

Promoting Sustainability in the Automotive Industry: Economic Comparison of Dealer Sales Model and Agency Sales Model of Electric Vehicles in Slovakia

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ABSTRACT:

Electrification is becoming an increasingly important part of many industries. Electrification is a crucial area of interest in developing electric vehicles and charging infrastructure in the automotive industry. Research and innovation in the field of electric vehicles indicate positive trends. The rise in sales of electric vehicles represents a significant shift away from traditional fossil fuel-powered technologies to more sustainable and efficient alternatives. Electrification also brings with it new trends in sales models. The paper aims to identify recommendations for the practical adaptation of the importer of electric vehicles in the Slovak market based on the analysis of the financial and economic impacts of the sale of electric vehicles. This paper approaches two essential research topics. The first research topic focuses on the analysis of vehicle sales, specifically electric vehicles, and based on the analysis of existing sales, the paper will also outline the sales plan of the selected brand in the period 2023–2025. The second research topic focuses on changes in the business model for the sale of electric vehicles. One of the findings is that a specific indirect sales model for the automotive industry, i.e. selling vehicles through dealers, is used. In the long run, the new agency sales model standards should help correct many of the shortcomings of the current sales system. The effects on the profitability of sellers can be defined mainly by smaller financial costs caused by the cancellation of storage spaces, smaller credit indebtedness resulting from not creating warehouse stocks, and a greater focus on sales and additional services aimed at the end customer. Agency selling also allows the seller to get precious data about the customer and feedback directly to the manufacturer, which can serve as a valuable source of information for improving goods and services, which, in the long run, can lead to greater profitability for sellers. However, the Agency sales model is also coming to the fore. In this paper, the given types of business models are compared, their advantages and disadvantages are highlighted, and last but not least, the expected profits of the analysed company are calculated for both types of sales models.

Keywords: agency sales model, business model, dealer sales model, economic comparison, electric vehicle

1. Introduction

The future is electric. Over the last few years, we have increasingly come across new alternatives: how to replace the usual internal combustion engine with something else, something greener. "An electric vehicle is powered by one or more electric motors that draw energy from a battery. Electric vehicles come as one of the better options for the

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future of our roads. They were recognised as a basic building block of the energy transition, which will mean a significant change in digital, technical, social transport and energy infrastructure" (Zilkova, Kanuch, 2019 & Nerurkar, et al., 2023). The topic of electric vehicles is current and exciting for many authors. According to the online academic service Web of Science, the issue of electric vehicles began to be addressed more intensively in 2007. Interest in the topic grew for various reasons. One of them is the development of Tesla. The number of publications has been increasing for the last ten years. We can conclude that the issue of electric vehicles is still current. Our paper drew information from Slovak and foreign authors from published books, scientific articles, and conferences. Authors Simpsom & Barlingen (2021) and Reis et al. (2023) wrote a historical overview of electric vehicles in the work *History of electric vehicles*. They divided the entire existence into six periods. The first begins in 1830, when the first transport vehicle powered exclusively by electricity was created, and the last period ends with the present, characterised by an increase in the sale of electric vehicles. We have supplemented the historical milestones since the creation of electric vehicles with the knowledge of the American authors Hinton and Olien (2021). Their work, consisting of two parts, deals with the great discovery of oil in the territory of the state of Texas, which affected the vehicles. Wu & Xu (2022), in their scientific publication, entitled *Research on Cooperative Innovation Network Structure and Evolution Characteristics of Electric Vehicle Industry*, define an electric vehicle as "a vehicle that is fully or partially powered by electric motors, using energy stored in rechargeable batteries". The technical design and principle of operation of electric vehicles are different from the long-established method of operation for vehicles with combustion engines. The components of electric vehicles depend on the type of vehicle, which were logically divided into four types in the Belfast University article (Xiao et al., 2021). For an easier understanding of the different functioning of different types of vehicles, the written description is accompanied by a picture showing the functioning under the hood of an electric vehicle. Slovak authors can also be proud of many scientific publications on electromobility. The authors Frivalsky et al., (2020) published the professional work *Elektromobility*. In individual chapters, the authors deal with the physical laws of electric and hybrid vehicles. They also discuss the performance of vehicles, the healthy charging of storage units, etc. Rehak (2018) published a work consisting of two parts in which he discusses in detail the impact of subsidies and subsidies on the development of electromobility in our country and in neighbouring countries such as the Czech Republic, Poland and Germany. The second part (Rehak, 2018) mainly deals with the production of electric vehicles in the Slovak Republic. Since the Slovak Republic is one of the leaders in the production of automobiles (Gogolova et al., 2023), the modern work concept in transport captures the advantages of the automobile industry in areas such as employment and the national sphere of the economy. In production, the Slovak Republic is involved in development trends, which certainly include the concept of electromobility (Garbarova & Strezova, 2015). According to Richnak & Gajdosikova (2018) "this trend will not only strengthen our employment, but it will also have a great impact on the entire national economy, the health of citizens and the environment."

Figure 1 shows a cluster map of the phrase electric vehicles. The map shows the connection between different topics. The image captures the connection of five bare clusters, which are color-coded. It follows that the connection of professional articles with

the issue of electric vehicles is relatively strong. The concept of electric vehicles is linked to concepts such as optimisation, design, management, emissions, or batteries. The battery is the most essential part of the electric vehicle, which stores the necessary energy for the vehicle's operation.

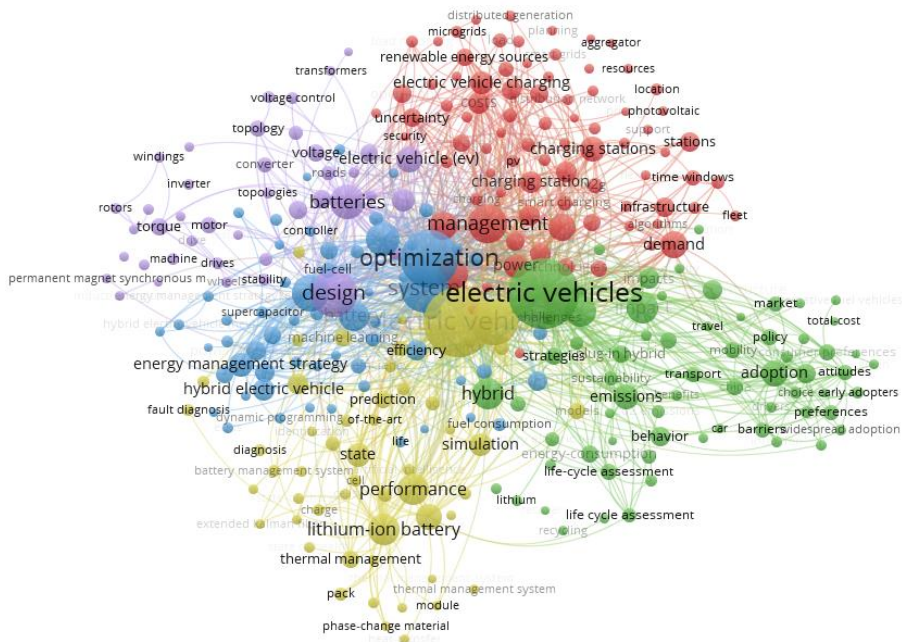


Figure 1: Cluster map of the concept of electric vehicle

Source: own processing using WOSViewer

The first rechargeable lead-acid battery was produced in France in the 19th century. For an electric vehicle to compete with vehicles with a combustion engine, a battery with a high energy density is necessary, depending on which the vehicle's range depends, but also a high-power density, which affects how quickly the vehicle can increase its speed. All the mentioned facts and many other interesting facts related to the most essential part of electric vehicles were stated by foreign authors Hsieh et al. (2019) in their work Comparison of different types of batteries for electric vehicles.

In our opinion, we found a very similar approach to the issue of rechargeable batteries in a scientific article by authors Monnig et al. (2019), who argue that if a group of lead-acid batteries were placed in a hybrid or purely electric vehicle, it would take up too much space and weight. Based on these facts, new types of batteries with higher performance and energy density began innovating, which Monning et al. listed and described in detail in their article.

2. Theoretical Background

The dealer sales model is the most used way of selling electric vehicles. In the automotive industry, the creation and structure of sales at the importer and dealer level is influenced by many factors. These include the type of vehicle sold, make, region where the dealership is located, size, and the dealership's structure. Importers are responsible for introducing vehicles from the manufacturer to the local market. They generate revenue from selling vehicles to dealers and fees for services such as transportation, customs clearance, and storage. As mentioned in the previous chapter, the importer also generates income from selling spare parts, accessories, and other related products (Gavrilescu, 2017).

On the other hand, dealers are a link in the distribution chain that sells vehicles from financing servicing and spare parts. Among other things, sellers can generate revenue from advertising, promotions, and other marketing activities (Gajanova, et al., 2019). Some dealers also offer extended warranties, insurance, and other value-added services that can generate additional revenue. Overall, the revenue structure of the automotive industry at the level of importers and dealers is complex, with some factors influencing revenue generation. The following figure describes the generation of revenues from indirect sales of new vehicles, specifically through the dealer sales model. Based on internal information (company internal information), we can define two ways. The first is theoretical, which describes the functioning based on the theory of how it should work in the company. However, the reality is usually different, and the importing company is no exception. The second method shows the reality of sales through discounts offered to the final customer. This fact affects the theoretical percentage margins because if, on the one hand, I offer the customer a discount from the selling price, on the other hand, the seller's margin will decrease. This will ultimately affect his earnings, but the discount will convince the customer to buy, which will cause him to achieve the quarterly goal associated with financial rewards. Among the indirect sales model, we include the dealer sales model, the origin of which dates back to the first vehicle showroom, which vehicle salesman William E. Metzger founded. In 1898, he obtained a franchise from General Motors Corporation to sell steam vehicles (Dano et al., 2021).

The individual items of the dealer sales model are according to the authors Ziegler & Abdelkafi (2021) and Li et al. (2021) as follows: (1) Recommended price – the price determined by the manufacturer, which considers the situation of the local market of the given country. It primarily feels the price level, the competition against the competition, the positioning of the brand's given model and the expected planned sales volumes. The recommended price is listed in the price list and is the basis of the discussion with the client during the realisation of the business case. (2) Dealer margin – margin set by the manufacturer, importer or their combination. It forms the central revenue from selling a new vehicle to a dealer. It is usually charged as a percentage of the recommended retail price. It is determined through internal rules, mostly confirmed in the dealer contract, or selected and updated in various forms of business conditions and business information by the manufacturer or importer. (3) Bonuses for the dealer – bonuses determined by the importer as a percentage of the selling price. They are the primary business means through which the manufacturer and importer direct the dealer to achieve volume and quality goals in sales. (4) Margin importer – margin set by the manufacturer. This is a percentage of the

recommended selling price or the importer's purchase price. The importer's margin is applied when the vehicle is sold or invoiced to the dealer, meaning the actual selling price does not directly influence it. (5) Manufacturer's margin – the manufacturer realises it when invoicing the importer. (6) Realistic revenue generation from the sale of new vehicles according to the dealer sales model consists of the following: (7) Accurate selling price – the actual price of a specific vehicle sold to a particular client. It results from several aspects, including the business process, the discussion with the client, the dealer's effort to realise the sale and the competitive situation at the time of sale. In a real functioning market, the value of the actual price is lower than the recommended price. (8) Discount for the end client – the discount represents an exceptional reduction in the seller's price to the end customer, in our case, the dealer. (9) The dealer's actual margin represents the difference between the genuine selling price and the purchase price of a specific vehicle when invoicing the vehicle to the importer. Invoicing occurs at the moment of delivery of the vehicle to the dealer. It usually is lower than the theoretical margin specified in the business conditions.

According to the company internal information, the sales process in the dealer sales model is as follows. In the model, vehicles are purchased from the manufacturer to the importer, who sells his vehicles to the dealer in the next step. The dealer becomes the owner of new vehicles, which he offers in his showrooms to end customers. Invoicing is gradually taking place among the mentioned participants of the model. Each of them creates its warehouse of vehicles, which is associated with additional costs. The manufacturer's and importer's margins are not directly linked to a specific sale or any client discount. It is primarily a dealer whose margin is affected by the discount amount (Sanchez-Miralles et al., 2014). The importer is pushed to meet sales targets, which results in his efforts to motivate dealers through a system of bonuses to fulfil sales plans. The importer allocates additional business funds from his margin intended for sales support in the form of various sales support paid to the dealer, which is tied to the sale of a specific vehicle and a specific required sales volume. This support or part of it is a discount or special promotion for a particular end client. As for a realistic view of the European market, of which the Slovak Republic is a part, various discounts are implemented when selling new vehicles. This means that dealers, manufacturers, and importers do not achieve their theoretical margins because these are tied to recommended retail prices, which are generally not achieved with discounts. Based on the mentioned facts, the reality of the dealer sales model and conducting revenue when selling new vehicles differs from the theoretical starting point (Liao et al., 2019).

The agency sales model is the second most used in the sale of electric vehicles. Due to considerable shifts in the automotive industry, vehicle manufacturers are pushing for a new sales model. The growth of e-commerce and social media through mobile devices has fundamentally changed customer shopping behaviour. According to Peppers & Rogers (2016), the modern customer is an instant consumer. The customer is more competent and diverse than ever before and can be significantly described by keywords – me, everything, instant, and everywhere. In today's digital society, social networks are widely used by customers. Thanks to ubiquitous internet access, they are strongly oriented towards mobile devices and are perceived as always on. This modern trend in shopping is often referred to by the acronym SoLoMo – social, local and mobile (Heinemann & Geiser,

2016). Observing two main trends simultaneously is necessary to address the modern customer adequately. First, if we look at the sales approach over time, there has been a significant shift towards multi-channel retailing in recent years. This is about expanded channel scope, seamless cross-channel coordination, and full channel connectivity to optimise the customer experience. Due to the disappearance of the boundaries between the virtual and the physical world, the customer can switch in a barrier-free and selective way between many online and offline channels in all process steps of the interaction (Heinemann & Geiser, 2016).

Second, with increasing customer expectations and product parity, personalisation has become integral to shaping customer experience and perception at every touchpoint (Li et al., 2021). The Volvo brand is trying to go through a significant commercial change. One possibility is digital transformation. Digitisation allows the company to establish a direct relationship with the consumer (Chu et al., 2017), which will directly impact retail partners. Based on the new business model, retailers are bypassed in many ways. On the other hand, the company reasons that direct access to the consumer will create price transparency and quality.

The automotive industry has a growing demand for a modernised and convenient online sales channel. However, the traditional (indirect) three-step sales model does not fully meet the new demands of consumers. What is needed is a more customer-oriented and multi-channel sales model in which consumers can be easily reached through their preferred channel, directly to the manufacturer. Agency sales are developing traditional three-step sales towards an integrated online-offline sales model. Traditional manufacturers communicate directly with the customer and take responsibility for the sales transaction. The seller remains in personal contact with customers, but no longer as a contractual partner, but enters as an agent (Liao et al., 2019 and Nieuwenhuis, 2018).

Agency sales model brought a new concept, which is agent remuneration. The revenue generation from the sale of new vehicles is based on the agent's remuneration. It is a reward that flows to the agent for mediating the sale. It can be paid directly after the sale, or part can be tied to fulfilling other goals. In the classic dealer sales model, each link in the sales chain necessarily created its warehouse, comprised of purchased vehicles. This means that the importer could sell or deliver to the dealer only the vehicles that he had available and that was part of the warehouse (Sanchez-Miralles, 2014).

In addition to creating warehouses, sales articles also have relative freedom in pricing. Of course, we have to consider that there are recommended prices for manufacturers, but the importing company and, at the same time, the dealer can and sometimes have to react to the reality of a specific market. With the help of various discounts and sales promotions, they help achieve the set goals. The manufacturer is an essential link in the goals. As mentioned earlier, he is the one who sets them. Within the framework of the classic dealer sales model, the manufacturer loses direct control over the final price and thus leaves freedom with margin systems, bonuses and business support. Therefore, the sales prices of vehicles often differ from the proposed prices, and their value is significantly lower for the end customer. In the usual classic dealer sales models, manufacturers and importers give up direct contact with the end customer, which many manufacturers see as their competitive disadvantage with the arrival of electric vehicles caused by the pressure for online sales. Agency sales model could theoretically eliminate

this shortcoming. In this sales model, the dealer becomes an agency seller, becoming only a sales intermediary. Compared to the classic dealer sales model, he will no longer buy vehicles from the importing company, which became his property and based on which he had to create his warehouse. On the contrary, in the agency sales model, only the manufacturer and the importer make sufficient stock for a specific market. The dealer or the agency seller is changing the classic sales plans bound by bonuses and intense sales pressure on the sales network (Nieuwenhuis, 2018 and Bohnsack, 2014).

Regarding pricing, the importer and manufacturer have much more control over the final price. The agency seller will no longer receive the classic margin associated with the ownership of the sold vehicle. Therefore, an aggressive discount should not be provided. In principle, the price is fixed and should not be directly changed. The margin for the agent is replaced by a sales fee, which can be structured according to the manufacturer's or importer's needs. It can be paid directly after the sale, or part of it can be tied to the fulfilment of other activities connected with, for example, services, such as repeated visits of the client to the service centre, etc. (Chu et al., 2017). In addition to price control, the agency sales model also enables manufacturers to have a direct and immediate connection with customers, which gives them greater control over sales and the customer experience. This can lead to better communication, a personalised approach and a faster solution to the customer's needs. With the agency sales model, customers can also have the option of configuring and customising the vehicle according to their preferences, providing a competitive advantage to dealers using it.

3. Methods

The paper aims to identify recommendations for the practical adaptation of the importer of electric vehicles in the Slovak market based on the analysis of the financial and economic impacts of the sale of electric vehicles. This paper approaches two essential research topics. The first research topic focuses on the analysis of vehicle sales, specifically electric vehicles, and based on the analysis of existing sales, the paper will also outline the sales plan of the selected brand in the period 2023–2025. The methodology of the first study topic will be primarily based on a graphic analysis of the obtained results. The first graphical analysis will show the structure of newly registered vehicles in terms of the type of drive in the analysed year 2022 and a comparison with 2019. Expressed prediction of the sale of vehicles of the selected brand, not only electric vehicles but also vehicles with combustion engines or hybrid vehicles. The first step in the systematic approach of secondary analysis is formulating the research question, followed by identifying the overall data set and its comprehensive evaluation according to Fabus et al. (2017). The main aims of the first research topic of the paper are to illustrate the current state and predict future developments. The second research topic focuses on changes in the business model for the sale of electric vehicles. We divided this research topic into two parts: (1) analysis of the dealer sales model of electric vehicle sales and (2) analysis of the agency sales model of electric vehicle sales.

In both cases, the theoretical generation of revenues from the sale of electric vehicles and the realistic generation of revenues from the sale of electric vehicles were shown using graphic analysis. Based on the methods used in the post described below, we

determined the individual advantages and disadvantages of both models of selling electric vehicles and the financial and economic impacts of selling electric vehicles.

Data reflecting sales methods are often unattainable; car companies keep this information to themselves, as it is sensitive and could be valuable to competing sellers. Only general, freely available data is available, based on which this paper was conceived. Future research plans include conducting primary research in this field by approaching selected car sellers.

To achieve the given objectives, the paper uses secondary sources of data analysis, including academic works, books, conference papers and, last but not least, annual reports of companies. Secondary data were processed using scientific methods:

(1) Method of analysis – a method of formal logic examining a complex whole by breaking it down into partial parts. A characteristic element of this method is the abstraction from unimportant features because of the essence of the given issue. In our contribution, analytical procedures are used to analyse the knowledge available in the domestic but especially foreign literature or in the annual reports of the investigated companies. The synthesis method combines individual parts, and the analysis method decomposes into a unified whole, making it possible to know the studied phenomenon in the mutual dialectical connection of all its aspects and elements. The result of the given method is a higher knowledge of the investigated phenomenon. In our contribution, the synthesis method combines relevant knowledge acquired by the analysis method.

(2) The method of deduction represents a procedure in which, based on established assumptions, a conclusion is derived only according to the rules of formal logic, which means that individual conclusions are drawn from the general. If the assumptions are valid, the statements obtained by deduction should be accurate and indisputable. In the application to the economic environment, the deduction method represents the concretisation of general economic indicators into sub-indicators that characterise the economic reality in specific conditions and according to individual factors. The deduction method was used in the cross-section of the entire contribution to process the acquired knowledge, investigated phenomena and subsequent generalisation of the obtained data.

(3) Description method – the method captures the observed and studied phenomena, while its essence consists of capturing the specific characteristics of the object through qualitative and quantitative parameters. In our paper, the method of description will be used to describe the basic concepts, relationships, identities, and causalities of the issue of electromobility.

(4) Method of explanation – the method focuses on deriving theoretical conclusions from the examined knowledge, which are organised into logical contexts and causal dependencies, which is the basis for the creation of theoretical conclusions about the presented issue of the contribution.

(5) The comparison method is based on the principle of comparison, which is the finding of a mutual relationship between the researched knowledge, phenomena or objects. Individual knowledge, phenomena or objects can appear as the same, similar or different within the comparison framework. Therefore, within the comparison methods, it is essential to consider the viewpoint from which the comparison method is feasible.

4. Results and Discussion

The Slovak Republic became a part of the European Union in 2004. By joining the partnership of up to 27 countries today, we are committed to helping achieve the set goals. The European Green Deal aims to transform our continent into the first climate-neutral one. The essence is a growth strategy that seeks to create a modern and competitive European economy with zero emissions and greenhouse gases by 2050. Motor vehicle dealers had to adapt to the newly created conditions and the increasing demand for electric vehicles. Gradually, a more extensive offer for the end customer grew, and the sale of electric vehicles recorded an upward trend. Based on the available information published by the European Association of Automobile Manufacturers, known by the acronym ACEA, we found out the number of newly registered vehicles in the monitored years on the territory of the Slovak Republic Taraniuk (2016).

The highest number of newly registered vehicles during the monitored period was recorded in 2019, with 101,872 (Figure 2). In the following year, there was a decrease of up to 25,567 vehicles, which in percentage terms represents a decrease of more than 25%. For individual years, we focused on specific types of newly registered vehicles. The vehicles were divided into the following groups. The first group consists of battery fully electric vehicles, followed by plug-in hybrid vehicles, hybrids, vehicles powered by natural gas, and other alternative fuel vehicles, and the last group are gasoline and diesel vehicles. While the share of gasoline vehicles was the largest in 2019, up to 69.69% of the total number of registered vehicles, in absolute terms, this represents a value of 70,998. The number of battery electric vehicles was 165 units registered for the whole year. In 2022 (Figure 3), the number of gasoline vehicles decreased to 43,903, while electric vehicles saw an increase in percentage terms of more than 740%, which in absolute terms represents an increase of 1,226 vehicles compared to 2019.

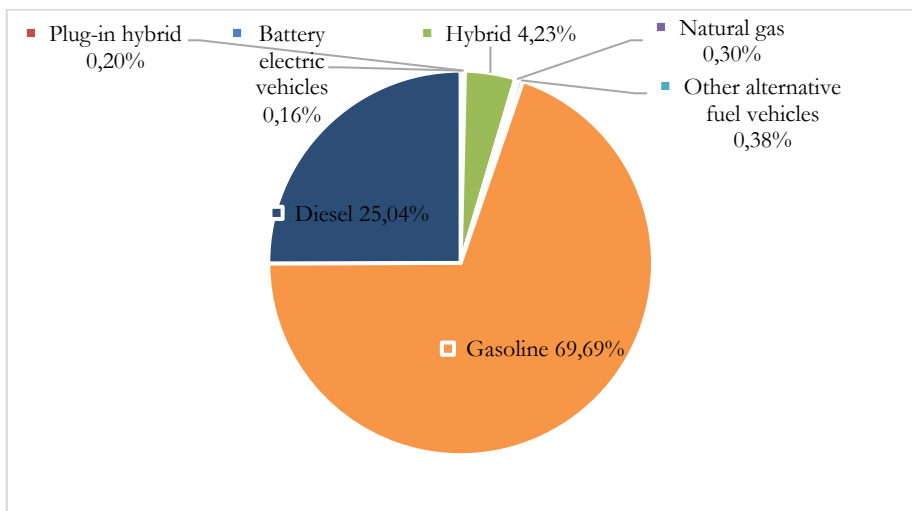


Figure 2: Structure of newly registered vehicles in terms of drive type in 2019

Source: own processing according to internal company information

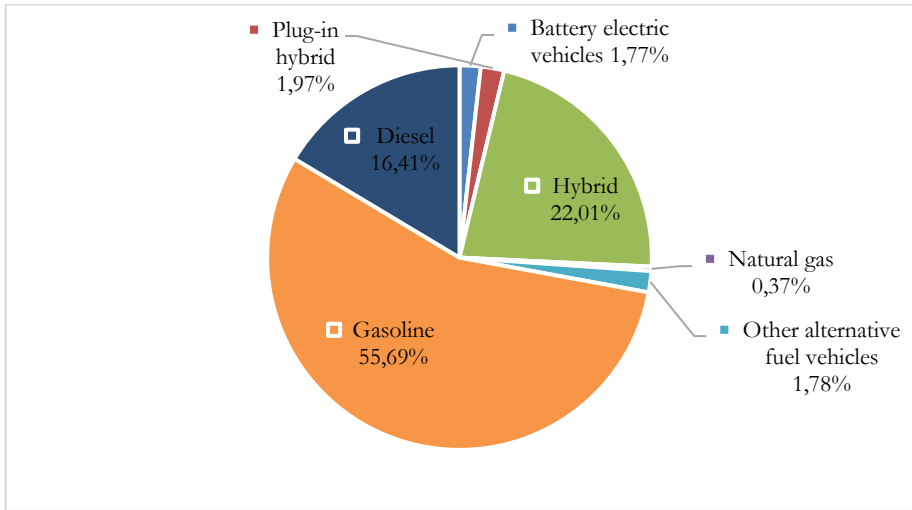


Figure 3: Structure of newly registered vehicles in terms of drive type in 2022

Source: own processing according to internal company information

Looking at the development of electric vehicles, we see an increase in the time horizon of three years (see Figure 4). A very slight evolution of the change is visible in the categories of hybrid vehicles. Our plan was set on relatively equal sales in individual years. However, fully electric vehicles have seen an increase. I can attribute this trend to the expansion of the company's portfolio by several models in a fully electric version and, of course, the increasing interest in the company's electrification. When comparing 2024 and 2025, we expect an increase of 6 percentage points. The total ratio of electric vehicles, including purely electric and hybrid versions, could represent approximately 41% of total annual sales in 2025 (see Figure 4.). From our rough estimate, we believe that the company will not fulfil its plan to sell more than half of electric vehicles in 2025. This number is primarily an estimate, and the sales plan may vary based on various indicators.

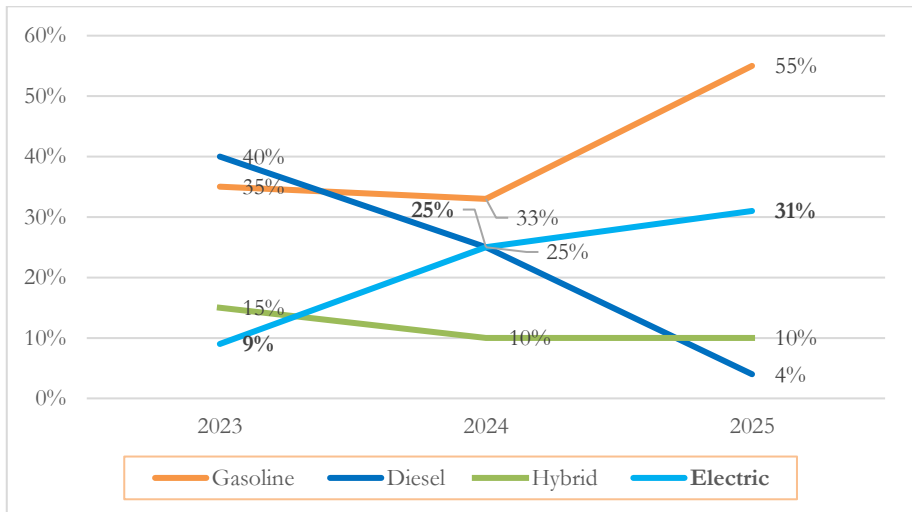


Figure 4: Percentage development of future sales in 2023-2025

Source: own processing according to internal company information

Electrification also brings with it new trends in sales models. An indirect sales model is specific to the automotive industry. Sale of vehicles through dealers. In 2013, Tesla's stock price hovered around \$10 per share. In January 2021, their price climbed up to \$850 per share. We can attribute this increase to great confidence in the future of electric vehicles Zilic (2020). If we look at the business model of Tesla and many other leading vehicle brands, we see that a significant number of them have adopted the direct sales model. The innovative Volvo brand does not want to fall behind in this trend, so from 2021, it will support and prepare the ground for the new direct sale of vehicles via an online platform. Subsequently, we will explain the functioning of the indirect and direct sales model and possible changes and impacts on the functioning of the importing company.

Regarding revenue and profitability from selling new vehicles, we monitor two aspects. The first is the arrival of electric vehicles and their increasing share of sales, and the second is a change in the business model. As mentioned in the previous chapters, both aspects are connected. It is precisely the arrival of electric vehicles on sale that, with their new clientele and new habits when choosing a new vehicle, show less and less interest in visiting dealers and prefer to buy online. Another critical factor is that the production of electric vehicles is significantly more financially demanding. However, clients may not be ready for a significant price increase. For this reason, manufacturers try to save money, reduce the costs associated with sales, introduce smaller sales margins for dealers, and even minimise them entirely in the form of remuneration for the agent. In this way, they will achieve the necessary profitability without a significant increase in the price of the vehicle. When calculating revenues in the first simulation, we will be based on the current sales model, i.e. indirect sales through a dealer. The formula includes the number of vehicles sold, the vehicle's average price, and the sales margin. We chose the years 2021 to 2025 as the monitored period. The first table shows sales divided into combustion and electric vehicles in the observed period. Based on the data provided by the importing company,

we know that the margin fluctuation for diesel and gasoline vehicles has been minimal in recent years. For this reason, in our simulation, the margin is 9% to 10%. In the same way, we continued with electric vehicles. We calculated the sales in 2021 and 2022 and worked with the planned sales in the following years. We set the margins again according to the recommendation of the importing company in the range of 7% to 7.5%. The importing company also determined the average price of the vehicles. Several premium brands are switching from the dealer to the agency sales model. The most significant change is the bargaining power of sellers, as until now, they could sacrifice part of their margin for a discount for the customer, which also means the end of competition between sellers.

Table 1: Profitability from sales through the dealer sales model

	2021	2022	2023	2024	2025
Combustion vehicles	661	632	700	705	690
Average price	50 000 €	51 500 €	53 000 €	54 500 €	55 000 €
Margin	10,00%	9,50%	9,00%	9,00%	9,00%
Company revenue	3 305 000 €	3 092 060 €	3 339 000 €	3 458 025 €	3 415 500 €
Electric vehicles	7	44	120	235	310
Average price	45 000 €	45 000 €	47 000 €	50 000 €	53 000 €
Margin	7,50%	7,00%	7,00%	7,00%	7,00%
Company revenue	23 625 €	138 600 €	394 800 €	822 500 €	1 150 100 €

Source: own processing according to internal company information

As we can see in Table 1, revenues from selling internal combustion vehicles in 2021 amounted to 3,305,000 euros. If we consider that in 2025, the sale of internal combustion vehicles will still be relatively high, we overlooked a negative impact on the company's profitability. When comparing the year 2025 with the year 2024, the gross profit decreased by 42,525 euros. If we start from the assumption that the number of electric vehicles will increase and, on the contrary, the sales of retarder vehicles will decrease, the impact on the company's final profit will undoubtedly reduce. In the case of electric vehicles, we can see an upward trend; the margin is relatively unchanged over the years, and when combined with a more significant number of vehicles sold, there will be an increase in revenues and, thus, the company's profitability. The second simulated example is based on the assumption of a new sales model. The essence of the simulation is to point out the changes if electric vehicles start to be sold in the form of an agency sales model. The sale of internal combustion vehicles remains unchanged, so we start from the first simulation without any changes. In the case of electric vehicles, the margin changes to an agency fee reduced to 5%. The point is that even if this sale is carried out by a specific dealer in a particular showroom, the creation of profit based on the remuneration for the agent is different than in the case of internal combustion vehicles.

Table 2: Profitability from sales through the agency sales model

	2021	2022	2023	2024	2025
Combustion vehicles	661	632	700	705	690
Average price	50 000 €	51 500 €	53 000 €	54 500 €	55 000 €
Margin	10,00%	9,50%	9,00%	9,00%	9,00%
Company revenue	3 305 000 €	3 092 060 €	3 339 000 €	3 458 025 €	3 415 500 €
Electric vehicles	7	44	120	235	310
Average price	45 000 €	45 000 €	47 000 €	50 000 €	53 000 €
Margin	7,50%	7,00%	7,00%	7,00%	7,00%
Company revenue	23 625 €	138 600 €	394 800 €	822 500 €	1 150 100 €

Source: own processing according to internal company information

The onset of agency sales is a change recorded in the case of the company's revenues, which are tied to the agent's remuneration. Compared to sales through the dealer sales model, the yield was more significant in 2025 by two percentage points. In absolute terms, revenues decreased by 328,600 €.

Electric vehicles also bring with them a new sales model. Indirect sales become a so-called hybrid of direct and indirect models in the form of agency sales. Innovative vehicles, to a large extent, appeal to a different type of end customer, and this is associated with another kind of marketing, which, in our opinion, should be adapted to the new market conditions. While through classic sales, the importing company focuses on brand and product campaigns. A typical Volvo brand campaign is, for example, a safety campaign. According to research conducted by Madlenak et al. (2018) and Gorzelanczyk & Huk (2022), vehicle safety is considered a key element when buying, together with the price. A product campaign is often associated with the introduction of a new model, which is launched in several phases, namely: (1) pre-sale phase, and (2) phase during the launch of sales.

To a large extent, the importing company was not forced to deal with potential customers. Instead, it focuses on promoting the product and the brand as such, for which large-scale media are used. Financially demanding advertisements or TV advertisements are used, which, in the end, do not directly generate potential clients.

With the advent of the new sales model, the importer must focus more and more on creating potential clients. On the one hand, this change will save marketing costs, as brand and product campaigns are very financially demanding. The brand itself essentially bears these costs. In our case, Volvo Cars is pushing for a direct sales model due to the reduction of costs associated with margins and rewards for the dealer. Therefore, the importer's main task will be to focus on potential leads. That is, for potential customers who are interested in buying a vehicle. We recommend several options for companies to maximise their number of leads:

- Test drives – if the company focused on expanding the possibility of test drives for the public, it would be able to gain awareness and get in touch with new potential customers. Most interested parties will find time to test the vehicle if

they are interested and want to try it out. The seller gets into personal contact with a potential client, increasing his likelihood of a sale Kolla et al. (2020).

- Acquiring contacts – for example, obtaining an e-mail contact is very crucial. When providing additional services such as test drives, we recommend bringing e-mail addresses, for example, by filling out the necessary form before the ride, which includes the mandatory part of filling in one's e-mail address. In this way, the company can regularly remind itself through e-mail marketing, as a part of green marketing (Krizanova et al., 2013) to its new potential clients.
- Social networks – social networks are an integral part of today's modern times. It is no secret that if we click on an advertisement that interests us, we are automatically a potential customer for the company. If the company starts using paid advertisements on social networks, it can increase the number of clicks on the page, thereby increasing the database of its potential clients.
- Competitions – providing the winner with a vehicle for the weekend does not represent a considerable cost for the company. Suppose one of the conditions for participating in the competition is to provide contacts. In that case, the importing company will acquire many potential customers whom it can regularly contact by sending news of possible discounts or, for example, test drives (Nagy & Valaskova, 2023)

The new business model will affect the importer and the dealer network to a large extent. The most significant change in the business model is the change of the dealer to an agent, who is now just an intermediary for the business, for which he will be rewarded. For a private entrepreneur to become a dealer for a specific brand, it is necessary to meet many standards set by the brand. By these standards, we mean, for example, the showroom's area, the size of which must have a minimum number of square meters, the number of qualified employees, etc. The dealer ceases to be the one who has to buy all the vehicles and subsequently sells them to the end customer but becomes only a sales intermediary as an agent. Based on the company's internal sources, the brand lowers the standards directed at the dealer and the standards defining the point of sale, i.e. the showroom itself. Since one of the most expensive items for a dealer is mainly showroom maintenance, intense pressure cannot be exerted on the dealer through the brand, which robs him of his margin through the new business model. For example, while in the past, the brand required sales showrooms to have 200 square meters, with the arrival of a new model, these requirements will be reduced by half. Considering all the mentioned aspects, we suggest that dealer companies diversify the risk and become multi-brand companies. This means that the dealer could cover several brands at once. Our proposal is not new. Many dealer companies operating in the territory of the Slovak Republic are multi-brand. Instead, we are trying to point out that with a smaller area, the company has the opportunity to connect its stores, which creates new space that it can use to its advantage.

We suggest a few options to the dealer network that could be interesting for them: (1) contracting with another brand of vehicles, (2) expansion of authorised services, (3) renting premises, (4) sale of premises, and (5) business expansion with new business.

5. Conclusion

Electrification is becoming an increasingly important part of many industries. Governments and businesses are trying to reduce greenhouse gas emissions and tackle climate change. By replacing fossil fuels with electricity, electrification can help reduce carbon emissions and improve air quality. Electrification is a crucial area of interest in developing electric vehicles and charging infrastructure in the transport sector. The rise in sales of electric vehicles represents a significant shift away from traditional fossil fuel-powered technologies to more sustainable and efficient alternatives. The paper aimed to identify recommendations for the practical adaptation of the importer of electric vehicles on the Slovak market based on the analysis of the financial and economic impacts of the sale of electric vehicles. The article analysed the impact on the Volvo importer company. We focused on the period from 2019 to 2022, where we tracked changes in sales by vehicle engine. In each of the monitored years, the largest share of sales was made up of vehicles with a combustion engine. The Volvo brand has set a goal for 2025, more than half of the annual sales of electric vehicles. Following the mentioned goal, with the help of expert advice from the importing company, we simulated the sales plan for 2023 to 2025. Predicting future sales plans for 2023-2025 is difficult, given the current market volatility and rapid technological changes in the electric vehicle industry. However, the pressure of the European Union and technological changes affecting the battery life of electric cars ensure an increase in the number of electric cars sold—as Table 2 also indicates. We focused on the statistical development of the entire market, the most prominent competitors, comparison of vehicle models, production plan, serviced segment, and service market. After finding the necessary information, we started designing a sales plan for the future. We determined the company will not fulfil its plan to sell more than half of electric vehicles in 2025. This number is essentially an estimate, and the sales plan may vary based on various indicators.

As electric vehicles become more popular, dealers must adjust their sales models to accommodate the new types of vehicles. The classic indirect model replaces the agency sales model. Compared to traditional combustion vehicles, the production of electric vehicles is significantly more financially demanding. Manufacturers reduce costs associated with sales. The agency sales model brought about a reduced margin for the dealer after a new agent for mediated sales in the form of a reward for the agent. The decrease in the margin also affected the importer himself. Based on the calculation of the revenue from the sale of electric vehicles, we noted a reduction in the margin by an average of two percentage points compared to the sale of combustion vehicles. Regarding visits to the authorised service centre, we also experienced a negative impact within this industry. Electric vehicles require less frequent maintenance than traditional engines, which causes a reduction in service revenue. The analysis included quantifying the vehicle fleet according to the age of the vehicles, sales hours per mechanic, retention, average attendance, and the length of time the mechanic worked on the vehicle. Despite the above, we propose adapting a new sales model focused on selling electric vehicles. As mentioned above, a great advantage of the direct agency sales model could be the direct configuration and customisation of the vehicle according to the customer's preferences. With the advent of the new sales model, the importer must concentrate more and more on creating potential

clients. On the one hand, this change will save marketing costs, as brand and product campaigns are very financially demanding. The brand itself essentially bears these costs. In our case, Volvo Cars is pushing for a direct sales model due to the reduction of costs associated with margins and rewards for the dealer. Therefore, the importer's main task will be to focus on potential leads. That is, for potential customers who are interested in buying a vehicle.

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