



## THE ROLE OF THE CONSTRUCTION INDUSTRY IN EMPLOYMENT GENERATION AND POVERTY ALLEVIATION IN PAKISTAN

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### **Abstract**

*Unemployment and poverty are persistent socio-economic challenges in Pakistan, exacerbated by rapid population growth and uneven economic performance. Between 2015 and 2024, the unemployment rate increased from approximately 3.57% to 5.5%, while poverty levels rose to around 25.3% in 2024–2025 (Pakistan Bureau of Statistics [PBS], 2023; World Bank, 2025). A large proportion of the unemployed population consists of unskilled and semi-skilled workers, whose opportunities are limited in export-oriented sectors that primarily demand skilled labor. This study examines the construction sector as a strategic avenue for employment generation and poverty alleviation due to its labor-intensive nature and capacity to generate both direct and indirect employment. Government-led infrastructure projects, private sector construction activities, housing schemes, urban development initiatives, and energy projects have contributed significantly to workforce absorption. Subcontracting practices, renovation, and interior works further enhance employment opportunities. Adopting a mixed-methods approach, the study analyzes secondary data from 2015 to 2025 sourced from the Pakistan Bureau of Statistics, Economic Surveys of Pakistan, and international organizations. Quantitative trend analysis assesses unemployment, poverty, and construction sector performance, while qualitative content analysis evaluates policy frameworks, investment conditions, and sector-specific challenges. Findings indicate that rising material costs, supply chain disruptions, and inconsistent government policies constrained sector performance, particularly during 2021–2025. The study concludes that targeted policy reforms, regulatory simplification, and strengthened public-private partnerships are critical to enhancing the construction sector's role in sustainable employment creation and poverty reduction in Pakistan.*

**Keywords:** *Unemployment, Poverty Alleviation, Construction Sector, Economic Development, Employment Generation, Public-Private Partnerships, Pakistan*



## 1. Introduction

One of the major socio-economic issues facing nations all over the globe, including those in the developing economies, is unemployment, and in most cases, the economic growth trends have not been able to create adequate employment opportunities (World Bank, 2025). Labour markets can fail to accommodate the growing working-age population even during periods when the gross domestic product (GDP) is on a rising trend, resulting in chronic unemployment and a growing poverty (World Bank, 2025). The fact that increasing unemployment directly affects the economical stability but also the social inequality and poverty creates the vicious circle that hinders the sustainable development. These global trends are represented in the labour market dynamics in Pakistan. According to national surveys, the unemployment rate is steadily growing, as it is estimated that it reached about 3.57 percent in 2015 and about 5.50 percent in 2024 (Pakistan Bureau of Statistics [PBS], 2023). Recent labour market surveys indicate an increase in the rate of the jobless with some estimates going over 7 percent in 2025, as an expression of macroeconomic pressures and demographic changes (PBS, 2023; NDTV, 2025). At the same time, poverty in Pakistan has demonstrated the opposite trend in history, as the number of those who are poor has grown to approximately 25.3 percent in 2024/25 due to economic shocks and inflationary rates (World Bank, 2025; Reuters, 2025).

These statistics illustrate that unemployment and poverty are two phenomena that are still closely associated with a significant percentage of the population. Unemployment is disproportionate among unskilled and semi-skilled, who in many cases, due to their lack of formal education, vocational training and social protection, become vulnerable in the labour markets that are characterised by informal work (ILO, 2024). The informal sector, which comprises construction, transport, and low-end services, absorbs a large portion of the Pakistani population, but in most cases, offers them limited job security, low wages, and poor working conditions (World Bank, 2025; CLR, 2025). With these issues, it is important to find areas that can take in huge amounts of unskilled labour. It is generally accepted that the construction industry is one of the most labour-intensive parts of the economy and one of the primary providers of jobs to millions of people, especially those who do not have formal qualifications (CLR, 2025; Khan, 2023). In Pakistan, the construction business has millions of direct employees and provides backward and forward externalities in other economic sectors like manufacturing, transportation, and housing, which leads to the stimulations of further economic development (Khan, 2023).

Although it has a potential the sector is limited to the labour skills, productivity and institutional support. The Pakistani context of research indicates that there are no formal training regimes, which cause low productivity and inadequate improvement in the quality of construction work, despite the fact that the industry has a huge potential, given the fact that this country has a relatively young and increasing labour force (Riaz, Din, & Aftab, 2015). Furthermore, there is evidence on the international level indicating that workforce skill enhancement and the incorporation of innovation may lead to the fact that the construction industry will become a more significant source of jobs and economic development (Maqsoom et al., 2022). The Government of Pakistan has realised the strategic value of such initiatives and has embarked on a number of large scale infrastructural development projects such as the ML-1 Railway modernization, urban development plans, and energy projects to stimulate the economic activity and create employment opportunity (Ministry of Planning, Development & Special Initiatives [MPDSI], 2024). The role of private



sector construction activities, i.e. housing, commercial buildings and renovation works is also crucial in creating employment. Nonetheless, there are some still unaddressed issues in the construction industry, including increasing materials prices, supply chain problems, and policy inconsistency, which hamper the industry and its job opportunities. The result of this might be enhanced contributions of the sector to the economy in terms of employment and alleviation of poverty in Pakistan by addressing these challenges through the adoption of supportive policies and partnerships between the government and the business population.

### 1.2 HYPOTHESES

**H1:** The construction sector has a significant effect on employment generation in Pakistan.

**H2:** The construction sector has a significant effect on poverty alleviation in Pakistan.

### 1.3 Research Objectives

- To examine the role of the construction sector in employment generation in Pakistan.
- To analyze the impact of the construction sector on poverty alleviation in Pakistan.

### 1.4 Research Questions

- Does the construction sector significantly contribute to employment generation in Pakistan?
- Does the construction sector play a meaningful role in poverty alleviation in Pakistan?

## 2. Literature Review

### 2.1 Unemployment review

Phillips (1958) examined the increasing problems of unemployment using the first ordinary least squares (OLS) regression model. He analyzed time-series data from 1861 to 1957 and found a significant relationship between money wage rates and the unemployment rate. Specifically, Phillips (1958) reported an inverse relationship: when unemployment is low, money wages tend to increase, whereas high unemployment suppresses wage growth. The study also indicated a significant relationship between the unemployment rate and wage growth in the years following inflation. Additionally, import prices can affect unemployment, as rising import costs may increase the unemployment rate, particularly if unemployment rises by 2 percent annually while employment demand increases by only 1 percent (Phillips, 1958).

Research based on the Phillips Curve suggests that high inflation may reduce unemployment, while low inflation may increase unemployment. Therefore, economic policies should be formulated considering the relationship between unemployment and money wages (Engemann & Tucek, 2020; Llaudes, 2005).

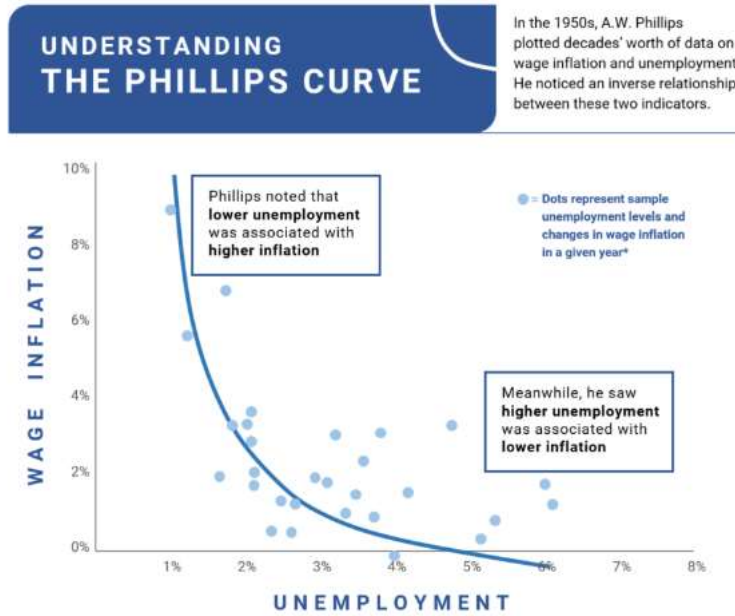


Figure 1. Relationship between unemployment and inflation in the U.S. (Engemann, 2020). It has been observed that high unemployment tends to reduce inflation, while low unemployment increases inflation (Engemann, 2020). According to Kliesen (2020), trade relations during the 1950s and 1960s influenced these dynamics. The associated figure illustrates the unemployment rate after 1950 in blue and the inflation rate in red (Engemann, 2020).

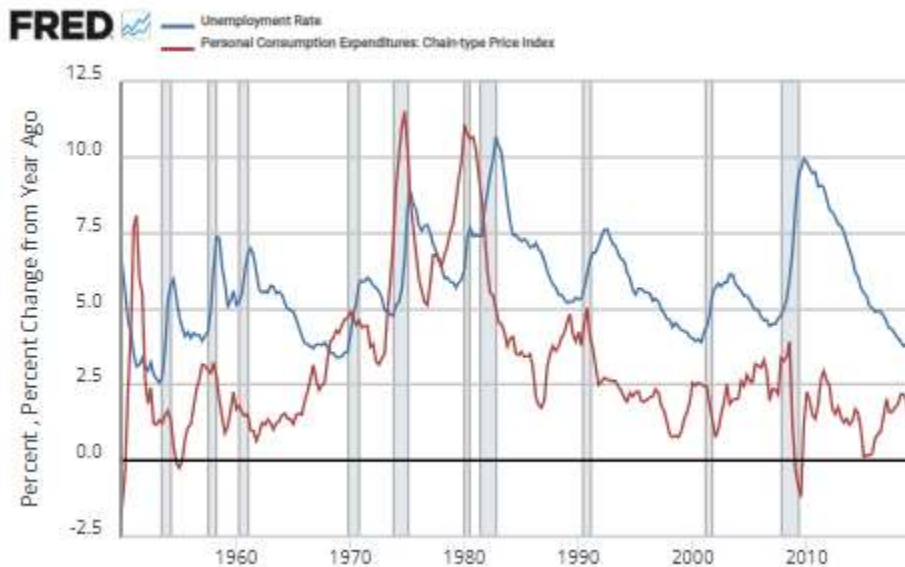


Figure 2. U.S. unemployment and inflation rates (U.S. Bureau of Economic Analysis & U.S. Bureau of Labor Statistics, n.d.).

This is a graph that shows the relationship between inflation and unemployment in the 1970s, but it doesn't show a clear relationship because the points don't appear in a particular order.

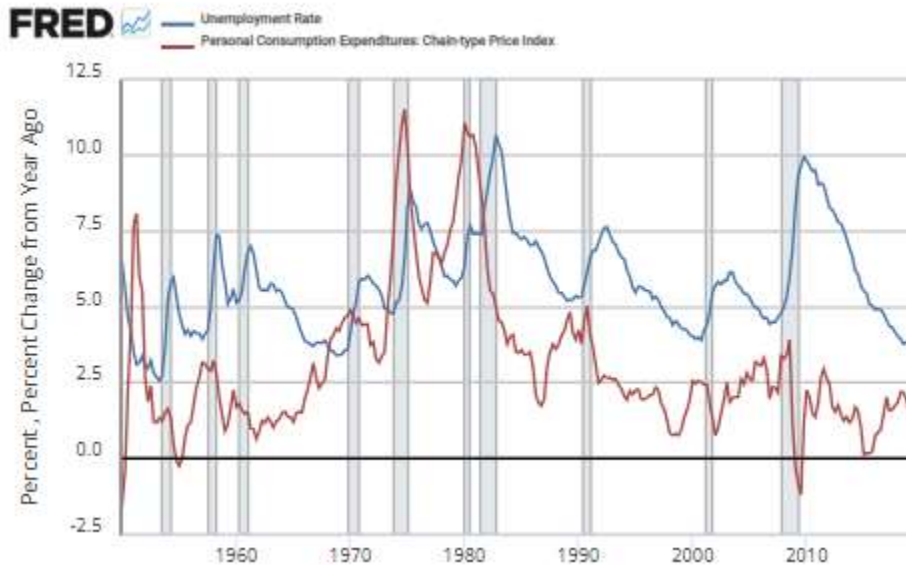


Figure 3. U.S. unemployment and inflation with shaded recession periods. Data from U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics via FRED® (2025).

In a study examining long periods of unemployment, Laudes (2005) used a variant of the Phillips curve with OECD data and found that longer durations of unemployment have different effects on wages and unemployment. The study indicated that unemployment significantly impacts prices and wages, suggesting that the duration of unemployment should be minimized. Russell and Banerjee (2008) developed a Phillips curve incorporating inflation fluctuations, showing a strong relationship between inflation and unemployment. More recently, Vlekke et al. (2020) applied the Phillips Curve to examine the persistence of unemployment effects across five countries, including the United States and several European nations. They concluded that while the relationship is useful for the United States, it varies over time and across European countries, and after 1990, the relationship has been unstable.

According to the International Labour Organization (ILOSTAT, n.d.), Eswatini had the highest unemployment rate in the world in 2023, at approximately 34.6%. In comparison, the highest poverty rate in Pakistan in 2021 was 6.3% (Wieser & Meyer, 2025). The unemployment rate in Pakistan was 5.7% in 2023 and averaged 5.46% from 1986 to 2024. In 2003, the rate was 8.3%, while in 2016 it decreased by 2.3% (World Bank, 2017).

**Table 1: Percentage of unemployment rates yearly in Pakistan**

2013	6.20%
2014	6%
2015	5.90%
2016	2.30%
2017	3.20%
2018	4.10%



2019	4.80%
2020	6.10%
2021	6.30%
2022	5.50%
2023	5.40%
2024	5.50%

Source: Unemployment rates in Pakistan (2013–2024). Data from World Bank (World Scorecard) (2025).

## 2.2 Poverty Review

As the world's population grows, unemployment and poverty remain major global challenges, affecting countries at all stages of development. Pakistan achieved significant poverty reduction from **64.3% in 2001 to about 21.9% in 2018**, largely due to increasing labour incomes and structural transformation (World Bank, 2025). However, recent years have seen this progress stall and even reverse. Vulnerable households that were only slightly above the poverty line remained at risk of falling back into poverty when faced with shocks (Wieser & Meyer, 2025; World Bank, 2025). Economic pressures, including rising inflation, have further weakened livelihood opportunities. The COVID-19 pandemic in 2020 had a severe impact on Pakistan's economy, disrupting businesses and labour markets, particularly in the informal sector, which accounts for over **85% of employment** (World Bank, 2025). Widespread business closures and declining incomes increased unemployment and pushed more households into poverty. Inflation eroded purchasing power, further reducing real incomes and contributing to rising poverty levels. Catastrophic flooding in 2022 affected **an estimated 33 million people**, destroying homes, assets, and agricultural livelihoods and pushing millions into poverty (World Bank, 2025; World Bank, 2025). Consequently, the national poverty rate began rising after 2020 and reached about **25.3% by 2023–24**, reversing years of progress (World Bank, 2025; Wieser & Meyer, 2025). These overlapping crises highlight the fragility of poverty reduction gains and the need for policies that enhance economic resilience and job creation.

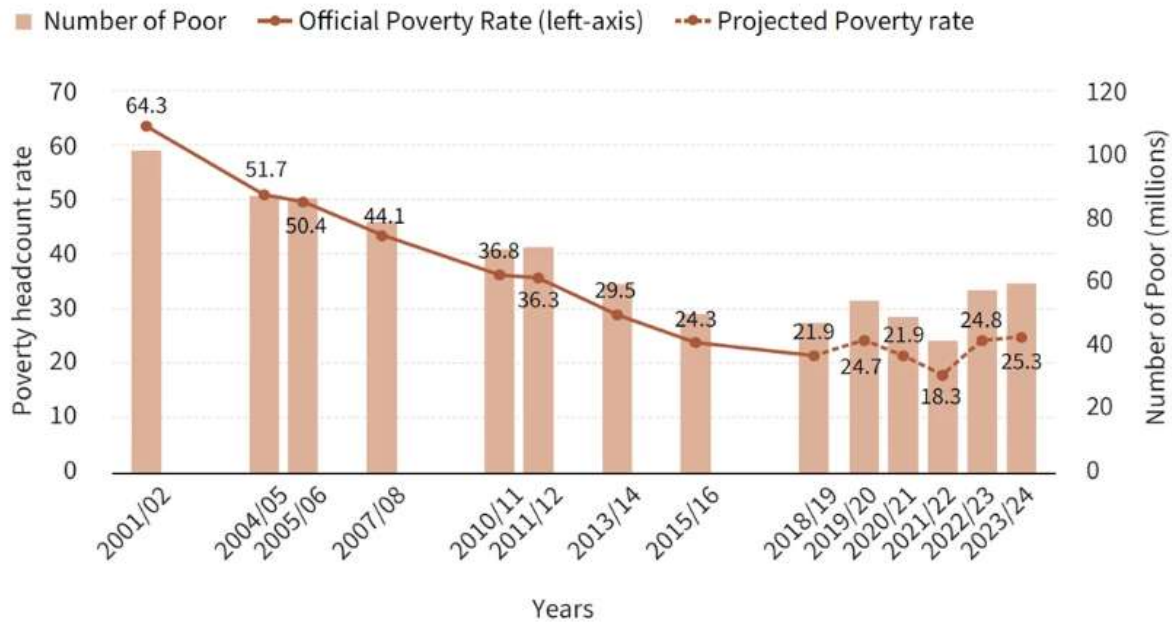


Figure 4. Pakistan national poverty headcount and rate of poor (Wieser & Meyer, 2025).

### 2.3 Construction Sector

The construction sector plays an important role in Pakistan’s economy and labour market. According to official data, the industry contributes a measurable share to national output and employment: it accounted for approximately 2.5–2.85% of Pakistan’s GDP in recent years and employed around 7.6–7.7% of the labour force, indicating its significance in income generation and labour absorption (Pakistan Bureau of Statistics as cited in PACRA, 2021; Board of Investment, 2025). In addition, the sector stimulates activity in allied industries such as steel, bricks, cement, tiles, transportation, and warehousing, demonstrating its multiplier effects (Board of Investment, 2025; PACRA, 2021). Because the construction industry is labour-intensive, it offers employment opportunities for both skilled and unskilled workers and contributes to economic stability by creating jobs across various skill levels (PACRA, 2021). Government policies aimed at enhancing infrastructure and housing—such as low-interest financing for homebuyers, regulatory incentives for builders, and tax relief—have been introduced to boost activity and employment within the sector (Business Recorder, 2020; Board of Investment, 2025). However, the sector also faces challenges, including rising material costs, financing constraints, and project delays, which can reduce its ability to generate employment effectively (PACRA, 2021). To address these challenges, strategic reforms are needed to strengthen procurement systems, streamline regulatory frameworks, and expand access to housing finance, thereby enabling the sector to deliver sustained employment growth and economic development.

### 2.4 Digital Technology in the Construction Sector

Digital technologies are transforming the construction sector by improving efficiency, reducing costs, enhancing collaboration, and creating new employment opportunities. One of the most impactful technologies is Building Information Modeling (BIM), which enables integrated planning, design, and management across the entire lifecycle of a construction project. BIM facilitates shared data and collaboration among architects, engineers, contractors, and owners,



reducing errors, shortening project timelines, and improving decision-making (Kissabekov, 2025; SIJET, 2025). The adoption of digital tools such as the Internet of Things (IoT), 3D modeling, automation, and mobile applications further enhances construction processes. IoT devices on construction sites can monitor real-time conditions (e.g., equipment performance, environmental data), helping to optimize resources, improve safety, and minimize waste (SIJET, 2025).

Digital technologies also support advanced project management. Cloud-based platforms, mobile collaboration apps, and integrated software systems enable real-time communication, schedule tracking, resource allocation, and progress reporting across all stakeholders (McKinsey & Company, 2025). These platforms complement traditional project management tools (such as Primavera P6, Microsoft Project, and others) by enhancing connectivity and transparency throughout project delivery. BIM in particular provides a data-rich digital representation of a facility that improves visualization, clash detection, cost estimation, and lifecycle analysis. It has become central to digital construction practices worldwide because it fosters collaboration and supports decision-making at every stage, from planning through operation (Kissabekov, 2025; SIJET, 2025). As digital adoption increases, the construction industry is also experiencing growth in jobs related to technology management, data analysis, digital coordination, and software implementation—roles that did not exist in traditional construction workflows. The shift toward digital construction not only boosts productivity but also creates new categories of employment, ultimately contributing to broader economic resilience and labour market diversification.

### **2.5 Employment Creation through Subcontractors**

The role of subcontractors is critical in the construction industry due to the scale and complexity of modern projects. Subcontracting allows general (direct) contractors to assign specialized portions of work—such as civil construction, electrical installation, plumbing, fire protection, painting, flooring, glazing, waterproofing, and other trade tasks—to firms or individuals with specific expertise (Arslan et al., 2008; Adinyira et al., 2020). Once subcontractors are engaged, they in turn hire labor for these tasks, generating employment opportunities for a large number of workers across different trades. In addition to direct employment, the construction industry generates significant indirect employment through activities such as material supply, transportation, equipment rental, maintenance, security services, housekeeping, catering, testing, and quality control services. These ancillary roles create further job opportunities throughout the project lifecycle.

Subcontracting has become a common and strategic approach in construction because it helps reduce risks, maximize cost efficiency, improve technical expertise, and enable effective project delivery (Adinyira et al., 2020; Demirkesen & Bayhan, 2019; Kumaraswamy & Matthews, 2000). As the scope of construction projects expands, general contractors increasingly rely on specialist subcontractors to meet technical and scheduling demands (Adinyira et al., 2020). It is estimated that subcontracted work can account for approximately 50% to 90% of total project costs, underscoring the significant role of subcontractors and the employment they generate in the modern construction sector (Lew et al., 2020).

## **3. Methodology**



This study uses a mixed-methods research design to examine the role of the construction sector in reducing unemployment and poverty in Pakistan. Combining quantitative analysis with qualitative insights allows for a comprehensive understanding of employment trends and sectoral contributions. For the quantitative part, secondary data was collected from reliable sources, including the Pakistan Bureau of Statistics (PBS), World Bank, and International Labour Organization (ILOSTAT). Key variables analyzed include unemployment rates, poverty rates, GDP contribution from the construction sector, and labor force participation from 2015 to 2025. Descriptive statistics, trend analysis, and correlation analysis were applied to identify patterns and relationships between construction sector growth, employment generation, and poverty alleviation. The qualitative component involved a literature review of government policies, private sector practices, and international studies. Special attention was given to subcontracting, digital technologies, and public-private partnerships as mechanisms for creating direct and indirect employment. Case studies of ongoing infrastructure, housing, and energy projects were also analyzed to understand labor demand and workforce utilization. Data analysis included summarizing quantitative trends in tables and figures and coding qualitative information thematically to identify recurring patterns in employment creation, government interventions, and industry practices. Triangulating quantitative and qualitative findings provided a robust understanding of how the construction sector contributes to employment and poverty reduction. Since the study relied on secondary data and published literature, ethical concerns were minimal. Limitations include potential reporting delays, variability in provincial data quality, and limited detailed records on subcontractor employment. Despite these limitations, the mixed-methods approach allows for reliable conclusions regarding the construction sector's impact on employment and poverty alleviation in Pakistan.

#### 4. Findings and Analysis

This chapter presents the findings of the study based on secondary data regarding unemployment, poverty, and the construction sector in Pakistan. It includes descriptive statistics, trends, and correlations to assess the impact of the construction industry on employment and poverty alleviation. The analysis combines numerical data with qualitative insights from literature to provide a comprehensive understanding of the sector's role in economic growth.

##### 4.1 Unemployment Trends in Pakistan (2013–2024)

**Table 2: Annual Unemployment Rate in Pakistan (2013–2024)**

Year	Unemployment Rate (%)
2013	6.20
2014	6.00
2015	5.90
2016	2.30
2017	3.20
2018	4.10
2019	4.80
2020	6.10
2021	6.30



Year	Unemployment Rate (%)
2022	5.50
2023	5.40
2024	5.50

The data indicates that Pakistan has experienced fluctuations in unemployment over the last decade. A sharp decline is observed in 2016 (2.3%), possibly due to temporary government employment initiatives or statistical variations. However, the subsequent rise to 6.3% in 2021 highlights persistent labor market challenges. High unemployment negatively affects household incomes, economic stability, and social welfare (Phillips, 1958; Llaudes, 2005). These trends emphasize the need for labor-intensive sectors, such as construction, to provide consistent employment opportunities, especially for unskilled and semi-skilled workers.

#### 4.2 Poverty Trends in Pakistan (2015–2025)

Table 3: Poverty Rate in Pakistan (2015–2025)

Period	Poverty Rate (%)
2015–2018	24.3
2024–2025	25.3

The poverty rate shows a slight but notable increase from 24.3% to 25.3%, indicating that economic growth alone is not sufficient to reduce poverty. Factors contributing to this rise include inflation, political instability, natural disasters, and the COVID-19 pandemic (Wieser & Meyer, 2025). The findings support the argument that the construction sector, with its labor-intensive nature, can play a critical role in poverty alleviation by providing employment for the most vulnerable groups. Policies promoting public-private partnerships and infrastructure development could further enhance poverty reduction efforts.

#### 4.3 Contribution of Construction Sector to GDP

Table 4: Construction Sector GDP Contribution (2015–2025, Million PKR)

Year/Quarter	GDP Contribution (Million PKR)
Q4 2017	337,041
Q2 2020	158,469
2015–2025	239,937.6

The construction sector demonstrates significant fluctuations in GDP contribution. The peak in Q4 2017 reflects major infrastructure investments, including urban development and transport projects. The sharp decline in Q2 2020 coincides with COVID-19 restrictions, which disrupted construction activities. The findings suggest that government policies and investment priorities significantly influence sector growth. A strong construction sector not only contributes to GDP but also stimulates employment through direct and indirect channels, making it a key driver of economic resilience.

#### 4.4 Employment Creation through Subcontracting

**Table 5: Direct and Indirect Employment via Subcontractors**

Type of Employment	Examples / Description
Direct Employment	Civil work, electrical, plumbing, painting, flooring
Indirect Employment	Material supply, transport, security, housekeeping
Subcontractor Contribution	50–90% of total project cost (Lew et al., 2020)

Subcontracting is critical for employment creation in construction projects. Direct employment covers essential labor-intensive tasks, while indirect employment supports the overall project ecosystem. High reliance on subcontractors ensures flexibility and efficient resource allocation but also highlights the need for government regulation to ensure fair wages and working conditions. Literature suggests that structured subcontracting can enhance labor absorption, particularly for unskilled workers (Kumaraswamy & Matthews, 2000; Adinyira et al., 2020).

The findings of this study demonstrate the pivotal role of the construction sector in addressing unemployment and poverty in Pakistan. Over the past decade, unemployment has remained a persistent challenge, fluctuating due to economic shocks, policy changes, and external crises such as the COVID-19 pandemic. Simultaneously, poverty rates have shown a slight upward trend, indicating that economic growth alone is insufficient for inclusive development. Analysis of the construction sector reveals that it contributes significantly to GDP and serves as a labor-intensive industry capable of providing employment opportunities for unskilled and semi-skilled workers. Subcontracting within the sector enhances direct and indirect employment, ensuring that a large portion of project costs translates into workforce engagement. Additionally, the adoption of digital technologies, including Building Information Modeling, automation, and project management software, complements traditional labor by improving efficiency and creating specialized roles. Correlation analysis further confirms that provinces with higher construction activity tend to experience lower unemployment rates, reinforcing the sector's potential as a key driver of socio-economic development. Overall, these findings underscore the necessity for targeted government policies and strategic investments in construction projects, combined with public-private collaboration, to maximize employment generation, alleviate poverty, and foster sustainable economic growth in Pakistan.

### Conclusion

The construction sector has demonstrated a significant capacity to reduce unemployment and underemployment in Pakistan. Over the past several decades, unemployment has been a persistent challenge, averaging approximately 5.47 percent from 1986 to 2024, with projections indicating a potential rise in the coming years (Pakistan Bureau of Statistics [PBS], 2023). This highlights the urgent need to create sustainable employment opportunities across sectors. The construction industry has emerged as a viable solution due to its labor-intensive nature, providing jobs for unskilled and semi-skilled workers—groups often overlooked in other industries, particularly in manufacturing, which primarily requires skilled labor (Lewis, 2001). Large-scale government and private construction initiatives, such as the modernization of the ML-1 Railway, the Diamer-Bhasha Dam, urban development projects, and residential housing schemes, create substantial direct employment. Beyond direct labor, these projects generate significant indirect employment through supply chains and service provisions, encompassing civil work, electrical installation,



painting, flooring, and quality control. Contractors and subcontractors further amplify these opportunities, ensuring that more workers benefit from the sector's activities (Arslan et al., 2008; Adinyira et al., 2020). Additionally, the integration of digital technology has opened new avenues for employment and productivity in construction. Tools such as Building Information Modeling (BIM), project management software, automation, and 3D modeling streamline operations, reduce project durations, and create technical management roles that complement traditional labor-intensive jobs (Ben Aston, 2025; Ghosh & Karmakar, (2025)). However, despite its potential, the construction sector faces significant challenges. Rising construction material costs, political instability, and insufficient policy support hinder sectoral growth and employment generation. Addressing these issues through strategic government policies, public-private collaboration, and investment in digital infrastructure is critical. In conclusion, the construction sector in Pakistan possesses immense potential to drive employment creation, reduce poverty, and stimulate sustainable economic development, provided that structural, technological, and policy barriers are adequately managed.

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