



Tracking Services

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Tracking Services

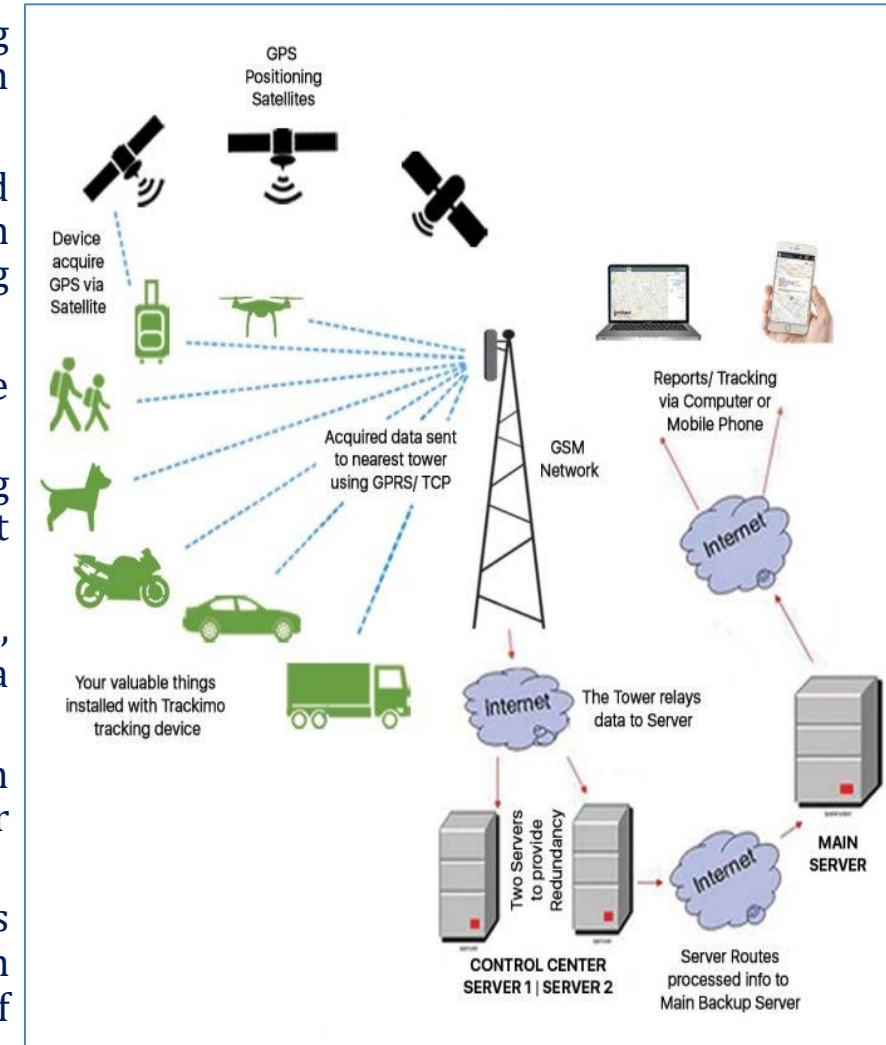
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Tracking Services

Introduction

- Tracking Services are used to monitor the data of objects on the go. Tracking is becoming an increasingly important tool for businesses that require real-time information pertaining to vehicle fleets, personnel or merchandise.
- With this variable information, organizations are able to improve efficiency and productivity. In addition, individual users have a greater degree of convenience with navigational applications, for instance, tracking their packages and deliveries when using online services.
- Tracking Services are based on the convergence of several technologies that can be merged to create tracking systems. These technologies include:
 - Geographic Information Systems (GIS)** – Used for large-scale location-tracking systems, geographic information systems can capture, store, analyze, and report geographic information.
 - Global Positioning System (GPS)** – radio navigation system that allows land, sea, and airborne users to determine their exact location, velocity, and time 24 hours a day, in all weather conditions, anywhere in the world.
 - Radio Frequency Identification (RFID)** – Small, battery-less microchips that can be attached to consumer goods, cattle, vehicles, and other objects to track their movements. RFID tags are passive and only transmit data if prompted by a reader.
 - Wireless Local Area Network (WLAN)** - A wireless local-area network (WLAN) is a group of collocated computers or other devices that form a network based on radio transmissions rather than wired connections. A Wi-Fi network is a type of WLAN.



Tracking Services

Global | Overview

- The tracking service market size was estimated at USD~27.8bln in CY24 and is expected to grow to USD~96.1bln by CY34 at a CAGR of ~13.2%. The global GPS tracking device market was estimated to be worth USD~3.1bln in CY23 (CY22: USD~2.9bln), up ~6.9% YoY, and is expected to reach USD~5.7bln by CY28, at a compound annual growth rate (CAGR) of ~13.1%. North America is predicted to have the highest market share of ~33.5% in CY24. The emergence of smart sensors has resulted in increased fleet management solutions technology adoption in this region.
- Over the projection period of CY24-34, the market size of the Asia Pacific Tracking Services is expected to grow at a CAGR of ~14.4%.
- The global demand for Tracking Services is surging due to the increasing need for safety and efficiency in semi-autonomous and autonomous vehicles. The integration of 5G technology, the rising popularity of car rental services, and a heightened focus on passenger safety are the key drivers. Additionally, the global adoption of intelligent transportation systems is fueling the demand for advanced tracking solutions worldwide.
- Global players in the Tracking Services sector include Sierra Wireless Inc. (Canada), Atrack Technology Inc. (Taiwan), TomTom International B.V. (Netherlands), Orbcomm Inc. (US), Shenzhen Concox Information Technology Co. Ltd. (US), Meitrack Group (China), and Global Tracking Group, LLC (US). Each brings unique expertise and innovation to the industry.

Tracking Services

Market Segmentation

By Type

Passive Tracking: The passive tracking unit gathers data that needs to be downloaded from the tracker. During CY24-30, the passive type segment is expected to grow at a CAGR of ~9.4%.

Active Tracking: Active tracking units collect the data and transmit it in near-real-time via cellular or satellite networks to a computer or data center for evaluation. This segment dominates the market and is expected to grow at the fastest rate of ~14.6% by CY30.

By Technology

GPS/Satellite: Global Positioning System is a navigation technology reliant on a satellite system based in space. It is anticipated to grow at a CAGR of ~12.6% over the forecast period (CY24-CY32). The expansion can be attributed to increased sales of commercial vehicles and the adoption of cloud technology and IoT in the healthcare, automotive, logistics, and defense industries.

GPRS/Cellular Networks: GPRS vehicle tracking system uses the data network to transmit information. The market is segmented by technology type into GPS/satellite, GPRS/cellular network, and dual-mode.

By Vehicles

Passenger Car: Tracking systems used in consumer vehicles as a theft prevention, monitoring and retrieval device. Using a tracking system by app-based transportation and renting business like Ola, Uber, Careem and Lyft.

Commercial Vehicle: Tracking system implemented by businesses with fleet operations in industries like transportation, construction, specialty services, delivery etc. Increased domestic and international logistical shipments via road transport are anticipated to contribute in the growth of this segment.

By Application

Software: provides insight into fleet activity and operational performance. Tracking software includes features such as fleet analytics, real-time alerts for traffic and maintenance, vehicle diagnostics etc.

Hardware: Small unit or device fitted to the vehicle which transmits data via satellite or cellular network.

Tracking Services

Applications

A comprehensive real-time location tracking and analytics solutions put geographical and location data to good use by extracting valuable insights. These insights can be used in a variety of applications, a few of which are stated as follows:

- **Driver Behaviour Analysis:** Driving behavior scoring algorithms help customers ensure that the drivers follow their rules and maintain driving excellence.
- **Advance Fleet Management:** Utilizing evolutionary algorithms that incorporate actual delivery time and other real-time data for daily route calculation, increasing efficiency and reducing overall mileage and fuel costs.
- **Container/Shipment Tracking:** Container tracking product tracks and monitors containers and provides critical supply chain visibility and security, transforming trip data into billing and insurance records.
- **Location-based Advertising:** Proximity marketing uses beacons and mobile infrastructure to locate customers and collect data about their movements. This data is used to analyze customer behavior and patterns to enhance their shopping experience by providing suggestions on what they might need.
- **Navigation & Route Planning:** With route planning and navigation services, customers can make their driving path more efficient and more optimal, using real-time traffic information such as accidents and construction zones.
- **Usage-based Insurance:** Utilizes telematics devices installed in customer vehicles to allow the insurance company to monitor driving habits.
- **Predictive Maintenance:** Telematics devices collect an enormous amount of fuel system data and engine data such as engine revolutions per minute, engine oil level, transmission, mileage driven, tire pressure, and more. Based on all the engine data and the historical records of maintenance and repair, predictive analysis provides precautionary breakdown and maintenance notifications, as well as the recommended solutions.

Tracking Services

Local | Demand Drivers

- Automobile Sales:** The Tracking Services sector derives a significant portion of its demand from the automobile industry as vehicle tracking is the most commonly used application of tracking technology. During FY24, automobile sales, comprising cars, buses & trucks, jeeps, and LCVs dipped by ~18.5% YoY as against FY23 (~54.3%) due to high inflation, and high interest rates.
- Online Applications:** There is an increasing trend of service delivery apps catered towards providing consumers with maximum convenience, especially post-COVID-19. The COVID-19 outbreak has further augmented this trend as various restrictions made consumers reliant on apps for the delivery of food, groceries, and other items. Tracking Services within these apps enable users to keep tabs on the status of their deliveries.
- New Business Opportunities:** Connected cars, SAAS (Software as a Service) Products - Location Based Services Platform (Enterprise Location APIs), and DART (configurable location and monitoring management solution).
- Cargo-Tracking:** The development and initiations in Inter-port movement, selected Transshipment cargo. This involves enhancing infrastructure and streamlining processes to improve the efficiency of cargo movement between ports. Selected transshipment cargo focuses on prioritizing high-demand or strategic goods, utilizing hub ports and advanced handling systems to reduce costs and turnaround times.



Tracking Services

Local | Overview

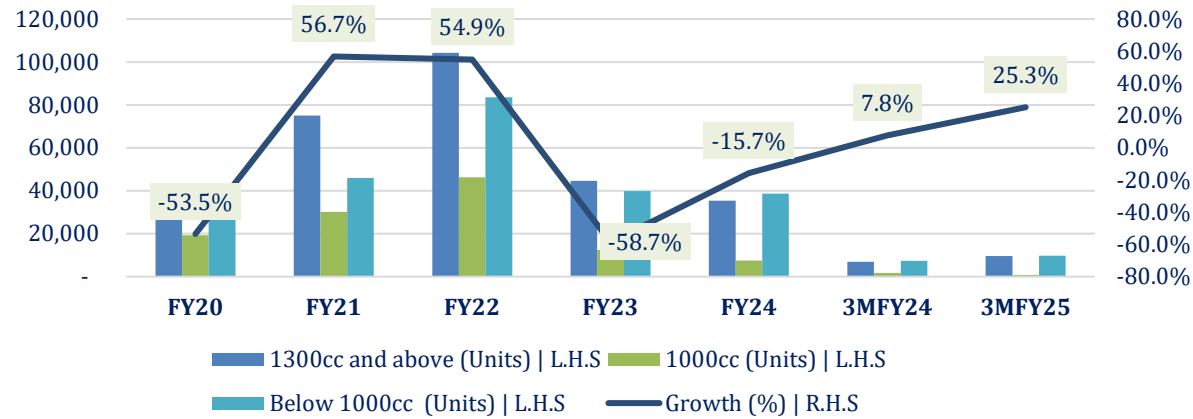
- The Tracking Services sector is a sub-segment of both the broader technology and logistics industries. The sector is a mix of both product and service-based/solution providers.
- During FY24, the sector's gross revenue was recorded at PKR~6,521mln (FY23: PKR~5,365mln) , up ~21.5% YoY.
- Only one firm (TPL Trakker Limited having ~39% market share as of FY24), providing Tracking Services in the country, is listed on the Pakistan Stock Exchange, while the rest are private firms.
- During FY24, the number of cars, trucks, buses, jeeps, and LCVs sold was ~81,577 units, ~2,187 units, ~454 units, ~15,027 units, and ~7,223 units, respectively.
- Even though vehicles are the main demand driver for the sector, not all vehicles in the country use Tracking Services.

Overview	Units	FY22	FY23	FY24
Gross Revenue	PKR mln	5,014	5,365	6,521
Revenue Growth	%	11.70%	7.00%	21.5%
Contribution to GDP	%	0.01%	0.01%	0.01%
Car Sales	Nos.	234,180	96,811	81,577
Truck Sales	Nos.	5,802	3,182	2,187
Bus Sales	Nos.	696	654	454
Jeep Sales	Nos.	27,608	24,190	15,027
LCVs Sales	Nos.	17,479	5,877	7,223
Structure	Competitive			
Regulator	Pakistan Telecommunication Authority			
Associations	Pakistan Automotive Manufacturers Association			

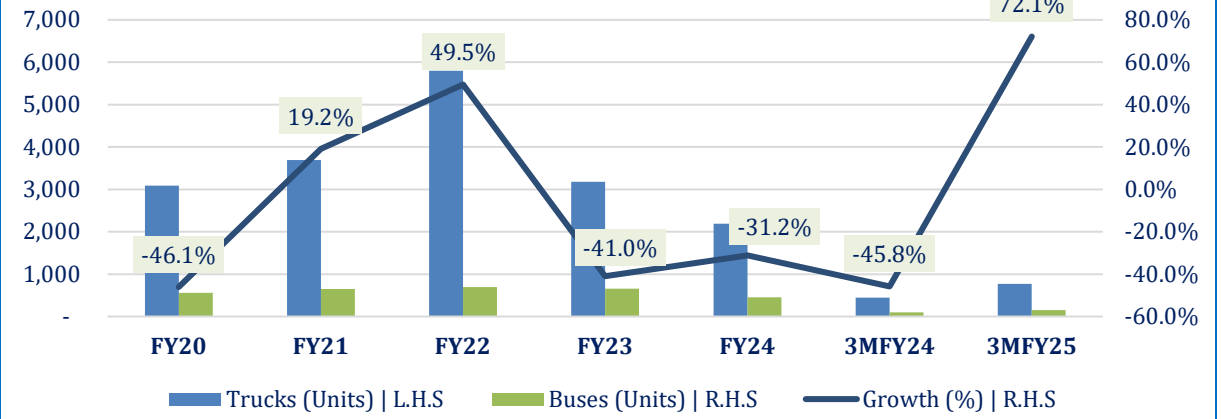
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Local | Automobile Offtake

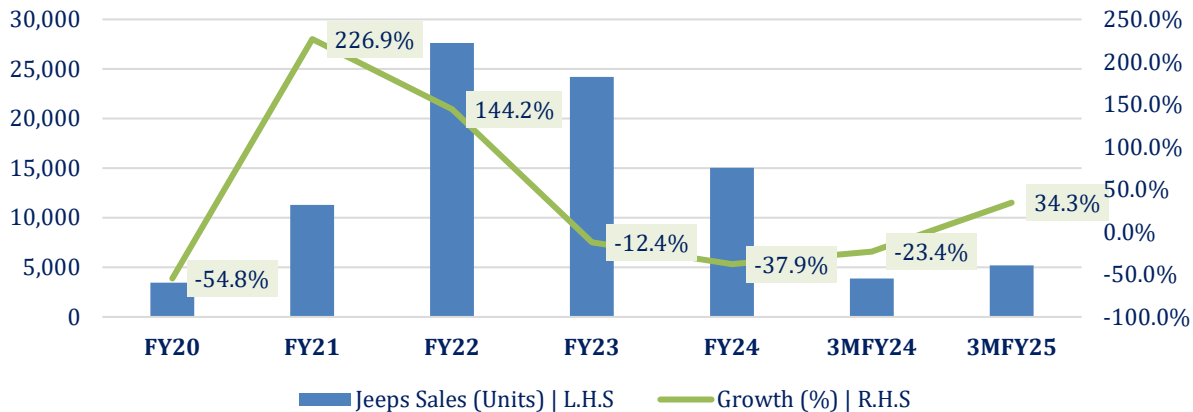
Passenger Cars | Offtake



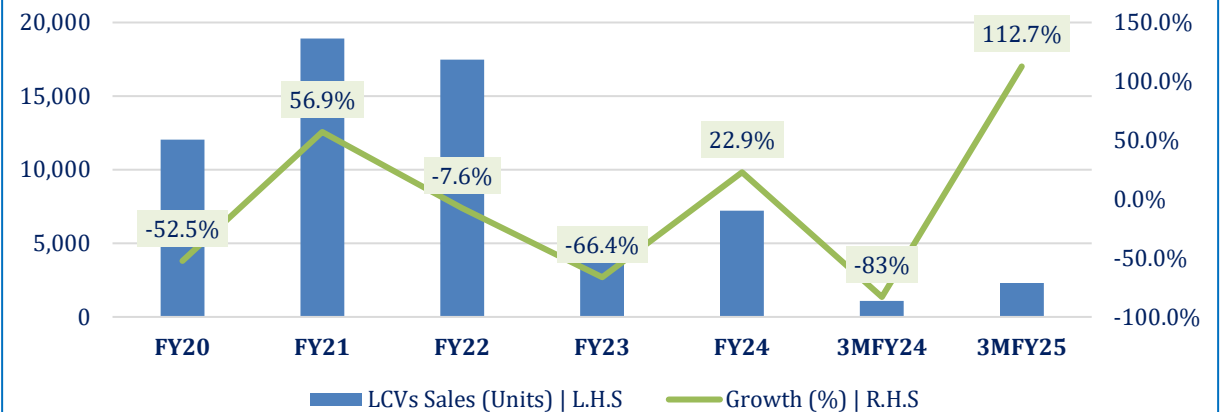
Trucks & Buses | Offtake



Jeeps | Offtake



LCVs | Offtake



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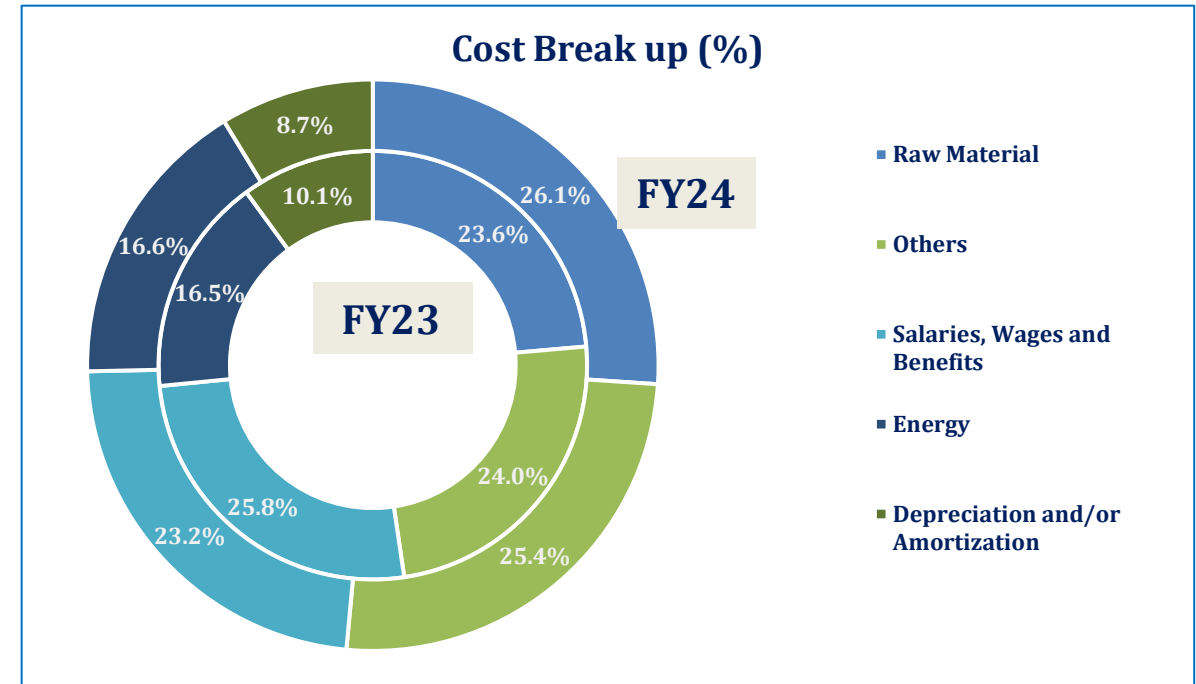
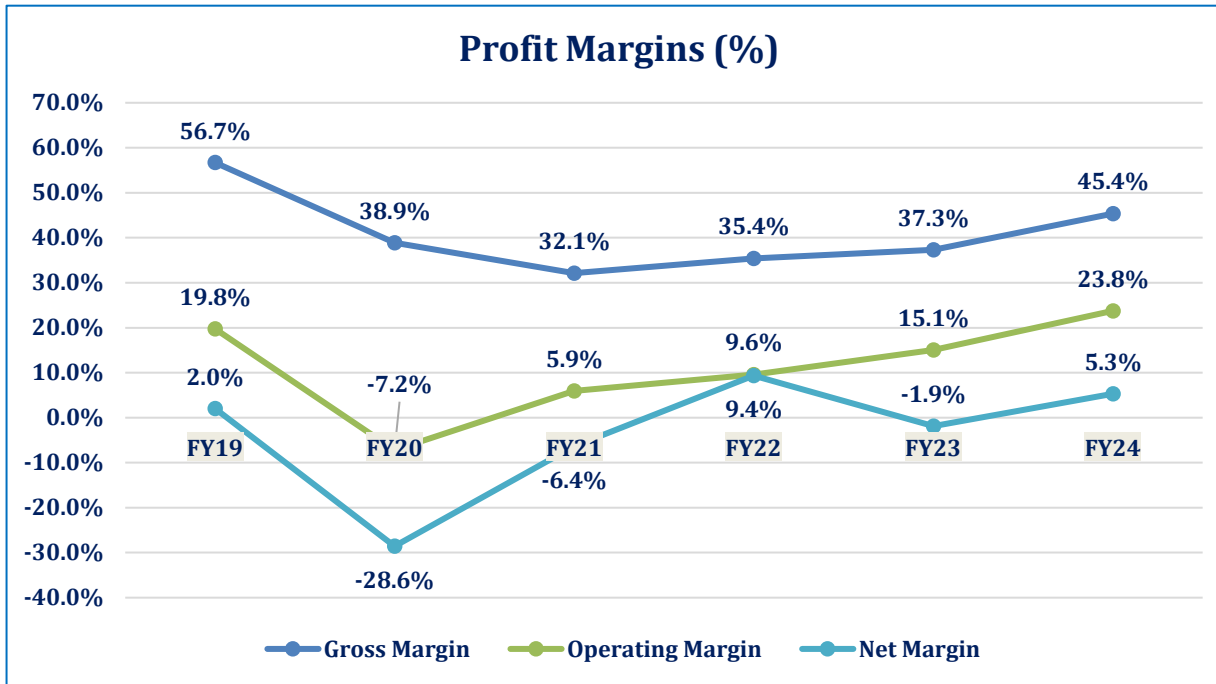
Local | Business Risk

- **Increasing Competition:** The competition in the GPS tracking services sector in Pakistan has grown considerably over the last few years. With increasing demand for fleet management, vehicle tracking, asset security, and personal safety, numerous companies have entered the market, providing a wide range of tracking solutions. Several Pakistani companies provide GPS tracking services, some of which are well-established, while others are newer entrants looking to capture market share. Companies such as Tracki, Cartrack, Systech, and Ravi Technosys are examples of local providers that cater to various customer needs, from individual vehicle owners to large corporations.
- **B2B Model:** Since many players within the industry are involved in providing services to other businesses, their demand depends on conditions in these client industries. If the overall economy or any client industry or sector is not doing well, it would hamper the creation of new demand for the players providing Tracking Services.
- **Digital Literacy:** Mobile phone usage in Pakistan has increased exponentially in recent years and has resulted in increased digital literacy among the population. However, the majority of the population, particularly those residing in rural areas or belonging to low-income groups, remain lacking in digital literacy, particularly regarding advanced technologies. As a result, this limits or restricts the potential of the Tracking Services market catered towards consumers.
- **Interest Rate:** The sector is dependent on the offtake of the automobile industry. An increase in policy rate affects the financing of vehicles and a higher finance cost will put a strain on profitability. Interest rates currently stand at ~13.0% and are expected to further reduce to single-digit by the end of FY25, due to a continuous decline in inflation (Nov'24 CPI: ~4.9%). This would increase sales in the auto industry, increasing demand for tracking services.
- **Data Privacy Infringement:** Data related to vehicles contains sensitive information, such as vehicle make, drivers' details, and routes traversed. The data can be exploited for carrying out malicious or criminal activities. Data privacy infringement is a major reason for end customers to stop using vehicle tracking systems.
- **Imported Raw Material:** Impact on revenue due to disruption in the supply chain as the industry is heavily dependent on the import of raw material from China and the USA. Also, the depreciation of PKR can affect the profitability of the industry.
- **High R&D Costs:** In order to ensure competitiveness and prevent technological obsolescence in the future, there is a need for significant research and development in the industry. As a result, the R&D costs of the industry can be quite high and many R&D projects may not result in fruitful outcomes as desired.

Tracking Services

Business Risk | Margins & Cost Structure

- During FY24, the sector's gross margin increased to ~45.4% (FY23: ~37.3%), up ~37.4% YoY. The rise in gross margin was driven by sales increasing by ~12.7%, while the cost of sales declined by ~1.8% during FY24, YoY. The revenue base is anticipated to further expand in the coming periods, fueled by growth in the CPEC and transshipment projects.
- During FY24, the operating margin improved and clocked in at ~23.8% (FY23: ~15.1%) on account of ~77.8%, YoY, higher operating profit. Net margin increased considerably from ~-1.9% in FY23 to ~5.3% in FY24 due to higher net profit and a ~3.9% YoY lower finance cost.
- The two largest components of direct costs for the sector are equipment costs and salaries & wages. The sector requires a technically proficient and skilled labor force. During FY24, salaries and wages accounted for ~23.2% of total direct costs (FY23: ~25.8%), while equipment (raw material) was composed of ~26.1% of the total direct cost (FY23: ~23.6%), being the largest cost driver.

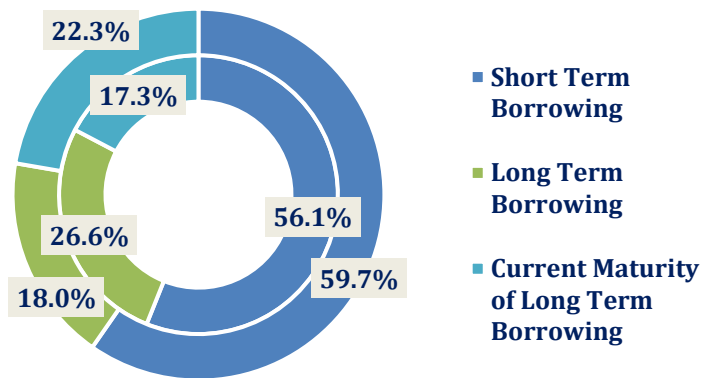


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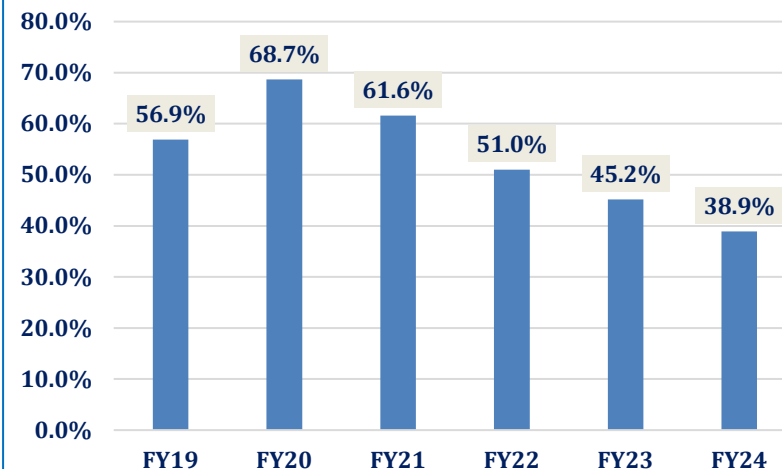
Financial Risk | Borrowings

- During FY24, the sector's total borrowing stood at PKR~1,597mln compared to PKR~1,953mln during FY23 down ~18.2%, YoY. During FY24, long-term borrowing stood at PKR~288mln (FY23: PKR~520mln), down ~44.6% YoY. Meanwhile, short-term borrowing stood at PKR~953mln (FY23: PKR~1,095mln), down ~13.0%. In addition, the current maturity of long-term borrowing (CMLTB) was recorded at PKR~356mln (FY23: PKR~338mln), up ~5.3% YoY.
- Short-term borrowing comprised the major chunk (~59.7%) in the total borrowing mix (FY23: ~56.1%), followed by long-term borrowing with ~18.0% share in the total borrowing (FY23: ~26.6%), while CMLTB made up ~22.3% of the total borrowing (FY23: ~17.3%).
- The sector's debt leverage ratio over the years (FY20-FY24) has decreased due to lower borrowing levels. During FY24, the sector's leverage was recorded at ~38.9% (FY23: ~45.2%), indicating a moderate level of financial risk.
- The sector's coverage ratio improved during FY24 and was recorded at ~1.3x (FY23: ~1.0x) on the back of a higher EBITDA, lower borrowing, and lower finance cost.

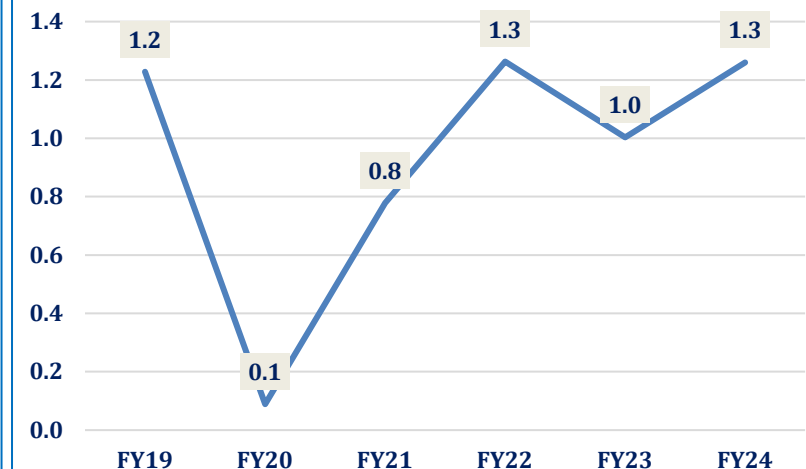
Borrowing Mix (%)



Leverage (%)



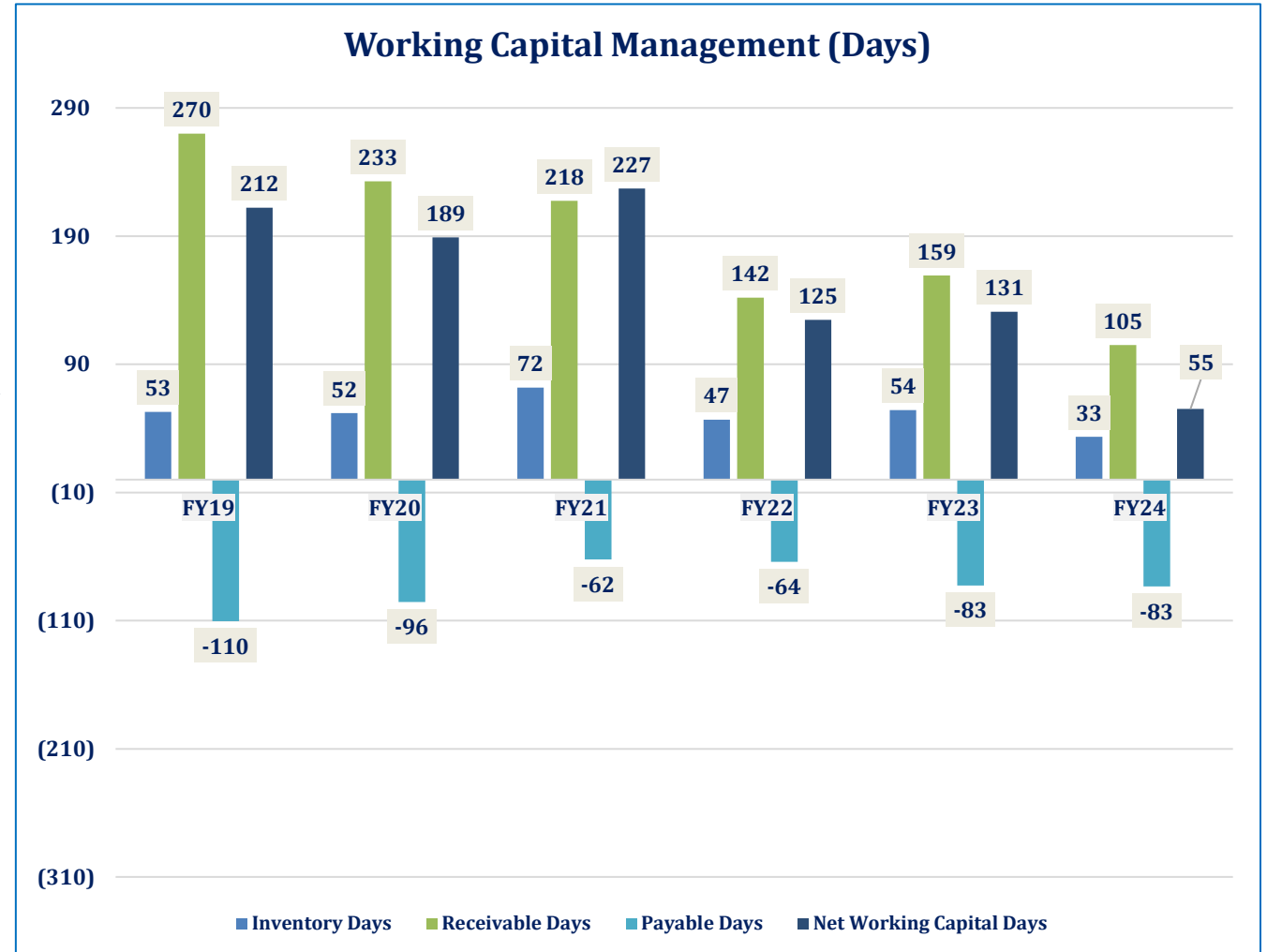
Coverage (Times)



Tracking Services

Financial Risk | Working Capital Management

- The net working capital cycle of the sector, on average, was close to ~200 days from FY18-FY21. The longer operating cycle is due to the credit policy adopted by the sector, as the subscriptions are mostly renewed quarterly or annually.
- However, beginning FY22, the sector’s average working capital has improved (FY22-FY24).
- During FY24, the sector’s net working capital days were recorded at ~55 days (FY23: ~-131 days).
- During FY24, the inventory days declined considerably to ~33 days (FY23: ~54 days), while the receivable days declined from ~159 days in FY23 to ~105 days during FY24. Meanwhile, the payable days remained constant in FY24 at ~83 days.



Note: Working Capital Days are reflective of a single Listed/PACRA rated player.

Tracking Services

Regulatory Framework

- Businesses involved in the Tracking Services industry must get a Data Class Value Added Services (CVAS) License from the Pakistan Telecommunication Authority (PTA). This license covers two main services: vehicle tracking and internet/data services.
- The table shows the initial fees for getting this license. Besides, companies need to pay an Annual License Fee, which is 0.5% of their gross yearly income from the services covered by the license. For non-profit CVAS licenses, the Annual License Fee is fixed at PKR 5,000 per year.
- The process of obtaining the license includes submitting relevant documents to the PTA including Memorandum & Articles of Association, along with a Technical Network Plan which lays out detailed technical architecture showing a mechanism for service delivery. The CVAS License is valid for a period of fifteen years.
- After obtaining the license, the organization must also obtain a commencement certificate which is issued after an inspection of the organization's network and equipment.

Initial License Fee	Nationwide	Provincial*
Commercial	PKR 300,000	PKR 100,000*
Non-Profit	PKR 1,500,000	PKR 50,000

**PKR~50,000 for Baluchistan*

Tracking Services

SWOT

- Conducive environment due to presence of IT Parks, Tech SEZs and start-up Incubators.
- Large population with access to smartphones.
- Technology-based ventures using Tracking Services including delivery services.
- Availability of skilled workers.



- B2B players are dependent on conditions in client industries and sectors such as the automobile industry.
- Low level of digital literacy amongst a portion of the country's population, particularly in rural areas.
- High R&D costs in order to maintain competitive advantage.

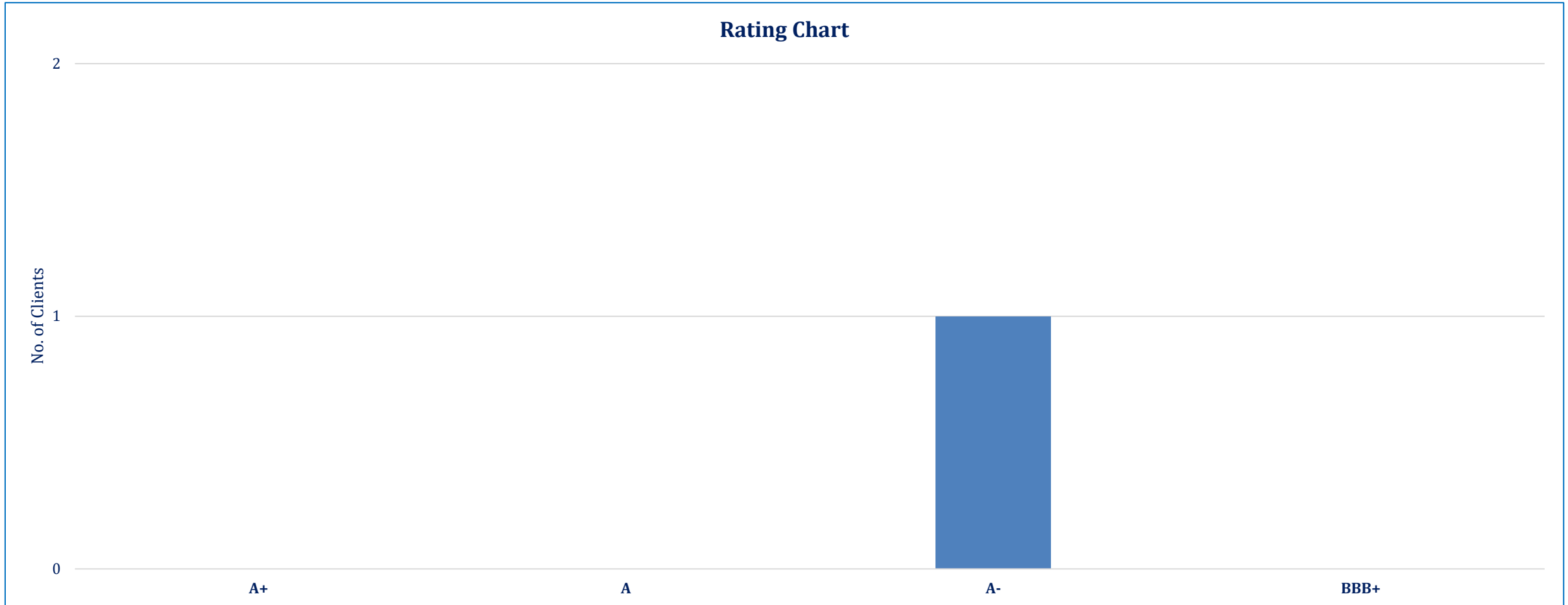
- Technological obsolescence, if new technology is introduced.
- Increasing level of competition in the industry may further reduce margins.

- Growing urbanization and digital literacy has increased demand for online services, apps and e-commerce platforms.
- Introduction of new players in automobile segment has expanded the market for vehicle Tracking Services.
- CPEC projects and SEZs expected to increase the demand for cargo tracking and fleet management.

Tracking Services

Rating Curve

PACRA rates 1 client in the Tracking Services sector, with a rating of A-.



Tracking Services

Outlook: Stable

- Pakistan's economy is expected to grow by ~3.2% in FY25 (IMF estimate) (FY24: ~2.5%). This is expected to increase the demand for the automobile industry, in turn benefitting the Tracking Services sector, as the sector highly depends on the automobile industry.
- With the economy expected to grow in FY25, the local automobile sector is likely to see improvement due to range-bound fuel prices and a general decline in inflation and interest rates. Consequently, the Tracking Services sector is anticipated to benefit as well.
- The outgoing FY24 saw a decline in automobile sales; however, the 1QFY25 saw a resurgence of the automobile industry as sales volumes picked up marginally. This trend is expected to pick up slightly further due to better macroeconomic indicators suggesting ease in inflationary pressure, lower interest rates, and economic growth. This would benefit the Tracking Services industry, as demand would pick up for its products.
- During FY24, the revenue of the industry increased by ~21.5%, YoY. This was mainly achieved due to increased security concerns, growth in e-commerce and delivery businesses, and increased government regulations on its vehicles. The revenue base is anticipated to further expand in the coming periods, fueled by growth in the CPEC and transshipment projects.
- During FY24, the sector's total borrowing stood at PKR~1,597mln compared to PKR~1,953mln during FY23, down ~18.2% YoY. Going forward, the sector's borrowings are expected to increase in FY25 on the back of declining interest rates and expected business growth, breaking the streak of declining borrowings, lately. Since many new local players are entering the market, especially in the delivery business and e-commerce, expansions and working capital requirements can increase the borrowing needs with an added advantage of lower interest rates.
- The country's National CPI stood at ~4.9% during Nov'24 (Oc'24: ~7.2%), the Monetary Policy Committee (MPC) cut the policy rate by ~200bps from ~15.0% to ~13.0%, in the recent MPC meeting held on December 16, 2024. A further cut in policy rate is expected as inflation continues its downward trend, and it is estimated that the policy rate will decline to single-digit by the end of FY25, providing the industry a decent chance to further take advantage.
- Additionally, the sector players are actively working to diversify their revenue streams, particularly through segments like Safe, Transport, and Environment (STE). As a result, the sector's performance is likely to remain stable going forward.

Tracking Services

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