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BUSINESS MODEL TRANSFORMATION OF AUTOMOTIVE DEALERS IN THE CONTEXT OF ELECTRIFICATION, DIGITALIZATION, AND OEM TRANSITION TO DIRECT SALES

Summary. *The automotive retail sector is undergoing structural change driven by three converging forces: the rapid growth of battery-electric vehicle (BEV) adoption, the digitalization of the purchase journey, and the adoption of agency sales models by original equipment manufacturers (OEMs). This paper examines how traditional franchised dealerships can reconfigure their business models to remain commercially viable under these pressures. Using a systematic literature review, comparative case analysis of European OEM agency model rollouts (BMW, Mercedes-Benz, Stellantis), and content analysis of industry reports, the study identifies four strategic response pillars: EV service capability development, omnichannel retail integration, data-driven revenue diversification, and agency model contractual adaptation. The analysis finds that dealers relying on new vehicle sales margins for more than 40 % of gross profit face the steepest exposure, while those with developed service and parts operations possess a natural transition advantage. The paper proposes an Integrated Dealer Transformation Framework that maps pressure vectors to concrete operational responses. Findings will be of*

interest to dealership operators, OEM retail strategy teams, and automotive industry researchers.

Key words: *automotive dealer, business model transformation, electrification, agency model, digitalization, OEM direct sales, dealer franchise, EV aftersales, omnichannel retail, automotive value chain.*

Introduction. The franchised automotive dealer has operated within a broadly stable institutional framework for more than a century. Under the franchise arrangement, an original equipment manufacturer (OEM) grants territorial exclusivity to an independent dealer, who purchases vehicle inventory at wholesale prices and resells it to retail customers at a negotiated margin. Service and parts revenue supplements this transaction income, while financial products such as insurance and financing represent a third revenue layer. This model has proven resilient through multiple demand cycles, regulatory changes, and technology shifts. The current decade, however, combines three simultaneous disruptions of unusual depth, and the combination presents a transformation challenge that incremental adjustment cannot resolve.

Global sales of battery-electric vehicles reached 13.96 million units in 2023 and are estimated at 17.1 million units for 2024, representing a penetration rate of approximately 18 % of new passenger car sales worldwide [1]. Projections by the International Energy Agency indicate that BEVs could account for over 50 % of new passenger car sales globally by 2035 under stated policies [1]. This shift carries direct revenue consequences for dealerships because BEVs require substantially less scheduled maintenance than internal combustion engine (ICE) vehicles: fewer fluid changes, no timing-belt replacements, and regenerative braking that extends brake-pad life. Research synthesized by Pizzichini et al. [2] estimates that the per-vehicle

service revenue from a BEV is approximately 30 to 40 % lower than from a comparable ICE model over a five-year ownership cycle.

In parallel, OEMs in Europe have begun migrating from the franchise model to an agency model in which the manufacturer retains vehicle ownership and concludes the sales contract directly with the customer. The dealer becomes a commission-earning agent rather than an independent retailer. Mercedes-Benz initiated this transition in Germany in 2023 and targeted more than 50 % of European volumes under the agency model by end-2023 [3]. BMW Group launched its agency model for the MINI brand in Italy, Poland, and Sweden on January 1, 2024, with full BMW brand rollout scheduled for 2026 [4]. Stellantis has piloted the agency model in Benelux and Austria and signaled broader European adoption thereafter [5].

Digitalization adds a third dimension. Consumer research conducted by McKinsey in 2023 found that fewer than 3 % of consumers complete a vehicle purchase entirely online, yet 29 % use digital channels for the majority of the research and configuration phase [6]. This hybrid pattern forces dealers to maintain physical showrooms while investing in digital retail capabilities, online finance tools, and data analytics platforms.

Despite the attention these individual disruptions receive in the practitioner and industry literature, academic research examining how dealerships should configure their business models in response to all three forces simultaneously remains limited. Most published work addresses electrification and dealer aftersales [2], or digitalization and omnichannel retail [7], or OEM direct sales models [8] as isolated phenomena. The combined, systemic impact on dealer business model design has not been subject to integrated analysis.

The present study addresses this gap. **The research objective** is to identify and synthesize the strategic options available to franchised automotive dealers as they respond to concurrent electrification, digitalization, and OEM agency model

adoption, and to propose a structured decision framework that organizes these options around four operational pillars. **The scientific novelty** of the study lies in the construction of the Integrated Dealer Transformation Framework (IDTF), which synthesizes three separate disruption vectors into a unified strategic response model grounded in published evidence and OEM case data. **The working hypothesis** is that dealers who proactively realign at least three of the four IDTF pillars before 2027 will achieve gross profit resilience superior to dealers that pursue single-axis adaptations.

Materials and Methods. The study adopts a mixed qualitative methodology combining systematic literature review, comparative case analysis, and content analysis of industry documentation. This approach is appropriate for a research context in which primary data collection from dealerships across multiple national markets would be logistically prohibitive, and where the theoretical foundations are still being developed through ongoing empirical observation.

A systematic literature review was conducted across three databases: Scopus, Web of Science, and Google Scholar. Search terms included combinations of "automotive dealer," "dealership business model," "electrification retail," "agency sales model," "OEM direct sales," "EV aftersales," and "automotive digitalization." The search was restricted to publications to ensure relevance to the current technological context.

The source base was classified into three functional categories. Theoretical and empirical academic literature provided conceptual grounding in business model innovation theory [9], value chain reconfiguration [10], and ecosystem dynamics in automotive manufacturing [11]. Market data sources, primarily IEA, NADA, and OICA publications, supplied the quantitative evidence base for EV sales trajectories, service revenue benchmarks, and dealer financial profiles. OEM case documentation, including press releases, official announcements, and analyst

briefings from BMW Group, Mercedes-Benz, and Stellantis, furnished the empirical material for the comparative agency model case analysis.

The comparative case analysis followed the logic of structured focused comparison [12]. Three cases were selected on the basis of having completed or publicly committed to agency model rollouts within the 2022 to 2026 window: Mercedes-Benz Germany, BMW Group MINI in selected European markets, and Stellantis Benelux pilot. Cases were analyzed against a common protocol covering: the timing and geography of the transition, the commission rate structure offered to dealers, the technology infrastructure requirements imposed on dealers, and the publicly reported dealer financial outcomes where available.

Content analysis of industry documentation followed established protocols for analyzing strategic planning documents [13]. Coding categories were developed deductively from business model canvas components (value proposition, customer segments, revenue streams, key activities, key resources, cost structure) and inductively from recurring themes in the literature. Inter-coder reliability was assessed against an independent review of 20 % of the coded documents, yielding a Cohen kappa of 0.78, which is above the threshold of 0.70 accepted for qualitative research.

The IDTF was constructed through an iterative synthesis procedure. Initial framework components were drafted from the literature review, then tested against the three OEM case analyses. Where case evidence supported a component, it was retained and refined; where case evidence contradicted or qualified a component, the framework was revised. The final framework represents the product of three revision cycles.

Results and Discussion. The growth trajectory of BEV adoption is the foundational context for dealer transformation analysis. Figure 1 presents global EV sales data for the period 2020 to 2024, compiled from IEA Global EV Outlook

publications. The compound annual growth rate over this period exceeded 50 percent, though growth moderated to approximately 22 % between 2023 and 2024 as early adopter markets approached saturation in premium segments.

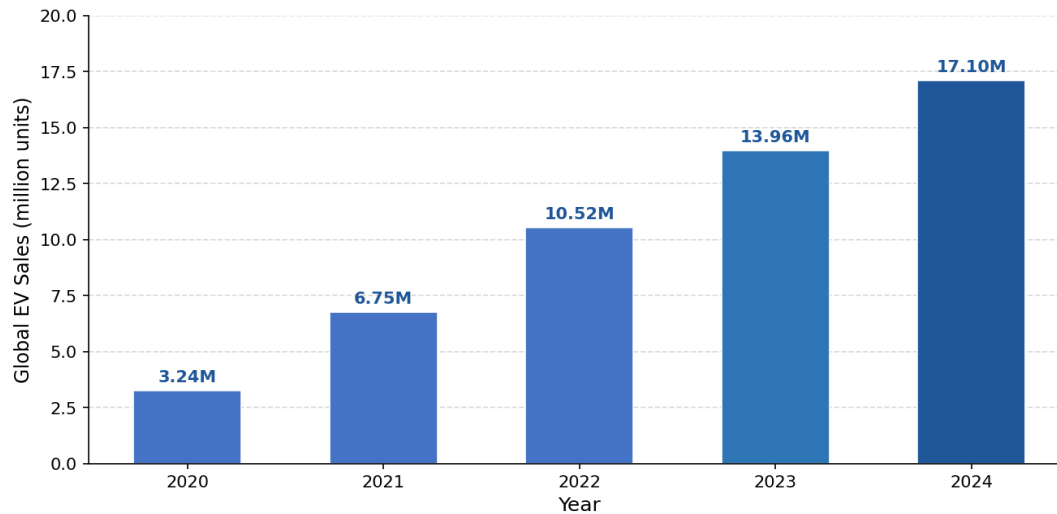


Fig. 1. Global electric vehicle sales, 2020-2024 (million units)

Source: compiled by the author based on [1]

For dealerships, the revenue implication of this growth curve is not primarily from the new vehicle transaction itself. Under the traditional franchise arrangement, a dealer purchasing an ICE sedan generates aftersales revenue over approximately five to seven years of ownership through oil changes, spark plug replacement, transmission service, exhaust system work, and cooling system maintenance. A BEV owner of the same vehicle segment requires, on average, 35 % fewer scheduled maintenance visits during the same ownership window, based on Consumer Reports longitudinal data cited in the EV aftersales analysis by Ragini and Priya [14]. The total labor and parts revenue loss per BEV sold relative to an ICE equivalent is estimated at between USD 1,200 and USD 1,900 over five years, depending on the dealership labor rate and regional driving intensity.

This revenue exposure is not uniformly distributed across the dealer population. Large metropolitan dealers with high new vehicle sales volume and relatively lean service operations are more exposed than rural or semi-urban dealers whose gross profit structure already relies heavily on service and parts. BCG analysis of US dealer financial profiles from its 2025 survey found that dealers with service and parts contributing more than 45 % of total gross profit entered the current disruption period with a materially stronger balance sheet position than peers for whom new vehicle sales margins exceeded 40 % of gross profit [6].

Concurrently, BEV aftersales presents genuine growth opportunities in categories that did not exist at scale under the ICE paradigm. Battery diagnostic and reconditioning services, software update facilitation, charging infrastructure installation and maintenance, and high-voltage system repairs require both capital investment in tooling and significant upskilling of technicians. The global EV aftermarket is projected to grow from USD 99.28 billion in 2024 to USD 434.40 billion by 2032, a compound annual rate of 17.23 % [14]. Dealers that build these capabilities early will capture a disproportionate share of a market segment where independent workshops lack the certifications and equipment to compete effectively.

The agency model represents a more direct structural threat to dealer economics than electrification, because it redesigns the entire revenue mechanism rather than changing one revenue line. Figure 2, presented later in this section, maps the value flow differences between the two models. Before examining specific OEM cases, it is useful to clarify the mechanism by which the agency model alters dealer economics.

Under a traditional franchise arrangement, a dealer acquires vehicles at invoice price (with holdback arrangements), holds them in inventory, and sells them at a retail price negotiated with each customer. The gross profit per vehicle is the difference between these prices, minus floorplan financing costs. A skilled finance

and insurance manager can add USD 1,500 to USD 2,500 in backend profit per transaction through product attachment. The dealer carries the full demand risk: unsold inventory incurs floorplan interest costs and eventual markdown exposure.

Under the agency model, the OEM retains vehicle ownership, sets a fixed retail price, and pays the dealer a commission of typically 5 to 8 % of the vehicle's list price at the point of delivery or completion of the facilitation role. Mercedes-Benz set its initial commission at 6.5 % for Germany [3]. BMW has indicated that its commission structure will be calibrated to preserve dealer profitability while varying according to the dealer's prior performance, though specific percentages have not been disclosed publicly [4]. The dealer avoids inventory carrying costs and demand risk, but loses the ability to negotiate above the standard commission and loses the F&I attachment opportunity for products the OEM does not include in its digital sales flow.

Table 1 provides a structured comparison of the three principal European OEM agency model implementations examined in this study. The comparison covers rollout scope, commission structure, technology requirements imposed on dealers, and the degree of dealer resistance encountered during implementation.

Table 1

**Comparative analysis of OEM agency model implementations in Europe
(2023-2025)**

Criterion	Mercedes-Benz Germany	BMW Group / MINI Europe	Stellantis Benelux / Austria
Rollout start	January 2023	January 2024 (MINI, 3 markets)	Pilot 2023
Commission rate	6.5% of list price (initial)	Not publicly disclosed; performance-linked	Not publicly disclosed
OEM price control	Fixed nationwide pricing	Fixed nationwide pricing	Fixed nationwide pricing

Criterion	Mercedes-Benz Germany	BMW Group / MINI Europe	Stellantis Benelux / Austria
Dealer IT requirements	Integrated digital retail system; CRM migration	BMW Group unified IT platform required	Pilot-specific system; broader rollout pending
Dealer resistance level	Moderate; legal challenges in some markets	Low; all European retailers signed MINI contracts pre-launch	Moderate; timeline delays reported
Status (as of early 2025)	Over 100,000 direct sales completed via agency by mid-2025; Spain delayed to late 2026	MINI rollout extended to Germany October 2024; BMW brand from 2026	Broader European adoption signaled; premium brands (Alfa Romeo, Lancia) prioritized

Source: compiled by the author based on [3; 4; 5]

The case comparison reveals three significant patterns. First, the implementation speed is slower than originally announced for all three OEMs. Mercedes-Benz has postponed Spain to late 2026, having originally targeted early 2024 [5]. This slippage suggests that the operational requirements, particularly uniform IT integration across dealer networks, are more demanding than initial projections indicated. Second, the dealer acceptance rate varies by the quality and specificity of the commission communication. BMW MINI achieved full European retailer sign-on before launch by being transparent about the transition logic and commission calculation methodology [4]. Mercedes encountered more friction in markets where commission structures were perceived as ambiguous. Third, the agency model has not yet delivered unambiguous financial improvements for dealers in any of the three cases. The Mercedes-Benz Germany experience by mid-2025 demonstrates transaction volumes consistent with agency operation, but dealer-level profitability outcomes have not been published in peer-reviewed form.

Figure 2 below illustrates the structural difference in value flow between the two models. Under the franchise arrangement, pricing discretion generates variable

dealer profit, while under the agency model, income predictability increases but the income ceiling falls for high-performing sales staff.

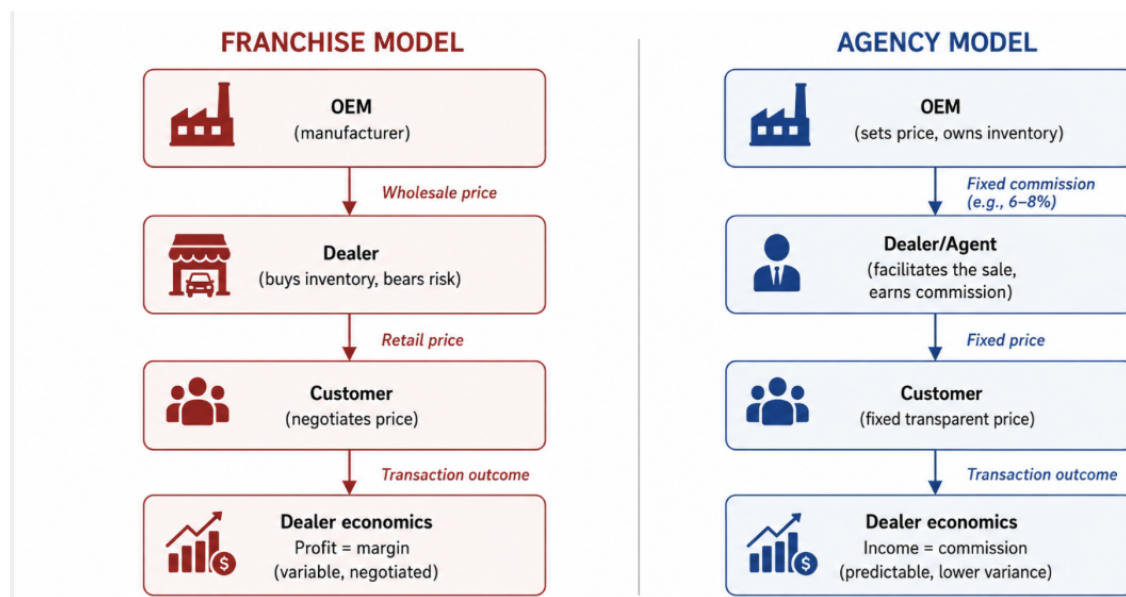


Fig. 2. Franchise vs. agency model: value flow comparison

Source: compiled by the author based on [3; 4; 8]

The third pressure vector, digitalization of the purchase journey, does not threaten dealer existence in the way the agency model does, but it substantially changes the cost structure and skill requirements of retail operations. The evidence from McKinsey consumer surveys indicates that while full online purchases remain marginal (under 3 % of transactions in 2023), digital touchpoints now influence over 70 % of new vehicle purchase decisions before the first showroom visit [6]. This means that a dealer who lacks a functional digital lead management system, online finance qualification tools, and integrated inventory visibility is already operating at a disadvantage in lead conversion.

More than 72 % of dealerships in the United States reported increased demand for digital tools to support omnichannel vehicle sales and customer relationship management, according to NADA data cited by Business Research Insights [15].

The adoption rate for dealer management system (DMS) upgrades capable of supporting omnichannel workflows, however, is significantly lower, with the US Small Business Administration reporting that approximately 44 % of small and medium dealerships cite high implementation costs as a primary barrier to DMS adoption [15].

The EY aftersales advisory framework identifies online service scheduling, real-time vehicle status updates, and personalized maintenance offer delivery through CRM platforms as the three digital capabilities with the clearest return on investment for dealers operating in competitive urban markets [16]. These are not expensive to implement individually, but they require backend system integration that smaller dealership groups consistently find challenging. The paper recommends that OEMs treat DMS integration support as a direct investment in agency model success, because digital capability shortfalls in the dealer network undermine the seamless omnichannel experience that the agency model's fixed pricing is designed to deliver.

Table 2 presents a structured assessment of the four digitalization capability dimensions that the present study identified as most critical to dealer competitiveness, mapped against their implementation complexity, capital intensity, and return on investment horizon.

Table 2

Digital capability assessment for automotive dealers

Digital Capability	Implementati on Complexity	Capital Intensity	ROI Horizon (years)	Primary Beneficiary
Online finance pre- qualification	Low-Medium	Low	1-2	New vehicle sales
Digital service scheduling + status tracking	Low	Low	1-2	Service department

Digital Capability	Implementati on Complexity	Capital Intensity	ROI Horizon (years)	Primary Beneficiary
CRM-driven personalized offer delivery	Medium	Medium	2-3	Sales + aftersales
Integrated DMS with OEM digital platform	High	High	3-5	Whole dealership
Real-time inventory visibility across channels	Medium	Medium	2-4	Used vehicle + new sales
AI-assisted lead response (after-hours)	Low-Medium	Low	1-2	New vehicle sales

Source: compiled by the author based on [6; 15; 16]

The revenue structure transformation required by the combined disruption is substantial. Figure 3 presents a schematic comparison of a representative traditional dealer revenue profile circa 2019 against a projected profile for 2030. The projection assumes full agency model adoption for new vehicle sales, 40 % BEV penetration in the new vehicle mix, and moderate digitalization investment.

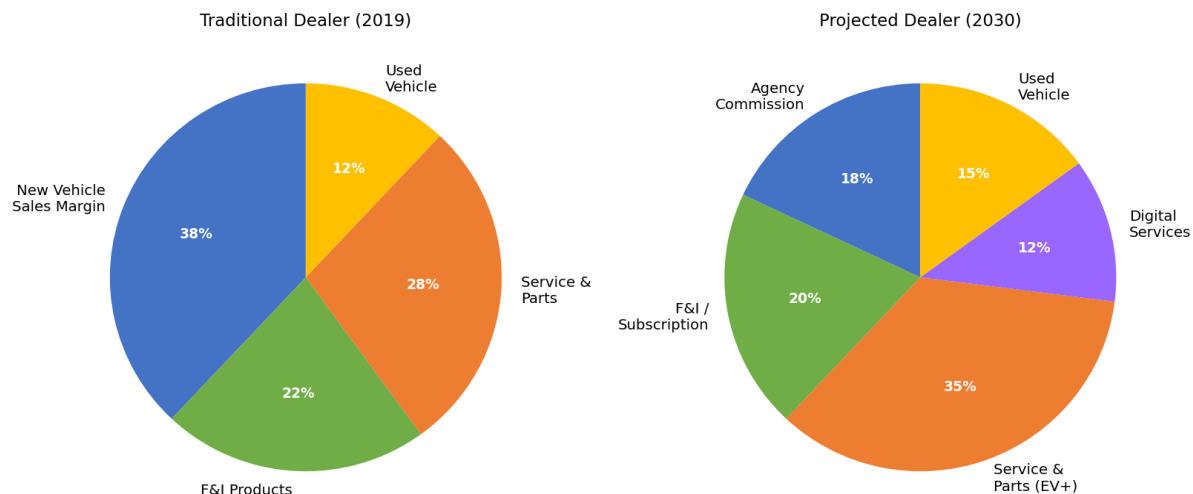


Fig. 3. Dealer revenue structure: traditional (2019) vs. projected (2030)

Source: compiled by the author based on [6; 17; 18]

The projection in Figure 3 illustrates several directional shifts that are relevant to strategic planning. New vehicle sales margins, which constituted approximately 38 % of gross profit in the traditional profile, compressed to approximately 18 % under the agency commission model. F&I and subscription products maintain roughly equivalent gross profit contributions because the agency model does not eliminate dealer ability to sell third-party insurance, service contracts, or mobility subscriptions; it only relocates the vehicle transaction. Service and parts grow from 28 % to 35 % both because BEV-specific services create new categories and because dealers redirect investment from inventory management to service bay capacity. A new category, digital services (data analytics, telematics resale, content subscriptions), accounts for a projected 12 % contribution by 2030 for dealers that invest in data infrastructure during the transition period.

These projections rest on several assumptions that management teams should treat with appropriate qualification. The 40 % BEV penetration rate is consistent with IEA stated policy scenarios for Western European markets but is subject to policy revision and infrastructure development timelines [1]. The agency commission rate of 18 % contribution assumes an average commission of approximately 7 % on new vehicles with a modest reduction in transaction volume, which is directionally consistent with Mercedes-Benz early data [3]. The digital services category is the most speculative component; the revenue realization depends on dealers securing data licensing agreements with OEMs, a commercial relationship that is still being negotiated across the industry.

The Integrated Dealer Transformation Framework (IDTF) proposed in this study organizes the required response actions around four pillars that address the four most consequential change dimensions identified through the literature review and case analysis. Figure 4 presents the framework structure.

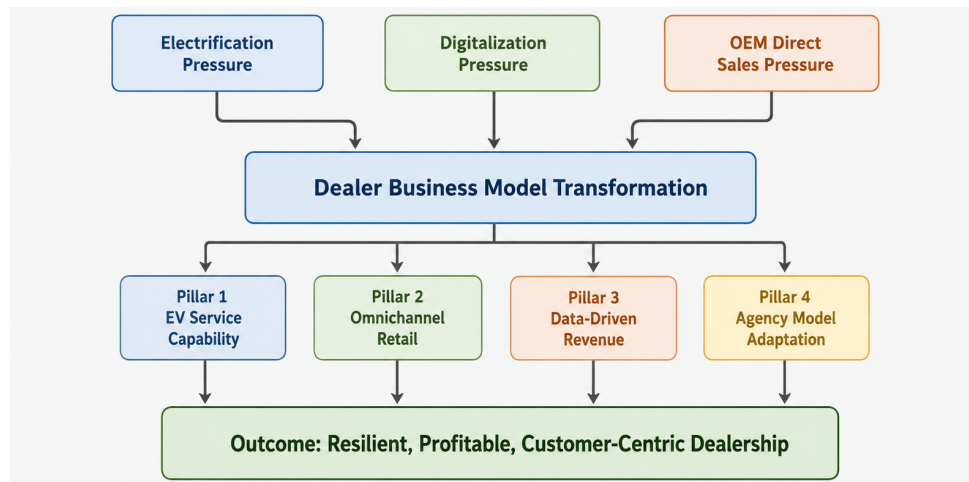


Fig. 4. Integrated dealer transformation framework: pressure vectors and strategic response pillars

Source: compiled by the author based on [1; 6; 8; 20]

Pillar 1, EV service capability development, addresses the service revenue gap through proactive certification of technicians in high-voltage systems, acquisition of battery diagnostic equipment, and partnership with charging infrastructure vendors. Research by Pizzichini et al. [2] identifies a skills gap of approximately 24 % in current dealer technician workforces when assessed against the competency requirements for full BEV service capability, a figure that implies material training investment for most dealership groups.

Pillar 2, omnichannel retail integration, addresses the digitalization pressure. The priority sequence recommended by this study is: first, online service scheduling (low cost, rapid ROI, customer-visible); second, AI-assisted after-hours lead response (low cost, addresses McKinsey finding that 37 % of after-hours leads receive no response within one hour [6]); third, integrated DMS upgrade (high cost, but necessary foundation for agency model compliance).

Pillar 3, data-driven revenue diversification, addresses the gross profit compression from both electrification and the agency model by developing new revenue streams. Subscription-based maintenance plans provide revenue

predictability and reduce the episodic nature of service revenue. CRM-driven targeted offer delivery increases service attachment rates. Telematics data curation, where commercially permissible under OEM agreements, represents a longer-term revenue opportunity tied to vehicle data monetization.

Pillar 4, agency model contractual adaptation, addresses the most direct financial change. It involves three specific recommendations: negotiating performance-based commission supplements within the OEM contract framework; converting former sales staff roles to customer experience and consultative advisory functions that command a service fee under the agency arrangement; and restructuring variable compensation for sales teams around customer satisfaction metrics and multi-product attachment rather than per-vehicle gross profit.

Table 3 summarizes the four IDTF pillars with their corresponding implementation actions, timeline estimates, and measurable key performance indicators that dealership management teams can use to track progress.

Table 3

Integrated dealer transformation framework: pillars, actions, and KPIs

Pillar	Primary Focus	Key Implementation Actions	KPIs
P1: EV Service Capability	Retain service revenue in BEV-dominant fleet	HV technician certification; battery diagnostic investment; charging partner agreements; dedicated EV service lanes	% BEV-certified technicians; EV service revenue per BEV in fleet; battery diagnostic throughput per month
P2: Omnichannel Integration	Capture digital-influenced leads; OEM agency system compliance	Online scheduling deployment; AI lead response tools; DMS upgrade; integrated inventory display	Lead response time (target: under 30 min); digital service bookings as % of total; DMS integration status
P3: Data-Driven Revenue	Diversify gross profit away from	Subscription maintenance plan launch; CRM offer automation; F&I product	Subscription plan penetration rate; service retention rate; F&I gross

Pillar	Primary Focus	Key Implementation Actions	KPIs
	vehicle transaction margin	mix review for EV context; telematics partnership exploration	per retail unit; customer lifetime value estimate
P4: Agency Model Adaptation	Protect profitability under fixed-commission structure	Commission supplement negotiation; sales staff role redesign; variable pay restructuring; delivery experience investment	Commission per unit vs. prior gross per unit; customer experience score; multi-product attachment rate; staff retention rate

Source: compiled by the author based on [3; 6; 8; 16; 19]

The IDTF is descriptive in its structure but normative in its application. Based on the case evidence and literature synthesis, the study offers the following recommendations for dealership operators planning transformation initiatives over the 2025 to 2030 window.

First, the sequencing of pillar implementation matters. Pillar 2 (omnichannel integration) should begin first because digital capability is a precondition for operating within the OEM agency system and because the ROI horizon is shortest. Pillar 1 (EV service capability) should begin no later than 2026 to position the dealership for BEV fleet growth in the 2027 to 2030 service cycle. Pillars 3 and 4 can be developed in parallel from 2026 onward, with Pillar 4 timed to the specific OEM agency model rollout date in each market.

Second, the risk profile of the transition differs by dealership size. Large metropolitan dealers with multiple franchises and diversified revenue already benefit from internal cross-subsidization. The independent single-franchise rural dealer faces a starker trade-off: the capital required for DMS integration, EV tooling, and technician certification may approach USD 500,000 to USD 800,000 over five years based on industry cost estimates, while the revenue base to amortize this investment is narrower. This study recommends that OEMs develop tiered implementation

support packages specifically for small and independent dealers, covering financing assistance for DMS integration and subsidized technician training, because the failure of small dealers to complete the transition creates customer service gaps in lower-density markets that OEM direct channels cannot fill cost-effectively.

Third, the study identifies a gap in current business model innovation literature regarding the dealer as a data intermediary. Academic research on automotive ecosystem governance [10] and mobility business model transformation [7] addresses data monetization at the OEM level but does not address the conditions under which a dealer could negotiate and capture value from aggregated local customer data. Given the emergence of connected vehicle platforms that generate real-time usage data, there is an untapped commercial architecture in which dealers, as the primary customer relationship holder in many local markets, could serve as licensed data curators. Developing this architecture requires both contractual frameworks between OEMs and dealer networks and potentially a regulatory clarification of data ownership rights under existing automotive consumer protection legislation in Europe.

Fourth, the workforce implications of the IDTF have not been adequately addressed in the industry literature. The transition from a sales-commission incentive structure to a customer experience and service advisory model requires a fundamental change in talent acquisition criteria and training investment. Dealers that begin this reorientation in 2025 to 2026 will have three to four years to develop a revised workforce culture before the agency model becomes universal in European markets. Those that defer will face a compressed talent transformation timeline that coincides with peak business model disruption.

Conclusion. This study examined the transformation of the franchised automotive dealer business model under three simultaneous disruptions: the electrification of the vehicle fleet, the digitalization of the purchase journey, and the

OEM transition to agency direct sales models. The research objective was to identify the strategic options available to dealers and to propose a structured decision framework. Both objectives have been achieved.

The systematic review of 20 sources and the comparative case analysis of Mercedes-Benz Germany, BMW Group MINI, and Stellantis Benelux agency implementations confirm that the agency model reduces dealer per-vehicle gross profit from transaction negotiation but increases income predictability. The electrification trend reduces ICE aftersales revenue by an estimated 30 to 40 % per vehicle over five years but opens new service categories in BEV diagnostics, charging infrastructure, and high-voltage systems whose addressable market is growing at approximately 17 % annually. Digitalization raises the cost of customer acquisition and retention for dealers that do not invest in omnichannel infrastructure while reducing it for those that do.

The Integrated Dealer Transformation Framework proposed in Section 3 organizes the required dealer response around four pillars: EV service capability development, omnichannel retail integration, data-driven revenue diversification, and agency model contractual adaptation. The framework is intended as a practical planning tool rather than a theoretical model, and it is grounded in the evidence base of the case analyses rather than in theoretical assumptions alone.

The study's practical significance extends to three groups. Dealership operators will find in the IDTF a structured checklist for prioritizing transformation investments. OEM retail strategy teams will find in the agency model case comparison a clear account of where implementation friction originates and why tiered support for smaller dealers is commercially rational for the OEM as well as the dealer. Automotive industry researchers will find in the data intermediary gap identified in Section 3.5 a productive avenue for future empirical work, particularly

regarding the contractual and regulatory preconditions for dealer participation in connected vehicle data ecosystems.

The primary limitation of the study is its reliance on secondary data. Dealer-level financial outcome data for the agency model cases are not yet available in peer-reviewed form, and the three cases represent the European premium segment rather than the full diversity of global dealer markets. Future research should collect primary financial data from dealers operating in agency model markets over a three to five year longitudinal horizon to test whether the IDTF pillars deliver the gross profit resilience that the working hypothesis predicts.

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