results. The deficient research about aspects of Pakistan's education-labour market discrepancy results in key elements and modern developments potentially being understated or omitted.

The research faces an increased chance of biased information. The education ministry of Pakistan releases reports that might show government-led bias to promote positive views of its education system and labour market performance. Think tanks and international organizations release reports that often contain institutional tendencies affecting how they present findings or suggest policies.

The research has an essential limitation due to its exclusive reliance on English-language materials during the investigation. This study omits Urdu research and regional-specific data, although such findings provide crucial local information. Multiple local reports contain unique information which the international academic community overlooks. The analytic process draws strength from diverse, high-quality documentation that includes inputs from key stakeholders.

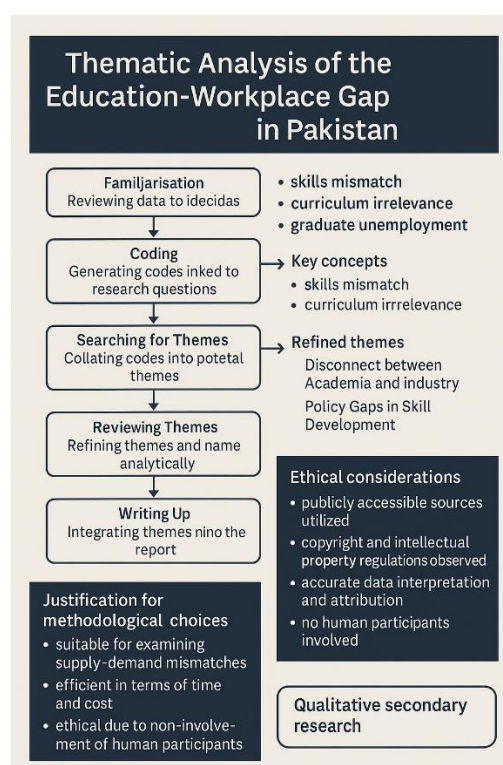


Figure 7: Author's own creation.

3.10 Summary of the Chapter

The evaluation of education-labour force mismatches and youth unemployment impact through research procedures can be found in Chapter 3. The research employs qualitative secondary data analysis (SDA) as its methodology, establishing itself as an optimal method for investigating complex social institutions affecting education and employment sectors. The study requires this approach to effectively examine the social and societal aspects of youth employment problems, education structures, and governmental frameworks.

According to this methodology, the researcher obtains findings from existing information while bypassing pre-established hypotheses, thus achieving comprehensive inspections of persisting education and work-related patterns. The study examines documents from academic papers, government reports, and institutional studies to understand the root causes behind the education-treatment mismatch stemming from curricula and ineffective policy frameworks.

The research draws data from academic journals and publications from global organisations, including the World Bank, ILO, and UNESCO. The research uses carefully chosen, reliable materials published from 2013 to 2023. Qualitative research takes precedence in selection criteria, but the examination disregards quantitative information and content that do not focus on educational and employment matters in Pakistan.

Data acquisition depends on a systematic analysis of institutional reports and academic literature databases. The thematic analysis methodology described by Braun and Clarke enables researchers to extract significant patterns from data concerning skill gaps and subjects taught in schools alongside young jobless rates. The researcher adopts this approach because it enables effective cost management while ethically obtaining comprehensive information. The approach also recognises the disadvantages caused by excluding primary data and possible biases in secondary research materials.

Theme	Description	Key Sources	Implications
The Youth Bulge and Labour Market Context in Pakistan	Outdated curricula, reliance on rote learning, and lack of alignment with market needs.	Rashid & Mukhtar (2012); Uzair-ul-Hassan & Noreen (2013); Pervez et al. (2023); Vandeplass & Thum-Thysen (2019)	Graduates lack job-ready skills, which contributes to structural unemployment.
Critical Assessment of Educational Shortcomings in Pakistan	TVET lacks funding, institutional support, and social value, especially regarding limited access for women.	Ashraf et al. (2024); Khan & Ali (2024); Bano et al. (2022); Mohsan Iqbal et al. (2025)	Limits workforce diversification; reduces employability and industrial productivity.
Mapping Pakistan's Labour Market Demands	Weak or non-existent collaboration between universities and industry; limited internship and job-market exposure.	Ashraf & Javaid (2024); Malik et al. (2021); Baig et al. (2018); Comyn & Strietska-Ilina (2019)	Students graduate without practical skills; employers lack confidence in graduate readiness.
Pathways from Mismatch to Youth Unemployment	The education system lags behind in integrating digital competencies and emerging technologies.	Alexander & Belloni (2024); Karakolis et al. (2022); Santoso (2022); Akram et al. (2020)	Risk of digital divide increases inequality and skills obsolescence.

Theme	Description	Key Sources	Implications
Evaluating Policy Responses and Interventions	Poor coordination among institutions, weak implementation of policies, and lack of accountability.	Akram (2020); Faiz (2023); Zohaib Hassan Sain & Babiera (2023); Ali & Rehman (2015)	Reforms fail to materialise; rural-urban inequality persists; Vision 2025 targets remain unmet.
Analysing the Education-Labour Market Mismatch in Pakistan, Pinpointing Mismatch Areas	Disparities in education and employment outcomes based on gender, geography, and socioeconomic status.	Aslam (2009); Khan et al. (2023); Zohaib Hassan Sain & Babiera (2023)	Women, rural youth, and people with low incomes are disproportionately excluded from skilled employment.

CHAPTER 4: ANALYSIS AND FINDINGS

4.1 Introduction

The study results stem from a thorough thematic investigation of academic papers and institutional publications. This investigation analyses essential elements of education-labour market mismatches in Pakistan and their role in developing youth unemployment. The chapters' themes stemmed from the vital patterns researchers identified through peer-reviewed research, reports from government entities, and publications from institutional sources. Relevant curricula, multidisciplinary vocational training, industry-academia connections, modern technologies, and management obstacles form the core themes observed within the educational field. The research data receive an interpretive analysis to produce a structured and systemic understanding of these issues.

4.2 Thematic Analysis: Education-Labour Market Mismatch in Pakistan

4.2.1 Theme 1: The Youth Bulge and Labour Market Context in Pakistan

Studied evidence shows that education curricula in Pakistan still fail to address employer needs in the employment market. Educational systems have lagged behind employment requirements for numerous years, leading to youth unemployment. The educational system of Pakistan relies on memorisation-based teaching of theoretical content that fails to meet modern workplace standards, according to Rashid and Mukhtar (2012). According to Uzair-ul-Hassan and Noreen (2013), educational institutions lack critical competency training in communication skills, problem-solving, analytical thinking and digital literacy. However, these abilities remain essential for contemporary labour markets.

Graduates lack training in crucial IT, financial and entrepreneurial positions, which makes their educational programs incompatible with modern employment market needs, according to Pervez et al. (2023). The redeployment of university graduates proves challenging even when they possess academic accreditations, since their education failed to deliver the practical skills that business organisations require.

The curriculum problem in Pakistan lacks relevance at multiple levels beyond content because it exists as an institutional and structural obstacle. The curriculum revision process rarely happens without thorough data from the labour market or input from employers. Despite developed nations having such tools, Pakistan has no established methods to monitor which skills become important or include industrial insights into education planning. Education reforms in Pakistan mainly operate in

a reactive rather than a proactive manner, leading to constant gaps between educational outputs and market-driven labour requirements.

The delayed educational system leads to what professionals call structural unemployment, which results in educated workers who cannot secure employment due to incompatible qualifications (Farooq, 2011). The education system produces underemployment and workplace dissatisfaction among young adults who dedicate themselves to education without obtaining suitable career opportunities.

Governance difficulties affecting curriculum development because of inter-provincial disconnections, minimal regulatory control, and slow-paced bureaucratic procedures make the situation even more challenging. Numerous education policy fragments and inadequate collaboration between educational institutions block the prompt delivery of essential reforms, according to Akram (2020). The education curriculum fails to respond to technological and economic shifts in the fast-changing environment, hindering individuals' career growth and national production capacity. In order to address the persistent youth employment results, Pakistan needs to implement immediate, comprehensive reform backed by long-term government funding and a partnership between academic institutions, government agencies, and industry groups. This is due to a serious institutional issue that causes Pakistan to disregard its educational curriculum.

4.2.2 Theme 2: Critical Assessment of Educational Shortcomings in Pakistan

According to several assessments, Pakistan's technical vocational education and training program (TVET) has been abandoned so frequently that it has been allowed to disappear. Although current national educational and employment strategies ignore this crucial sector, TVET's value for sustainable progress and young employment tasks has garnered governmental attention. According to Ashraf et al. (2024), Pakistani vocational training lacks the necessary infrastructure and is unable to provide essential market skills due to inadequate investment and unsupportive regulations. The training mechanisms that were put in place in the past are no longer enough for the demands of the modern industrial and technological environment. Their shortcomings, however, include inadequate equipment, instructors who are ill-prepared, and no connections to the sector.

Deep-seated societal beliefs reinforce the institutional disregard for vocational and technical education, which lowers social status compared to academic educational approaches. In the view of Khan and Ali (2024), many household parents from upper socioeconomic statuses intentionally pressure their children towards status schools over vocational schools because they believe vocational education provides inferior and less profitable outcomes. The low employment rate of TVET

graduates finds reinforcement through negative community perceptions that lead them to physical work or informal sector jobs (Uzair-ul-Hassan & Noreen, 2013; Bano et al., 2022). Because of this institutional separation, both capable students and national career planning and education discourse demonstrate low interest in vocational education programs.

Female students encounter extensive cultural infrastructure, culture, and institutional barriers when they attempt to enrol in technical education. Ashraf et al. (2024) and Mohsan Iqbal et al. (2025) identify restricted mobility and social norms and the absence of women-friendly training institutions as significant factors that decrease female enrolment in vocational programs. The blocked pathway to education and employment limits women from achieving full employment status, undermining national human capital utilisation.

National development strategies that integrate vocational training across Vietnam and Thailand enable the successful growth of employment and industries. Kenneth Quang, Tran-Nam (2019), and Pholphirul (2017) establish how vocational education links with labour market requirements through industry partnerships, updated curricula, and standardised placement systems, helping to drive economic development.

Pakistan has not yet achieved such integration. The TVET system exists in separate units, not serving the formal employment sector or national development frameworks. Pakistan's problem with youth employment and national productivity will worsen because of poor investments and insufficient awareness of vocational education programs, combined with non-inclusive policies.

4.2.3 Theme 3: Mapping Pakistan's Labour Market Demands

The missing academic-industry partnership in Pakistan is a common issue in research because it leads to substantial discrepancies in education and vocational demand. The absence of necessary feedback communication between educational institutions and the workforce produces technologically skilled graduates who lack the requirements for practical skills, workplace understanding, and employment preparedness. Most universities in Pakistan function independently from the private sector because they lack meaningful participation in activities such as curriculum development, along with internships and research partnerships, according to Ashraf and Javaid (2024). The current academic programs operate through theoretical frameworks that overlook present market standards and employer requirements.

Malik et al. (2021) state that no institutional collaboration frameworks prevent employers from participating in the priority setting of skills developments. Universities generally operate without advisory boards, resulting in the absence of formal industry input above standard mechanisms, so the

competency gap grows between academic lessons and the requirements of working environments. Educational programs in engineering, computer science, and business offer little formal education regarding problem-solving, project management, and communications competencies, although students must demonstrate these capabilities.

According to Baig et al. (2018), the relevance of final-year projects to actual industrial requirements declines because of inadequate guidance and insufficient industry involvement. New graduates encounter significant obstacles when entering employment because they lack experience with real-life problems.

Studies of the dual education system in Germany show how academic-industry collaborations create successful educational practices on an international level. Such educational systems merge market demand-based curriculum planning with student experiences between teaching rooms and engagement with standardised practical learning on the job. Comyn and Strietska-Ilina (2019) state that these partnerships advance student employability while boosting national productivity and innovation capacity.

Academia-industry partnerships fail to develop in Pakistan mainly because institutions drag through time, and private enterprises lack enough motivation to connect. The private sector sees academic cooperation primarily as an expense, although universities need independence or resources to maintain lasting partnerships with the business world. Academia-industry cooperation fails to deliver its full potential because the benefits, including relevant curriculum development, applied research, and workforce preparation, have minimal success. A lack of purposeful policy structures and inadequate coordination will maintain the stopped information flow between education and business systems, which will sustain skill mismatches and deepen youth joblessness.

4.2.4 Theme 4: Pathways from Mismatch to Youth Unemployment

Pakistan faces intensified educational market skills mismatches because technological advancements are accelerating. The digital transformation of the global economy has caused advanced technical competencies such as data analytics, artificial intelligence (AI), machine learning and automation to become increasingly valuable skills for the labour market. The education system in Pakistan lacks readiness to address the current requirements emerging in the field. Alexander and Belloni (2024) explain how AI and digital technologies have shaped the employment marketplace requirements, so employers need tech-proficient workers who adapt quickly to various assignments. The academic programs run by traditional institutions in Pakistan teach outdated materials, which fail to implement modern technical skills.

According to Karakolis et al. (2022), low- and middle-income countries experience abnormal delays in university curriculum updates because they encounter problems with insufficient funding, weak policy frameworks, and bureaucratic obstacles that prevent curriculum changes according to industry developments. Several Pakistani organisations struggle to achieve modern digital training delivery because they lack proper infrastructure alongside the specified training expertise. The outcome of this situation leaves graduates unprepared to use essential modern professional tools which emerging employment sectors and global workplaces routinely employ.

According to Santoso (2022), skill obsolescence poses issues because technology progresses so rapidly that academic skills from static learning environments fail to meet market needs. The lack of program revisions and untrained teachers in Pakistan prevents the effective teaching of modern digital competencies. Many college degree holders cannot perform tasks required by digital workplaces and automated systems; therefore, they face significant challenges in securing suitable employment in regulated labour markets.

The literature identifies the digital divide as a major issue that is expanding. Akram et al. (2020) recognise that disparities between urban-rural populations, public-private institutions, and wealthy and poor students worsened because of unequal digital educational and resource access. Students attending rural schools and underfunded colleges face barriers to basic familiarity with digital tools due to the lack of digital marketing or data science courses, mainly at elite metropolitan institutions. The unequal access to digital employment forms a divided labour market because only certain groups with high-quality digital employment access exist, yet most individuals remain excluded.

Technology will create social disadvantages instead of building a more inclusive society unless the government actively funds programs that unify the digital opportunity gap. The skills deficit in Pakistan represents an essential structural and social issue that requires swift policy action.

4.2.5 Theme 5: Evaluating Policy Responses and Interventions

The widespread and connecting factors behind the education-to-labour mismatch in Pakistan include governance failures and institutional fragmentation. Nationally prioritised education and employment sectors suffer from institutional coordination weaknesses, unclear mandates, and inconsistent planning-execution differences. The education sector in Pakistan faces severe implementation fragmentation, particularly affecting the relationship between federal and provincial control, as described by Akram (2020). Government authorities divided education authority between provinces following the 18th Constitutional Amendment, which resulted in complex administration but failed to build coordination infrastructure, so governance efficiency decreased.

Research by Faiz (2023) shows that separate entities within the systems function independently, which results in redundancies and conflicting policies. The national skills framework administration lacks centralisation, creating multiple conflicts between educational departments and vocational training agencies in their roles. Otherwise, beneficial initiatives become less impactful when the government lacks coherent coordination, which prevents the development of a unified approach towards youth unemployment problems in the country.

The inadequate governance demonstrates itself through fundamental differences in how education is accessed and maintained. The research of Zohaib Hassan Sain and Babiera (2023) exposes the severe adjustment gap between modern features of urban education and typical rural educational features. Rural public educational institutions do not possess the necessary infrastructure, skilled personnel, and educational resources; therefore, they fail to provide students with the essentials for succeeding in contemporary employment. The unchecked expansion of unregulated private educational institutions has resulted in better quality equities among learners and employment candidates because many institutions operate without government oversight.

Because regulatory oversight is absent, many substandard educational providers proliferate, leading them to operate poorly validated training programs. Uncontrolled growth of educational institutions results in weakened values of academic credentials and generates an underemployment problem among graduates with credentials that do not match the labour market requirements.

The inferior governance approaches explain why policy targets continuously fail to align with actual results. Skill development and human capital enhancement appear as foundational elements in national advancement according to Pakistan's Vision 2025 policy document. According to Ali and Rehman (2015), weak implementation systems combined with improper budget distribution cause plans to stay at the level of verbalisation.

The isolated nature of education and labour policy governance issues allows them to intensify each other and all dimensions of the mismatch. The educational system will persistently fail to develop labour market-ready talent because it lacks institutional enhancements, improved regulatory oversight and inter-agency collaboration.

4.2.6 Theme 6: Analysing the Education-Labour Market Mismatch in Pakistan, Pinpointing Mismatch Areas

The educational system of Pakistan does not equally struggle to meet workforce requirements throughout the entire population. The educational-to-job market mismatch produces substantial negative consequences that primarily target three major population segments: women, rural residents

and people from lower-income backgrounds. These distinct social groups encounter multiple process-based obstacles that prevent them from engaging in high-quality learning activities and participating in career opportunities.

Gender stands as one of the most important elements through which people experience exclusion while trying to fit their education and job profiles. According to Aslam (2009), educational attainment does not guarantee women in Pakistan access to the workforce since they encounter multiple workplace entry and staying barriers. Cultural prohibitions, along with physical restrictions in unsafe workplaces and occupational segregation that target women, form barriers to employment and educational development. The occupational world restricts women to education and healthcare while they encounter professional obstacles to obtaining higher-status industrial positions in engineering, finance, and technology. The research of Khan et al. (2023) shows that sexual segregation still exists in rural and urban employment setups, which leaves women with lower wages and compromises their educational benefits.

4.3 Interconnection Between Themes

These six core issues discussed in this study (i.e. curriculum irrelevance, undervalued VCET, weak academia-industry linkages, digital-skill shortfalls, governance failures, and the issues of intersectionality) are not separate issues from one another. On the contrary, they create interwoven and corroborative challenges that collectively support the education-labour market dislocation in Pakistan. This web of systemic entanglement explains why piecemeal interventions frequently do not work and that comprehensive, coordinated reform is necessary.

Curriculum irrelevance remains at the heart of the employability crisis at the centre of this complex web. The outdated and overly theoretical character of curricula in both general education and training for trade professions results in the lack of soft and hard skills possessed by students at the time of their graduation, as expected by employers. That is not simply a concern of pedagogical design but is inseparably related to the lack of long-term interaction between academia and industry. As Ashraf and Javaid (2024) point out, consulting employers in Pakistan is rarely a part of curriculum development. Academic institutions without input operate in a vacuum, passing on outdated theories and out-of-date tools, whereas the private sector quickly grows.

This failure to collaborate increases mistrust by employers of academic credentials even more. With graduates still failing to meet market expectations, companies become increasingly reluctant to interact with schools or even invest in training for new employees. This establishes a disengaging feedback loop where universities continue to deliver graduates with little value in the market, and the

employers continue to withdraw further outside the education ecosystem. The outcome is institutional stagnation – neither side has an incentive to be the one to make the first move, so the mismatch continues.

These failures combine with policy fragmentation to aggravate the issue. Poor coordination of federal and provincial authorities, overlapping mandates, and lack of accountability hamper educational reform's pace (Akram 2020; Faiz, 2023). Such institutional inefficiencies make it impossible to implement good policies effectively. For instance, at the national level, documents like Vision 2025 prioritise skill development and employability of the youth, while the vagueness of each operational element and interdepartmental incompetence guarantee that such goals remain elusive in practice.

In addition, these governance gaps impede modern education and the introduction of training in digital skills to the mainstream. For TVET modernisation, for example, coordinated investment in infrastructure, trainer training, and curriculum design will be needed. Nevertheless, without clear governance frameworks, these reforms either grind to a halt or have been rolled out unevenly among provinces. This provides grounds for regional differences in vocational training opportunities of higher quality, as well as exacerbates unevenness of vocational training, since some systems are advanced while other systems repeat the old patterns.

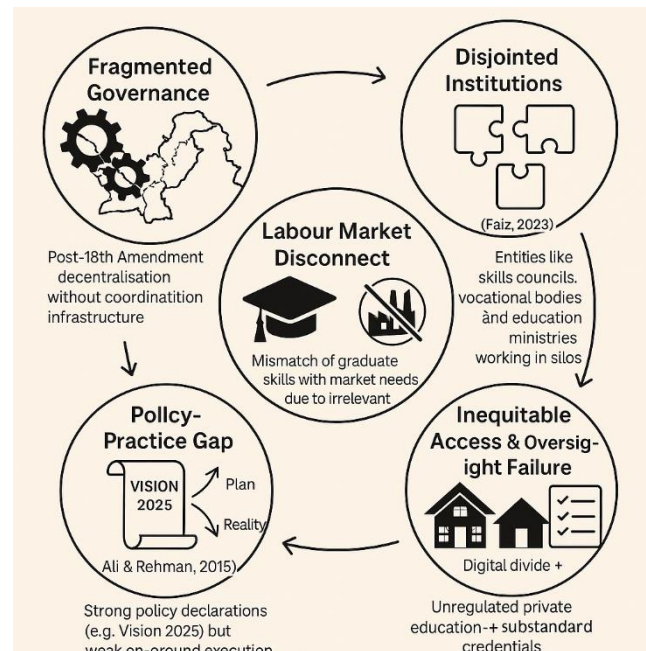


Figure 8: Author's own creation.

The other identified theme from the study is also closely related to the digital skills gap, governance inefficiencies and curriculum stagnation. Many learning institutions lack the setup and trained staff needed for quality digital education. The gaps expand unless a national policy focusing on equitable access to digital instruments and setting the minimum competency standard exists. According to

Karakolis et al. (2022), countries with low- and middle-income economies struggle to marry technological developments with education systems because of structural inertia and policy lag. That problem is further aggravated in the case of Pakistan, where there is a digital divide between the urban and the rural areas, and students at poorly funded rural schools are out of the digital economy.

Intersectional inequalities, especially those along gender, geography, socioeconomic status, etc., thus reciprocally manifest this digital exclusion. Aslam (2009) and Khan et al. (2023) explain that women, rural youth, and the poor communities have systemic constraints to access to quality education and employment. Such groups are also disadvantaged by the current curriculum, but more so when it comes to the weaknesses of vocational training, digital scarcity, and exclusionary hiring. For example, private universities in urban centres have data science modules, but public universities may not have internet access, let alone be as advanced. They may have needed coursework. This gives birth to a dual-track system, whereby only the privileged students benefit from education that meets labour market demands.

These intersections between gender and TVET access add to this compounding effect. The lack of cultural norms and inadequate institutional infrastructure prevents many women from joining the technical training programs. Where TVET institutions exist, a lack of female-friendly facilities or gender-sensitive policy results in a very small female participation. Consequently, national investments in vocational training do not reach half the population, which weakens their effect and broadens gendered labour market disparities.

These themes together shape what may be called a structural mismatch ecosystem. The curriculum irrelevance causes unemployable graduates. Lax industry links stop corrective feedback. Governance failures prevent the materialisation of reforms that could close chasms. Technological lag and digital inequality disqualify vulnerable groups from emerging types of jobs. All these factors disproportionately affect women, rural youth and people with low incomes, with entrenched cycles of underemployment and inequality.

Furthermore, these interconnections expose a severe deficiency of previous policy initiatives: the inclination to treat every issue as isolated. Efforts to modernise curricula are also often inefficient because they fail to take into account the necessity for establishing related investments in the field of teacher training, industry involvement, or infrastructure. TVET expansion plans do not factor social perceptions or gender norms. Digital skills programmes are initiated without reference to access to the internet or availability of devices. The siloed approach is why reforms become superficial and results are not improved.

This analysis, therefore, requires a holistic and systems thinking approach to reform. Policymakers must acknowledge that addressing a single risk, like the curriculum, must be accompanied by action on governance, provision, development of teaching, linking with the industry, and equity. Institutions need to look beyond their isolated interventions towards integrated approaches that deal with the entire messy reality of the education-employment nexus.

4.3.1 Impacts of the Mismatch in Pakistan

The enduring misalignment between Pakistan's education system and labour market needs is not just a technical failure but a structural crisis that has far-reaching and long-lived consequences. This divergence, which is anchored in outdated curriculum design, ignored venues of vocational entry, thin ties between industry and academia, ineffective governance, has continued to thwart the economic potential of the nation, undermine social cohesion and turn around education as a facilitator of progress into a waste of opportunity. The ripples of the problem radiate beyond the classroom to the very graduates, employers, institutions and even the nation's economy.

One of the most striking and paradoxical results is the extremely high level of educated unemployment and underemployment among the youth. Even when there are more graduates from universities, many of them still lack employment due to their inability to develop practical skills applicable for work. Theoretical knowledge and rote memorisation, neglecting critical thinking and digital competencies, have made graduates unemployable in the labour market according to Rashid and Mukhtar (2012) and Uzair-ul-Hassan and Noreen (2013). < Pervez et al. (2023) also discovered the same problem, i.e., university curricula failing to match the expectations of employers, particularly in expanding fields such as information technology and digital services. Consequently, students with degrees are often unable to fill the job market's needs, resulting in these people being underemployed, underproductive and increasingly disillusioned with the worth of education.

This misalignment also threatens Pakistan's demographic dividend. With more than 60% of people below 30 years, the country has an opportunity to use its youth for economic development. But with meaningful employment, the said large youth population proves to be an asset, not a black one (Ashraf et al., 2024). The skills mismatch undermines innovation, productivity, reliance, and social unrest. According to Farooq (2011), this indicates a structural problem; tertiary education is no longer a commodity that guarantees employment, especially since what is taught is not what is required. This results in systemic inefficiencies, as time and resources that are put into education do not return much economic value.

The repercussions for the marginalised groups are especially dire. Women, rural youths and persons from low-income households face multiple forms of disadvantage because of the intersection of exclusion (Aslam, 2009; 'The rights-based Cameroon movement', 2013; Khan et al., 2023). Occupational segregation based on gender, cultural norms, and limited mobility disqualifies most women from getting vocational training and a professional job, even if they qualify. Zohaib Hassan Sain and Babiera (2023) report a difference in rural and urban education systems and their infrastructure, characterised by absent infrastructure, trained human resources, and digital tools. These disparities are not accidents—they are structural, that is, the result of an education system that favours people who are already privileged and who keep out those who need it the most.

Additionally, the mismatch has profoundly undermined public trust in institutions of education. Family invests a lot of resources in the fantasy that education will get them upward mobility. Still, when the degrees do not convert into jobs, the perceived value of schooling reduces. According to Baig et al. (2018), even in such technical domains as engineering and computer science, most students are graduating without having experienced any real-world problem-solving or at least internships, a state which has given employers reasons to doubt the quality of education. Malik et al. (2021) point out the need for organised collaboration between industries and universities, a need that undermines the employability of graduates and reduces the interest of the private sectors in academia. This, over time, culminates in a collapse in trust not only in institutions but also in the fact that education can be a transformative tool.

This mistrust is directly causing the ongoing brain drain. As the opportunities at home dwindle, many among the best-educated and most skilled professionals in Pakistan look for better fortunes overseas. Mohsan Iqbal et al. (2025) indicate systemic gender and institutional barriers also drive women professionals to leave their careers or migrate. The flight of skilled people is a real blow, not only financially but also in innovation, capacity building, and leadership. The human capital built at high prices for individuals and the state eventually subsidises other economies. This outflow sustains the cycle of underdevelopment and deprives domestic institutions of the well-qualified to lead reform.

At the policy level, the discordant nature of the mismatch negates national development targets. Although documents such as Vision 2025 speak about articulation of priorities of skill development and employment generation, implementation has been weak (Ali & Rehman, 2015). This phenomenon is attributed to fragmented governance, where the federal and provincial units work in isolation and thus come up with contradictions and inefficiencies. (Faiz 2023) Akram (2020) also condemns the lack of a unified national skills framework, complaining that, as long as coordination across departments continues to elude, even the best policies crafted will fail to translate any impact.

Reforms are always reactive rather than proactive, notwithstanding labour market realities, and employer consultation is absent.

4.3.2 How the Mismatch Between Education and Labour Market Demands Impacts Unemployment

One of the key reasons for increasing unemployment, as well as a particular problem among youth in Pakistan, is the increasing divergence between the education system and labour market needs. Even though enrolment into higher education has increased, graduates continue to find it challenging to get jobs due to outdated curricula, poor vocational training, and little engagement with businesses. The outcome is structural unemployment where graduates are qualified but not competent enough for those jobs, hence, inefficient processes are adopted, which hinder national progress.

One of the major complaints is that educational programs are mainly detached from the world of work. Even today, Pakistan's education does not scale off rote memorisation and theoretical teaching, which won't equip students for practical skills in the modern job market. Rashid and Mukhtar (2012) and Uzair-ul-Hassan and Noreen (2013) explain that IT and business students leave school without adequate working experience and are thus unprepared for contemporary and technology-based working environments. Consequently, the colleges overflow with graduates with inadequate skills to meet the dynamic needs of the labour market.

The poor support of the vocational and technical educational programs complicates the situation. Although they provide technical skills, TVET programs are usually underfinanced, outdated, and undesirable to society. Both Ashraf et al. (2024) and Bano et al. (2022) observe that vocational education is disengaged from industry and is missing modern equipment, hurting the job market demand with its graduates. Societal prejudices of traditional academic education as opposed to TVET continue to undermine the usefulness of vocational education as an employment solution for non-academically inclined individuals.

This drastic disconnect between academia and industry dramatically affects the situation. University and employers' collaboration in developing curriculum and offering internships is uncommon. As Ashraf & Javaid (2024) and Baig et al (2018) reported, students from technical fields, including Engineering and Computer Science, frequently leave school without a practical understanding of workplaces, making them unprepared for real-world problems. Due to these truncated links, the students do not yet have access to critical employability skills; employers cannot mould skills from young talents.

Many sweeping technological changes are making it more difficult for graduates to find adequate employment. With the digital transformation, artificial intelligence and automation are on the rise (Alexander & Belloni, 2024), and how employers perceive job skills is being transformed. Karakolis et al. (2022) point out this; Pakistani institutions are struggling to adapt curricula and offer digital skills training. Eventually, because actual workplaces require digital competencies that graduates predominantly lack, they are more and more being excluded from conventional employment and face recurrent phases of unemployment.

Importantly, the mismatch is particularly severe for some populations. Aslam (2009) and Khan et al. (2023) state that women and rural youth face additional challenges, namely lack of access to transport, social restrictions, and scarcity of educational facilities. Inadequate resources for rural schools (in a sense, both human and technological) reduce future employment opportunities for non-urban area students to an extreme, as explained by Zohaib Hassan Sain and Babiera (2023). These barriers add to the unemployment of people who are already disadvantaged in society.

The combined effect of these challenges leaves a generation of educated people without employment, and the system disenchant many. When young graduates lose faith in the system, institutional trust is weakened, leading to many people emigrating and losing talent worldwide (Ali & Rehman, 2015). And hence, whenever education is not aligned with labour market requirements, national productivity and economic stability are affected, reducing the potential of Pakistan to utilise its demographic potential.

All in all, unemployment in Pakistan is more on the side of the mismatch between the level of education and the job market rather than on whether there are positions available or not. Efforts to resolve this issue require a coordinated solution in the form of policy change, including introducing modern curricula, the revival of TVET, a better connection between schools and the job market, and closing the digital gap. For these reforms not to happen, the current mismatch will only intensify unemployment and perpetuate the difference between the privileged and disadvantaged communities.

4.4 Syndissertation and Critical Conclusion

This study comprehensively reviewed Pakistan's education vs. labour market needs gap, revealing a big and intricate crisis. A thematic analysis identified six vitally important and interrelated issues: << Curriculums not practical, low standing of vocational education, divides between academic and industrial sections, lack of digital skills, governance defects, and inequalities which overlap due to different parameters. These coexisting problems create a vicious circle of extensive unemployment

amongst educated people, a shortage of skills matching the needs of the job market, and increasing social alienation, particularly of women, rural youth, and people from economically weak areas.

The analysis showed that the problems transcend issues of access to education or access to economic resources, bringing out a systemic misfit and institutional opposition to change. Even with policy frameworks such as Vision 2025 in place, significant reform efforts have been obstructed by problems such as dissociative governance, employers' inadequacies and a lack of a contemporary reflective stake in the labour market. Colleges and universities have mainly remained separate entities, with graduates unable to respond to changing job needs, and vocational training is perceived as substandard and poorly financed.

Notably, the results highlight a fundamental gap in promoting the provision of equitable access. An overly polarising impact is imposed on the marginalised, exacerbating social inequalities and eroding the public's confidence that education would help achieve the reform. Moreover, lacking digital skills will marginalise significant portions of the population from new jobs and worsen structural and underemployment.

Finally, Pakistan's constant education-to-employment crash is a structural challenge that requires complete restructuring. Incremental reforms will not suffice. Instead, a comprehensive, just, and far-sighted vision is required – one that combines the needs of industry with the bounds of education, modernises teaching and infrastructure, establishes open vocational training, and bases policymaking on labour market understanding. If this change is not realised, Pakistan risks benefiting from the investments in education that produce neither economic opportunity nor social mobility, particularly for disadvantaged classes.

CHAPTER 5: DISCUSSION

5.1 Introduction

The presentation includes an evaluation of thematic analysis results wherein the researcher links examination results to theoretical models and research survey targets. The research investigates the primary institutional structural and sociocultural elements that cause Pakistan's ongoing mismatch between education and employment systems. The study demonstrates that educational institutions provide skills, while the labour market develops different needs due to major educational infrastructure expenditures. Institutional constraints, including outdated teaching methods and rigid curricula, make this mismatch worse because they do not prepare students for how the job market develops.

Gender roles and regional differences, along with social prejudices, create barriers which prevent marginalised groups from receiving quality education and finding employment opportunities in their local region. Because women face ongoing barriers to education and employment, the social system discriminates against them, especially in rural areas. Due to the fact that professional career possibilities and high-quality educational institutions are mostly found in urban areas, rural communities face discrimination.

To comprehend Pakistani educational institutions and the accompanying labour market reactions, including socioeconomic situations, this section connects observed patterns to theoretical frameworks on human capital theory and labour market segmentation theory. These frameworks state that in order to meet market needs for addressing the employment transition challenges of recent graduates, companies must activate their response capabilities.

The study wraps up its investigation by looking at programs supporting workforce-wage alignment systems and changes in educational standards. Pakistan must create an inclusive economy and combat prejudice that impedes social progress to overcome barriers to employment, linking education and society, and cultural equality training.

5.2 Curriculum Irrelevance and Labour Market Disconnect

The primary conclusion of this study examines the notable discrepancy between academic instruction and industry expectations in Pakistan's business community. The results of the study demonstrate that, despite changing industry market demands, Pakistani higher education institutions continue to use conventional teaching strategies and unaltered course materials. Similar findings were obtained

by Rashid and Mukhtar (2012) and Pervez et al. (2023) in their observations of graduates whose degrees did not correspond with the practical or market-required skill sets. Many educational institutions began implementing individual modernisation plans, necessitating a single systemic reform for syllabus development.

According to the human capital theory (Becker, 1964), education is an essential investment that boosts the productivity and compensation levels of people who obtain training that suits market requirements. The education system in Pakistan fails to match this ideal because graduates lack the necessary employer skills, which Becker would label an "inefficient investment." Employers demand graduates who demonstrate adaptable behaviour, technical expertise, and competence in addressing real-world challenges. However, the present educational structure focuses on delivering passive learning experiences with minimal practical knowledge.

Training programs lack industry participation in their design process, which is a significant causal factor. Educational programs lose connection to the labour market requirements because employers do not provide adequate, structured feedback. These two entities operate independently, so more graduates face joblessness or have limited employment opportunities, thus making the problem worse. The educational institutional success achieved by Finland and Germany resulted from their alliance with government, industry, and academia to link education with economic national requirements while boosting competitiveness and innovation. Pakistan has opportunities to build connected tripartite cooperation, which would solve its current educational curriculum problems related to the market workforce needs.

5.3 Marginalisation of TVET and Its Implications

TVET faces substantial marginalisation as a main finding emerges from the current investigation of Pakistan. Sociocultural understandings treat vocational learning as a lower-level educational choice which has less worth than academic formal education. Khan and Ali (2024) show in their findings that TVET stands unattractive to students and employers through societal bias. The negative status of TVET results from outdated curricula poor facilities and limited promotion possibilities, which exclude it from becoming the primary economic growth engine.

Pakistan loses out on crucial industrial expansion and economic sector expansion due to its devaluation of TVET educational programs. The successful experiences of Thailand and Vietnam show how vocational schooling generates industrial progress and export enhancement (Pholphirul 2017; Quang and Tran-Nam 2019). Modern industries benefit from these countries' strategic economic plans, enabling them to train workers according to market requirements. The TVET sector

of Pakistan faces multiple barriers because public-private collaboration remains weak, with policy boundaries preventing it from supporting national development. The implementation of introduced policies fails to produce results because stakeholders lack coordination, and the policies lack sufficient funding.

TVET in Pakistan creates a major obstacle because it denies female participation in all its programs. The research indicates that TVET programs frequently operate through gender segregation, which prevents women from accessing professional training while reducing their interest in working. National productivity suffers from inadequate safe training facilities for women because these environments prevent female trainees from participating in the workforce and contributing to the economy. The resolution of gender inequalities and an enhanced approach to training and education would serve as essential components for Pakistan to achieve higher economic growth and social justice.

5.4 Lack of Academia-Industry Linkages

This study demonstrates how academic institutions in Pakistan lack proper connections with local industries. Most universities function independently from employers due to their lack of internship provisions, training programs, and applied research collaborations, according to Malik et al. (2021) and Baig et al. (2018). The absence of academic-industry partnerships creates a gap in practical skills and basic competencies that current job candidates need in their competitive employment environment. A deficiency in fundamental elements blocks graduates from meeting workplace requirements, which broadens the gap between their academic credentials and job requirements.

The governing structures create organisational problems at this level because they fail to promote partnerships. Most Pakistani institutions have insufficient motivation to form partnerships with private companies because employers ignore the importance of academic institutions as talent development partners. Students receive theoretical academic knowledge but graduate without the practical experience that contemporary employers need for their modern organisations.

Germany has succeeded in dual education by combining academic education with company evaluations and an optional training unit. The system supplies students with theoretical information, practical competencies, and work-ready education. The German education system uses regular academic-industrial interactions to lead to the successful development of highly skilled and prepared workers. The professional graduates studying business, computer science, and engineering in Pakistan discover restricted learning prospects from industrial practitioners due to insufficient

collaboration between their education institutions. Enhanced cooperation between industries and educational institutions is vital to upgrade graduate employability and align talent to market demands.

5.5 Rapid Technological Change and Digital Skills Gaps

The research reveals deep concern about the increasing distance between Pakistan's younger generation and the changing requirements of worldwide employment opportunities. Global industry developments powered by automation technology alongside AI and digital platforms necessitate employers to hire employees with technical skills, including coding abilities, digital marketing expertise, and cloud computing competencies. The fast-paced developments in technology exceeded what public sector educational institutions could implement in their learning curriculum. According to Alexander and Belloni (2024), numerous academic institutions in Pakistan lack the essential skills that the modern workforce demands, leaving their graduates unable to meet the digital economy's needs.

Santoso (2022) points out the harmful effects of skill obsolescence in educational environments with static content, and Pakistani schools are displaying this issue. Students study obsolete technologies coupled with theoretical practices that do not align with contemporary digital systems. These incompatible education approaches present severe challenges, specifically to students living in rural or low-income areas, because they generally do not have easy access to digital technology foundations. Rural students face broader educational resource shortages compared to urban students, intensifying their lack of employment opportunities.

Akram et al. (2020) explain that the digital divide occurs because urban schools provide better digital education possibilities through superior digital facilities than rural schools. The digital divide has expanded in Pakistan since digital infrastructure investment and educational programs for training teachers and modern curriculum development are insufficient. The absence of applicable skills in Pakistan generates global compatibility problems that lead to social integration problems since the digital economy prevents the next generation from active involvement.

5.6 Governance Failures and Policy Fragmentation

The research evidence demonstrates that institutional breakdowns repeatedly cause Pakistan's educational system to fail in policy execution. Educational governance functions in Pakistan are divided across federal levels, causing variable policy instructions that intersect with multiple overlapping administrative responsibilities. According to Akram (2020) and Faiz (2023), operational inadequacies between federal and state and provincial authorities have created conflicting

intervention methods, which reduce accountability. Numerous barriers prevent educational reform implementation because Pakistan has decentralised authority across most of the nation.

The inability to execute Pakistan Vision 2025, serving skill development, is a sign of dysfunctional governance practices. Ali and Rehman (2015) stress that most policy documents fail to translate their targets into practical actions due to insufficient funding, unclear mappings, and inadequate monitoring tools. Inadequate data access makes it difficult for authorities to create evidence-based designs for their interventions.

The governance framework in Pakistan stands in strong opposition to well-functioning systems in which other countries operate effectively. Singapore demonstrates labour market alignment through its central coordination, regular market analysis, and funding policies, resulting in successful outcomes. The implemented strategies enable educational and employment policies to react effectively to market changes and adjust their practices in accordance with new circumstances. Pakistan's current institutional framework lacks proper adaptation ability combined with restricted integration capacity, thus limiting its capability to execute flexible labour market policies.

The achievement of national development plans through skilled training delivery in Pakistan requires essential governance system reforms and enhanced policy coordination. Central coordinating mechanisms, which depend on data-based planning and enhanced accountability measures, are necessary for more inclusive policies.

5.7 Intersectional Inequities: Gender, Region, and Class

The condition of educated labour mismatch has particular repercussions on different groups in Pakistani society. Due to their twin identities as women and rural dwellers from low-income families, rural women face the greatest disparities in career opportunities. According to Aslam's (2009) research, gender-based social norms prevent Pakistanis from accessing high-quality education and rewarding employment in a manner similar to that of financial and geographic limitations. Until beneficial structures begin to function, social factors create insurmountable obstacles for those in need of assistance with these issues.

Women with proper educational degrees typically encounter employment difficulties when pursuing occupational paths that function under traditional safety approaches and are dominated by male professionals. Women experience several career obstacles because of substantial workplace segregation between male and female workplaces and occupational regulations. In addition to having

few mentors and limited access to important professional networks, women face gender discrimination, which hinders their ability to advance professionally.

Several complications faced by students in rural areas block their academic progress and their overall future potential growth. The educational facilities of these students experience environmental problems due to poor financing, unavailability of updated technology, and insufficient certified teaching staff. Limited employment opportunities and distant housing choices combine to decrease young people's employment prospects in spite of a lack of adequate part-time employment openings.

Pakistan's current institutional framework lacks proper adaptation ability combined with restricted integration capacity, thus limiting its capability to execute flexible labour market policies.

Achieving national development plans through skilled training delivery in Pakistan requires essential governance system reforms and enhanced policy coordination. Better inclusive policies need central coordination systems that rely on data-based planning and improved accountability measures.

Economic exclusion, together with restricted educational access, primarily affects households from lower-income brackets due to their respective class-based socioeconomic factors and gender differences, as well as geographical location. The absence of appropriate infrastructure, together with barriers to urban and rural accessibility, results in increasing society's inequalities. Equal-based approaches need to be used to find multicultural sources that sustain these social equity challenges within the system framework. Education requires updated policies, together with direct opposition against the social practices that stop minority groups from attaining opportunities.

Research indicates several complex elements produce the discrepancy in educational work requirements in Pakistan. The issue fails to resolve because curricula lack adequacy, TVET experiences minimal representation, industry contact with the education sector remains weak, and government operations are inefficient. Graduate joblessness and substandard employment strongly affect the market employment rate, yet educational institutions maintain their independent status.

The advanced speed of technological development and growing shortages in digital capabilities among youth have led Pakistani youth to fall short of international demands for technology-based economic duties. Studies indicate that geographical disparities, together with socioeconomic cleavages, lead to educational rejection for female students, combined with rural students and economically disadvantaged groups.

5.8 Theoretical Implications and Contribution to Knowledge

The results of this research are valuable for broadening the theoretical vision of the education-labour market mismatch, especially in terms of Human Capital Theory, institutional theory, and intersectionality. This research also bridges crucial gaps in the literature by making a contextual analysis based on the practicalities of a low- and middle-income country (LMIC) such as Pakistan, where economic, political, and cultural environmental dynamics exert considerable influence on educational outcomes.

To begin with, the following paper delivers a critical advancement of human capital theory, which states that educational investments have individual and societal economic benefits, improving productivity and employability. Ideally, education has to act as a ladder to upward mobility, particularly for the young people tapping competitive labour markets. However, the Pakistani scenario shows major weaknesses to this assumption. As illustrated from the analysis, the national education system keeps churning out graduates who are academically ready, but lack preparedness for more considerable employment outside academia, significantly because the set curricula are outdated, practical exposure remains weak, and digital literacy is minimal (Pira, 2018). This gap weakens the theory's premise that education generates better labour market results.

The study, therefore, indicates that human capital must be accumulated and geared towards labour market demand to yield a meaningful return. It emphasises the significance of the quality and relevance of education, issues frequently neglected in the purely quantitative analysis. Lacking alignment between education spending and economic structure, human capital is wasted, leading to underemployment, brain drain, and unspent public funds.

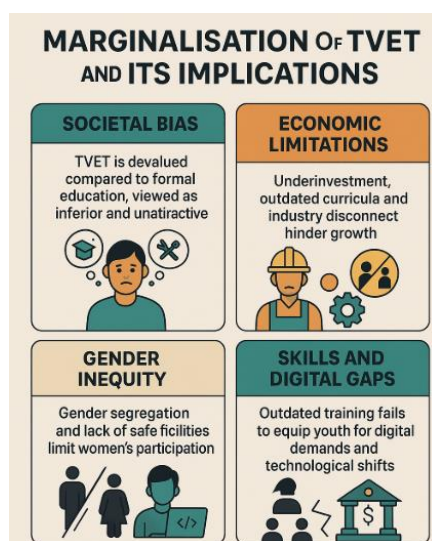


Figure 9: Author's own creation.

Secondly, the research further develops institutional theory, especially concerning education governance. Discoveries concerning fragmented policymaking, dysfunctional inter-agency coordination, and ineffective accountability are endemically ingrained institutional imperfections. As Akram (2020) and Faiz (2023) highlight, the 18th Constitutional amendment in Pakistan, which decentralises education, has led to a governance vacuum with blurry lines of, or overlapping, roles and responsibilities. These institutional malpractices preclude the effective delivery of such policies, such as Vision 2025, which has ambitious targets on skills development and youth employment.

Through the analysis of the structural constraints of educational governance, this study further endorses the institutionalist perspective of how rules, norms and organisational behaviour largely shape policy outcomes. The call for a more integrated approach to policy design and implementation is for education not to be approached in isolation but as part of the more general development strategy through industry, labour and planning sectors.

Thirdly, the critical dimension, which was added to the education-employment discourse, results from the intersectional analysis of the study. Traditional models have failed to view the entrants into the labour market as a homogeneous group, and this study reveals that such variables as gender, region and socioeconomic class have significant influence on access to the working world and the transition into a meaningful job. For example, women, especially from rural or conservative heritages, then encounter double problems of not having access to vocational or white-collar education and segregation from formal labour markets because of the gender norms and occupational segregation. In the same vein, rural students are also denied exposure to digital tools, job guidance, and industry networks, which makes them some of the outcasts in an ever-growing urban-based workforce.

This kind of intersectional approach adds to theoretical knowledge by driving home the point that skills mismatch is not just a technical, but a very profound social issue. It draws attention to the fact that inequality is a cause and a consequence of misalignment between education and employment; hence, it must be considered during inclusive and equity-informed policy design.

Finally, this research adds to the global knowledge by comparing Pakistan as a labour market mismatch case study of an LMIC. Much of the literature on mixed skills mismatch and employability is from high-income countries where institutional capacity and the labour market are more developed.

5.9 Summary of the Chapter

The evaluation section in chapter 4 analyses youth unemployment while it addresses education-labour market mismatches in Pakistan. Institutional publications and academic papers are used to develop

systematic knowledge about the identified problems. Graduates cannot work according to this first finding because academic curricula remain separate from rote learning methods, and industry preparation creates additional barriers. Graduate students fail to develop practical abilities, leading to their segregation between structural job markets and substandard employment prospects.

The TVET system of Pakistan faces various problems since industries offer minimal financial and organizational backing, and funding remains minimal. Young female job seekers and other youth groups cannot secure employment due to poor educational outcomes, restricting their diversity in the labour force. The lack of vital sector-private sector information connections prevents educational institutions from delivering correct curricula with practical vocational training. Graduate readiness for entering the workplace decreases because of the skills mismatch that occurs from institutional and private sector passivity in their relationship.

The fourth topic explains why educational institutions find it hard to adapt to technology appropriately because they lack the necessary digital competency skills. The expanding digital gap prevents graduates from obtaining job opportunities in current markets because employers seek candidates with digital skills.

The analysis has identified Governance System and Fragmented Policy Structures as the fifth key issue because these separate governance approaches create obstacles to policy success. Incompatible school curricula that fall short of workplace norms are the consequence of mixed policies created by educational officials at the federal and provincial levels. Important institutional and regulatory system limitations have been identified by previous research, necessitating the necessary systematic changes to address youth unemployment in Pakistan.

CHAPTER 6: CONCLUSION AND POLICY RECOMMENDATIONS

6.1 Conclusion

The critical and enduring problem of education-labour market mismatch in Pakistan has been a subject of the present study, that is, the lack of compatibility between what the education system delivers in terms of qualifications and required skills on the one hand and what the actual labour market demands on the other. Upon the quantitative analysis of data completed with an in-depth reading of national and international literature, the study was designed to evaluate how this mismatch impacts the employability of graduates, economic development, and human capital usage.

According to the findings of the research, there is a frightening tendency: The labour market of Pakistan continues to absorb many graduates who are either over-qualified for the available job positions or are under-qualified for the jobs available. At the same time, employers of various industries, especially emerging industries like information technology, manufacturing, healthcare, and skilled trades, complain of a lack of workers with appropriate technical, cognitive, and soft skills. This paradox is an indication of a major structural weakness in the pipeline from education to employment.

The outdated and overly theoretical nature of the curriculum in most Pakistani universities and colleges is one of the main causes put forward. Overemphasis is still laid on rote and the conventional academic fields, such as the humanities and social sciences, while application skills or industry involvement is not incorporated to any great extent. This way, graduates therefore end up leaving university without the competencies required by employers (communication, problem-solving, digital literacy, adaptability and hands-on experience).

The other important contributor to the mismatch is poor linkage between academia and industry. The absence of institutionalised cooperation between the educational institutions and employers precludes timely changes to curricula and deprives the students of exposure to the realities of work environments. In addition, there is not a systematic labour market forecasting and a centralized Labour Market Information System (LMIS) that could inform the educational planning and individual career choice.

Socio-cultural pressure and systemic inequality worsens the issue. The absence of institutional form of partnership between the employers and learning institutions means that the curricula never get updated in a timely manner at the same time denying the students experience in actual working environments. In addition, there is a lack of any systemic prediction of the labour market and a unified

system of Labour Market Information System (LMIS) able to influence educational planning and personal career choice.

There is also progress retardation in terms of policy and governance gaps. The Ministry of Education and the Ministry of Labour are not using the appropriate and fundamental coordination to act on both moral and practical levels, as opposed to the fragmented and reactive nature of the policies, which results in reinstatements. In addition, there is a lack of investments in the technical and vocational sector, which can act as a catalyst for the congruence between education and employment, particularly in the rural and underdeveloped areas.

It is therefore concluded that the education-labour market disconnect in Pakistan is a systemic issue that goes beyond the personal impact of the issue and extends to national productivity, innovation, and competitiveness. Dealing with this issue requires a more comprehensive approach, which also includes: revamping of curricula; enhancing institutional linkages; enhancing policy framework; promoting vocational and lifelong learning; and being inclusive. Below are strategic and pragmatic policy suggestions that, when implemented appropriately, can help fill this gap and drive towards an advanced, not necessarily fairer and futuristic labour market in Pakistan.

6.2 Summary of Key Findings

Several factors interlinked precipitated a persistent educational-labour market mismatch in Pakistan, which this study identified. These findings have been sorted under 6 critical themes that cumulatively reflect structural, institutional, and socio-cultural bases of the issue.

6.2.1 Structural Mismatch

There is some basic structural disparity between the supply of graduates and the real demand in the labour market. The education system in Pakistan still churns out an excess of graduates in the areas of humanities and social sciences, while fields like information technology, manufacturing, construction, and agriculture are short of trained personnel. This asymmetry depicts inadequate planning of national education and labour market forecasting being weak. The mismatch causes overcrowding of the low-demand fields and labelled shortages of the critical labour force in emerging and growth-oriented industries, thus hampering the economy in diversification and innovativeness.

6.2.2 Curriculum and Skills Gap

One of the key causes of graduate unemployment is the fact that most curricula in universities are outdated and too theoretical. Institutions tend to ignore ensuring the inclusion of critical employability

skills like communication, teamwork, digital literacy, critical thinking, and problem-solving, among others. The gap between what is taught in academia and what the work world requires means that even well-educated graduates who emerge from school are hardly prepared to face real-life job demands. As a result, their lack of a practical orientation restricts their competitiveness as well as employability within both local and global job markets.

6.2.3 Weak Industry-Academia Linkages

Throughout the study, it has been found that lack of collaboration between academia and industry is a fundamental weakness of the present system. Schools do not discuss curriculum or what is going on in industry very often with employers. This wide gap leads to lost opportunities in the form of internships, apprenticeships, and mentorship programs, all crucial in driving a seamless transition from one's studies to employment. Universities lack knowledge of the dynamics of the labour market if they have no industry input that is strong.

6.2.4 Socio-Cultural Expectations and Educational Choices

Students' decisions regarding education are highly influenced by culturally defined norms and society-seated expectations. Many students are propagated to take courses perceived to be prestigious when those areas do not have an employment window. Career decisions are made blind to the truth of labour market and the lack of institutionalized career counseling services only worsens this problem. Consequently, students end up in oversupplied fields with little job opportunities, leading to high levels of graduate dissatisfaction and underemployment.

6.2.5 Gendered Nature of Mismatch

Gender dynamics further clouds the mismatch. The female graduates in Pakistan have specific structural and cultural challenges when joining the working world. Although they academically outperform their male counterparts, women have more rates of unemployment and economic inactivity. Lack of mobility, work discrimination, and lack of female employees' support in establishing work-life balance all constrain women's contribution to the workforce, thus severely underusing educated female human capital.

6.2.6 Institutional and Policy Failures

Finally, fragmentation of institutions and weak governance are making the situation worse. Lack of a centralized data driven Labour Market Information System (LMIS) makes it difficult to reconcile the outputs of education with the demands of the labour market. In addition, incoherence of policy between the Ministry of Education and the Ministry of Labour frustrates integrated planning for human capital development. This policy gap leads to knee-jerk, ad hoc measures to not long-term, forward-thinking reforms.

6.3 Theoretical Implications

This study critically examines two of the most prominent theoretical frameworks. Human Capital Theory and the Signaling Theory. Although both have been historically used as a justification for investment in education as a solution to having better labour market outcomes, the Pakistani setting shows important deviations and complexities that frustrate these presumptions.

Human Capital Theory was initially proposed by (Schultz 1961) and (Becker 1964) that explains how education increases the individual's productivity and thereby, increasing their earnings and wide economic development. The assumption behind is that education prepares individuals with the skills, knowledge and those competencies that are valued in the market for labour. In principle, this study is supportive of the argument that education should make one more employable. However, the results demonstrate that in Pakistan, this assumption may not be the case. The education sector is often consistent with sharing of graduates that are not aligned to the needs of the market because of outdated curriculums, soft and technical skills and lack of practical work. Consequently, the gains in productivity as propounded by the Human Capital Theory are not fully achieved. The theory, thus, would need some refinement with regard to a context, especially in economies, such as Pakistan's, where systemic inefficiencies contradict the alignment of an education and labour demand.

Furthermore, the importance of type and quality of education can be highlighted in the research. Investments in education do not have the same returns. Degrees in areas where the demand is low in terms of the market cannot increase productivity but might lead to underemployment or frustrations among the graduates. This subtlety implies that Human Capital theory needs to be used more discretely whereby labour market features, institutional capabilities, and applicability of certain education trajectories are taken into consideration.

At the same time, the results provide a strong support for Signalling Theory which indicates that education in many cases work not as an instrument providing skills, but rather as a signal of potential productivity or social status. In Pakistan, educational qualifications, particularly university degrees, are often used as social labels and not really as indicators of readiness for work. The employers might interpret degrees as an indication of class and access to opportunity as opposed to actual skills. This is further aggravated by the low credibility as well as the lack of standardised mechanisms for evaluating graduate competencies from different disciplines.

This signalling aspect of education is even more challenging when institutions differ in the levels of quality. The elite universities' graduates may get jobs easier – not so much because they are more skilled, but because their degrees have more prestige and provide stronger market signals. On the other hand, the job market poses tremendous problems for graduates from less recognized institutions, irrespective of an individual capacity. This negates the meritocracy imbedded in Human Capital and Signalling theories and exposes how educational disparity is a means of reproducing the social divisions.

Also, the gendered outcomes depicted in the study call for an intersection of these theories with feminist and sociological views. Although women may have equal or even better human capital, socio-cultural impediments weaken the expected returns from education from the economic standpoint. Such a gap emphasises the shortcomings of both theories in accounting for labour market outcomes in patriarchal and structurally conditioned societies.

In conclusion, even though the findings support central aspects of Human Capital and Signalling Theories, they also indicate the necessity of critical adaptation to Pakistan's socio-economic setting. Education alone is insufficient; the content, quality, and institutional credibility of that education are quite vital, as well as larger structural and cultural dynamic.

6.4 Practical Implications

The mismatch between the education-labour market in Pakistan has widespread and urgent practical implications that go beyond the mere livelihoods of people, to the very development of a nation, its competitiveness in the global economy, and social cohesion. As shown by this research, the lack of matching educational outputs to the needs of the labour market leads to the systematic inefficiencies of public and private investments in human capital and large-scale disillusionment of the youth.

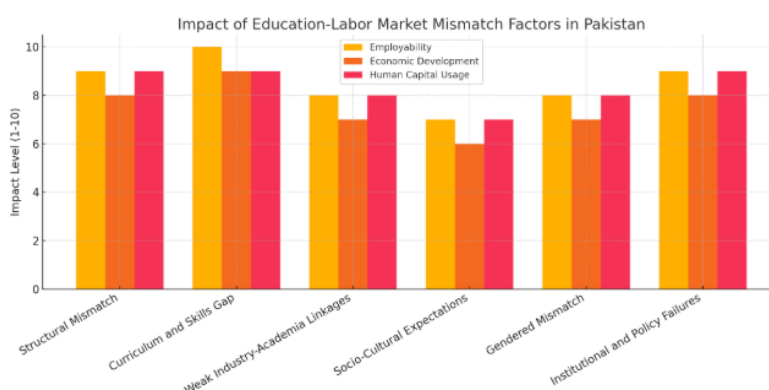


Figure 10: Author's own creation.

Personally, the students and their families usually incur huge financial sacrifices in pursuit of higher education with the hope of mobility. Upon graduation, when graduates end up unemployed or underemployed, especially in jobs outside their specializations, then their rate of return becomes seriously negative. This incongruency creates psychological suffering, undermines trust in the system of education, and promotes greater dependency on the informal employment that is usually unstable and underpaid. It also deters future cohorts from gaining higher education causing a long-term potential risk for human capital development.

In the macroeconomic level, this misalignment constricts productivity and innovation. Some critical growth areas like information technology, manufacturing, renewable energy and agribusiness are unable to source for skilled people while there are university graduates oversupply in niche disciplines such as general arts and social sciences. This inefficient distribution of talent leads to labour shortage especially in critical industries, prevents the country from competing abroad and slows down the technological growth.

The mismatch also leads to brain drain as many talented and educated persons decide to emigrate in search for better employment terms. This outstanding drain of the skilled workers erodes national capacity while demeaning public investments in education. The likes of Pakistan, for instance, which are not so fiscally strong, cannot afford to sink huge amounts of money into education with their best workers ending up boosting foreign economies.

In addition, the education-labour market mismatch worsens social inequality. Students of elite, metropolitan or English-medium institutions are usually better prepared for cut-throat job markets and better placed to get jobs. On the other hand, students from the rural areas or schools that are poorly funded continue to be isolated, perpetuating poverty cycles and exclusion. There is also gender inequality as even educated women find it very difficult to enter into and continue in the working world because of societies, security, and non-supportive work environments.

It is not a technical issue to deal with these challenges but a national imperative. Pakistan needs to design a coordinated, future facing human capital strategy that includes real time labour market information, employer input design of curriculums and strong vocational and technical training routes. Such interventions without these, the mismatch will continue to wear down the potential of Pakistan's teeming youth population thus longing goals of economic growth, poverty reduction and political stability.

To sum up, the consequences of the education-labour market mismatch are multifaceted and severe. There is an immediate need for reforming the education system to bring back the priorities of education to touch with the economic realities, provide equal access to quality education and employment and unlock human capital.

6.5 Policy Recommendations

The education-labour market mismatch in Pakistan has to be confronted with a comprehensive and multi-sectoral policy approach. The five connected pillars are where the proposed recommendations are framed: curriculum reform, institutional synergy, industry-academia linkages, career support system, and socio-cultural change.

6.5.1 Curriculum and Pedagogical Reform

It is imperative that curricula in different universities are modernized and standardised. Higher Education Commission (HEC) should pioneer the integration of industry relevant skills – digital literacy, soft skills, critical thinking and entrepreneurship in all degree programmes. Project-based learning and interdisciplinary modules should become the norm to prepare the students for volatile workspaces.

At the same time, technical and vocational education and training (TVET) ought to be developed. This involves modernization of facilities, improving instructor training and creation of a structure for national certification to guarantee credibility. Scholarships and collaborations with local industries should be implemented to enhance enrolment especially in the underrepresented and rural areas.

Lifelong learning is also of equal importance. Universities and vocational institutions should provide micro-credentials and short-term courses to enhance continuous professional development ability to individuals so that they can skill up or down based on shifting labour market demands.

6.5.2 Institutional Coordination and Governance

Institutional synergy is necessary in effective policy implementation. The creation of a central National Labour Market Information System (LMIS) would give real-time data on the trends of employment, the structure of wages, and future demand for skills. This information-based system can help education providers, students, and employers to make better decisions.

There should be a combined task force of key ministries (Education, Labour, Planning) to bring education outputs in harmony to economic goals. This body would regulate periodic assessments of the labour market and make adjustments in policy directions.

Also, HEC must impose strict accreditation requirements that are oriented on employability results. College performance should not only be measured by the academic statistics but also by the figures of employed graduates and the satisfaction of employers as well.

6.5.3 Industry-Academia Partnerships

The academic-industrial linkages have to be strengthened. Co-designed structures with both faculty and employers should be used to make internships and apprenticeships a requirement for students to graduate with, including a meaningful workplace exposure.

Sector Skills Councils, that are made up of industry leaders, educators, and policymakers, should be set to provide guidance on curriculum alignment, occupational standards and trends of technology. Additionally, universities should be incentivized to establish innovation hubs with businesses, promotion of entrepreneurial activities, research commercialization, and student initiations.

6.5.4 Career Support Services

Career counselling needs to be institutionalised even at the level of secondary schooling as well as the tertiary level of schooling. These services should include advice on viable career path, labour market demands and skills acquisition.

Curriculum and Skills Gap scores the highest across all three dimensions, indicating it's a critical issue.

Institutional and Policy Failures and **Structural Mismatch** also show high impact.

Socio-Cultural Expectations have a comparatively lower (but still significant) impact on economic development.

To minimize the frictional unemployment, the government should create a national job matching portal that would be integrated with the LMIS and link graduates with the jobs expeditiously. Besides, entrepreneurship should be encouraged to be a viable option apart from the normal employment angle through micro-finance initiatives, incubation assistance, and integration training option in formal university programs.

6.5.5 Addressing Socio-Cultural Barriers

Public perception of vocational education should be changed. National campaigns must advance the merit of having skilled labour and display successful TVET alumni. Gender inclusivity should be promoted as well through incentives for the companies hiring women and providing flexible education for female students.

Finally, certain regional investment in education, infrastructure, and local trades (particularly in such areas as Balochistan and rural Sindh) is also required for equal access to education and employment.

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AI tool Gemini and Grammarly are used for detailed Outlining, editing and Grammar purposes.

