China Automotive Acoustic Engineering Services Market By Vehicle Type (Passenger Car, Commercial Vehicle), By Propulsion Type (ICE, Electric, Others), By Application Type (Drivetrain, Powertrain, Body & Structure, Interior, Others), By Offering (Physical Acoustic Testing, Virtual Acoustic Testing), By Process (Designing, Development, Testing), By Region, Competition Forecast & Opportunities, 2019-2029F

Market Report | 2024-12-31 | 85 pages | TechSci Research

AVAILABLE LICENSES:

- Single User License $3500.00
- Multi-User License $4500.00
- Custom Research License $7000.00

Report description:

China Automotive Acoustic Engineering Services Market was valued at USD 682.11 Million in 2023 and is expected to reach USD 999.79 Million by 2029 with a CAGR of 6.58% during the forecast period. The Asia-Pacific Semi & Fully Autonomous Vehicle Market is expanding rapidly due to advancements in AI, machine learning, and sensor technologies, which are enhancing vehicle automation. Growth drivers include increasing demand for enhanced safety features, regulatory support, and investments from key automotive manufacturers and tech companies. The trend towards vehicle electrification and the integration of autonomous systems with electric vehicles is accelerating the market's expansion. Opportunities lie in partnerships between automotive and tech companies to innovate in autonomous vehicle technologies. Challenges such as high development costs, regulatory hurdles, and consumer acceptance remain significant obstacles. Concerns about cybersecurity and infrastructure readiness continue to impact market growth. For instance, China's vehicle sales grew 12% to a record 30.09 million units in 2023, surpassing a 3% growth target. The rise was attributed to higher global demand, particularly for Chinese electric vehicles, fierce competition among automakers, and a recovery in commercial vehicle demand. With 30.09 million units sold, China remains the world's largest automobile seller, with overseas shipments growing 58% to 4.91 million units. China could potentially outstrip top exporter Japan, which is forecast to ship 4.3 million units.

Market Drivers

Rapid Growth of the Automotive Industry

China has become the world's largest automotive market, with a robust domestic industry and a growing consumer base. The sheer volume of vehicles being produced and sold in China is a major driver of the Automotive Acoustic Engineering Services Market. As the automotive industry expands, there is a heightened focus on enhancing vehicle comfort, including noise reduction. Consumers in China increasingly demand quieter and more comfortable vehicles, driving the need for acoustic engineering services to achieve these goals.

Consumer Demand for Quieter Vehicles

Chinese consumers have become more discerning when it comes to the quality of their vehicles. Noise levels in vehicles, particularly in premium and luxury segments, are a significant consideration. Consumers associate a quiet and comfortable cabin environment with higher quality and superior driving experiences. As a result, automakers and manufacturers are investing in acoustic engineering to reduce noise, vibration, and harshness (NVH) levels, which is a key selling point for vehicles in the Chinese market.

Focus on Electric and Hybrid Vehicles

China is at the forefront of electric vehicle (EV) and hybrid vehicle adoption, with government incentives and policies promoting clean and green transportation. EVs and hybrids operate quietly, which makes cabin noise and NVH levels more noticeable. For Instance, in 2024, Chinese EV maker Nio has launched a new lower-priced brand called Onvo, with the first vehicle being the Onvo L60 SUV. The Onvo L60 is priced 12% lower than Tesla's Model Y in China, and it aims to compete with both the Model Y and Toyota's RAV4. As a result, there is a heightened emphasis on acoustic engineering for electric and hybrid vehicles to ensure a comfortable and noise-free driving experience, further boosting the demand for acoustic engineering services.

Key Market Challenges

Integration of EV and Hybrid Technologies

The rapid adoption of electric vehicles (EVs) and hybrid vehicles in China presents a unique and fascinating challenge for acoustic engineers. As EVs operate silently, it brings to light previously unnoticed noises within the vehicle cabin, making achieving the desired level of acoustic comfort a complex task. To tackle this challenge, innovative approaches such as active noise cancellation systems and the utilization of advanced soundproofing materials are necessary. By seamlessly integrating these cutting-edge technologies, acoustic engineering service providers strive to not only enhance the acoustic comfort but also maintain energy efficiency, creating a harmonious and eco-friendly driving experience for EV enthusiasts.

Cost-Effective Solutions

Providing cost-effective acoustic engineering solutions is a challenge in a highly competitive automotive market. Automakers and manufacturers in China are under pressure to keep production costs in check while delivering quieter and more comfortable vehicles. Balancing cost-effectiveness with the adoption of advanced acoustic technologies is a delicate task. Engineering services must find ways to meet stringent noise standards without significantly increasing manufacturing costs, which can impact vehicle affordability and market competitiveness.

Technological Complexity

The development and implementation of advanced acoustic engineering solutions require a high degree of technological expertise. Engineers need to stay updated with the latest technologies, simulation tools, and materials to address noise and vibration issues effectively. Keeping up with rapid technological advancements in acoustic engineering is challenging, as it requires continuous learning and investment in research and development. Service providers must navigate this ever-evolving landscape to offer state-of-the-art solutions to automakers.

Market Competition

The China Automotive Acoustic Engineering Services Market is not only highly competitive but also a rapidly evolving landscape, with numerous domestic and international players vying for lucrative contracts with leading automakers. In this fiercely competitive environment, service providers face immense pressure to not only offer cutting-edge solutions but also deliver them at competitive prices, without compromising on quality. The Chinese automobile market currently has 150 active brands, including 97 domestic brands and 43 joint venture brands. According to Zhu Huarong, chairman of Changan Automobile, 60%-70% of brands are expected to face closure and transfer in the next 2-3 years, leading to idle production lines. The market cannot

accommodate hundreds of brands, and both local Chinese brands and JV car companies are facing structural market changes. Some brands, such as Zotye, Lifan, Borgward, WM, AIWAYS, Mitsubishi, Renault, and Acura, have been forced to withdraw due to intense competition. To truly stand out and establish a strong foothold in this crowded market, acoustic engineering firms must go beyond the conventional approaches and differentiate themselves through continuous technological innovation, unparalleled cost-effectiveness, and an impeccable track record of successfully delivering comprehensive noise reduction solutions to their esteemed clients. By staying ahead of the curve and consistently pushing the boundaries of acoustic engineering, these firms can forge long-lasting partnerships with automakers and pave the way for a quieter and more comfortable driving experience for millions of customers across China.

Key Market Trends

Electric Vehicle (EV) Acoustics

One prominent trend in the China Automotive Acoustic Engineering Services Market is the growing focus on the acoustics of electric vehicles (EVs). As China leads the global shift toward electrification, automakers are investing heavily in EV development. Unlike traditional internal combustion engine vehicles, EVs operate almost silently, which can accentuate other noise sources within the vehicle, such as tire noise, wind noise, and component vibrations.

Acoustic engineers are working to ensure that EVs offer a quiet and comfortable cabin environment. This includes the development of advanced active noise cancellation systems, soundproofing materials, and vibration control technologies. The goal is to provide EV drivers and passengers with a serene driving experience while meeting stringent noise regulations.

Customized Acoustic Solutions

China's automotive market is diverse, catering to various vehicle types and consumer preferences. As a result, customization has become a key trend in the China Automotive Acoustic Engineering Services Market. Automakers are seeking acoustic solutions tailored to specific vehicle categories, including compact cars, SUVs, luxury sedans, and commercial vehicles.

Customization involves understanding the unique characteristics and usage patterns of each vehicle type and designing acoustic engineering solutions accordingly. For example, an electric SUV may require different noise reduction strategies compared to a compact city car. This trend emphasizes the importance of versatility and adaptability in the services offered by acoustic engineering firms.

Integration of Active Noise Control

Another noteworthy trend is the integration of active noise control (ANC) systems into vehicles. ANC technology uses microphones to pick up interior noise, which is then processed and countered by generating sound waves of equal amplitude but with an inverted phase. This process effectively cancels out unwanted noise, providing a quieter cabin environment.

As consumers in China seek premium and comfortable driving experiences, ANC has gained popularity. Acoustic engineering services are increasingly involved in designing and implementing ANC systems in vehicles. This technology not only reduces engine and road noise but also allows automakers to enhance cabin acoustics by creating a more refined and peaceful atmosphere.

Segmental Insights

Application Type Insights

The Body & Structure segment is the dominating segment in the China Automotive Acoustic Engineering Services Market due to several key factors. As vehicles become more advanced, reducing noise and vibrations within the cabin has become essential for enhancing the overall driving experience. The body and structural components of a vehicle play a significant role in managing these noise and vibration factors. With rising consumer expectations for quiet, comfortable rides, manufacturers are investing heavily in acoustic engineering services to optimize these elements.

In China, where the automotive market is growing rapidly, OEMs and suppliers are focusing on integrating better soundproofing materials and design modifications within the body and structure of vehicles. The adoption of lightweight materials, such as aluminum and composite materials, requires specific acoustic engineering solutions to ensure noise control and vibration reduction. Advancements in electric vehicles (EVs), which are inherently quieter than traditional internal combustion engine (ICE) vehicles, have led to increased demand for acoustic treatments within the body and structure to improve interior sound quality and passenger comfort.

Stringent regulations regarding noise and vibration levels in both urban and rural environments also contribute to the growth of

this segment. As regulatory bodies enforce stricter standards for noise emissions, automotive manufacturers are compelled to employ advanced acoustic engineering services in body and structure design to comply with these standards. Overall, the Body & Structure segment remains dominant due to its critical role in ensuring vehicle comfort, noise control, and compliance with environmental regulations, making it a top focus area for acoustic engineering in China.

Regional Insights

The North East region of China is the dominating area in the Automotive Acoustic Engineering Services Market due to its strong industrial base, which is home to several leading automotive manufacturers and research centers. This region, encompassing cities such as Shenyang and Changchun, has a significant concentration of both domestic and international automotive companies, making it a hub for automotive innovation and production. These manufacturers are increasingly focusing on acoustic engineering to meet rising consumer expectations for quieter, more comfortable vehicles.

The presence of well-established automotive supply chains in the North East enables efficient collaboration between vehicle manufacturers and acoustic engineering service providers, fostering the development and adoption of advanced noise and vibration control technologies. The region's proximity to key suppliers of raw materials and components, including soundproofing materials and lightweight structures, further supports the growth of this segment.

Moreover, the North East is critical for the development of electric vehicles (EVs), where acoustic considerations are particularly important due to the inherently quieter nature of EVs. As these vehicles gain popularity, the demand for specialized acoustic engineering services in the region continues to rise.

The North East's focus on technological innovation and manufacturing excellence, coupled with supportive government policies and increasing investment in automotive R&D, makes it the leading region for automotive acoustic engineering services in China. The combination of industrial infrastructure, research capability, and growing demand for vehicle acoustics positions the North East as the dominant force in this market.

Key Market Players

- Siemens AG
- Robert Bosch GmbH
- Continental AG
- Bertrandt AG
- Schaeffler Engineering GmbH
- Autoneum Management Ltd.
- Catalyst Acoustics Group
- AVL List GmbH
- EDAG Engineering Group AG
- FEV Group GmbH

Report Scope:

In this report, the China Automotive Acoustic Engineering Services Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

- China Automotive Acoustic Engineering Services Market, By Vehicle Type:
  - Passenger Car
  - Commercial Vehicle
- China Automotive Acoustic Engineering Services Market, By Propulsion Type:
  - ICE
  - Electric
  - Others
- China Automotive Acoustic Engineering Services Market, By Application Type:
  - Drivetrain
  - Powertrain
  - Body & Structure
  - Interior

- Others
- China Automotive Acoustic Engineering Services Market, By Offering:
- Physical Acoustic Testing
- Virtual Acoustic Testing
- China Automotive Acoustic Engineering Services Market, By Process:
- Designing
- Development
- Testing
- China Automotive Acoustic Engineering Services Market, By Region:
- East
- North East
- South Central
- Southwest
- North
- North West

Competitive Landscape

Company Profiles: Detailed analysis of the major companies presents in the China Automotive Acoustic Engineering Services Market.

Available Customizations:

China Automotive Acoustic Engineering Services Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Table of Contents:

China Automotive Acoustic Engineering Services Market By Vehicle Type (Passenger Car, Commercial Vehicle), By Propulsion Type (ICE, Electric, Others), By Application Type (Drivetrain, Powertrain, Body & Structure, Interior, Others), By Offering (Physical Acoustic Testing, Virtual Acoustic Testing), By Process (Designing, Development, Testing), By Region, Competition Forecast & Opportunities, 2019-2029F

Market Report | 2024-12-31 | 85 pages | TechSci Research

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$3500.00
	Multi-User License	$4500.00
	Custom Research License	$7000.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			

Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-05-08
		Signature	