

# Research on Insurance Empowering New Energy Vehicles under the Background of Automobile Direct Sales Mode

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**Abstract:** This article aims to explore how insurance empowers the sustainable development of the new energy vehicle industry under the background of automobile direct sales mode. New energy vehicles are cars that use clean energy or renewable energy as power, which have the advantages of energy saving, emission reduction, environmental protection, and low carbon, and have become the development direction of the future automobile industry. The automobile direct sales mode is a new sales model in which the automobile manufacturer directly sells cars to consumers through the Internet or self-built channels, eliminating the traditional dealer link, reducing costs and prices, improving efficiency and service quality. The automobile direct sales mode brings more market opportunities and competitive advantages to new energy vehicles, but also faces challenges such as after-sales service, product quality, and customer trust. At the same time, as a risk management tool, insurance can provide effective empowerment and protection for new energy vehicles. Insurance can not only help new energy vehicle manufacturers and consumers share risks but also enhance the brand image, market share, and customer satisfaction of new energy vehicles through data analysis, product innovation, service upgrades, and other methods. This article will analyze the value and role of insurance in new energy vehicles under the background of automobile direct sales mode, as well as the challenges and opportunities faced by insurance, and explore how to further play the role of insurance and inject new power into the development of new energy vehicles.

**Keywords:** vehicle direct sales model, new energy vehicles, insurance empowerment

## 1. Introduction

### 1.1 Background and Significance of the Research

Currently, the Chinese new energy vehicle market is developing rapidly, and the market size is expanding year by year. According to data from the China Association of Automobile Manufacturers, in 2022, China's production and sales of new energy vehicles reached 7.058 million and 6.887 million vehicles, respectively, with year-on-year growth rates of 96.9% and 93.4%, and a market share of 25.6%. At the same time, as a new type of automobile sales model, automobile direct sales mode has also developed rapidly and been widely used in the new energy vehicle market. The automobile direct sales mode enables manufacturers to sell cars directly to consumers, eliminating the traditional dealer link, reducing sales costs, improving sales efficiency, and therefore attracting attention.

However, there are some problems with new energy vehicle insurance under the automobile direct sales mode. On the one hand, new energy vehicle insurance products lack pertinence and do not match market demand; on the other hand, insurance services are insufficient to meet consumer needs. These problems not only affect the sales of new energy vehicles but also affect consumers' trust in the automobile direct sales mode. Therefore, how to empower new energy vehicle insurance has become an urgent problem to be solved.

The significance of this study is as follows: First, it has reference value for new energy vehicle manufacturers. Through this study, manufacturers can understand the problems and solutions of new energy vehicle insurance under the automobile direct sales mode, improve sales and customer stickiness, and reduce risks. Second, it has a guiding role for insurance companies. Insurance companies can understand the needs of the new energy vehicle market and the design direction of insurance products to improve the competitiveness of insurance products. Finally, it has a guiding effect on consumers.

Consumers can understand the advantages and disadvantages of new energy vehicle insurance under the automobile direct sales mode, choose insurance products that are more suitable for themselves, and improve the practicality and protection effect of insurance.

### ***1.2 Introduction to the Direct Automobile Sales Model***

The direct automobile sales model is an innovative approach to vehicle distribution, where manufacturers offer their products and services directly to consumers through their online platforms or physical experience stores, bypassing the traditional dealership channels. This paradigm's strength lies in its ability to reduce intermediary costs, enhance efficiency and profitability, and foster interaction and trust with consumers, thereby elevating brand image and loyalty. However, the direct sales model also presents certain challenges, such as managing after-sales service, maintenance, spare parts supply, and opposition from dealerships. Consequently, the successful implementation of the direct sales model necessitates manufacturers possessing robust autonomy and a spirit of innovation, as well as effective communication and coordination with consumers, government agencies, and industry associations <sup>[1]</sup>.

## **2. The Influence and Demand of the Direct Automobile Sales Model on New Energy Vehicle Insurance**

### ***2.1 Development Opportunities for New Energy Vehicle Insurance Brought by the Direct Automobile Sales Model***

The evolution of the direct automobile sales model brings forth novel opportunities for the growth of new energy vehicle insurance. In traditional vehicle insurance, insurance companies primarily collaborate with 4S stores for insurance sales. However, under the direct sales model, insurance companies can directly partner with automobile manufacturers to sell insurance, providing more superior and convenient services to consumers.

The direct sales model can stimulate innovation in new energy vehicle insurance products. Under this model, manufacturers can work closely with insurance companies to jointly develop insurance products suitable for new energy vehicles, catering to the ever-changing needs of consumers. For instance, insurance companies can develop unique insurance products for new energy vehicles, such as charging pile loss insurance, battery compensation insurance, mileage-based billing, electricity consumption-based billing, and driving behavior-based billing, to address new scenarios and demands that may arise during the use of new energy vehicles.

The direct sales model can provide insurance companies with more sales channels. Under this model, insurance companies can directly collaborate with automobile manufacturers, selling insurance products to consumers through the manufacturers' sales channels, thereby reducing sales costs and improving sales efficiency. Moreover, insurance companies can further expand their sales channels by selling insurance products to consumers through online platforms and other channels.

The direct sales model can enhance the quality of new energy vehicle insurance products, bolster brand loyalty, and increase user stickiness. Under this model, manufacturers can actively collaborate with insurance companies to jointly improve various aspects of insurance products. For example, in the case of vehicle loss insurance, manufacturers can provide more detailed vehicle maintenance records, enabling insurance companies to more accurately estimate compensation amounts.

### ***2.2 Potential Challenges Brought by the Direct Automobile Sales Model to New Energy Vehicle Insurance***

As the direct automobile sales model gradually becomes prevalent in the new energy vehicle market, it brings new opportunities, but it may also pose some potential challenges and risks to the insurance industry.

The difficulty of product design and pricing increases. Insurance companies need to design insurance products that meet consumer needs based on the information provided by manufacturers. This requires in-depth research and analysis of the technology, performance, and risks of new energy vehicles. There are still some disputes and opaqueness regarding the maintenance costs, residual value, and safety of new energy vehicles, which may lead to biases in the risk assessment and pricing of insurance companies for new energy vehicles.

Insurance companies have relative difficulty in obtaining data and analysis. Under the direct sales model, it is challenging for insurance companies to directly obtain actual vehicle usage data from consumers, such as vehicle usage frequency, driving routes, and driving habits, which are crucial for insurance companies. Insurance companies need to obtain this data through other means, such as cooperating with third-party data providers, but this increases the cost and difficulty for insurance companies.

Insurance services under the direct sales model also face potential challenges. Specifically, the sales channels for insurance services under this model have narrowed. Automobile manufacturers often emphasize their own “brand insurance” during the sales process, neglecting the exposure of other insurance companies.

### ***2.3 Demand for New Energy Vehicle Insurance Brought by the Direct Automobile Sales Model***

The direct automobile sales model creates certain demands for new energy vehicle insurance, mainly manifested in the following aspects:

Comprehensive risk protection solutions that adapt to the characteristics of new energy vehicles: Automobile manufacturers need to design insurance schemes that conform to the performance and functions of new energy vehicles based on their characteristics and needs. For example, the battery, motor, control system, and other core components of new energy vehicles are high-value, high-sensitivity, and high-maintenance-cost items, so there needs to be specific insurance to cover their damage, failure, replacement, and other situations.

Reducing consumers’ vehicle insurance costs through financial innovation: For instance, automobile manufacturers can cooperate with insurance companies to launch mileage-based insurance products, or adjust insurance rates in real-time based on the vehicle’s usage and driving behavior. In this way, consumers can choose the most suitable insurance scheme according to their vehicle usage needs and habits, saving insurance expenses.

Leveraging insurance to increase the profit margin of new energy vehicles: Automobile manufacturers need to leverage insurance products to develop aftermarket services for new energy vehicles, increasing the added value and profit margin of new energy vehicles. For example, by providing exclusive additional insurance such as charging pile insurance and intelligent driving software insurance, they can offer more diversified and personalized services to consumers. At the same time, automobile manufacturers can also obtain more insurance income and share through cooperation with insurance companies, increasing their own profit margin.

## **3. Models and Practices of Insurance Empowering New Energy Vehicle Business**

### ***3.1 Insurance Empowerment Cases of Different Market Entities***

(1) Automobile manufacturers directly enter the car insurance market - Tesla Brand Insurance: Tesla is a pioneer of the direct automobile sales model and a leader in new energy vehicles. Tesla has launched its own insurance services in countries such as the United States, Germany, and Australia, pricing based on real-time vehicle data and driving behavior, providing consumers with more reasonable and convenient insurance schemes <sup>[2][3]</sup>.

(2) Automobile manufacturers lead through insurance to empower new scenarios - NIO Battery Leasing Guarantee Service: NIO has launched an innovative battery leasing service, where consumers can choose to buy cars without batteries, then rent batteries on a monthly basis and enjoy free battery replacement and charging services. NIO’s battery leasing service is actually a way of insurance empowering new energy vehicles, because it treats the battery as a replaceable and upgradeable component, rather than a fixed and immutable asset <sup>[4]</sup>.

(3) Automobile manufacturers use insurance as a marketing tool - Car purchase insurance marketing activities: A certain new energy vehicle brand cooperates with an insurance company to carry out a series of marketing activities, using insurance as an incentive to promote the sale and promotion of new energy vehicles.

(4) Insurance companies trying to enter the track - Ping An Good Car Owner’s exclusive insurance for new energy vehicles: Ping An Good Car Owner is China’s largest Internet car platform and a practitioner of the direct automobile sales model. Ping An Good Car Owner cooperates with several new

energy vehicle manufacturers to launch exclusive insurance products for new energy vehicles, covering special guarantees for batteries, charging piles, and maintenance.

(5) Internet platforms trying to enter the track - A leading domestic Internet insurance platform's new energy vehicle insurance supermarket: It cooperates with several new energy vehicle manufacturers to create a new energy vehicle insurance supermarket that integrates products from multiple insurance companies. This supermarket can be accessed through the car manufacturer's APP or WeChat mini program. Consumers can freely choose and compare different insurance products and schemes according to their needs and budget, and can also enjoy benefits such as coupons and cashback provided by the platform<sup>[5]</sup>.

(6) Insurance companies appear on car manufacturers' APPs - Car manufacturers become the traffic entrance for insurance companies: Insurance cooperates with new energy vehicle manufacturers to provide consumers with comprehensive car use and maintenance services. For example, Pacific Property Insurance cooperates with NIO cars to provide comprehensive protection schemes on the NIO APP, allowing consumers to enjoy free battery replacement, free towing, free maintenance, and other services when using NIO cars.

### ***3.2 Key Elements for the Success of Insurance Empowerment Cases***

(1) Deep integration of insurance companies and automobile enterprises to provide one-stop service: Under the direct automobile sales model, insurance companies establish deep cooperative relationships with automobile manufacturers, providing customized insurance products and services to meet different needs and preferences through online and offline channels. Insurance data and new energy vehicle data are shared, enabling precise pricing and risk control.

(2) Insurance companies can provide customized insurance products that conform to the characteristics of the direct sales model channel and the characteristics of new energy vehicle insurance demand: They can provide relatively higher safety guarantees, lower maintenance costs, longer service life, and other advantages; insurance companies obtain controllable claim costs and lower insurance operation costs. The value recognition of both parties in the cooperation is realized.

(3) The insurance business fits with the consumer demand of new energy vehicles: Insurance companies' in-depth research and understanding of the new energy vehicle industry, grasp of user needs and pain points, and design of insurance products and services that conform to market and user characteristics, can enhance user stickiness and loyalty.

(4) The insurance business is coordinated with the market development of new energy vehicles under the direct sales model: Insurance companies can use advanced technical means and innovative thinking to realize the intelligence, digitization, personalization, and scenarization of insurance products and services. They keep up with the rapidly evolving technology trends of new energy vehicles and follow technological innovation and progress.

## **4. Insurance Empowerment Strategy Suggestions**

### ***4.1 Insurance companies should actively embrace the transformation of the new energy vehicle market***

As important participants in the new energy vehicle market, the insurance industry should actively embrace market changes to better adapt to market demands and promote industry development.

(1) Vigorously develop financial technology: Insurance companies should use financial technology means such as big data, cloud computing, and artificial intelligence to enhance the innovation ability and service level of insurance products. For example, they can customize personalized insurance schemes for new energy vehicle users with different types and needs through data analysis and risk control models, achieving precise pricing and risk management; they can quickly promote and sell insurance products and improve user experience and conversion rates through online platforms and mobile applications, docking with automobile manufacturers or third-party platforms.

(2) Deepen cooperation with automobile manufacturers: Insurance companies should establish close strategic cooperation relationships with automobile manufacturers under the direct automobile sales model, jointly providing consumers with more comprehensive and high-quality services. They can explore data and information sharing with automobile manufacturers, achieve a deep understanding of user behavior and needs, and provide users with more accurate and personalized insurance products; they

can jointly develop new energy vehicle-specific insurance products with automobile manufacturers, such as charging pile insurance and battery leasing insurance, to increase user stickiness and satisfaction.

(3) Develop exclusive insurance products that adapt to the characteristics of new energy vehicles: Insurance companies should design exclusive insurance products that are more in line with the characteristics of new energy vehicles based on their risk characteristics and consumer needs. For example, they can provide specific guarantees for risks such as damage and spontaneous combustion of core components such as the "three-electric" system (battery, motor, electric control) of new energy vehicles; they can provide specific compensation or double the liability limit for risks such as failures and liabilities that may occur when new energy vehicles use intelligent assisted driving software and other technologies.

(4) Strengthen insurance education and publicity for consumers, improve consumers' cognition and demand for new energy vehicle insurance, and expand the scale and potential of the overall insurance market.

#### ***4.2 Automobile manufacturers should fully play the role of financial insurance empowerment and deeply cooperate with insurance companies***

With the continuous expansion of the new energy vehicle market, automobile manufacturers need to seek new growth points and profit models. Among them, financial insurance empowerment is a widely concerned and explored direction. The insurance industry has strong risk management and financial operation capabilities, can provide automobile manufacturers with diversified financial services, and can also provide car owners with comprehensive risk protection, accelerating the popularization of the new energy vehicle market. Under the direct automobile sales model, financial insurance empowerment can become a powerful means for automobile manufacturers to achieve profit growth and brand differentiation.

(1) Take the lead in establishing an open car ecosystem that includes insurance companies: Automobile manufacturers can cooperate with upstream and downstream enterprises in the automobile industry chain, power-related enterprises, insurance companies, cloud computing service providers, data analysis institutions and other partners to build an open platform to achieve data sharing, business synergy, and value innovation. Through data sharing, product innovation, service synergy and other ways, provide new energy vehicle users with higher quality, more personalized insurance services. Through the open platform, automobile manufacturers can provide customers with richer, more customized new energy vehicle ecosystem-related services and products, provide users with one-stop solutions, and continuously improve user stickiness and satisfaction.

(2) Automobile manufacturers use their own technical advantages and brand influence in the field of new energy vehicles to jointly create insurance products and services for new energy vehicles with insurance companies, solving the pain points and difficulties encountered by users in the use of new energy vehicles. For example, automobile manufacturers can cooperate with insurance companies to launch exclusive insurance schemes for problems such as battery damage, charging pile failure, insufficient cruising range, etc., provide users with battery replacement, charging pile repair, emergency rescue and other services, increase users' confidence and dependence on new energy vehicles. Automobile manufacturers can cooperate with insurance companies to develop a vehicle behavior scoring system based on vehicle data, provide users with differentiated insurance rates and preferential schemes according to users' driving habits, safety awareness, charging frequency and other factors, encourage users to improve driving behavior, reduce accident risks, and improve user stickiness and satisfaction at the same time.

(3) Promote policy support for insurance empowerment of new energy vehicles: Automobile manufacturers can invite insurance companies to participate in the formulation and implementation of policies related to new energy vehicles together, creating a good policy environment for the development of new energy vehicles. For example, insurance can work with automobile manufacturers to promote the formulation and improvement of national standards and industry norms for new energy vehicles, providing guarantees for the safety and reliability of new energy vehicles.

(4) Reduce product risk through technological innovation and meet consumers' diverse needs and personalized preferences through more abundant scenarios and products. Accelerate the technological innovation and product upgrade of new energy vehicles, improve the performance, safety, reliability and intelligence level of new energy vehicles.

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