

Policy Brief

Realising the Promise of Service-Led Growth in Pakistan

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Executive Summary

This study examines the potential of Pakistan's service sector to drive economic growth as the country faces declining manufacturing growth rates. As this shift aligns with global trends, the paper builds a case to confront structural and administrative inefficiencies within four key global innovator and high-skill social service sectors in Pakistan. This will not only generate productivity gains and large-scale job creation, but prudential, systematic and well-coordinated reforms within these sectors will ensure adequate investment in human capital, thereby bolstering services sector led inclusive, accessible and sustainable economic growth.

Policy Recommendations

The challenges within the service sector and its sub-sectors must be addressed through carefully designed and well-coordinated policies at both the state and provincial levels to unlock their full economic potential. Following the 18th Amendment, economic responsibilities fall under provincial jurisdiction. This highlights the need for collaborative efforts between federal and provincial governments to address systemic issues comprehensively. To achieve this, the government may:

- Revise economic policy to shift focus from agriculture- and industry-led growth to services-led growth.
- Increase investment in the IT and education sectors to Support skill development, Drive innovation and align training with market needs
- Strengthen human capital and productivity through targeted education and training.
- Boost exports by encouraging value addition in goods and diversifying export markets.
- Ensure these initiatives support long-term economic growth and global competitiveness.

Introduction

Traditionally, the service sector has been treated as a monolithic set of activities - a 'residual' after agricultural and industrial activity has been accounted for.¹ However, with the sector's growing contribution in developed economies' Gross Domestic Product (GDP), the heterogeneity of these economic activities is coming to the forefront. The sector, therefore, has no particular uniform definition and given this diversity and scope of the sector, it is essential to assess the role of services in generating large scale job creation and productivity gains in developing nations.

World Development Indicators reveal that the service sector's share of GDP in lower and middle income countries (LMICs) has increased to almost 59%, while share of both agriculture and industry in these countries fell to 10 and 30 percent respectively from 1990 to 2018.² Similarly, the services sector's share of employment in LMICs has consistently risen over this time period to almost 52% in 2018. On the other hand, industry's share of employment remained stagnant at 20% and share of agriculture fell to almost 27%.³ These trends have continued apace in recent years indicating the growing role of the service sector in developing economies.

Pakistan's economic structure aligns with the aforementioned developments. As a starting point, Pakistan's service sector contributes a dominating 58% to its Gross Domestic Product (GDP), followed by agriculture (22.9%) and industry (18.5%).⁴ In 2022, the service sector employed 38.05 percent of the population while in the following year the sector projected a growth rate of 0.86 percent.⁵ On the other hand, the agriculture sector grew by 1.55 percent while the industrial sector had a negative growth rate of -2.94 percent.⁶ These statistics have a twofold implication. At a basic level, they reveal that the manufacturing sector, which has historically been important

¹ Gaurav Nayyar, Mary Hallward-Driemeier, and Elwyn Davies, *At Your Service?: The Promise of Services-Led Development* (Washington, DC: World Bank Group, 2021).

² Gaurav Nayyar, Mary Hallward-Driemeier, and Elwyn Davies, *At Your Service?: The Promise of Services-Led Development* (Washington, DC: World Bank Group, 2021).

³ Gaurav Nayyar, Mary Hallward-Driemeier, and Elwyn Davies, *At Your Service?: The Promise of Services-Led Development* (Washington, DC: World Bank Group, 2021).

⁴ "Fao.Org," Pakistan at a Glance | FAO in Pakistan | Food and Agriculture Organization of the United Nations, accessed May 22, 2024, <http://www.fao.org/pakistan/our-office/pakistan-at-a-glance/en/>.

⁵ "Pakistan - Employment in Services (% of Total Employment)2024 Data 2025 Forecast 1973-2022 Historical." Pakistan - Employment In Services (% Of Total Employment) - 2024 Data 2025 Forecast 1973-2022 Historical. Accessed May 22, 2024. [https://tradingeconomics.com/pakistan/employment-in-services-percent-of-total-employment-wb-data.html#:~:text=Employment%20in%20services%20\(%25%20of%20total%20employment\)%20](https://tradingeconomics.com/pakistan/employment-in-services-percent-of-total-employment-wb-data.html#:~:text=Employment%20in%20services%20(%25%20of%20total%20employment)%20).

⁶ Highlights - pakistan economic survey 2022-23, accessed May 22, 2024, https://www.finance.gov.pk/survey/chapters_23/Highlights.pdf.

in terms of employment, dominant contribution to exports and highest value added share, is confronted with structural and administrative challenges. On a second plane, these statistics indicate that the service sector is not only the dominant sector in the country but it is also on a growth trajectory thereby requiring a detailed analysis of its potential vis a vis job creation and economic growth opportunities in Pakistan.

In arguing such a case for service led development, this paper will firstly provide an exploration of why the need to consider complementary growth models has arisen. This will involve a discussion of Pakistan's manufacturing landscape and its structural and administrative inefficiencies. The paper will also identify main service sub-sectors with a special emphasis on global innovator and high skill tradable services. This analysis will offer an insight into previously untapped avenues of growth while highlighting major challenges faced by the sector. This will enable us to venture beyond passing a verdict based on a simplistic and reductive comparison of GDP and growth rate percentages across economies thereby enabling us to propose prescriptive policy recommendations.

Manufacturing Sector

A post Industrial Revolution global order has relied on the manufacturing industry to generate export-led growth thereby acquiring their status as high income economies today. However, given the rapid changes in technological innovation, the question of whether rapid industrialization will yield the same level of growth today for developing economies has arisen. Deloitte's analysis of Purchasing Managers' Index (PMI) data reveals that for most of 2023, the manufacturing industry contracted globally.⁷ Even in 2024, manufacturers will continue to face 'economic uncertainty, ongoing shortage of skilled labour, lingering and targeted supply chain disruptions.'⁸ This trend has been reflected in the economic progress of even those countries which have previously demonstrated rapid growth owing to industrialization.

South Korea, one of the players known for producing the 'Asian miracle', has grown at an average of 6.4 percent between 1970 and 2022.⁹ However, the Bank of Korea

⁷"2024 Manufacturing Industry Outlook." Deloitte Insights, November 28, 2023. <https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/manufacturing-industry-outlook.html>.

⁸"2024 Manufacturing Industry Outlook." Deloitte Insights, November 28, 2023. <https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/manufacturing-industry-outlook.html>.

⁹Is South Korea's Economic Miracle Over?, www.ft.com/content/b34e8bc8-9f78-45c8-a15b-3df9cdfd858f. Accessed 6 May 2024.

has warned of a slowdown with growth rates falling to 2.1 percent in 2020s and 0.6 percent in 2030s. Their finance minister acknowledges that if they continue to stick with the traditional economic growth formula of industrialisation – which not only lacks dynamism but is also extremely outdated — South Korea will face serious challenges. Factors like cheap energy and labour which had previously shouldered the manufacturing-led growth in the country have lost their relevance in a rapidly evolving technological landscape. Even in Bhutan, the growth rate of the manufacturing sector has been stagnant for the past decade with its contribution to GDP decreasing over the years. Furthermore, economies which have relied on low labour costs to propel manufacturing-led export growth are also suffering due to the shrinking importance of labour cost arbitrage in global trade patterns. Even India's status as world's fifth largest economy has not depended on the traditional manufacturing model. In fact, it is the only developing economy which has surpassed the manufacturing sector and leapfrogged from agriculture to high skilled services to drive economic growth.¹⁰ This global decline has pushed these economies to think in alternative dimensions and complement their economic activity.

In Pakistan, much like other developing economies, the manufacturing sector has shared an increasingly large role in the economic ladder. The manufacturing sector in the country is divided into large scale manufacturing (LSM), small scale manufacturing and slaughtering. Since LSM accounts for 78 percent to total manufacturing share, it serves as an appropriate proxy to assess overall manufacturing levels in the country. Currently, From July to March FY 2023, the growth rate of large scale manufacturing was a negative 8.11 percent.¹¹ This decline in manufacturing growth rates has been attributed to geopolitical tensions, global supply chain disruptions, high inflation, currency depreciation and current account deficit.

¹⁰ Raghuram Rajan and Rohit Lamba, *Breaking the Mould: Reimagining India's Economic Future* (India: Penguin Random House India, 2023).

¹¹ *Manufacturing and Mining*, www.finance.gov.pk/survey/chapters_23/03_Manufacturing_and_Mining.pdf. Accessed 20 May 2024.

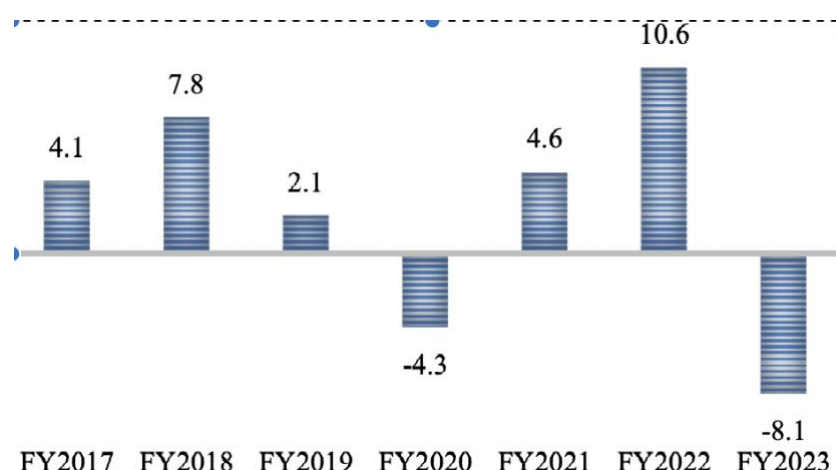


Figure 1: LSM Growth (%) July - March

Source: Pakistan Bureau of Statistics¹²

However, this is not an isolated, singular occurrence in Pakistan's economic history. A fuller understanding necessitates a discussion of how the country's industrial landscape has evolved over the years. The first time an industrial policy was formulated and executed in Pakistan was during the 1978-88 time period.¹³ During this period, the country witnessed impressive growth rates as investment in industry grew at an average of 18.2 percent per annum. However, this impressive growth could not be sustained for long as the growth rate in manufacturing fell to 4 percent in the 1990-1999 periods and rebounded again in the 2000s. Again, this period like the 1978-88 period witnessed growth in the industrial sector largely because of international aid inflow as a 'windfall gain which accrued to the Musharraf regime after 9/11.'¹⁴ Overall manufacturing growth rates since the 70s until now, as can be seen in Figure 1, have been characterised by volatile growth. Therefore, the manufacturing contraction FY 2023 fits into the broader trend of eruptive growth of the manufacturing sector in Pakistan which is mostly reliant on exogenous factors such as international aid poured in the wake of Afghan war (1979) and 9/11 (2001).

¹² *Manufacturing and Mining*, www.finance.gov.pk/survey/chapters_23/03_Manufacturing_and_Mining.pdf. Accessed 20 May 2024.

¹³ Zaidi, S. Akbar. *Issues in Pakistan's economy: A political economy perspective*. Karachi, Pakistan: Oxford University Press, 2015.

¹⁴ Zaidi, S. Akbar. *Issues in Pakistan's economy: A political economy perspective*. Karachi, Pakistan: Oxford University Press, 2015.

Factors Affecting Manufacturing Growth Rates

Pakistan's failure to produce unsustained manufacturing growth rates has its roots in structural issues which have been exacerbated by policy failures. Since a detailed discussion of these factors is beyond the scope of this paper, some of the factors include: the high cost of domestic production, disproportionate levels of taxation, lack of product diversification and poor quality of exports.

Complementary Growth Avenue

The aforementioned factors not only serve as an impetus for acknowledging the unsustained and declining growth of the manufacturing sector in Pakistan but also build a compelling case for complementary growth alternatives which have been echoed by economists around the world in the form of a flourishing service sector. Trade in services has 'grown 60 per cent faster over the past decade' and accounts for 'about a third of the value that goes into traded manufactured goods'.¹⁵ In developed economies, the service sector makes up as much as 75 per cent of the GDP.¹⁶ As the pendulum of economic growth tilts toward the service sector, it has become essential to locate Pakistan's trajectory toward fully exploring the potential of its service sector.

In the last few years, Pakistan's service sector has increasingly contributed to the Gross Domestic Product (GDP) as the figure below highlights:

Table 2: Service Sector Contribution to GDP & Growth (%) (2014-2023)

Year	Contribution to GDP	Growth Rate
2017-2018	57.05	6.43
2018-2019	58.09	4.7
2019-2020	57.94	-0.59
2020-2021	58.01	4.43
2021-2022	58.28	6.19
2022-2023	58.61	0.86

¹⁵ Lund, Susan, James Manyika, Lola Woetzel, Jacques Bughin, Mekala Krishnan, Jeongmin Seong, and Mac Muir. "Globalization in Transition: The Future of Trade and Value Chains." McKinsey & Company, January 16, 2019. <http://www.mckinsey.com/featured-insights/innovation-and-growth/globalization-in-transition-the-future-of-trade-and-value-chains>.

¹⁶ Trade in services for development. Accessed May 22, 2024. https://www.wto.org/english/res_e/booksp_e/trade_in_services_and_development_e.pdf.

Source: Pakistan Bureau of Statistics¹⁷

The table indicates that the service sector in Pakistan has been projecting great potential in terms of sustained growth rate and contribution to GDP over the years. As the sectoral contribution to GDP has increased over time, the sector exhibited sustained growth rates except during 2019-2020 and 2022-2023. While 2019-2020 was marked with extraordinary circumstances owing to the pandemic, the latter period witnessed economic uncertainty in the country as political instability ensued. Such instability was accompanied by a fall in FDI and prolonged economic challenges. Essentially, this indicates that growth in any sector, particularly the service sector, can only be ensured if anchored in a stable, sustained political and social environment. Furthermore, while these statistics lend credence to the idea that the service sector has the potential to propel growth, there is a need to analyse how this growth can be maximised in the sector. This necessitates understanding that over the years, Pakistan's service sector growth rate has been localised and has relied on low-skill tradable or domestic services. However, there is a need to venture beyond these sectors and invest in skill-intensive, social and global innovator services. The following analysis identifies certain sectors within these categories.

Information and Technology:

The IT sector represents a digital economy whose contribution to growth is challenging to quantify given the 'lack of consensus around activities included in the definition and the rapid pace at which the underlying nature of digital technologies evolve'.¹⁸ In Pakistan, the IT service export statistics are heavily underreported as the revenue generated from exports are reported under remittances. However, even with these challenges, the IT sector performance in Pakistan appears to be on a growth trajectory with the export of ICT services increasing at 9 percent on a year-on-year basis in the first six months of FY 2024. These growth prospects are further substantiated given that this sector has grown at a rate of 25.66 percent p.a for the past seven years.¹⁹ The Ministry of Information Technology suggests that there remains an untouched

¹⁷ "Home: Pakistan Bureau of Statistics." Home | Pakistan Bureau of Statistics. Accessed May 22, 2024. <http://www.pbs.gov.pk/>.

¹⁸ Karim Foda Brahima Sangafowa Coulibaly et al., "Trends in the Information Technology Sector," Brookings, October 11, 2023, <http://www.brookings.edu/articles/trends-in-the-information-technology-sector/>.

¹⁹ Moitt, accessed May 22, 2024, <https://moitt.gov.pk/SiteImage/Misc/files/Roadmap%20for%20IT%20TeS%20Growth.pdf>.

potential where the country can grow its IT/ITes export revenues to over \$10-18 bn in the next five years.²⁰ The following analysis provides an assessment of how this potential can be further harnessed.

In particular, Pakistan has the second largest game development industry in the region, ahead of countries like India. The industry is currently valued at \$200 billion with an accumulated compound growth rate of 9.81 percent. Even freelancing within the IT sector is a burgeoning industry with almost 42 percent Pakistani freelancers working in software development.²¹ The country ranks fourth in the world among global freelancing destinations. However, abysmally low skill levels have hindered the potential of freelancers in competing within the international market which is reflected in the fact that the average annual income of freelancers in Pakistan is almost one-tenth of what freelancers in countries like the United States (almost \$42,000) are earning.²² Low skill levels, lack of certification in technical fields and language barrier do not only impede the ability of freelancers in competing in the international market but also results in significant loss of foreign exchange.

The skill gap is also reflective of the larger trend within Pakistan's IT sector. Of 25,000-30,000 new graduates who seek to enter the service, only 10 percent of them are employable given their skill set. The remaining are unable to secure employment due to a visible skill gap. This is in part attributable to the fact that approximately 55 percent of higher education institutes in the country lack Information Technology research programs.²³ Even at a basic level, the digital literacy rate in Pakistan is low and only about three percent of women in Pakistan are familiar with basic functions like copying or moving a file on a computer.²⁴ Consequently, this large chunk of the digitally challenged population is routinely exploited in the name of digitised welfare programs and remains deprived of an experience which could drastically transform their lives. This reveals that the growth that is currently taking place within the IT sector excludes

²⁰ Moitt, accessed May 22, 2024,

<https://moitt.gov.pk/SiteImage/Misc/files/Roadmap%20for%20IT%20ITeS%20Growth.pdf>.

²¹ Irfan, Sehrish. "The Flip Side of Freelancing Industry of Pakistan." *Modern Diplomacy*, 8 May 2024, moderndiplomacy.eu/2024/05/07/the-flip-side-of-freelancing-industry-of-pakistan/.

²² Tribune, "Freelancing Can Bring in \$60B," *The Express Tribune*, April 28, 2023, <https://tribune.com.pk/story/2414023/freelancing-can-bring-in-60b>.

²³ Moitt. Accessed May 22, 2024.

<https://moitt.gov.pk/SiteImage/Misc/files/Roadmap%20for%20IT%20ITeS%20Growth.pdf>.

²⁴ Sadya Siddiqui, "Digital Literacy for All," *DAWN.COM*, December 23, 2019, <http://www.dawn.com/news/1523858>.

a large portion of the population which is either completely digitally unaware or operating at a very low tier in terms of skill development.

Addressing the skill deficiency is central to any growth prospect within the sector. The introduction of computer-based learning initiatives and courses from a young age are fundamental to addressing this issue. Stakeholders need to ensure the provision of computers, labs and other necessary equipment alongside a revisit of the school curriculum to make digital learning a central paradigm in educational pursuits. The study by Media Matters for Democracy indicates that despite having policies to promote universal internet access like the Digital Pakistan Policy (2018), there is an evident lack of strategy to ensure its implementation. The stakeholders need to ensure that such programs avoid getting trapped in the pitfall of just improving numbers. There needs to be a well-coordinated strategy to maximise impact of these programs. Furthermore, the integration of technology can counter other inaccessibilities like the language barrier and generate large scale job creation through the introduction of AI-enabled machine translations. The success of such a system is evident with the 17.5 percent increase in US exports (to Spanish speaking Latin American countries) on eBay after its adoption of the machine translation system.²⁵

Additionally, it is imperative to make the digital ecosystem inclusive as almost 89 percent of the population cannot afford internet services and Pakistan ranks 79 out of 100 countries on the Inclusive Internet Index, well behind countries like Bangladesh, India and Sri Lanka.²⁶ Geographical constraints alongside socio-economic factors play a role in hindering access to quality internet services that are limited to big, developed cities in Punjab and Sindh. Almost 60 percent of Balochistan remains disconnected from internet services while areas like Gilgit Baltistan and FATA also continue to suffer.²⁷ The cost of setting up towers in these unserved areas is also high thereby discouraging investments. It is critical to address these discrepancies as even a 10 percent increase in broadband mobile penetration in least developed countries results

²⁵ Gaurav Nayyar, Mary Hallward-Driemeier, and Elwyn Davies, *At Your Service?: The Promise of Services-Led Development* (Washington, DC: World Bank Group, 2021).

²⁶ The economist, accessed May 22, 2024, <https://impact.economist.com/projects/inclusive-internet-index/2022>.

²⁷ Muhammad Uzair Akram, "What Needs to Be Prioritized to Reduce Digital Divide in Pakistan?," Macro Pakistani, November 28, 2020, <https://macropakistani.com/digital-divide-in-pakistan/>.

in an increase of almost 2.5-2.8 percent in GDP per capita.²⁸ This should have profound implication in directing government priorities toward fostering an inclusive growth roadmap in the sector.

Other factors which hinder growth within the sector include frequent internet service disruption due to continued political instability that has impacted more than 125 million people countrywide. The suspension of mobile and internet service during the 9 May protests in the country resulted in the loss of \$2.85 million in just two days in the telecommunication industry while the government lost tax revenue worth \$ 1 million. The IT sector has been estimated to 'lose at least \$3million a day until the restrictions are lifted.'²⁹ These reported losses discourage investors, disrupt businesses and inflict lasting damage on the country's growth prospects centred on the digital ecosystem.

While Pakistan's IT industry represents promising potential, stakeholders need to ensure that this potential is wholly explored. Central to this is the timely attention to the growing inequalities within the sector which have been accentuated by socioeconomic and geographical factors. Political actors need to rethink their approach toward the frequent internet blackouts because of their economic implications on businesses. Above all else, however, is the systematic and urgent attention required toward addressing the skill gap and lack of digital literacy in the country which remain major impediments in ensuring a digital experience which is both inclusive and accessible.

Healthcare and Social Work:

With a population of over 240 million, Pakistan's population is growing at a rate (2.55%) well above that of Bangladesh (1.26%), India (1.10%) and Sri Lanka (0.83 percent).³⁰ This means that the influx of challenges entering the country is particularly huge when compared against its limited and inadequate healthcare system. Conversely, Pakistan's healthcare spending is only 1.4 percent of its GDP which is

²⁸ For all, accessed May 22, 2024, <https://pide.org.pk/Research/Internet-for-All-Vol2-Issue-8.pdf>.

²⁹ Hafsa Adil, "'Ruined My Livelihood': Pakistan Internet Shutdown Hits Millions," Al Jazeera, May 11, 2023, <http://www.aljazeera.com/news/2023/5/11/pakistan-internet-shutdown>.

³⁰ Nida Kirmani, "Gender and Population," DAWN.COM, December 23, 2023, <http://www.dawn.com/news/1800136>.

well below the recommended figure of 6 percent by the World Health Organization.³¹ This low level of spending, in spite of the fact that every dollar invested in improving healthcare yields an economic return of \$2-\$4, translated into poor health indicators for the country and resulted in a large mismatch of demand and supply.

The funds channelled toward advancing healthcare in the country are not catering to and correctly identifying the challenges within the sector. Despite the majority of the problems persisting within the primary and secondary service on the continuum of care, the focus of public and private actors has been on improving tertiary care which includes specialist cancer management and transplant services. This is because the sector is considered lucrative in terms of attracting investments. The concentration and focus on tertiary care results in undue strain as it is treated as a source of receiving both primary and secondary care when there should be separate facilities catering to these levels. Coherent investment in primary and secondary care will not only resolve this strain but also create a well-integrated ecosystem which deals with health challenges at different stages. Policymakers must collaborate with organizations like The *Noor Care* clinic in establishing micro hospitals and minute clinics to cater to these inefficiencies.

Furthermore, the gap between knowledge and appropriate care intervention continues to widen as there are almost no patient data repositories or electronic medical records whose access by healthcare workers is another challenge.³² This inhibits the formulation of evidence-based policymaking which needs to account for the growing changes within the sector. For example, in recent years, it has been noted that the disease burden in Pakistan has shifted from infectious diseases to lifestyle diseases among the economically productive age-group. Almost 25 percent of the adults in the country are hypertensive while 41 percent adult males are smokers.³³ This means that targeted intervention is needed to address these lifestyle challenges at a policy level which is not possible unless innovative research is employed to understand the shifts and changes within the system.

³¹ Health and nutrition, accessed May 22, 2024, https://www.finance.gov.pk/survey/chapters_23/11_Health.pdf.

³² Aliza Amin, "Digital Access during Covid-19 - Tabadlab: Understanding Change," Tabadlab, June 15, 2021, <https://tabadlab.com/digital-access-during-covid-19/>.

³³ Aliza Amin, "Digital Access during Covid-19 - Tabadlab: Understanding Change," Tabadlab, June 15, 2021, <https://tabadlab.com/digital-access-during-covid-19/>.

Furthermore, the advancement of healthcare services in second-tier cities remains largely unexplored. Development of healthcare infrastructure and medical colleges has been concentrated in large cities which leaves the residents of other cities to incur transportation costs or forgo necessary treatment because of the logistics. However, healthcare spending per capita is substantially higher in second tier cities compared to the main cities. These cities also have a population of between 1.5-5 million and have cited ‘proximity’ as a key determinant of selecting a healthcare provider.³⁴ This represents a largely untapped market which has great potential to drive growth and provide quality, inclusive healthcare.

The digital revolution is at the centre of the inter-sectoral linkages within the service industry. Integration of information technology within the healthcare sector, in particular, is seen to be conducive to economic growth. For example, in Tanzania, partnership with a big telecommunications company has resulted in free text message service about infant care to pregnant women and mothers. Within two years, approximately 40 million text messages were sent to over 500,000 parents ultimately driving the infant mortality rate to 55 percent from 64 percent.³⁵ Such targeted digital intervention reinforces the importance of the largely untapped telemedicine market in Pakistan which have been limited to the pandemic like the COVID Health Advisory Platform or sparse independent initiatives like *Sehat Kahani*. Large-scale provision of telehealth services will not only cultivate accessible healthcare services but also enable the inclusion of almost 70,000-80,000 female health professionals within the ecosystem. This is because despite accounting for 70 percent of the total student population at medical college, only 23 percent are registered with the Pakistan Medical & Dental Center. Even the healthcare workforce is well below the WHO recommended staffing level as captured in the figure below:

Indicator	Pakistan	WHO Recommendation
Doctor-Patient Ratio	1:1300	1:1000

³⁴ Aliza Amin, “Digital Access during Covid-19 - Tabadlab: Understanding Change,” Tabadlab, June 15, 2021, <https://tabadlab.com/digital-access-during-covid-19/>.

³⁵ Tabadlab, accessed May 22, 2024, https://www.tabadlab.com/wp-content/uploads/2020/07/2020-07-14-Tabadlab-Working-Paper-Public-Health-v11_Final-Publish.pdf.

Doctor-Nurse Ratio	1:2.7	1:4
Pharmacist-Population Ratio	0.9:100,000	50:100,000

Figure 5: Healthcare Workforce in Pakistan³⁶

Source: Tabadlab

Figure 5 captures that at every level there is an under-utilization of the workforce within the health sector leading to compromised healthcare service. The under-utilization of the workforce also results in loss of potential economic output. Therefore, digitization is the cornerstone of fostering inclusive, equitable and accessible healthcare services in the country.

Education:

The countries that have led the path of development are those where the ‘educated labour force has raised the level of output and the rate of growth over a sustained period of time.’³⁷ Therefore, education occupies the central domain due to its role in influencing labour force, governance and institutions which in turn determines the investment climate and universal access to education ensures macroeconomic growth for all segments of society. Studies reveal that ‘one additional year of education’ can ‘increase productivity in wage employment by 10 percent even after controlling for other factors. This makes the investment in the education sector particularly vital in order to bolster economic growth.

The situation in Pakistan is worrisome on two accounts; firstly, the country’s out of school population stands at 26.2 million - second highest in the region. On a second level, the children enrolled in schools are not being provided quality education as Pakistan’s ‘Learning Poverty’ rate is 77 percent³⁸. Essentially, 43 million children in school are not learning adequately as they struggle in basic competencies like two digit subtraction and reading in their own provincial language. Deficiencies in basic

³⁶ Aliza Amin, “Digital Access during Covid-19 - Tabadlab: Understanding Change,” Tabadlab, June 15, 2021, <https://tabadlab.com/digital-access-during-covid-19/>.

³⁷ Education reform in Pakistan, accessed May 22, 2024, <https://ishrathusain.iba.edu.pk/books/education-employment-economic-development-pakistan.pdf>.

³⁸ Muhammad Sharif, “Pakistan’s Silent Crisis: The Alarming Rise of Learning Poverty,” Sputnik India, December 6, 2023, <https://sputniknews.in/20231130/pakistans-silent-crisis-the-alarming-rise-of-learning-poverty-5652518.html>.

numeracy and literacy skills reveals that the learning outcomes of students are severely compromised and require an in-depth understanding of the contributing factors.

One of the major factors behind this is the acute teacher shortages in public schools as 47,000 government schools across Punjab are facing a shortage of almost 231,000 teachers.³⁹ Consequently, the students have been promoted without sitting for an annual examination. In Balochistan, almost 15,000 teachers remain absent from the classroom and continue to draw their salary thereby incurring a financial loss of 400-500 million rupees from the provincial budget. This phenomenon is known as 'Ghost Teachers' whose continued absence from schools deprives the students of their right to education. In fact, almost 3,500 schools have been closed in the province due to the teacher shortage. These shortages and their impact on learning outcomes is accentuated by the fact that the teachers who are hired, lack specialised training and skill set to deliver quality learning. In 2021, 162,000 candidates appeared for a recruitment test based on elementary level curriculum in order to fill 46,000 vacancies in government schools. Even in such a basic test, only 1,250 candidates passed and the department eventually lowered the passing percentage to fill the vacancies. Teachers recruited in public schools are unable to even clear a simple qualification test, let alone possess the pedagogical training necessary to educate and cater to the needs of a diverse group of students. This dual challenge of teacher shortage and untrained teachers in the system significantly hampers the quality of education delivered in government schools translating into low learning outcomes.

Furthermore, more than 2 million children in Pakistan are suffering from acute malnutrition which poses, among other concerning implications, an economic cost of \$3 billion. The implications are particularly dire for children as almost 40 percent of children in Pakistan suffer from food insecurity threatening a child's physical and mental development thereby affecting learning outcomes. Studies have confirmed the correlation between hunger and education performance leading to countries like Finland to take steps towards providing free nutritious meals to students to enhance their learning capabilities. While such programs have existed in Pakistan, their execution has been on an ad-hoc basis with implementation limited to the federal

³⁹ Tribune, "Teacher Shortage Crisis Hits Public Schools," The Express Tribune, May 10, 2024, <https://tribune.com.pk/story/2466038/teacher-shortage-crisis-hits-public-schools>.

capital. There is a need to ensure the provision of meals in public schools across the country in order to improve the learning outcomes of the students and enable them to become productive members of the economy.

Other challenges including the lack of basic amenities in public schools like clean drinking water, boundary wall, chairs and textbooks have contributed towards the rising level of learning poverty. Compromised quality of education impedes the ability of these children to significantly contribute toward economic growth and social mobility. Despite efforts by NGOs to counter these inefficiencies, the onus of responsibility to work toward improved learning lies with the state. The reason why successive governments have failed to adequately tackle these failures is because of their shortsightedness.. Ad-hoc policy implementation and short-lived reforms are mere 'bandage' approaches and any meaningful progress in the sector will need to go beyond myopic purviews and initiate long-term (10-15) reforms which systematically address these challenges.

Transport and Storage:

Pakistan's estimated transport load stands at 118 billion ton- kilometer per annum which is expected to grow at a rate of 40 percent in the next decade.⁴⁰ Majority of this load is being carried by road. Specifically, road transport accounts for 98 percent of total freight traffic and 94 percent of passenger traffic.⁴¹ It has been forecasted that the impending increase in freight density due to the Belt and Road Initiative (BRI) and China-Pakistan Economic Corridor (CPEC) will require a 350 percent increase in the road length to maintain current density thereby requiring a budget of almost 35 billion dollars.⁴² At the same time, Pakistan's railway system has been marred with structural inefficiencies, policy failures and administrative inadequacies. In light of such challenges, it is worth exploring the potential of Pakistan's 30,000 kilometres of inland

⁴⁰ Worldbank, accessed May 24, 2024, <https://documents1.worldbank.org/curated/en/099845101112322078/pdf/SECBOS0f51975e0e809b7605d7b690ebd20.pdf>.

⁴¹ Worldbank, accessed May 24, 2024, <https://documents1.worldbank.org/curated/en/099845101112322078/pdf/SECBOS0f51975e0e809b7605d7b690ebd20.pdf>.

⁴² GSSR, accessed May 24, 2024, <http://www.gssrjournal.com/jadmin/Auther/31rvloIA2LALJouq9hkR/kcsYfFXry3.pdf>.

waterways which is not only three times the current road network length but also serves as a cost-efficient and sustainable alternative mode of inland cargo handling. The Inland Waterways Transport is brimming with potential owing to its ability to save logistics cost, fuel consumption, vehicle emissions and road congestion. For example, while one ton of freight can be transported to over 75 kilometres by train and 25 kilometres through road, it can cover a distance of 180 kilometres with inland waterways.⁴³ In terms of construction, building a kilometre of a standard road costs 80-100 million rupees while the cost of even the Indus Pilot Project was less than 100 million. Furthermore, the maintenance cost of waterways is only 20 percent of the billions required to ensure the maintenance of roads annually. Therefore, in terms of a simplistic cost-benefit analysis, inland navigation emerges as a model which is both efficient and economical.

The utilisation of inland navigation will play a vital role in promoting sustainable development. For example the transportation of 1,500 tons over a distance of 200 kilometres will require 60 trucks to consume 15,000 litres of fuel while three trains would consume 4,200 litres of fuel. A single waterborne barge, on the other hand, will only consume 1,600 liters of fuel to cover the same distance.⁴⁴ These fuel savings could be potentially utilised for power generation especially in light of the country's recurring energy crisis which have severely impacted the textile industry. Inland transportation's role as an eco-friendly alternative is further reinforced by the fact that a bulk vessel's environmental performance per-ton kilometre is 10 percent of that of a truck for Carbon Dioxide emission and 13 percent of a truck for nitrogen oxides.⁴⁵ As Pakistan continues to face the disproportionate consequences of the global climate challenges with the recent floods causing a loss of more than 15 billion USD to the GDP, these prospects seem particularly promising in terms of fostering an eco-friendly future.

⁴³ News.desk, "Seminar: Experts for Inland Water Transport Mode for Cargo," The Express Tribune, June 20, 2013, <https://tribune.com.pk/story/566162/seminar-experts-for-inland-water-transport-mode-for-cargo/>.

⁴⁴ GSSR, accessed May 24, 2024, <http://www.gssrjournal.com/jadmin/Auther/31rvloIA2LALJouq9hkR/kcsYfFXry3.pdf>.

⁴⁵ Worldbank, accessed May 24, 2024, <https://documents1.worldbank.org/curated/en/099845101112322078/pdf/SECBOS0f51975e0e809b7605d7b690ebd20.pdf>.

On another scale, the development of Inland Waterways Transport contains the potential to create a common transport route shared across countries that share the same river including India and Bangladesh in the East thereby promoting South Asian regional cooperation and trade while further generating employment and growth opportunities.

Conclusion

While Pakistan's industrial landscape has been characterised by volatility and low performance, the country's service sector has been growing at a sustained rate at the same time. These changes advocate the case for a complementary service-led development economy to generate large-scale job creation and productivity gains. While the prospects of this have proven promising over the years, most service-led growth has been rooted in low-skill tradable services like wholesale, retail and accommodation services. On the other hand, the potential of global innovator services like IT and high-skill intensive social services like education and healthcare has not been fully leveraged. Therefore, systematic and well-coordinated strategies which rest on the ideas of inclusivity and accessibility are required to cultivate the potential of these sub-sectors which will not only drive economic growth but also ensure adequate progress within human development given its spillover effects on industries and agricultural practices.

Policy Recommendations

The challenges within the service sector and its sub-sectors must be addressed through carefully designed and well-coordinated policies at both the state and provincial levels to unlock their full economic potential. Following the 18th Amendment, economic responsibilities fall under provincial jurisdiction. This highlights the need for collaborative efforts between federal and provincial governments to address systemic issues comprehensively. To achieve this, the government may:

- Revise economic policy to shift focus from agriculture- and industry-led growth to services-led growth.
- Increase investment in the IT and education sectors to Support skill development, Drive innovation and align training with market needs
- Strengthen human capital and productivity through targeted education and training.
- Boost exports by encouraging value addition in goods and diversifying export markets.
- Ensure these initiatives support long-term economic growth and global competitiveness.

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