

### **Working Paper**

### Identifying Potential Service Sub-Sectors: Insights from GVA, Exports, and Employment Data

(Ms. Sonia Pant, Ms. Pratibha Sharma, Ms. Aarushi Gupta, Ms. Pooja Agrawal)





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(Ms. Sonia Pant, Ms. Pratibha Sharma, Ms. Aarushi Gupta, Ms. Pooja Agrawal)<sup>2</sup>

1 This is a draft working paper, currently in progress and subject to further revisions. The analysis and recommendations are preliminary and will be refined as the document evolves.

<sup>2</sup> The authors are working in the Services Vertical of NITI Aayog.

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# **1. Introduction**

Services are a dominant economic activity across economies and continue to experience unprecedented growth in many developing countries, including India. Services contribute around 67-70% of the global GDP (worth ~USD 67 Trillion in 2022) and about 50% of the global workforce (with 75% contribution in high-income countries). It will likely emerge as the fastest-growing sector by 2047 (expected to reach ~USD 100 Trillion by 2047). Likewise, in the case of India also, services are the most important contributor to India's economic growth, with a greater than 50% share in India's GVA (worth ~USD1.4 Trillion, 2022-23) and expected to rise to ~56% by 2047 (worth ~USD15-16 Trillion, 2047). About 32% of India's workforce is employed in the services sector. It is the largest recipient of FDI inflows into India. India is also the 7th largest in the world in terms of service sector GDP and exports, contributing 4.3% to world services exports, up from 2% in 2005.

Conventionally, services, unlike manufacturing, were viewed as stagnant and productivity-resistant (Baumol, 1967). However, with the advent of the ICT revolution, the features of manufacturing that were once considered unique to the sector are increasingly shared by some service sectors. There is now a greater scope for services firms to achieve efficiency gains through scale, labour-augmenting innovation, and backward or forward linkages with other sectors.

Digital content has made services more storable and transferable; as a result, physical proximity required for the simultaneous production and consumption of services no longer constrains the scaling up of many services-related transactions. The ICT revolution has reduced the trade costs in services, and in many sectors, they are comparable to manufacturing. Capital accumulation and adoption of technology and labour-augmenting innovation are evident in services such as telecommunications, IT and ITeS, and transportation. For example, data centers require a high level of fixed assets, and the costs decline rapidly with scale. Network or intermediate services such as transportation, telecommunications, finance, and business services are increasingly used as intermediate inputs in the production and export of goods. The rising share of services embodied in goods export can be understood from the much higher share of services in gross exports in value-added terms (~50%) as compared to conventional BoP statistics (~20-25%).

Many studies question the job-creation prospects of services as a long-term development strategy. The extent to which the manufacturing sector combined scale and innovation with employment for low-skilled workers was central to its potential advantages for development. However, emphasis on human capital might constrain the ability of services to absorb surplus from agriculture. This raises concerns that services might not deliver the twin gains of productivity growth and job creation together. Given the changing nature of international competition and the changing sources of comparative advantage, we must also take a dynamic view of the job creation prospects of the manufacturing sector. Established centers of manufacturing, characterized by dense ecosystems of suppliers and rising industrial automation, are raising the bar in terms of what it will take for hitherto less-industrialized countries to enter GVCs. Therefore, developing countries stand to lose considerable potential for generating low-skilled manufacturing jobs as high-income countries adopt new technologies and keep more manufacturing within their own borders. If the only way developing countries can compete in global manufacturing is by adopting quality-enhancing and labour-saving processes, then it will eliminate potential jobs. The declining share of manufacturing in global employment means that the sector's growth will not suffice to meet the need for new jobs in developing countries. In a nutshell, the large-scale job creation potential of manufacturing, especially for low-skilled labour, is slowly eroding.

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Sectors and effects		Market size and location (What is produced and for whom?)	Ability to leverage labor with capital and technology (How do firms operate?)	Linkages (With whom do firms operate?)		
	Manufacturing	Storable, transferable, tradable	Amenable to	Inputs into other		
Key Characteristics	_	goods so production can be	mechanization	manufactured goods		
		separated from consumption				
	Analog Services	Simultaneously of production	Inherent role for labor	Important enablers		
	(pre-ICT)	and consumption		for goods-producing		
				sectors		
	Digitally enhanced	Reduced need for proximity	Labour augmenting	Expanded roles for		
	services		potential	economy wide		
				enabling services		
Implications	Productivity	Scale	Innovation	Spillovers		
	Jobs (number, skill	Number of Jobs	Skill mix demanded	Multipliers that boost		
du	mix)			job creation and skill		
I				mix		

Table 1: Key Characteristics of Services vis-à-vis Manufacturing	a. Implications for Productivity & Jobs
Table 1. Key Characteristics of Services vis-a-vis Manufacturing	g. implications for a rounctivity & jobs

Source: Nayyar et al. (2021)

Accordingly, this paper studies the potential of services in transforming the Indian economy from various dimensions such as the contribution to output /value added, employment and exports. Based on the analysis of the performance of the various service sub-sectors on these key dimensions, services are classified into four categories each with its own set of policy recommendations: Defend, Accelerate, Transform, and Untapped. Defend includes those sub-sectors wherein India is performing well and is leading in terms of export share, and this position needs to be retained. In some others sectors, while India is among the leading suppliers in the world there is scope to expand and grow. Both these categories are characterized by high exports and GVA share but low employment and high productivity. Under the accelerate category, sub-sectors that are performing moderately in all the three dimensions and can expand rapidly with policy/investment/technological impetus are included. Sectors that are underperforming on two of the three dimensions, particularly on exports and value added, require significant efforts to transform to achieve global market outreach or a substantial contribution to domestic output. Finally, some sectors are underperforming in all the three dimensions and require a consolidation strategy to elevate their performance to the next level. Accordingly, the paper is divided into the following sections. Section 2 explains the data and methodology used in the analysis also highlighting the limitations due to unavailability of data at the same level of granularity across various dimensions. The key trends across various service sub-sectors in terms of their contribution to GVA, employment, and exports for both India and the world are detailed in Section 3. Section 4 proposed a strategy for services using a multidimensional approach. The way forward based on strategic classification of services sectors in teased out in Section 5 of the paper.

## 2. Data and Methodology

Unlike goods, services are heterogeneous in nature and cover a wide range of economic activities, they can be inputs into the production of other goods and services and can also satiate final demand. From the perspective of economic growth and development, input services or producer services play a fundamental role in the production process. In addition to the input function, services also facilitate transactions through time (financial services, digital services) and space (transport & logistics, telecommunications) (Francois & Hoekman, 2010). Further, services such as education, health, R&D enhance the productivity of fundamental factors of production (capital and labour). The disintegration of the production process into tasks, leading to specialization and outsourcing, facilitated by technical change, has increased the demand for intermediate or producer services. These services include business services, financial services, IT and related services, transport and logistics services etc.

Services are classified in different ways, but one of the most extensively used typology is the international classification of services adopted by the World Trade Organization (WTO) and the General Agreement on Trade in Services (GATS). The Services Sectoral Classification List (MTN.GNS/W/120) or the W/120, is an informal WTO Secretariat Note supported the trade in services discussions during the Uruguay Round of negotiation. This listing is based on the United Nations Central Product Classification (UNCPS) and it divides services exports into 12 sectors and about 160 sub-sectors. In India, the National Product Classification for Services Sector (NPCSS), 2010, developed by the Central Statistical Office (CSO), Government of India, is based on the CPC version 2.0 developed by the United Nations to ensure compatibility with data from other national and international agencies. Furthermore, the Service Accounting Code (SAC), notified by the Goods and Services Tax (GST) Council, is based on the NPCSS 2010, making it well-suited for reporting service trade statistics and ensuring statistical coherence across national and international data. The United Nations International Standard Industrial Classification of All Economic Activities (ISIC) classifies services in about 13 sectors and 46 sub-sectors. Further, different countries have adopted the ISIC-based classification in their national systems. In the case of India, the National Industrial Classification (NIC), 2008 classifies services in about 15 sectors and 55 sub-sectors. The European Union (EU) uses the NACE (Nomenclature statistique des activités économiques dans la Communauté européenne), which is the classification of economic activities including services. Similarly, Canada, Mexico, and the US use the North American Industry Classification System (NAICS) to classify economic activities and services in about 15 sub-sectors.

For the purpose of this paper, services are classified into 15 sub-categories, broadly following the manner in which services exports, employment and value-added data is captured in India. The detailed classification of the 15 sub-sectors is explained in Annexure I, and is summarized as follows:

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#### Table 2: Service Sub-sectors (used in the paper)\*

9. Insurance & Pension Services
10. AV & related services
11. Education
12. Health
13. Personal, Cultural & Recreational services
14. Others
15. Government n.i.e.

2.1 Data Sources

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This strategy paper utilizes data from multiple sources spanning various years. The key data sources are outlined below:

- a. Gross Value Added (GVA) Data from United Nations Conference on Trade and Development (UNCTAD) (1995-2022) and Ministry of Statistics and Programme Implementation (MoSPI) (2011-12 to 2022-23). Growth rates and contributions (in value terms) to total value added (constant prices) across sectors, i.e., agriculture, industry, and services globally and economies across income levels, have been sourced from UNCTAD on a calendar year basis. Percentage shares have been calculated at GVA current prices. MoSPI provides GVA data for the Indian economy, including sector-wise disaggregation. This data helps to understand the contribution of each services subsector to India's overall economic growth. The GVA data spans across both traditional and emerging services, providing insights into the relative importance and growth patterns within the services sector.
- b. Periodic Labour Force Survey (PLFS) Data (2017-18)to 2023-24) The analysis in this paper uses PLFS data from 2017-18 to 2023-24 (July to June), utilizing the Usual Status approach to capture long-term employment patterns. The data provides insights into the sectoral distribution of the workforce, focusing on the services sector as defined by the NIC 2008 classification, which includes sub-sectors such as trade, transport, finance, education, healthcare, and IT. The share of workers employed in the services sector is calculated by examining the proportion of total workers in each service sub-sector relative to overall service sector employment, using the NIC 2008 classification. The study performs a trend analysis to track changes in sectoral employment shares from 2017-18 to 2023-24 and also highlights growth or decline in specific sub-sectors.
- c. Exports data for this study has been sourced from the Reserve Bank of India (RBI) (financial year 2022-23) and from the United Nations Conference on Trade and Development (UNCTAD) (calendar years 2005 to 2023). The General Agreement on Trade in Services (GATS) of WTO has

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classified trade in services into four modes of services supply based on the territorial presence of the supplier and the consumer at the time of the transaction:- Mode 1: Cross-border trade; Mode 2: Consumption abroad; Mode 3: Commercial presence; Mode 4: Presence of natural persons. Both RBI and UNCTAD provide crucial insights into India's export performance, with a particular focus on service exports. This data is essential for analyzing the international competitiveness of India's service sectors and understanding their contribution to the country's GDP and employment. Both sources also feature detailed sub-sector breakdowns within service exports, presenting data at various levels of granularity, allowing for an in-depth analysis of specific service categories across different years. However, it is important to note that the data only covers cross-border transactions and does not include services provided domestically or within the country. The sector statistics presented correspond to the concepts and definitions of the IMF Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6, 2009).

#### 2.2 Methodology

To facilitate data mapping across the three dimensions and 15 sub-sectors, a heuristic concordance approach is adopted. This approach involves matching available data at the highest level of aggregation to specific sub-sectors based on expert judgment, industry knowledge, and available definitions. For instance, GVA data from MoSPI, export data from RBI, and PLFS employment data were mapped into the identified 15 sub-sectors using heuristic rules. This concordance allows us to estimate the contributions of various sub-sectors to employment and economic output despite challenges in data granularity. The heuristic concordance approach for these sectors is detailed in Annexure I.

Limitation of such an approach is that it combines multiple data sources and applies an empirical mapping technique to integrate data across three dimensions and 15 sub-sectors of India's services sector. There are challenges in data availability, granularity, consistency, and timeline of data.

# 3. Key Trends – World and India

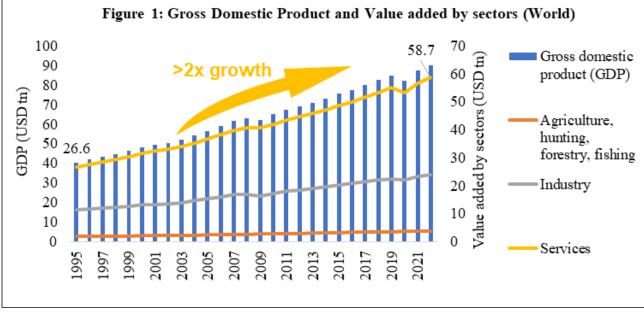
This section examines the key trends in the services landscape, across value added, employment and exports. As mentioned in the above section, different time periods have been used for the trend analysis based on the availability of data.

#### 3.1 Gross Value Added (GVA)

In the global economy, the contribution of services to national outputs has increased markedly over time. The share of services in global GDP has increased from 53% to 67% between 1970 and 2021 (World Bank & WTO, 2023). Along with the rising contribution of services, most Low Middle-Income Countries (LMICs) have seen a declining importance of agriculture in their GDP. This section traces the contribution of services to national outputs in the global and Indian context.

#### 3.1.1 Importance of services across income spectrum

Globally, services play a major role in output and value added. It has added ~USD 32 Trillion to the world economy over and above its value addition since 1995, more than double of industry at USD ~12.5 Trillion. Due to the effect of pandemic in 2020 and 2021, the sector contracted significantly but rebounded afterwards with a higher growth than industry and agriculture (as shown in Figure 1).



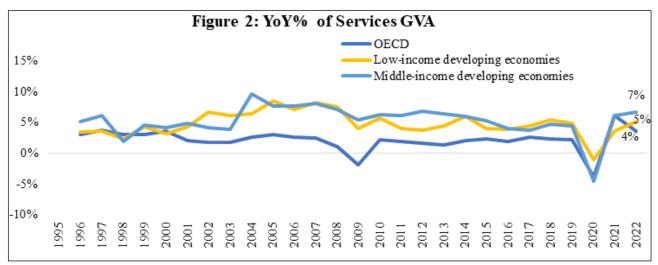
Source: UNCTADstat

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The middle-income group is observed to have the sharpest growth in YoY terms while that of OECD nations have declined, depicting a shift of service output from high income to middle- and low-income nations (as shown in Figure 2).

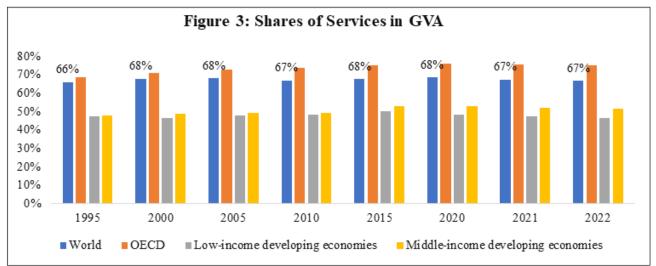


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Source: UNCTADstat (GVA at current prices) & Author's Calculations

Services share of GDP in economies across all income levels in 2022 have been greater than 46%. The OECD nations dominate with average share (1995-2022) at 73%. The average for the same time period for middle income and low developing nations are 50% and 48% respectively (as shown in Figure 3).



Source: UNCTADstat

#### 3.1.2 Importance of Services in India's GDP

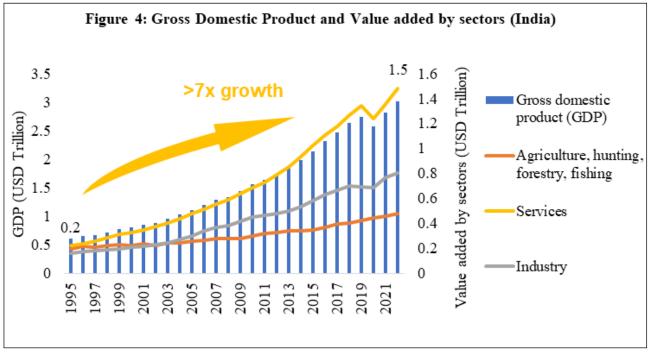
India's growth path has been considered as an anomaly among South Asian nations and even in the context of developing countries in general, as its growth transition has been from agriculture to services sector, rather than the commonly observed path from agriculture to industries to services (Ansari, 1995). The sector's growth accelerated particularly post-1991 economic reforms, which led to higher economic growth, per capita income, technological progress, availability of highly skilled labour, etc. The developments enabled India to accommodate the rising trend of outsourcing by developed nations and the consequent growth of computer and professional services (Bhagwati, 1984; Hansda 2001). In addition, a large pool of English-speaking young labour force added to India's competitive advantage, especially in the IT and the BPO sectors. As a consequence, the contribution of services to the overall GVA has increased significantly over the decades, with >7x growth in its share in the GDP (1995-2023) (as shown in Figure 4).



The Economic Survey of India for the financial year 2024 estimates the contribution of services to rise to  $\sim$ 55%. A highlight in the survey states:

"Through the vicissitudes of the last three decades, the services sector stood as the bulwark of India's economic growth. Aided by the focus on policy and procedural reforms, physical infrastructure and logistics, all significant business, personal, financial and infrastructure-based services have emerged strongly from the pandemic... However, the transformation lies in the fast-paced shift towards digital services like online payments, e-commerce, and entertainment platforms, as well as the increase in the demand for high-tech services as inputs in other productive activities."

Traditionally, expenditure on food items have dominated the household consumption expenditure in India. But over the years the share of non-food items, particularly, services such as health, education, rental, telecommunication, entertainment, transport, financial etc. has increased significantly. In fact, the Household Consumption Survey 2022-23 indicated that the share of services<sup>3</sup> in monthly per-capita consumption expenditure has gone up collectively for both rural - from 10.03% in 1999-2000 to 20.16 % in 2022-2023 and urban sector- from 21.64% to 30.34% in the same period, signifying rise in demand for services.



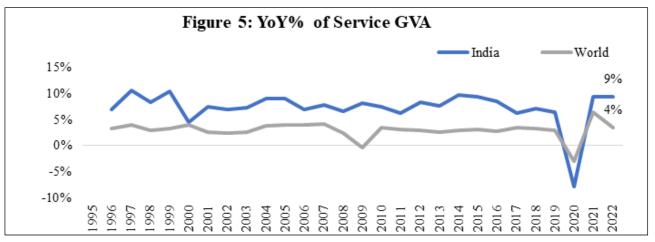
Source: UNCTADstat

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The year-on-year growth rate of service output is higher in most years for India than in the world (as shown in Figure 5).

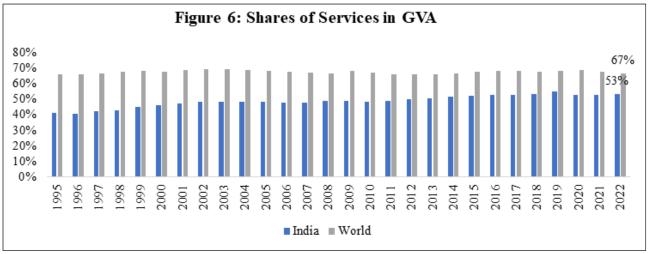
<sup>3</sup> Includes item groups: education, medical (hospitalization), conveyance, consumer services, entertainment and rent.





Source: UNCTADstat (GVA at current prices) & Author's Calculations

At around 53%, the contribution of services to GDP is higher than the combined share of agriculture and industry. However, the global share of GDP for services still remains much higher, at around 67% (2022), compared to India (as shown in Figure 6).



Source: UNCTADstat

The growth and performance of the sub sectors under services have been varied. The top-performing sectors highlight a balance between traditional industries (like Trade & Repair, Government, and Construction) and emerging or expanding ones (such as IT and Professional Services).

Based on data, top 7 performing sectors (as shown in Figure 7) over the years 2011-12 to 2022-23 are:

#### i. Professional, Scientific & Other Business Services (including R&D)

Highest contributor with ~20% share in 2022-23. It largely remains steady suggesting robust and sustained demand for these services.

#### ii. Trade & Repair

A significant contributor, reaching a peak of 21% in several years. Despite a slight decline to 19% in recent years, it is the second largest contributor, indicating its central role in the supply chain and commerce.





#### iii. Government Services (n.i.e.)

This sector has a stable contribution, averaging around ~12%, with a slight increase to 13% in 2020-21.

#### iv. Financial Services

This sector ranges between 9-11%. This consistency suggests a steady demand for financial activities, potentially influenced by ongoing financial inclusion efforts.

#### v. Computer & Information Services

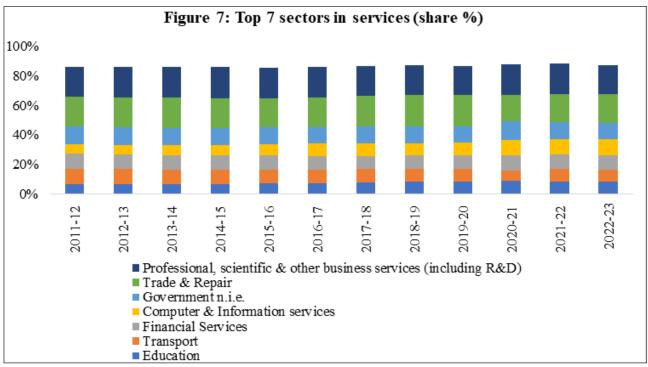
It shows a clear upward trend, starting at 6% in 2011-12 and reaching 11% by 2022-23. Effects of increasing digitization, IT developments, and demand for tech services is reflected in the growth, marking it as one of the fastest-growing sectors.

#### vi. Transport

It has been stable primarily around 9%-10%, with a slight drop to 7% in 2020-21. The fluctuation indicates external factors like pandemic impacts but overall, transport remains a critical sector.

#### vii. Education

Ranging between 7-8%, with rise to 9% in 2020-21 and 2021-22 could reflect higher investments in education, potentially due to increased government policy focus on educational reforms and increasing educational access and quality as well as private funding for online and remote learning during the COVID-19 pandemic.



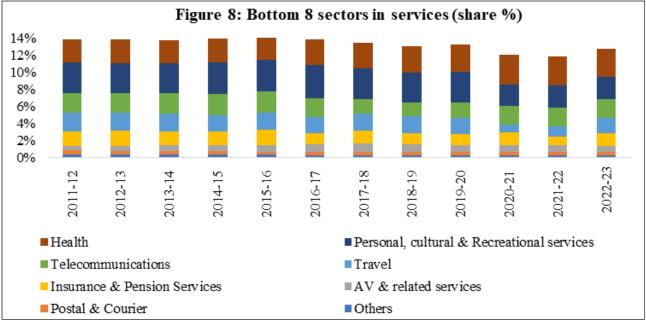
Source: Ministry of Statistics and Programme Implementation & Author's Calculations

The top 7 sectors maintain a consistent share at ~87% in 2022-23. The rising shares of Computer & Information and Professional services indicate rise of knowledge driven economy.

The bottom 8 sectors (as shown in Figure 8) constitute just  $\sim 13\%$  share in 2022-23, with individual share of sectors between 0-3%. Growth of these sectors have been minimal, even for socially



important sectors like Health and Personal, Cultural & Recreational Services indicating need of more policy focus and higher investments. The detailed table containing the sectoral contributions within the service sector GVA can be found in Annexure II.



Source: Ministry of Statistics and Programme Implementation & Author's Calculations

#### 3.2 Employment

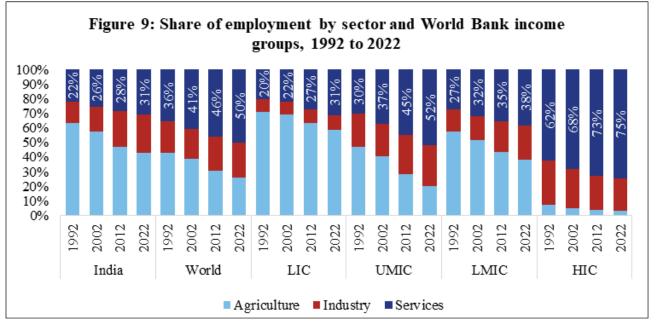
#### 3.2.1 Global Employment Trends in Services

Services are a crucial driver of employment across economies at different income levels. In highincome economies, services are the dominant source of employment, accounting for 75% of total employment in 2022<sup>4</sup>. This highlights the sector's critical role in sustaining job opportunities and economic stability in high-income countries. Similarly, in upper-middle-income economies, services play a significant role, providing 52% of total employment. This shift towards servicebased economies reflects broader global trends in economic development, where industries such as finance, healthcare, education, information technology, and retail are expanding and creating jobs across various skill levels.

In contrast, in low-income economies, agriculture remains the largest source of employment, accounting for 58% of total employment in 2022. Despite the growth in other sectors, many low-income countries continue to rely heavily on agriculture for livelihood, especially in rural areas where mechanization and industrialization may still be limited. However, there has been significant progress in lower-middle-income economies, with services employment seeing substantial growth. From 27% in 1992, it rose to 38% in 2022, reflecting the gradual shift toward urbanization, industrialization, and the expansion of service-based sectors such as retail, transportation, and telecommunications (ILO, 2022) (as shown in Figure 9). While the global services sector employment share stood at 49.7% in 2021 (as shown in Figure 10), India's services sector employed 31% of its workforce in the series sector (ILO, 2022) (as shown in Figure 11).

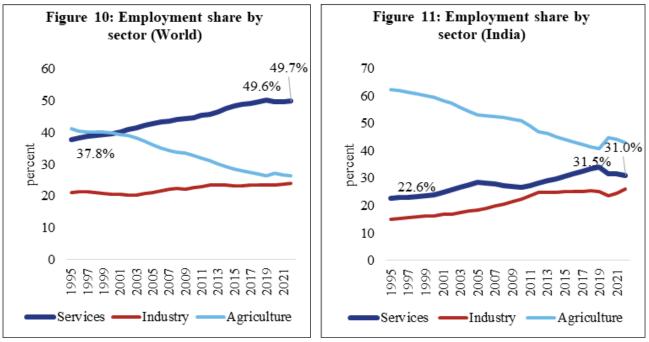
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<sup>4</sup> ILO (https://www.ilo.org/wesodata)



Source: ILO

Services are diverse in nature and offer a wide range of job opportunities, spanning from low-skilled positions to high-skilled roles. Low-skilled service jobs may include positions in hospitality, retail, and basic administrative functions, while high-skilled roles may involve professional services, IT, finance, healthcare, research, and management. This diversity within the services sector makes it a key contributor to job creation across economies, catering to a broad spectrum of educational backgrounds and skill sets, and providing employment opportunities for both entry-level workers and highly qualified professionals. As a result, the growth of services employment is essential for fostering inclusive economic development and reducing unemployment rates, particularly in transitioning economies (ILO, 2022).



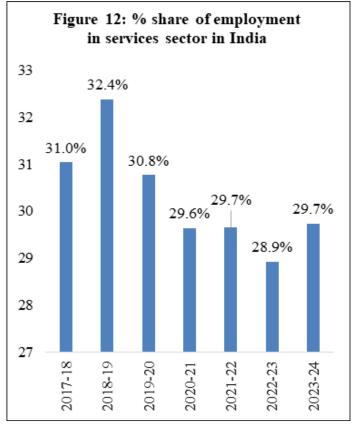
Source: ILO

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#### 3.2.2 Indian Employment Trends in Services<sup>5</sup>

The services sector plays a critical role in India's employment landscape, contributing significantly to the country's job creation and overall economic development. As of 2023-24, approximately 30% of India's usually working population, or around 182 million workers<sup>6</sup>, are employed in the services sector (as shown in Figure 12, 13). This marks a significant increase of 40 million workers over the past six years, signalling robust growth in servicerelated employment. This trend reflects the ongoing structural shift in the Indian economy, where agriculture's share of employment continues to decline, and services are emerging as the primary source of job creation. According to the Economic Survey of India 2022-23, the services sector has consistently been a major driver of employment growth, particularly in sectors like information technology, healthcare, education, and retail.



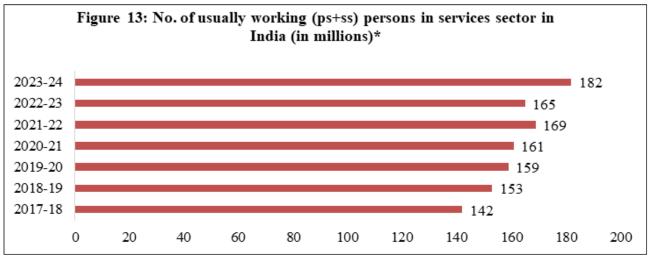
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International Labour Organization (ILO) (2022) indicates that as economies evolve, services typically become the largest source of employment, especially in countries undergoing urbanization and industrialization. This shift in employment is particularly evident in India, where sectors such as business process outsourcing (BPO) and information technology (IT) have experienced explosive growth, creating millions of jobs over the past two decades (ILO, 2022). The growth of these service-oriented industries has been pivotal in absorbing the expanding workforce, especially in urban areas. Furthermore, the World Bank (2021) highlights that services have increasingly become a significant source of formal employment in India, contributing to a steady reduction in informality in the labour market.

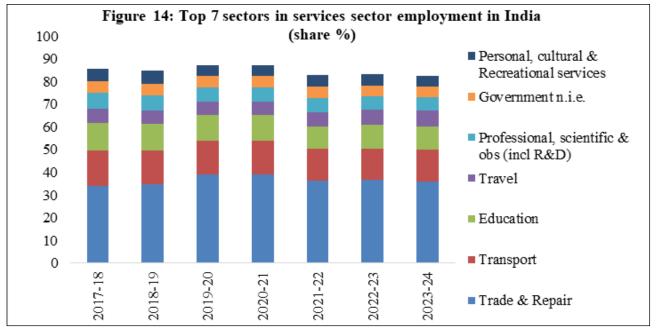
This transition also points to the increasing diversity of employment opportunities within the services sector, ranging from low-skilled positions in retail and hospitality to high-skilled roles in IT and healthcare. The expansion of services has therefore become a key factor in reducing unemployment and underemployment, contributing to a more inclusive labour market in India (ILO, 2022).

<sup>5</sup> PLFS Annual Reports 2017-18 to 2023-24

<sup>6</sup> Usual activity status considering principal and subsidiary status (ps+ss): those who perform some work activity either in the principal status (person spent relatively longer time (i.e. major time criterion) during the 365 days preceding the date of survey) or in the subsidiary status (person spent a relatively shorter time throughout the reference year of 365 days preceding the date of survey or for a minor period (not less than 30 days), during the reference year).



\*Author's calculation using PLFS data

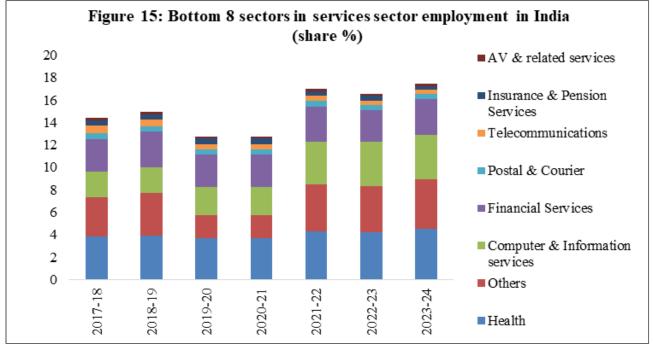


Source: PLFS Annual Report

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The sectoral distribution of employment across India's services sector reveals important trends of diversification and shifting dynamics over time. The detailed table is placed at Annexure III. Between 2017-18 and 2023-24, India's services sector has seen changes in how employment is distributed across different industries, with certain sectors seeing a decline in their share of total employment, while others have grown, reflecting the broader economic transformation of the country (Ghosh, 2020; Mehta & Purohit, 2021).





Source: PLFS Annual Reports

Based on the data above (as shown in Figure 14), the top sectors that have contributed most significantly to employment growth in India's services sector are:

#### i. Trade & Repair

The trade and repair sector consistently employs the highest proportion of workers in India's services sector. It accounted for 34.1% of total employment in 2017-18 and maintained a substantial share of 36% in 2023-24. This reflects the importance of retail, wholesale trade, and repair services in the Indian economy, which provides jobs across a wide range of skill levels, especially in urban and semi-urban areas (Kundu & Kumar, 2020).

#### ii. Transport

With 14% of total services sector employment in 2023-24, transport remains a significant sector in terms of employment generation. This includes jobs in road, rail, air, and sea transport, as well as logistics, which have been growing rapidly due to increased demand for both domestic and international trade (World Bank, 2022).

#### iii. Education

Education services employed 10.2% of the services workforce in 2023-24, reflecting the increasing demand for educational services at all levels, from primary education to higher education and vocational training. India's growing emphasis on education and skill development is a significant driver of employment in this sector (ILO, 2020).

#### iv. Travel

The travel sector, which includes tourism, travel agencies, and hospitality services, employed 6.9% of the services workforce in 2023-24. This sector has seen steady growth in recent years, driven by domestic travel demand and India's increasing appeal as a global tourism destination (UNESCAP, 2021).

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#### v. Professional, Scientific, and Other Business Services (including R&D)

This sector, which encompasses research and development (R&D), consultancy, legal, and other professional services, saw a slight decrease in its share from 7.0% in 2017-18 to 5.9% in 2023-24. Nevertheless, it remains an important contributor to high-skilled employment, particularly in urban centers (Rajasekar & Chatterjee, 2021).

Some of the important sectors with smaller shares (as shown in Figure 15) in the employment generation within the services sector include:

#### i. Financial Services

The financial services sector, which includes banking, insurance, and investment services, employed 3.2% of the services workforce in 2023-24. As India's financial sector continues to expand, driven by growing access to financial products and services, employment in this sector is expected to rise further (Rajan & Zingales, 2003).

#### ii. Health Services

The employment share for health has shown a positive trend- from 3.9% in 2017-18 to 4.5% in 2023-24, even though it remains a low performing sector. The impact of recent pandemic is reflected in increased health awareness and health investments by both private and government sources. Hence, the employment opportunities are expected to grow in coming years with increased focus on specialized and advanced services like telemedicine etc.

#### iii. Computer and Information Services

An increase from 2.3% in 2017-18 to 4% in 2023-24 indicates expanding scope of the sector, reflecting India's growing IT industry. Adoption of digital solutions and emerging technologies along with government initiatives to successfully establish India as an outsourcing hub has driven the rise. Thus, even with smaller share in employment, it has shown one of the fastest employment growth rates. However, skill gaps and rising global competition needs to be addressed in order to make it comparable to labour intensive sectors like Trade & Repair.

In conclusion, India's services sector is diversifying rapidly, with a shift from traditional service sectors to newer and emerging industries like technology, healthcare, and media. The top seven sectors are experiencing a gradual decline in their share of employment, while the bottom eight sectors, especially those related to technology and digital services, are seeing significant growth. This trend reflects broader changes in the economy, including digital transformation, healthcare expansion, and increasing demand for specialized services, which are shaping the future of employment in India's services sector.



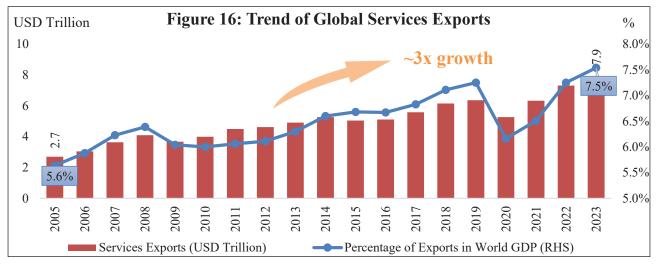
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#### **3.3 Exports**

#### 3.3.1 Global Scenario

Trade in services is often indirect, embedded within people, tangible products, or capital, such as foreign direct investment (FDI) (Grubel, 1987). A significant portion of the value of goods is derived from the services involved in their production—this includes business services, intermediation, knowledge services (e.g., R&D, design, engineering), as well as transport, logistics, and financial services (Francois and Woerz, 2008). Due to this reason, it is difficult to capture the accurate value of services exports, especially in the embodied form, however, the Balance of Payment (BoP) statistics capture the direct cross border trade of services amongst nations. As economies grow wealthier, the share of services in GDP rises, which is mirrored by a growing proportion of services inputs embedded in the value of all products. Global trade in services has grown significantly, driven in part by technological advancements that have lowered the cost of cross-border exchanges. These improvements have enabled the emergence of new categories of exports, including services that were previously considered non-tradable (Jensen and Kletzer, 2005).

Global services exports have increased approximately threefold since 2005, rising from USD 2.7 Trillion in 2005 to USD 7.9 Trillion in 2023, reflecting a compounded annual growth rate (CAGR)<sup>7</sup> of 6.2%. As a proportion of global GDP, services exports have expanded from 5.6% in 2005 to 7.5% in 2023 (as shown in Figure 16). Global exports in services contribute 25% out of the total exports<sup>8</sup> in 2023. In value-added terms, services exports constitute a significant portion of global exports. And as per the trade in value-added (TIVA) statistics, services in value-added terms now accounts for nearly 50% of global trade.



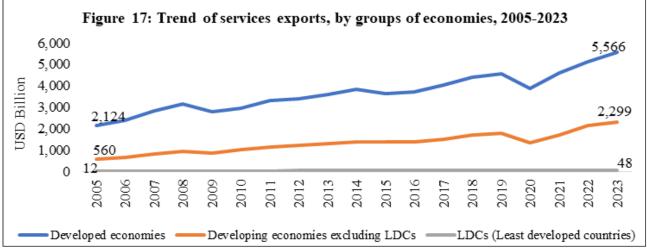
Source: UN Trade and Development, UNCTADstat and the World Trade Organization.

Between 2005 and 2023, services exports in developing economies (excluding least-developed economies) expanded by 4.1 times and by 4 times in least-developed economies, significantly exceeding the 2.6-fold increase recorded in developed economies (as shown in Figure 17).

<sup>7</sup> CAGR=(Ending Value/Beginning Value)<sup>l/n</sup>-1, where n= no. of periods (like years, quarters, months, days, etc.) 8 Total exports = goods + services

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Source: UN Trade and Development, UNCTADstat and the World Trade Organization.

The structure of global services exports has undergone significant changes since the COVID-19 pandemic, reflecting varying cross-sectoral trends (as shown in Figure 18). The sectors are selected according to the IMF's Balance of Payments and International Investment Position Manual (BPM6) classification<sup>9</sup>.

The share of 'Other business services<sup>10</sup>' increased from 19% in 2005 to 25% in 2023. Within this category, the 'Professional and management consulting services' sub-sector has the largest share, accounting for approximately 45% (in 2023) of the total in Other business services. Notably, the most substantial growth has occurred in 'Telecommunications, computer, and information services,' which expanded from 7% in 2005 to 14% in 2023. Within this sector, the 'Computer services' sub-sector has the largest share, accounting for 84% (in 2023) of the total in Telecommunications, computer, and information services.

'Computer' services and 'Professional and management consulting' services were the fastestgrowing sectors in global services exports from 2005 to 2023, with CAGRs of 12% and 10%, respectively.

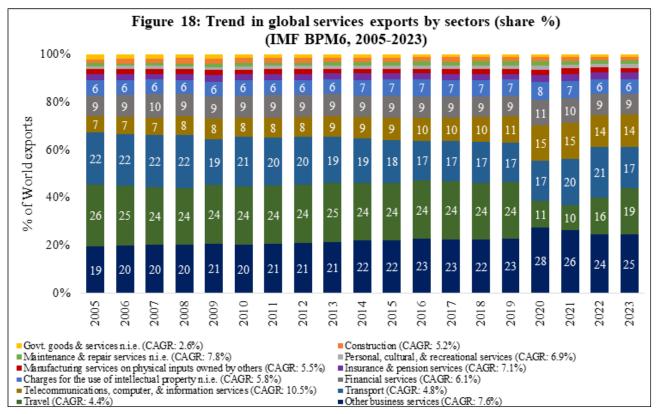
Conversely, the share of 'travel' services (which fell from 26% to 19%) and 'transport' services (which dropped from 22% to 17%) in global services trade has decreased substantially between 2005 and 2023, with the pandemic further intensifying this decline.

<sup>9</sup> This sectoral classification is used solely to analyze the global export trends. For the remainder of the paper, a more detailed breakdown into 15 sub-sectors is applied (see Annexure I).

<sup>10</sup> Includes: SJ1) Research and development (R&D), SJ2) Professional and management consulting services, and SJ3) Technical, trade-related, and other business services

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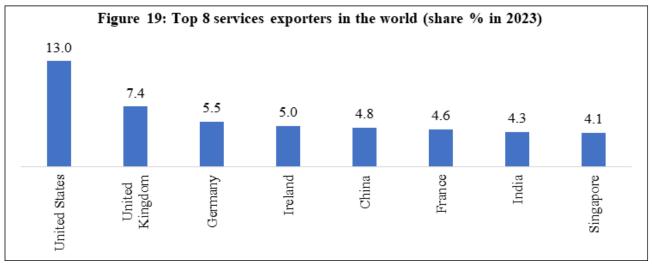




Source: UN Trade and Development, UNCTADstat, the World Trade Organization & Author's calculations.

#### 3.3.2 Indian Scenario

India's strategic reforms, rising investments, and a large and growing young workforce have propelled it to the forefront of global services exports. Primarily serving the needs of developed economies, India ranks seventh among the world's top services exporters and second among developing economies, capturing a 4.3% share (USD 338 Billion) of global exports in 2023 (as shown in Figure 19).



Source: UN Trade and Development, UNCTADstat and the World Trade Organization.

Services exports of India grew 6.5 times since 2005, rising from USD 52 Billion in 2005 to ~USD 338 Billion in 2023 at a CAGR of 10.9%, nearly double of global growth of services exports in the same period. India's share in global services exports rose from under 2% in 2005 to 4.3% in 2023 (as shown in Figure 20). India's goods exports grew to USD 432 Billion in 2023 at a CAGR of 8.5% from 2005-2023, while its share in global goods exports rose from under 1% in 2005 to 1.8% in 2023.



Source: UN Trade and Development, UNCTADstat and the World Trade Organization.

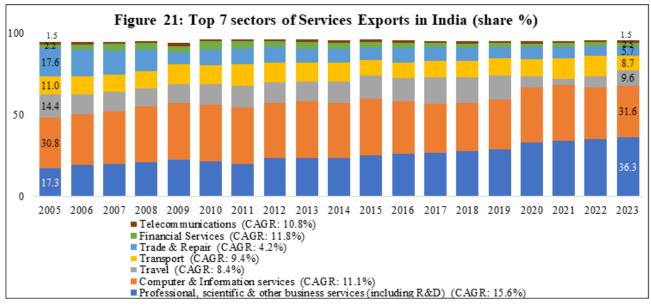
The composition of India's services exports reveals a concentration in the top seven sectors, which account for approximately 96% of the total export value, while the remaining sectors contribute just about 4%<sup>11</sup>. The criteria for selecting these 14 sectors are outlined in Annexure V and the detailed sectoral share table is placed at Annexure VI. The concentration of exports in a few sectors is indicative of global competitiveness in these sectors and also of a need to diversify India's services export basket.

'Computer & Information Services' and 'Professional, Scientific & Other Business Services (including R&D)' stand out, contributing nearly 68% to India's services export total in 2023 (as shown in Figure 21).

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<sup>11</sup> The top and bottom sectors are identified based on their respective shares in India's services exports for the year 2023.





Source: UN Trade and Development, UNCTADstat, the World Trade Organization & Author's calculations.

The following sectors have emerged as key drivers, exhibiting strong growth and contributing significantly to India's services export performance.

#### i. Professional, Scientific & Other Business Services (including R&D)

This sector has been the fastest-growing in India, with a CAGR of 15.6% from 2005 to 2023. Exports surged from USD 9.04 Billion in 2005 to USD 122.11 Billion in 2023, doubling its share of India's services exports from 17% to 36% during the same period. This growth is driven by the rise of global capability centres (GCCs) in India, leveraging the country's skilled workforce in engineering, technology, and management, as well as its cost competitiveness.

#### ii. Computer and Information services

India's 'computer and information services' sector has grown at a CAGR of 11.1% from 2005 to 2023, with exports rising from USD 16.08 Billion to USD 106.21 Billion, making it the second-largest contributor to India's services exports (31.6% in 2023). This growth is driven by India's strengths in software development, IT services, and Business Process Outsourcing (BPO), positioning the country as a global IT leader.

#### iii. Travel services

The travel services sector has grown at a CAGR of 8.4% from 2005 to 2023, with exports rising from USD 7.49 Billion to USD 32.19 Billion, contributing 9.6% (2023) to India's services exports. This growth reflects increased international tourism to India, driven by leisure, medical, and business travel, as well as more Indians traveling abroad. Despite a setback during the COVID-19 pandemic, the sector has rebounded with a strong recovery in international travel.

#### iv. Transport services

The transport sector has grown at a CAGR of 9.4% from 2005 to 2023, with exports increasing from USD 5.75 Billion to USD 29.15 Billion. This growth is fuelled by India's strategic position in global trade, enhancing its role in shipping, air transport, and logistics. The sector's expansion is also supported by the rise of e-commerce and digital platforms, strengthening India's position in international freight and logistics services.

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India's comparative advantages, supportive government policies, and contributions from the Indian diaspora have played key roles in shaping the success of these sectors.

In addition to the leading sectors, there are several emerging areas that are poised for growth and can significantly enhance India's contribution to global services exports (as shown in Figure 22).

#### i. Construction services<sup>12</sup>

The construction services sector has grown at a CAGR of 14.6% from 2005 to 2023, rising from USD 0.35 Billion to USD 4.02 Billion, though it still represents a small share (1.2% in 2023) of total services exports. India's competitive advantage in terms of cost and skilled labour has positioned the country as a key provider of construction services in global markets.

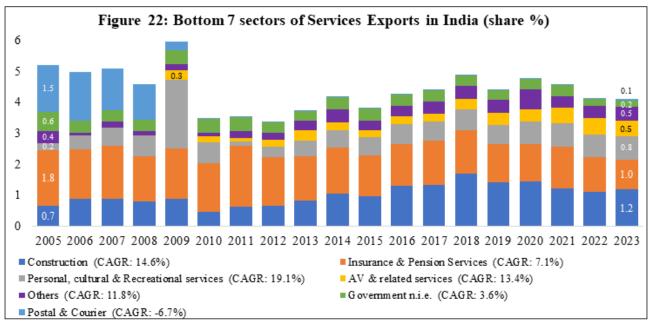
#### ii. Personal, Cultural & Recreational Services

The 'Personal, Cultural, and Recreational Services' sector has grown at a CAGR of 19.1% from 2005 to 2023, with exports rising from USD 0.11 Billion to USD 2.56 Billion. This growth is driven by global demand for Indian music, films, art, yoga, and cultural experiences, alongside rising participation in international sports, education, and healthcare services.

#### iii. Audio-Visual & Related Services

India's Audio-Visual & Related Services sector has grown at a CAGR of 13.4% (2009-23), with exports rising from zero in 2005 to USD 0.29 Billion (2009) and to USD 1.67 Billion in 2023. This growth is driven by global demand for Indian films, television, and digital media via streaming platforms, alongside India's growing strengths in AI, animation, and gaming, boosting its position in the global entertainment market.

This rapid expansion signals their increasing global demand and emerging potential, suggesting that they could play a more significant role in India's services export strategy moving forward. Such momentum in both traditional and emerging sectors positions India to lay a strong foundation to achieve its target of USD 1 Trillion in services exports by 2030.



Source: UN Trade and Development, UNCTADstat, the World Trade Organization & Author's calculations.

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<sup>12</sup> Construction services are included exclusively for the analysis of services export trends. This sector is not considered in the rest of the paper due to challenges in mapping it within the GVA and employment dimensions.



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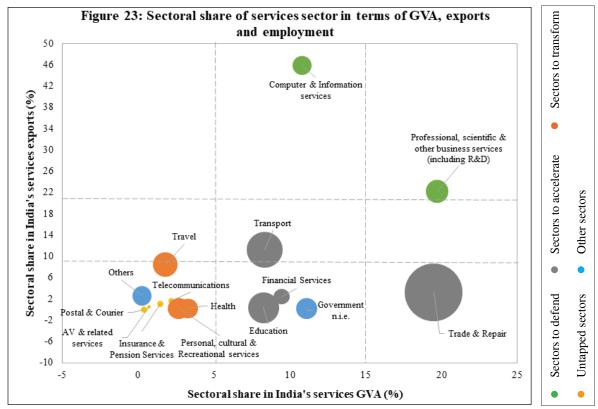
Moreover, in recent years, services exports have helped stabilize India's external balances, mitigating the impact of supply-side shocks such as rising oil prices and food price volatility, while also supporting domestic consumption. For instance, in 2023-24<sup>13</sup>, India recorded a trade surplus of USD 162.8 Billion in services, in contrast to a trade deficit of USD 244.9 Billion in merchandise, highlighting the significant contribution of services exports to foreign exchange reserves and economic stability. However, to ensure that this growth is sustained and the country remains competitive on the global stage, India faces the challenge of meeting the growing demand for skilled professionals. To advance further along the global value chain, it is essential that India continues to invest in upskilling and reskilling its workforce, alongside enhancing R&D capabilities within its domestic services sectors. This will ensure that India not only strengthens its established sectors but also builds a more diversified and resilient services export portfolio for the future.

<sup>13</sup> Data sourced from the 'India's Balance of Payments' document published by the RBI as on 30.09.2024.

### 4. Strategy for Services – Multi-dimensional Analysis<sup>14</sup>

As the services sector is inherently heterogeneous, its subsectors vary significantly in the ways they combine key dimensions such as value added, trade intensity, as well as their capacity to generate jobs, particularly for low-skilled labour. This diversity creates a complex landscape, where some subsectors excel in exports, others are strong in GVA contributions, and yet others may play a crucial role in employment generation. Importantly, no single subsector embodies all these dimensions in the same way. Instead, each combines varying degrees of different factors, leading to distinct growth dynamics and potential.

Given this complexity, it is essential to examine the services sector through a disaggregated lens, considering the interplay between GVA, employment share, and exports. These three dimensions provide a more comprehensive understanding of the sector's contribution to the economy, highlighting both the challenges and opportunities that exist across subsectors. For example, while Computer & Information Services stands out in terms of both export value and GVA, other subsectors like Trade & Repair demonstrate significant employment share despite a lower export performance. Figure 23 below provides a detailed breakdown of the performance of key services subsectors in 2022-23, showcasing how these dimensions intersect and contribute to the broader economic landscape.



\*Bubble size represents sectoral share in India's services sector employment.

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Construction services have been excluded from services exports, while real estate services (employment and GVA) are included under 'Other Business Services'. This sector is not considered due to challenges in mapping it within the GVA and employment dimensions.

<sup>14</sup> The broad services categories are mapped in Annexure I across three dimensions (GVA, employment, and exports). It may be noted that these are based on data from RBI (exports), PLFS (employment) and MoSPI (GVA) and have been done heuristically by the authors.

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#### 4.1 High Export & GVA, Low Employment Share (Highly Productive, Export-Oriented):

- Computer & Information Services: Export share (45.8%), GVA share (10.8%), Employment share (4%).
- Professional, Scientific & Other Business Services: Export share (22.2%), GVA share (19.7%), Employment share (5.8%).

### **4.2 Low-moderate Export, Moderate-high GVA & Employment Share** (*Labour-Intensive, Lower Productivity*):

- Trade & Repair: Export share (3.2%), GVA share (19.5%), Employment share (36.7%).
- Transport: Export share (11.2%), GVA share (8.3%), Employment share (13.8%).
- Education: Export share (0.4%), GVA share (8.3%), Employment share (10.6%).
- Financial services: Export share (2.4%), GVA share (9.5%), Employment share (2.8%).

#### **4.3** Low Export, GVA & Employment Share (Underperforming but has growth potential):

- Travel: Export share (8.4%), GVA share (1.8%), Employment share (6.6%).
- Health: Export share (0.2%), GVA share (3.3%), Employment share (4.3%).
- Personal, Cultural & Recreational Services: Export share (0.2%), GVA share (2.7%), Employment share (5.1%).

#### **4.4** Negligible Export, GVA & Employment Share (Untapped):

- Telecommunications: Export share (1.6%), GVA share (2.2%), Employment share (0.4%).
- Insurance & Pension Services: Export share (1.0%), GVA share (1.5%), Employment share (0.4%).
- AV & Related Services: Export share (0.5%), GVA share (0.7%), Employment share (0.14%).
- Postal & Courier: Export share (0.03%), GVA share (0.4%), Employment share (0.4%).

### 5. Strategic Classification of Sectors and Way Forward

#### 5.1 Sectors to Defend: High Export & GVA, Low Employment Share

These are sectors where India already has a strong position, with high export and/or GVA shares and relatively low employment, indicating high productivity. These sectors should be defended to maintain or slightly grow their global competitiveness.

#### i. Computer & Information Services

- Strategy: Defend and Maintain Leadership
- R&D and Innovation: Ensure continued global leadership in software services, IT consulting, cybersecurity, and AI. Foster R&D hubs and increase focus on high-value areas like cloud computing, AI, machine learning, and data analytics.
- Workforce Upskilling: Focus on high-level technical skills to support the demand for advanced services.
- Global Partnerships: Strengthen partnerships with international corporations to ensure continued access to high-growth markets, especially in the U.S., Europe, and Asia-Pacific.

#### ii. Professional, Scientific & Other Business Services

- Strategy: Defend and Expand
- Global Market Access: Expand the consulting, engineering services, and R&D market share by capitalizing on India's strengths in technical expertise and cost efficiency.
- Innovation in Business Services: Foster growth in engineering R&D, management consulting, and legal services for global firms.
- Vertical Integration: Promote diversification into high-demand sectors like AI-driven consulting, data science, and financial advisory services to capture more value in the global supply chain.

#### 5.2 Sectors to Accelerate: Low-moderate Export, Moderate-high GVA & Employment Share

These sectors have substantial potential for growth but need investment in infrastructure, innovation, or digital transformation to fully leverage their competitive advantages.

#### i. Trade & Repair

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- Strategy: Accelerate through Digitalization and E-commerce
- E-Commerce Platforms: Invest in platforms that can facilitate B2B and B2C trade both domestically and internationally. Create a robust network of digital trade solutions for small and medium enterprises (SMEs) to access global markets.



- Supply Chain Optimization: Promote automation in warehousing, AI for inventory management, and robotics in repair services to improve labour productivity.
- Market Diversification: Target export markets for repair services, especially in automotive and electronics sectors, where India can offer competitive labour rates combined with skill.

#### ii. Transport

- Strategy: Accelerate with Digital Infrastructure
- Invest in Smart Logistics: Adopt AI, IoT, and blockchain technologies to improve the efficiency and reliability of India's transport and logistics network. This can improve productivity and reduce operational costs, making Indian transport services more competitive globally.
- Regional Expansion: Leverage India's geographic location as a hub for trade with Southeast Asia, Africa, and the Middle East.
- Public-Private Partnerships: Strengthen smart transport infrastructure, including modern ports, airports, and railway networks.

#### iii. Education

- Strategy: Accelerate with Digital Platforms
- Online Education: Develop and scale online education platforms to cater to both domestic and international students, positioning India as a leader in the global education services market.
- Vocational and Skill Training: Focus on expanding vocational training and skill development services, both domestically and for international markets, to meet the growing demand for skilled labour.
- International Collaborations: Strengthen partnerships with global universities and institutions to offer joint degree programs and attract international students.

#### iv. Financial Services

- Strategy: Accelerate through Innovation and Digital Expansion
- Fintech Ecosystem: Promote the growth of fintech services, including digital payments, blockchain, and mobile banking, to tap into the growing demand for digital financial solutions.
- International Market Access: Expand the global reach of Indian financial services, especially in emerging markets, through partnerships and digital innovations.
- Regulatory Simplification: Work towards simplifying regulations and ensuring ease of doing business in the financial sector to attract global investments.

#### **5.3** Sectors to Transform: Low Export, GVA, & Employment Share

These are sectors that have significant potential but are currently underperforming in terms of exports, GVA and employment share. Significant effort is needed to improve productivity, innovation, and global market reach.

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#### i. Travel

- Strategy: Transform into a Premium, Niche Market
- Shift to High-Value Tourism: Focus on promoting medical tourism, luxury tourism, and ecotourism to attract high-value tourists.
- Digital Transformation: Develop digital platforms to market tailored travel packages and immersive experiences, including virtual tourism.
- Sustainability Focus: Invest in sustainable tourism practices, positioning India as a leader in eco-tourism and wellness tourism.

#### ii. Health

- Strategy: Transform with Digital Health and Medical Tourism
- Telemedicine and Remote Health Solutions: Expand India's telemedicine infrastructure, especially targeting underserved regions and global markets, particularly in Africa and Southeast Asia.
- Medical Value Tourism Hub: Position India as a global leader in affordable healthcare and medical tourism, offering competitive advantages in specialized treatments like cardiology, orthopaedics, and cosmetic surgery.
- Health Tech Innovation: Foster growth in health-tech startups, such as digital health records, remote monitoring, and AI-driven diagnostics.

#### iii. Personal, Cultural & Recreational Services

- Strategy: Transform through Global Reach and Niche Markets
- Wellness Tourism: Promote wellness tourism, focusing on yoga, meditation, and traditional healing practices, capitalizing on the growing global demand for health and wellness retreats.
- Digital Content: Expand the export of India's cultural and recreational content, including movies, music, and digital entertainment, to global markets through platforms like Netflix, Amazon Prime, and YouTube.
- Targeted Products: Create specialized recreational and cultural services tailored to global markets, such as regional films, art, and heritage tourism.

#### **5.4 Untapped Sectors:** *Negligible Export, GVA & Employment Share*

These sectors are currently underperforming in terms of exports, GVA, and employment share. While they have growth potential, efforts should focus on consolidation - improving efficiency, increasing market share within existing boundaries, reducing risks, and ensuring sustainability.

#### i. Telecommunications

- Strategy: Consolidate with Technological Upgrades
- 5G Infrastructure: Focus on expanding 5G networks domestically and internationally to enhance India's telecom infrastructure.



- Telecom Exports: Strengthen India's position as a regional leader in telecom by exporting services and infrastructure to neighbouring countries and emerging markets.
- Technology Partnerships: Collaborate with global telecom players to upgrade networks and improve service quality, especially in rural and underserved areas.

#### ii. Insurance & Pension Services

- Strategy: Consolidate with Digital Solutions
- Micro-Insurance: Promote digital insurance models like micro-insurance and insurtech solutions to meet the needs of emerging markets and underserved populations.
- Customer-Centric Products: Focus on developing innovative, customer-centric insurance products that can cater to both domestic and international needs, especially in areas like health, life, and property insurance.
- Digital Transformation: Simplify insurance processes and improve accessibility through digital platforms and apps.

#### iii. Audio-Visual & Related Services

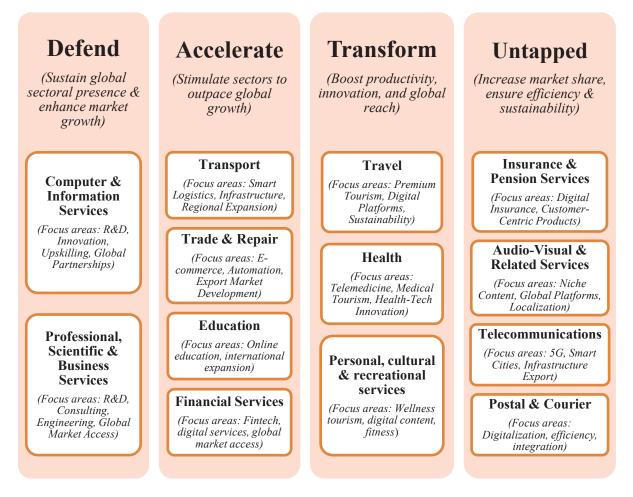
- Strategy: Consolidate and Expand Reach
- Global Content Creation: Focus on producing niche content such as Bollywood movies, regional films, and digital content for global streaming platforms like Netflix and Amazon Prime.
- Localization: Expand reach by focusing on localization, including dubbing and subtitling, to cater to non-English-speaking international markets.
- Digital Platforms: Expand India's audio-visual offerings on global digital platforms, including creating content for YouTube and other OTT services.

#### iv. Postal & Courier

- Strategy: Consolidate through Digital Integration
- E-Commerce Integration: Improve postal and courier services by integrating digital technologies to support the growth of e-commerce.
- Efficiency Improvements: Focus on automation, tracking technologies, and streamlining logistics to enhance the efficiency and competitiveness of the postal sector.
- Cross-Border Services: Expand international postal and courier services to meet the growing demand for global e-commerce deliveries.



#### **Table 3: Summary of Strategic Recommendations:**



From the analysis in this paper, it is clear that India's services sector must adopt a multipronged approach to sustain growth and enhance global competitiveness. For sectors where India already excels, such as Computer & Information Services and Professional, Scientific & Business Services, the focus should be on defending leadership through continued innovation, R&D, and upskilling the workforce while streamlining regulations to reduce regulatory burden. In high-potential sectors like Transport, Telecommunications, and Trade & Repair, the emphasis should be on accelerating growth by investing in digital infrastructure, smart logistics, and 5G technologies, alongside improving ease of doing business and fostering public-private partnerships. Underperforming sectors such as Health and Travel require a transformational approach, promoting medical tourism and telemedicine, and focusing on high-value tourism while positioning India as a global leader in these areas. For sectors like Insurance and Audio-Visual Services, efforts should focus on consolidation, enhancing digital solutions, and improving global market reach through content localization and tailored insurance products. Ultimately, regulatory streamlining, simplification, and investment in technology will be key to unlocking the full potential of India's services sector.

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# 6. Annexures

#### Annexure I Heuristic Concordance Table

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S. No.	Category	Exports Category	Employment Category	GVA Category
1	Trade & Repair	<ul> <li>9. c.</li> <li>i) Trade related services – commission on exports / imports iv) Inward remittance for maintenance of offices in India viii) Commission agent services ix) Wholesale and retailing trade services.</li> <li>x) Maintenance and Repair Services</li> </ul>	Division 45: Wholesale and retail trade and repair of motor vehicles and motorcycles Division 46: Wholesale trade, except of motor vehicles and motorcycles Division 47: Retail trade, except of motor vehicles and motorcycles Division 95: Repair of computers and personal and household goods	1.1.1. Trade and repair services
2	Computer & Information services	<ul> <li>5. b) Software services</li> <li>5. c) Information Services (News agency)</li> <li>9.c. vi) Publishing and printing services</li> </ul>	Division 58: Publishing activities Division 62: Computer programming, consultancy and related activities Division 63: Information service activities	2.2.4. Information and computer related services
3	Government n.i.e.	4) Government Not Included Elsewhere	Division 84: Public administration and defence; compulsory social security	3.1. Public administration and defence

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S. No.	Category	Exports Category	Employment Category	GVA Category
4	Financial Services	7) Financial services	Division 64: Financial service activities, except insurance and pension funding Division 66: Other financial activities	<ul> <li>1.2.4.a. Financial intermediation services indirectly measured</li> <li>2.1.1. Monetary financial institutions</li> <li>2.1.2. Other financial corporations</li> <li>2.2.1. Financial intermediation services indirectly measured</li> </ul>
5	Others	<ul><li>8) Royalties, copyright and license fees</li><li>13) Other Services not included elsewhere</li></ul>	Division 97: Activities of households as employers of domestic personnel Division 98: Undifferentiated goods and services producing activities of private households for own use Division 99: Activities of extraterritorial organizations and bodies	3.2.6. Private household with employed person
6	Education	10.b. iv) Educational services (e.g. fees received for correspondence courses offered to non-resident by Indian institutions)	Division 85: Education	3.2.1. Education
7	Health	10.b. v) Health Service (Receipts on account of services provided by Indian hospitals, doctors, nurses, paramedical and similar services etc. rendered remotely or on-site)	Division 86: Human health activities Division 87: Residential care activities Division 88: Social work activities without accommodation	3.2.2. Health & social work



S. No.	Category	Exports Category	Employment Category	GVA Category
8	Personal, cultural & Recreational services	<ul> <li>10. b.</li> <li>i) Entertainment services</li> <li>ii) Museums, library and archival services</li> <li>iii) Recreation and sporting activity services</li> <li>vi) Other Personal, Cultural &amp; Recreational services</li> </ul>	Division 90: Creative, arts and entertainment activities Division 91: Libraries, archives, museums and other cultural activities Division 92: Gambling and betting activities Division 93: Sports activities and amusement and recreation activities Division 94: Activities of membership organizations Division 96: Other personal service activities	3.2.3. Services of membership organisations 3.2.4. Arts, entertainment and recreation 3.2.5. Personal services including -washing, hair dressing, custom tailoring and funeral related services
9	Telecommunications	5. a) Telecommunication services	Division 61: Telecommunications	1.2.4.c. Teleco- mmunication
10	Travel	1) Travel	Division 55: Accommodation Division 56 Food and beverage service activities Division 79: Travel agency, tour operator and other reservation service activities	1.1.2. Hotels and restaurants
11	Insurance & Pension Services	<ul><li>3) Insurance</li><li>(*includes Pension services)</li></ul>	Division 65: Insurance, reinsurance and pension funding, except compulsory social security	2.1.3. Insurance corporation and pension funds

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S. No.	Category	Exports Category	Employment Category	GVA Category
12	Professional, scientific & other business services (including R&D)	<ul> <li>9. a) Research &amp; Development</li> <li>9.b) Professional and management consulting services</li> <li>9.c.</li> <li>ii) Operational leasing services (other than financial leasing) without operating crew, including</li> <li>charter hire- Airlines</li> <li>companies</li> <li>iii) Agricultural</li> <li>services like</li> <li>protection against</li> <li>insects &amp; disease,</li> <li>increasing of harvest</li> <li>yields, forestry</li> <li>services.</li> <li>v) Environmental</li> <li>Services like onsite</li> <li>processing services</li> <li>analysis of ores etc.</li> <li>x) Operational leasing</li> <li>services (other than financial leasing)</li> <li>without operating</li> <li>crew, including</li> <li>charter hire- Shipping</li> <li>companies</li> <li>xi) Other Technical</li> <li>Services including</li> <li>services including</li> <li>services on physical</li> <li>inputs owned by</li> <li>others</li> </ul>	Division 68: Real estate activities Division 69: Legal and accounting activities Division 70: Activities of head offices; management consultancy activities Division 71: Architecture and engineering activities; technical testing and analysis Division 72: Scientific research and development Division 73: Advertising and market research Division 74: Other professional, scientific and technical activities Division 75: Veterinary activities Division 77: Rental and leasing activities Division 78: Employment activities Division 80: Security and investigation activities Division 81: Services to buildings and landscape activities Division 82: Office administrative, office support and other business support activities	2.2.2. Real estate 2.2.3. Ownership of Dwellings 2.2.5. Professional, scientific & technical services including R & D 2.2.6. Administrative & support service activities and Other professional Activities
13	Postal & Courier	2. d) Postal & courier services	Division 53: Postal and courier activities	1.2.4.b. Post & courier activities



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S. No.	Category	Exports Category	Employment Category	GVA Category
14	AV & related services	10. a) Audiovisual and related services	Division 59: Motion picture, video and television programme production, sound recording and music publishing activities Division 60: Broadcasting and programming activities	1.2.4.d. Cable operators, recording, publishing & broadcasting services
15	Transport	<ul> <li>2.</li> <li>a) Sea Transport</li> <li>b) Air Transport</li> <li>c) Freight on exports</li> <li>e) Others (includes port charges, bunker, stevedoring, demurrage and other port facilities)</li> </ul>	Division 49: Land transport and transport via pipelines Division 50: Water transport Division 51: Air transport Division 52: Warehousing and support activities for transportation	1.2.1. Railways 1.2.2. Transport by other means 1.2.3. Storage
	Construction	while real estate servic under 'Other Business	have been excluded from res (employment and GV Services'. This sector is apping it within the GVA	A) are included not considered

2	2011-12 2012-13 2013-14	4 2014-15	5 2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
9	Г	L	8	8	8	8	6	10	10	10.8
21	21	21	21	21	20	20	20	21	20	19.7
10	10	10	6	6	6	6	6	L	6	8.3
2	7	2	2	2	2	2	2	1	1	1.8
21	20	20	20	20	21	21	21	18	19	19.5
0	0	0	0	0	0	0	0	0	0	0.3
10	10	10	6	6	6	6	6	10	10	9.5
5	7	5	3	5	3	3	2	5	7	2.2
5	0	5	5	1	2	1	1	1	1	1.5
		1		1	1	1	1	1	1	0.7
7	5	7	7	7	8	8	8	6	8	8.3
12	11	11	11	11	12	11	11	13	12	11.1
4	4	4	4	4	4	3	4	5	3	2.7
3	ю	3	3	3	3	3	3	3	ю	3.3
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
100 1	100	100	100	100	100	100	100	100	100	100

### Identifying Potential Service Sub-Sectors: Insights from GVA, Exports, and Employment Data

Annexure II

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Annexure III

Employment share (%) across 15 major service sectors (excluding construction) in India

2023-24	4.0	5.9	14.0	6.9	36.0	4.4	3.2	0.3	0.3	0.2	10.2	4.8	4.8	4.5	0.4	100.0
2022-23	4.0	5.8	13.8	6.6	36.7	4.1	2.8	0.4	0.4	0.1	10.6	4.8	5.1	4.3	0.4	100.0
2021-22	3.8	6.3	14.1	6.1	36.3	4.2	3.1	0.4	0.4	0.2	9.9	5.1	5.3	4.3	0.6	100.0
2020-21	2.5	6.1	14.7	5.9	39.2	2.1	2.9	0.5	0.5	0.2	11.5	5.0	4.8	3.7	0.5	100.0
2019-20	2.5	6.1	14.7	5.9	39.2	2.1	2.9	0.5	0.5	0.2	11.5	5.0	4.8	3.7	0.5	100.0
2018-19	2.3	6.6	14.7	5.9	34.7	3.8	3.2	0.6	0.5	0.2	12.0	5.1	5.9	4.0	0.5	100.0
2017-18	2.3	7.0	15.4	6.2	34.1	3.5	2.9	0.7	0.5	0.2	12.2	5.2	5.5	3.9	0.5	100.0
Category	Computer & Information services	Professional, scientific & other business services (including R&D)	Transport	Travel	Trade & Repair	Others	Financial Services	Telecommunications	Insurance & Pension Services	AV & related services	Education	Government n.i.e.	Personal, cultural & Recreational services	Health	Postal & Courier	Total
S. No.	1	5	ε	4	S	9	L	~	6	10	11	12	13	14	15	

Source: PLFS Annual Reports

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#### Annexure IV

# NIC-2008 Industry group Classification for services sector

Section G Wholesale and retail trade; repair of motor vehicles and motorcycles
Division 45 Wholesale and retail trade and repair of motor vehicles and motorcycles
Division 46 Wholesale trade, except of motor vehicles and motorcycles
Division 47 Retail trade, except of motor vehicles and motorcycles
Section H Transportation and storage
Division 49 Land transport and transport via pipelines
Division 50 Water transport
Division 51 Air transport
Division 52 Warehousing and support activities for transportation
Division 53 Postal and courier activities
Section I Accommodation and Food service activities
Division 55 Accommodation
Division 56 Food and beverage service activities
Section J Information and communication
Division 58 Publishing activities
Division 59 Motion picture, video and television programme production, sound recording
and music publishing activities
Division 60 Broadcasting and programming activities
Division 61 Telecommunications
Division 62 Computer programming, consultancy and related activities
Division 63 Information service activities
Section K Financial and insurance activities
Division 64 Financial service activities, except insurance and pension funding
Division 65 Insurance, reinsurance and pension funding, except compulsory social
security
Division 66 Other financial activities
Section L Real estate activities
Division 68 Real estate activities
Section M Professional, scientific and technical activities
Division 69 Legal and accounting activities
Division 70 Activities of head offices; management consultancy activities
Division 71 Architecture and engineering activities; technical testing and analysis
Division 72 Scientific research and development



- Division 73 Advertising and market research
- Division 74 Other professional, scientific and technical activities
- Division 75 Veterinary activities
- Section N Administrative and support service activities
- Division 77 Rental and leasing activities
- **Division 78 Employment activities**
- Division 79 Travel agency, tour operator and other reservation service activities
- Division 80 Security and investigation activities
- Division 81 Services to buildings and landscape activities
- Division 82 Office administrative, office support and other business support activities

#### Section O Public administration and defence; compulsory social security

Division 84 Public administration and defence; compulsory social security

#### **Section P Education**

Division 85 Education

#### Section Q Human health and social work activities

Division 86 Human health activities

Division 87 Residential care activities

Division 88 Social work activities without accommodation

#### Section R Arts, entertainment and recreation

Division 90 Creative, arts and entertainment activities

Division 91 Libraries, archives, museums and other cultural activities

Division 92 Gambling and betting activities

Division 93 Sports activities and amusement and recreation activities

#### Section S Other service activities

Division 94 Activities of membership organizations

Division 95 Repair of computers and personal and household goods

Division 96 Other personal service activities

# Section T Activities of households as employers; undifferentiated goods- and services producing activities of households for own use

Division 97 Activities of households as employers of domestic personnel

Division 98 Undifferentiated goods- and services-producing activities of private households for own use

#### Section U Activities of extraterritorial organizations and bodies

Division 99 Activities of extraterritorial organizations and bodies



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#### Annexure V

# Comparison of Selected Sectors: Differences between RBI and UNCTAD/WTO Classifications

S. No.	Selected Sectors	RBI	UNCTAD & WTO	Description
1	Travel	1) Travel	SD) Travel	Travel services cover goods and services acquired from an economy by travellers during visit of less than a year in the economy.
2	Transport	<ul> <li>2) Transport</li> <li>a) Sea Transport</li> <li>b) Air Transport</li> <li>c) Freight on exports</li> <li>e) Others (includes port charges, bunker, stevedoring, demurrage, and other port facilities)</li> </ul>	SC) Transport SC1) Sea transport SC2) Air transport SC3) Other modes of transport (other than sea and air)	Transport services cover the movement of people and goods via various modes, including sea, air, rail, road, internal waterways, pipelines, space transport, and electricity transmission. It includes both passenger and freight services.
3	Postal & courier services	2. d) Postal & courier services	SC4) Postal & courier services	These services encompass the pickup, transport, and delivery of letters, newspapers, periodicals, brochures, other printed matter, parcels, and packages by national postal administrations and other operators, along with post office counter and mailbox rental services.
4	Insurance & pension services	<ul><li>3) Insurance</li><li>(*includes Pension services)</li></ul>	SF) Insurance and pension services	Insurance and pension services cover life and non-life insurance, annuities, reinsurance, freight insurance, pensions, standardized guarantees, and related auxiliary services.
5	Government n.i.e.	4) Government Not Included Elsewhere	SL) Government goods and services n.i.e.	Government services n.i.e. covers all services (such as expenditures of embassies and consulates) associated with government sectors or international and regional organizations and not classified under other items.



S. No.	Selected Sectors	RBI	UNCTAD & WTO	Description
6	Telecommunication services	5. a) Telecommunication services	SI1) Telecommunications services	Telecommunications services include the transmission of sound, images, data, and information via various mediums, including mobile, internet, and broadcast services, excluding installation and database services.
7	Computer & Information Services	<ul> <li>5. b) Software services</li> <li>5. c) Information Services (News agency)</li> <li>9. c. vi) Publishing and printing services</li> </ul>	SI2) Computer services SI3) Information services	It includes resident/ non-resident transactions related to hardware consultancy, software implementation, information services (data processing, data base, news agency), and maintenance and repair of computers and related equipment.
8	Construction	6) Construction services	SE) Construction	Construction services involve the creation, renovation, repair, or extension of buildings and infrastructure, including related installation, assembly, specialized services, and project management, with goods and services acquisitions recorded based on the location of the work.
9	Financial Services	7) Financial services	SG) Financial services	Financial services include intermediary and auxiliary services provided by banks and financial institutions, such as deposit taking, lending, financial advisory, asset management, credit rating, and payment clearing, excluding insurance and pension services.



S.	No.	Selected Sectors	RBI	UNCTAD & WTO	Description
]	10	Others	<ul><li>8) Royalties, copyright and license fees</li><li>13) Other Services not included elsewhere</li></ul>	SH) Charges for the use of intellectual property n.i.e.	This includes charges for the use of proprietary rights (e.g., patents, trademarks, copyrights) and licenses to reproduce or distribute intellectual property, such as books, software, films, and broadcasts.
	11	Professional, scientific & other business services (including R&D)	<ul> <li>9.a) Research &amp; Development</li> <li>9.b) Professional and management consulting services</li> <li>9.c)</li> <li>ii) Operational leasing services</li> <li>(other than financial leasing) without</li> <li>operating crew, including charter</li> <li>hire- Airlines</li> <li>companies</li> <li>iii) Agricultural</li> <li>services like</li> <li>protection against</li> <li>insects &amp; disease,</li> <li>increasing of harvest</li> <li>yields, forestry</li> <li>services like on-site</li> <li>processing services</li> <li>analysis of ores etc.</li> <li>x) Operational leasing</li> <li>services (other than financial leasing)</li> <li>without operating</li> <li>crew, including</li> <li>charter hire- Shipping</li> <li>companies</li> <li>xi) Other Technical</li> <li>Services including</li> <li>services.</li> <li>Xi) Other Technical</li> <li>Services on physical</li> <li>inputs owned by</li> <li>others</li> </ul>	SJ1) Research and development (R&D) SJ2) Professional and management consulting services SA) Manufacturing services on physical inputs owned by others	Research and development services involve basic and applied research, experimental development, and commercial research across various fields, including the sale of patents. Professional and management consulting services cover legal, accounting, consulting, advertising, and market research, while manufacturing services include processing and assembly on goods owned by others for a fee.



S. No.	Selected Sectors	RBI	UNCTAD & WTO	Description
12	Trade & Repair	9. c. Technical, trade- related, and other business services i) Trade related services – commission on exports / imports iv) Inward remittance for maintenance of offices in India viii) Commission agent services ix) Wholesale and retailing trade services. 11) Maintenance and Repair Services	SJ3) Technical, trade- related, and other business services SB) Maintenance and repair services n.i.e.	SJ3 Includes: (a) architectural, engineering, and other technical services; (b) waste treatment and depollution, agricultural, and mining services; (c) operating leasing services; (d) trade-related services; and (e) other business services SB) Maintenance and repair services n.i.e. cover repair work by residents on non-resident-owned goods and vice versa, performed either on-site or elsewhere. This includes repairs on ships, aircraft, and other transport equipment, but excludes construction- related maintenance and repairs, which fall under construction
13	AV & related services	10. a) Audiovisual and related services	SK1) Audiovisual and related services	Audiovisual and related services consist of services and fees related to the production of motion pictures (on film, videotape, disk, or transmitted electronically, etc.), radio and television programs (live or on tape), and musical recordings

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S. No.	Selected Sectors	RBI	UNCTAD & WTO	Description
14	Personal, cultural & Recreational services (including Health & Education)	<ul> <li>10. b. Personal,</li> <li>cultural &amp;</li> <li>Recreational services</li> <li>i) Entertainment</li> <li>services</li> <li>ii) Museums, library,</li> <li>and archival services</li> <li>iii) Recreation and</li> <li>sporting activity</li> <li>services</li> <li>vi) Other Personal,</li> <li>Cultural &amp;</li> <li>Recreational services</li> </ul>	SK2) Other personal, cultural, and recreational services (other than audiovisual and related)	Includes health services, education services, and others (associated with museums and other cultural, sporting, gambling, and recreational activities, except those included in travel. The fees and prizes of athletes are included.)
15	Education	10.b. iv) Educational services (e.g., fees received for correspondence courses offered to non-resident by Indian institutions)	Data for these sub- sectors are not available on UNCTAD/ WTO. Hence, these	
16	Health	10.b. v) Health Service (Receipts on account of services provided by Indian hospitals, doctors, nurses, paramedical and similar services etc. rendered remotely or on-site)	sub-sectors have been included under 'Personal, cultural & Recreational services (including Health & Education)'.	



Annexure VI

S. No.	Sectors	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	Professional, scientific & other business services (including R&D)	20.1	23.8	23.3	23.4	25.4	26.0	26.5	27.6	29.0	33.2	34.0	35.0	36.3
2	Computer & Information services	34.5	33.3	34.9	34.1	34.9	32.6	30.6	30.0	30.3	33.7	34.5	31.8	31.6
С	Travel	13.4	12.7	12.4	12.8	13.8	14.2	16.0	15.4	15.0	6.7	3.8	7.1	9.6
4	Transport	13.4	12.3	11.4	12.1	9.4	9.6	9.9	10.2	10.3	10.7	12.8	12.5	8.7
5	Trade & Repair	9.1	9.5	8.4	8.3	7.8	8.8	8.7	7.7	7.3	7.4	6.9	5.9	5.7
9	Financial Services	4.7	3.8	4.3	3.7	3.5	3.2	2.6	2.9	2.4	2.1	2.2	2.4	2.5
L	Telecommunications	1.2	1.1	1.5	1.4	1.4	1.5	1.3	1.3	1.4	1.4	1.3	1.1	1.5
∞	Construction	0.6	0.7	0.8	1.0	1.0	1.3	1.3	1.7	1.4	1.4	1.2	1.1	1.2
6	Insurance & Pension Services	2.0	1.6	1.4	1.5	1.3	1.3	1.4	1.4	1.2	1.2	1.3	1.1	1.0
10	Personal, cultural & Recreational services	0.2	0.3	0.5	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.8	0.7	0.8
11	AV & related services	0.1	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5
12	Others	0.2	0.2	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.6	0.4	0.4	0.5
13	Government n.i.e.	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2
14	Postal & Courier	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: UNCTADstat

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