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TOGG Automotive Brand Potential from Regional Market Perspective

Mahmud Amino^{1,2}, **Sergey Yu. Chernikov**^{1,3}

1 Peoples' Friendship University of Russia named after Patrice Lumumba (RUDN University), Moscow, Russia.

2 mahmudamino97@gmail.com

3 chernikov_syu@pfur.ru, <https://orcid.org/0000-0001-7524-4438>

Abstract. The burgeoning electric vehicle market has become a compelling area of inquiry worldwide. In the European Union, stakeholders in the automotive industry are striving to derive requisite energy from renewable sources, and are reconfiguring vehicular end products to partially (hybrid) or fully satisfy their energy demands with such sources. Despite this, electric cars persist in making inroads into our quotidian existence, representing a dynamic and self-generating sphere that garners intensified interest from automakers.

Purchase subsidies continue to hold a significant role in the purchase of electric cars, although their impact is limited to the implementation process and the form rather than the overall trend. This trend is evident across all continents, with major automobile manufacturers already announcing their own models of electric cars. Despite the increasing number of publications and sales, the issue of whether electric cars represent a solid trend or a niche solution for specific conditions, such as many "green energy" technologies, remains a topic of debate. Nevertheless, numerous states have incorporated electric cars in their strategic policies. Consequently, this study aims to enhance comprehension of the product specifications pertaining to the newly-introduced TOGG, which could potentially lead to a competitive advantage.

Electric vehicles, which were once perceived as mere "show-off" novelty items, are now emerging as a viable mode of transportation, being both environmentally and economically appealing. This marks a significant and noteworthy technological shift within the global automotive industry. An investigation was performed to ascertain TOGG's current standing in neighboring markets and its capacity to compete within the industry.

Key words: electric vehicle, Turkey brand, TOGG, automotive promotion, regional EV markets.

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Научная статья

УДК 332.02

Потенциал автомобильного бренда TOGG в региональной рыночной перспективе

Махмуд Амино^{4,5}, **Сергей Юрьевич Черников**^{4,6}

4 Российский университет дружбы народов имени Патриса Лумумбы (РУДН), Москва, Россия.

5 mahmudamino97@gmail.com

6 chernikov_syu@pfur.ru, <https://orcid.org/0000-0001-7524-4438>

Аннотация. Рынок электромобилей неуклонно растет во всем мире и, соответственно, становится привлекательной областью исследований. В ЕС заинтересованные стороны автомобильной промышленности стремятся получать столь необходимую энергию из возобновляемых источников энергии и разрабатывают конечные продукты автомобилей и других транспортных средств таким образом, чтобы частично (гибридные) или полностью удовлетворять свои энергетические потребности за счет возобновляемых источников энергии. Тем не менее электромобили продолжают активно входить в нашу повседневную жизнь и становятся динамично и автономно развивающимся направлением, к которому проявляют бурный интерес автопроизводители. Субсидии на покупку остаются важнейшим элементом при приобретении электромобиля, но они влияют лишь на форму и скорость внедрения, но не на общую тенденцию. Это явление не обошло стороной ни один континент земного шара, так как все ведущие автопроизводители уже объявили о выпуске собственных моделей электромобилей. Несмотря на большое количество публикаций и растущие продажи, до сих пор ведутся споры о том, является ли это устойчивым трендом или все же нишевым решением для конкретных условий, как многие технологии

«зеленой» энергетики. Тем не менее, многие государства включают электромобили в свои стратегические планы. Таким образом, цель данного исследования — дать более полное представление о потенциале недавно появившегося турецкого бренда TOGG и его возможных конкурентных преимуществах. Всего несколько лет назад электромобили были нишевым малофункциональным товаром показного потребления. Однако сейчас они постепенно становятся вполне экономически привлекательным средством передвижения, обозначив одну из наиболее заметных и важных технологических трансформаций в мировой автомобильной промышленности. Анализ проводился с целью определения текущего положения компании TOGG на смежных региональных рынках и его способности успешно на них конкурировать.

Ключевые слова: электромобиль, турецкий бренд, TOGG, продвижение автомобилей, региональные рынки электромобилей.

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Introduction

Electric vehicles were once viewed as a “show-off” novelty, but are now gradually emerging as a highly appealing mode of transportation from both an environmental and economic standpoint. This evolution is thought to be the most significant and noteworthy technological changes within the global automotive industry [Lejarraga 2016]. Despite the abundant literature and rising sales figures, there remains a debate regarding whether this trend is a sustainable one or whether it will remain a niche solution for specific circumstances, much like other “green energy” technologies [Krieg 2017; Clark 2005]. This phenomenon has impacted every continent on the planet, with all of the major automakers introducing their own electric vehicle models. The European Union has even designated 2035 as a point of no return, and many experts and analysts predict that by this deadline, European nations will not only discontinue the production of new gasoline and diesel vehicles, but will also gradually phase out their existing internal combustion engine cars in favor of electric alternatives.

Nonetheless, the integration of electric cars into our daily lives continues to progress, resulting in dynamic and autonomously developing areas that generate rapid interest from car producers. It is worth noting that the high price of electric vehicles, primarily due to battery cost, as well as two technological barriers, namely insufficient range and lack of charging infrastructure, remain among the most critical economic obstacles to further fleet expansion. Although purchase subsidies remain a crucial element when acquiring an electric car, they only impact the form and speed of implementation, rather than the overall trend. Nevertheless, many

states have included electric cars in their strategic policies.

Despite many countries aiming to close the “metabolic gap” between the amount of fossil energy resources they consume and produce, the progress is rather small. In the current global turbulence many economy sectors are forced to change their business plans, business models, production models and even products. In EU the stakeholders of the automotive industry have aimed to obtain the much needed energy from renewable energy sources, and are redesigning the final products of automobiles and other vehicles to meet their energy needs partially (hybrid) or completely from renewable energy sources. In fact, according to the Statista report², the number of electric or hybrid cars are expected to exceed 77 million in 2025. The developing countries like Turkey are also trying to cope with the trend.

EV Automotive Industry Overview and Development of TOGG Brand

Electric vehicles have a rich history in the Western automobile market, dating back to the 1820s in Hungary, the Netherlands, and the United States. However, it was not until Tesla unveiled the Roadster in 2008 that a race toward innovation began for automakers. With its stronghold in the luxury vehicle market, Tesla’s success helped propel EVs to the forefront of the automotive industry. The segment dominated the 2022 New York Auto Show with the presentation of various all electric models, including sport utility vehicles (SUVs) and pickup trucks. These are particularly popular in the mass motorized U.S. market, where light trucks represented over three quarters of light vehicle sales in 2021³.

2 Electric vehicles: A global overview. Statista : [website]. Available at: <https://www.statista.com/study/134904/electric-vehicles-a-global-overview/> (accessed: April 18, 2023). Access after payment.

3 OICA statistics 2022. OICA : [website]. Available

While Europe and the United States recorded a steep growth in new electric vehicle registrations between 2020 and 2021, China claimed pole position. Sales of new energy vehicles in China started advancing before 2018, and EV sales grew by around 155 percent between 2020 and 2021. China's widespread promotion of battery electric vehicles is in part linked to its goal of achieving independence from oil consumption a goal that many countries have now set in an effort to improve transport sustainability.

The global electric vehicle fleet significantly increased in 2020 and 2021, propelled by factors such as soaring gas prices, greater environmental awareness, and scheduled bans on internal combustion engine vehicles. EV production and the used EV market are also expected to surge over the next decade.

2021 government spending represented just over 10 percent of electric car spending worldwide, with consumer spending making up close to 90 percent.

at: <https://www.oica.net/category/production-statistics/2022-statistics/> (accessed: April 18, 2023).

Therefore, it is important to look at the entire electric vehicle market to get an accurate picture of the current status quo and the steps actors need to take in order to promote market growth. Talks of banning the sale of gasoline and diesel cars are underway in Europe; the UK officially announced in November 2020 the plan to end sales of vehicles with an internal combustion engine (ICE) by 2030, and the EU 27 set a 2035 deadline for this same goal in June 2022. Automakers also made similar commitments, with Volkswagen Group setting targets in line with the European Parliament.

While Tesla has been considered the uncontested market leader, other automakers have entered the race. In 2022, China's BYD retired its ICE product lines to focus on EVs, which comprised most of the brand's sales. BYD's success led to the brand ranking second worldwide for electric car sales in 2021, with deliveries overtaking Tesla as of August 2022. After its emissions scandal that started in 2015, Volkswagen has also been investing heavily in electric vehicles, ranking in the top four manufacturers worldwide for EVs in 2021. Volkswagen was also the leader in research and development spending that same year.

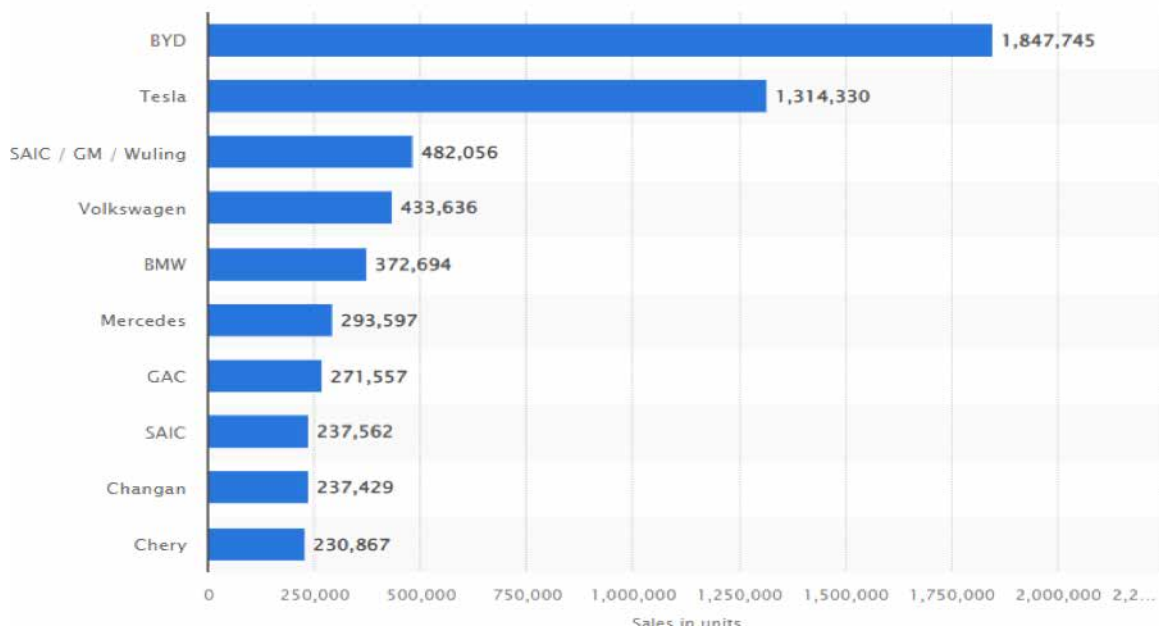


Figure 1. Estimated plug-in electric vehicle sales worldwide in 2022 by brand

Source: *Electric vehicles worldwide*. Statista : [website]. Available at: <https://www.statista.com/study/11578/electric-vehicles-statista-dossier/> (accessed: May 27, 2023). Access after payment.

While From Figure 1, it is seen that the China and US are leading the electric vehicles via BYD and TESLA, with Chinese cars taking the lead. This is the result of structural efforts by Chinese government that have created and supported the industry of electric car main components – battery

and major power systems. Chinese government is also providing lots of subsidy and tax incentives in this venture and significantly contributing to the charging infrastructure. These actions have paved the way to great success of BYD at Chinese market. This experience has been researched in other contries

and Turkey specifically. However, it can be seen from EV progress, if one looks at the number of vehicles purchased by users in Turkey market by engine type. Figure 2 that Turkey is still near the starting point in

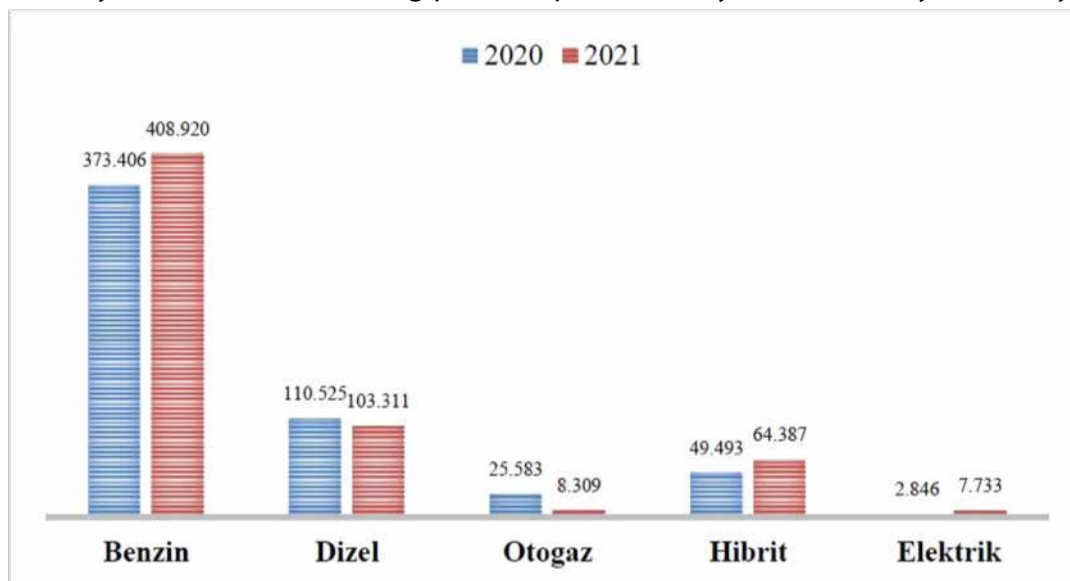


Figure 2. Vehicle Sales by Engine Type in Turkey

Source: Macroeconomic Evaluation report 2022. ODMD : [website]. Available at: www.odmd.org.tr/folders/2837/categorial1docs/3364/Makroekonomik%20Değerler%20-%20Aralık%202022.pdf (accessed: April 18, 2023).

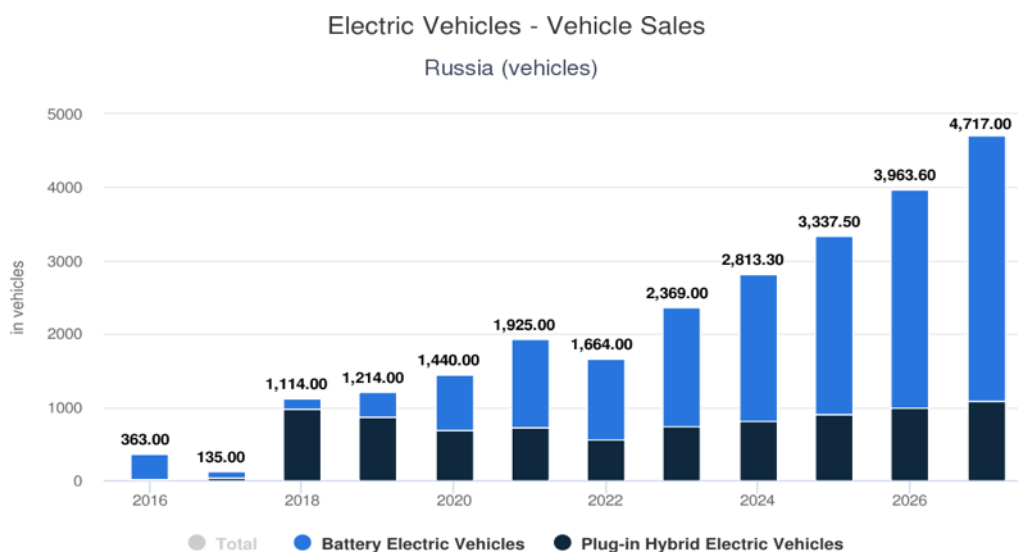


Figure 3. Russia EV vehicle sales

Source: [Electric Vehicles – Worldwide 2023].

According to the Automotive Distributors Association, 223 electric vehicles (excluding hybrids) were sold in Turkey in 2020 – a 104% increase compared to the first eight months of 2019. There was also an increase in hybrid vehicle sales, which reached around 9,000 in the first eight months of the year. Although this shows an encouraging upward trend for electric and hybrid vehicles, the picture changes when hybrid sales are compared to vehicles that consume other fuel types. The data shows that sales of electric and hybrid vehicles in Turkey remain low compared to sales of fossil fuel vehicles. The

Turkish EV market is rather low compared to EV sales in the regional adjacent markets of neighboring countries and unions. Figures 3-6 show EV vehicles worldwide and estimate sales for the next few years.

It is important to note, however, that the Russian electric vehicle market patterns have been drastically interrupted in 2023, as the Russian government introduced a number of stimulating measures like free parking, 30% subsidized car cost and preferential car loans for appropriate car sales¹. This was due

¹ Market is alive: what would occur with Russian car sales in Russia in 2023 : RBC report. Available at: <https://www.autonews.com>

to localization of some Chinese EVs under Russian brands, and can potentially lead to a significant increase in 2023 sales up to approximately 15 000 units.

ru/news/63c0fc4f9a7947467d6c4ebd (accessed: July 21, 2023).

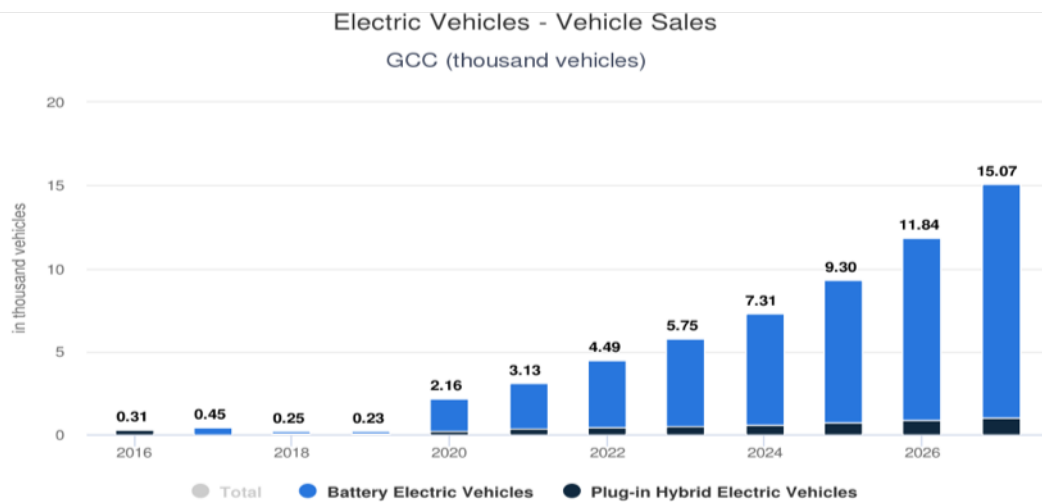


Figure 4. GCC Countries EV Vehicle Sales

Source: [Electric Vehicles – Worldwide 2023].

Despite hasty development, the car market of the GCC region is majorly dependent on conventional automobiles, as the region is one of the major producers of crude oil. However, the wealthy middle class and environmental impact are slowly encouraging the adoption of hybrid and plug-in hybrid electric vehicles as can be seen above.

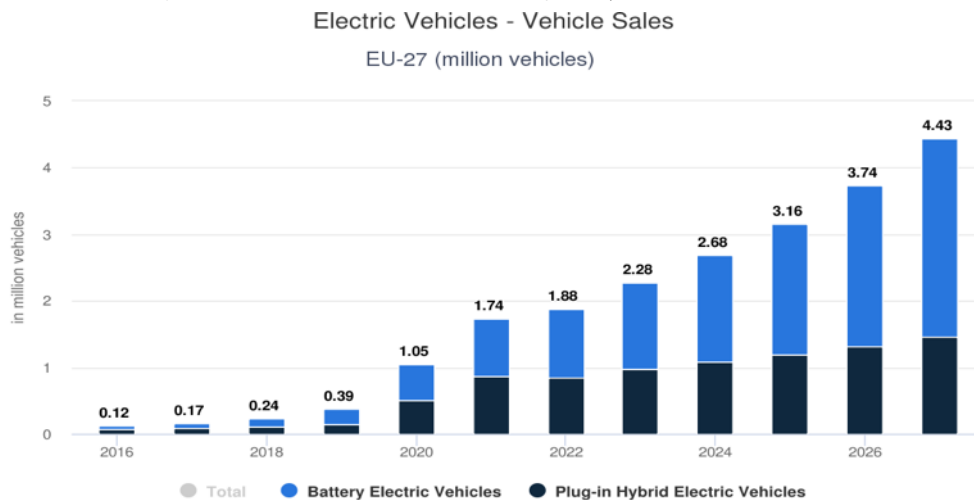


Figure 5. EU-27 Countries EV Vehicle Sales

Source: [Electric Vehicles – Worldwide 2023].

The EU EV market is certainly among the most advanced in the world, with most of the experts predicting its future hasty growth, which will now have additional stimuli due to raising petrol and energy prices. With the goal of making a technological and economic advancement, Turkey has developed and launched its TOGG (Türkiye Otomobili Girişim Grubu) brand of high-end electric automobiles [Demirer 2022]. TOGG was officially established on 25 June 2018 by Anadolu Grubu Holding A.Ş., BMC Otomotiv Sanayi ve Ticaret A.Ş., Turkcell İletişim Hizmetleri A.Ş., Zorlu Holding A.Ş., and the Union of Chambers and Commodity Exchanges of Turkey (TOBB) as a joint venture of five stakeholders. TOGG's launch in 2023 was a result of a long process from the preparation phase in 2015 to unloading the first vehicle [Demir 2020]. TOGG which is designed with reference to Turkish cultural elements, expected to produce five electric, smart and connected C-SUV, C-Hatchback, C-MPV, C-Sedan and B-SUV type automobiles by 2030. The localization level of TOGG C-SUV model production would start from 51% in 2023 and is expected to reach 65% in 2026².

2 Bakan Varank: Togg minimum yüzde 51 yerlilikle piyasaya

In terms of technical specifications, the model TOGG T10X comes with two different batteries providing a range of 300+ km or 500+ km. The customers can choose between single e-engine rear-wheel drive (RWD) version offering 200 horsepower or a double-e-engine all-wheel drive (AWD) system offering a total of 400 horsepower. TOGG will be able to reach 80% traction battery charge level in 30 minutes with fast charging. The car will accelerate to 0-100 km/h in 7.6 seconds in the engine option that offers 200 horsepower, and in 4.8 seconds in the engine option that offers 400 horsepower. Also, the battery will be guaranteed for 8 years¹. The prices of the T10X initially announced were ranging from over 49000 USD for V1 RWD Standard Range to over 63000 USD for V2 RWD Long Range. TOGG brand has been presented to the world for the first time at the Consumer Electronic Show (CES) held in Las Vegas, the United States in 2021. Since that time, the media world is following all updates seriously, which made the brand makes noise in all Europe, with finalizing promotion event by the president that sent the first TOGG cars to other country leaders as present.

Also, TOGG introduced Trumore mobile App which is a digital platform (free app on play store) that redefines the mobility experience, the application aims to provide a personalized and user-oriented experience with technologies such as fintech (Financial technologies), insurtech (insurance technologies), blockchain, IoT and artificial intelligence. This app took a year and a half from TOGG company to develop it and launch in line with the automobile. Every time TOGG officials talked about the company's electric car, they used the concept of 'smart device' instead of automobile [Yaprak 2023].

TOGG started offering its products locally in the Turkish Market, opened many offices and contact points where public can arrange for driving test and experience the vehicle. It's plan to produce and deliver 20000 vehicles by the end of 2023, and 1 million vehicles by 2030. The company opened

a pre-order application lottery in March 2023 on Trumore App and the company official website in aim of choosing the winners of lottery for the 20,000 vehicle that will be delivered in 2023, the surprising result was getting the company more than 170000 pre-order applications to buy T10X model automobile.

In addition, the Turkey government has announced unprecedented support for TOGG sales start. First of all, Government decided to provide TOGG loan support for citizens who are willing to buy TOGG T10X from public banks such as Ziraat Bank, Vakif Bank and Halk Bank which covers 50% of the car price for 36 months and only 0.99% interest rate². Also reducing tax rate for TOGG T10X from 60% to 10% while increasing the Chinese EV vehicles tax to 40% in aim to support the local brand production³. In addition to consumer support, government announced a number of support measures to TOGG manufacturer, such as customs duty exemption for TOGG machinery imports, VAT exemption and refund on the building & construction expenses, insurance premium share support for 10 years for any additional employment created, income tax withholding support for 10 years and corporate tax deduction until 31 December 2032⁴.

Global Electric vehicle market issues

As all products, electric vehicle success heavily depends on current conjuncture of supply and demand. But in case of a rather new product that stakeholders weight of a government is slightly higher than that of manufacturers and consumers. EV's success is not possible without government pushing to improve charging infrastructure and providing subsidies for a starting period of sales. In this complex market, the impetus for EV acceptance

çıkacak. 2025'te de minimum yüzde 65 yerliliği yakalayacak :

Anadolu Ajansı : news agency. Available at: <https://www.aa.com.tr/tr/ekonomi/bakan-varank-togg-minimum-yuzde-51-yerlilikle-piyasaya-cikacak-2025te-de-minimum-yuzde-65-yerliliği-yakalayacak/2716418>. Published: 10/20/2022. In Turkish.

1 TOGG : official website. Available at: <https://www.togg.com.tr/en/togg-and-ava-labs-announce-strategic-partnership.html> (Accessed: July 19, 2023).

2 Togg kredi desteği nedir? Cumhuriyet : news agency. Available at: <https://www.cumhuriyet.com.tr/ekonomi/togg-kredi-destegi-nedir-togg-tasit-kredi-destegi-ne-kadar-togg-kredisi-vadesi-ne-kadar-faiz-orani-kac-2078239>. Published: 05/05/2023. In Turkish

3 Elektrikli araç vergilerine Togg ayarı. Hurriyet news agency : news agency. Available at: <https://www.hurriyet.com.tr/ekonomi/elektrikli-arac-vergilerine-togg-ayari-otv-matrah-limitleri-guncellendi-cinli-modellere-ek-vergi-geldi-42228719>. Published: 03/04/2023. In Turkish

4 Turkey: The government supports the first fully homemade electric car investment project worth \$3.7 billion. Global Trade Alert : news agency. Available at: <https://www.globaltradealert.org/intervention/78167/tax-or-social-insurance-relief/turkey-the-government-supports-the-first-fully-homemade-electric-car-investment-project-worth-3-7-billion>. Published: 12/27/2019.

cannot be placed on a single factor [Yaprak 2022]. Government goals, incentives, and legislation all influence the targets of original equipment manufacturers (OEMs), as seen with Volkswagen and the EU 27. A more varied market can lead to increased EV awareness, and, in turn, consumer purchasing intentions can impact the political discourse.

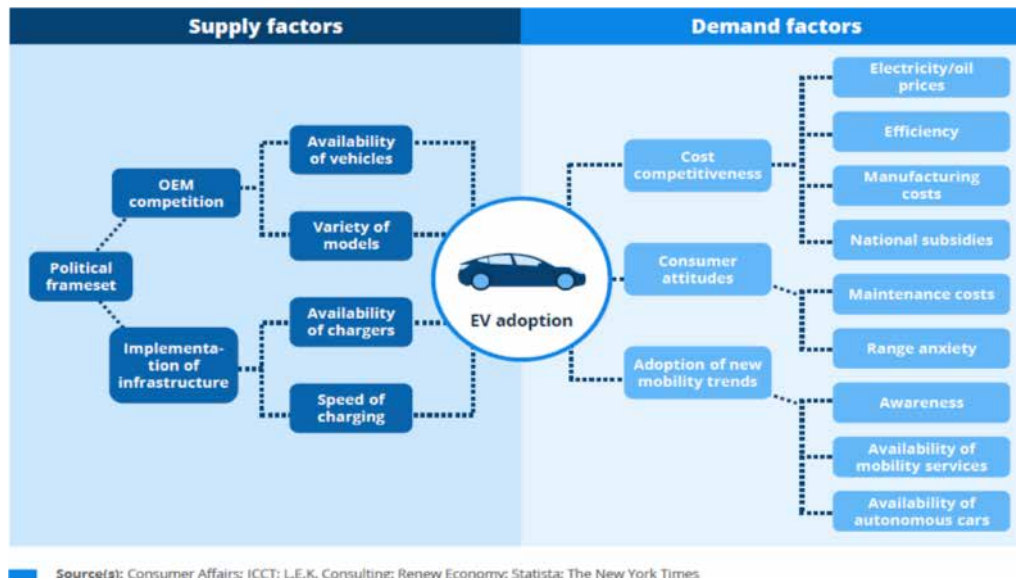


Figure 6. EV Vehicles Consumer Acceptance Affecting Factors
 Source: [Electric vehicles: A global overview 2023].

EV automotive industry is multifaceted and, in January 2023 with intent to promote active at times, complicated. OEMs must contend with mobility. each country's political context and approach to the transport electrification process, perspectives that can directly impact vehicle sales. For example, Norway has been the European leader in offering financial incentives to EV buyers this has resulted in EVs dominating the Norwegian market. Now the country plans to scale back on EV subsidies starting

Russia-Ukraine war has accelerated interest in used EVs as gas prices sharply inflated. But this hike in demand was greater than supply, leading to used EV shortages in, for example, the UK. In the U.S., the average used EV price was 71 percent higher than that for used non hybrid and non-electric vehicles in May 2022 [Electric vehicles: A global overview 2023].

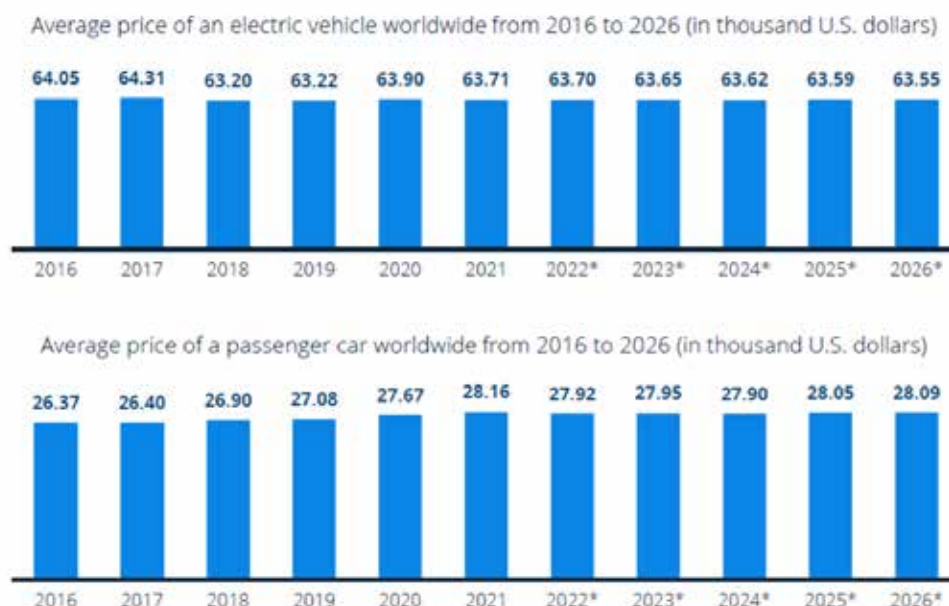


Figure 7. Average Price of EV and regular passenger car Worldwide in Thousand US Dollars
 Source: [Electric vehicles: A global overview 2023].

This market inflation helps highlight the fundamental role played by consumers and how demand factors impact electric vehicle acceptance. Consumers spent over eight times more than governments on electric cars worldwide, representing close to 90 percent of the global expenditure in 2021. At around 249 billion current U.S. dollars, global consumer spending on electric vehicles was also nearly double its 2020 value. Consumer opinions and purchasing intentions, while heavily dependent on external factors such as sample selection bias and framing bias, can provide insights into the perceived demand of the market and the potential challenges government and automakers will need to address in order to phase out the production and sale of new vehicles. However, consumers might not be the only actor OEMs have to contend with when trying to increase their EV sales; other less subjective factors contextualize consumer behavior [Yilmaz 2022]. Each country's specific demographic information and government attitudes toward facilitating electric vehicle adoption are integral factors contributing to market differences between regions. While governments allocated 28 billion U.S. dollars in electric car spending in 2021, policies such as subsidies and other financial incentives, as well as investments in infrastructure, could contribute to a more favorable EV market.

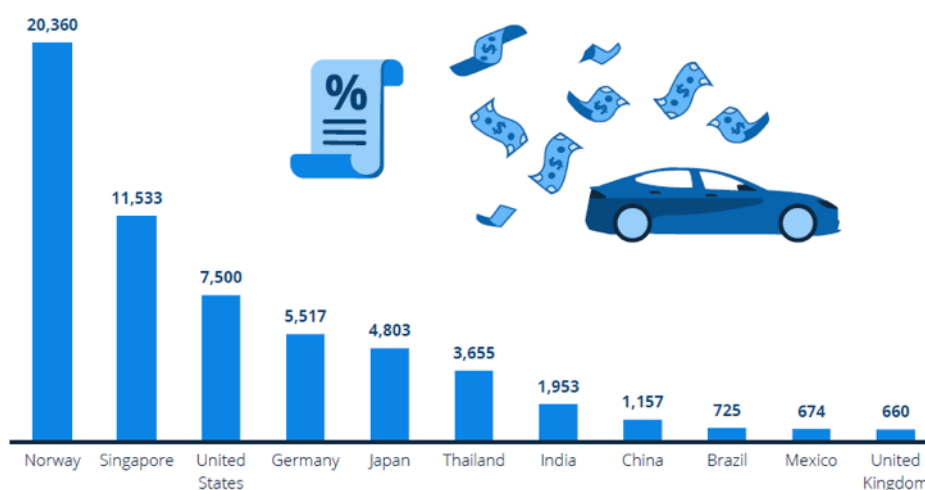


Figure 8. Average global electric vehicle subsidies at purchase in selected countries in 2022 (in U.S. dollars)

Source: [Electric vehicles: A global overview 2023].

The EV market is growing in many countries, each with very different demographics. Norway, where EVs accounted for over 86 percent of new passenger vehicle sales in 2021, has a high gross domestic product per capita, with 83 percent of its population living in urban areas. However, high GDP per capita and urban population are not intrinsically indicative of a larger EV market. As of 2021, the U.S. had a GDP per capita of 69,231 U.S. dollars, with an 83% urban population [Electric vehicles: A global overview 2023].

TOGG brand perspective in the regional adjacent markets

Generally the electric vehicle market in Europe is rapidly evolving as the EU are generating over 25% of the world's EV production. In 2021, EVs represented roughly 20% of new-car sales in Europe, which is an indication of the growing popularity of electric

vehicles in the region¹. However, European car makers are facing strong competition from heavily subsidized Chinese electric vehicles and are struggling to compete on price, resulting in a shortage of mass market customers able to pay the price for electric vehicles. As in Turkey, the entry of Chinese electric vehicles is causing European car makers significant losses, but EU is much slower in creating antidumping barriers. The reasoning behind it that EU is limited with its "green deal" strategies, and its promoters are protecting the competition in EV market to ensuring an effective and durable green transition.

¹ Europe's EV opportunity—and the charging infrastructure needed to meet it. By J. Conzade, F. Nägele, S. Ramanathan, and P. Schaufuss. McKinsey&Company : official website. Available at: <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/europes-ev-opportunity-and-the-charging-infrastructure-needed-to-meet-it>. Published: 11/04/2022.

Competition and players' strategies are shaped by the different sub-segments within the market, such as standard non-plug-in hybrids (HEVs), plug-in hybrids (PHEVs), extended range electric vehicles (EREVs), and battery all-electric vehicles (BEVs). As such, supply chain strategies are crucial for competition. Moreover, as price tends to be highly proportional to range capacity and battery efficiency, players target different segments with different models. European hybrid and the electric vehicle market are highly competitive, with a large number of automakers within it, while demand is still at the early adoption stage. Competition tends to be differentiated across segments; in hybrids, Toyota is dominant, while in electric cars there is strong competition between Tesla, BMW, Volkswagen, Renault, and others. Tesla has a strong presence in the electric cars segment in Europe, through the premium sedan Model S, the SUV Model X, and the recent sedan Model 3 and Model Y all-electric cars. Also operates a network of superchargers stations in Europe to enable long-distance driving. Volkswagen Group is one of the leading players in plug-in hybrids through the VW, Audi, and Porsche brands. The company has a strong footprint in the premium-end of the market through the top-selling plug-in hybrids of its Porsche brand. BMW leads the market for electrified vehicles (PHEVs and BEVs). It offers an extensive range of plug-in hybrid versions of the 3 and 7-series sedans and X3 and X5 crossovers. Since 2016, the company has also been a leader in BEVs through its BMW i3 range. Groupe Renault, is one of the leading players in the electric cars segment in Europe thanks to the sales of its all-electric supermini-compact Renault Zoe, which was the second best-selling electric car in the market in 2019 [Electric vehicles: A global overview 2023].

The promotion of competition with Chinese manufacturers that are ahead of Europe in terms of battery technology and established supply chains for critical materials may potentially strengthen the existing crisis in the European industry, which may lead to the industry running to the EU for subsidies [EU Electric Car 2023]. In addition, as other regions are predominantly incentivizing their way to electric mobility, EU is mostly aiming to regulate this progress through legislation. As a consequence, EU's promotion of Battery Electric Vehicles (BEVs) gives an advantage to Chinese and American companies like Tesla. For the near future, the EU has planned "Euro 7" standards to limit pollutants and has adopted new

CO2 standards for cars and vans [Global EV Outlook 2023]. This is added with execution of the Net Zero Industry Act aiming to meet nearly 90% of the European Union's annual battery demand with EU battery manufacturers. Also there is a plan to promote the charging infrastructure across the union. France and Germany have had the fastest pace of public charging points development, but the rest of the EU is still far behind the target rate of 6000 chargers to be installed every week from 2021 to 2030.

The Russian market perspectives are much less obvious due to drastic changes going on it the economy and government regulations over the last year. The Russian electric vehicle market certainly has the potential for growth and success despite its association with a decrease in demand for hydrocarbon fuels, which are a major product of the national economy. However, it is crucial that Russia does not create barriers to the entry of EVs into the normal market operation. Currently the Russian electric vehicle market is largely fragmented and mostly based on imported models, particularly in its initial stages, with the exception of the recently incorporated Evolute brand being the localized Chinese EV brand. The competitive landscape of the market includes leading players such as AB Volvo, Audi AG, Hyundai Motor Company, Nissan Motor Company Ltd, and Tesla Inc, with these top five companies occupying approximately 30% of the market [Russia Electric Cars... 2023].

According to the Russian "Drom" automobile portal the average cost of an electric car (including used vehicles) in 2020 (before all geopolitical turbulence events) was 1.4 million rubles against 632 thousand rubles. It is worthy to note that the price variation here is rather large, as over 70% of electric vehicles at the portal are presented by low-priced Nissan Leaf – especially in the Far East and Eastern Siberia, and at the same time by luxury Tesla – over 11% in Moscow area. In mid-2023 the average price for the new car jumped to 5.9 million, but due to government benefits the sales are growing at a significant pace. For example, 880 cars were sold in May 2023 alone, which was 8 times higher than in same month of 2022 [Romanova 2023]. As shown above, since 2023 Russian EV purchasers enjoy benefits like free parking and tax exemptions, while the charging infrastructure is also actively developing (although the network is much denser is mostly in European part of the country) [Elektromobili (rynek Rossii) 2023]. However,

despite the impressive growth rates the Russian EV market is still less than 1 % of the total automotive capacity, and the sales are mostly rated in hundreds or thousands unlike the traditional car turnover.

It seems from the authors perspective on the information and statistics mentioned it is highly likely that that TOGG brand would have success in the national market especially with the huge incentives from the government. It is suffice to say that the competition in Turkey's EV market is heating up. U.S. carmaker Tesla launched pre-sales of its Model Y vehicles in the Turkish market in April 2023. Tesla is also offering three models to local consumers, with prices ranging between 1.56 million TL, 1.63 million TL and 1.8 million TL. The high TOGG pre-order rate is an indirect sign that consumers are ready get the nationally produced automobile. In March 2023, 2193 EVs were sold in Turkey, a 244% increase from a year ago. EVs accounted for 2.8% of all vehicle sales last month.

If we take a look into the European market, we can see the high competition of the other players of this industry. The increasing of customers awareness and willing to have electrical vehicle will allow TOGG to enter EU-27 market as it has the price advantage comparing to other brands and also the ability of European people to pay that price in comparison to their high income. Also, it's useful to mention that the economic relationship with Europe is strong (70% of Turkey's exports go to EU). It just matters of time until TOGG factories start working in the full capacity and direct its intention to EU market.

Russian market doesn't look attractive to TOGG brand to enter for different reasons such as, growth rate of EV automobiles is too low and the middle-income rate of consumers might affect their decision to prefer TOGG. Moreover, Russia has a big economic relation with China which gives the lead to Chinese players especially with the competitive price that can be the main matter for Russian consumers.

Finally, to evaluate GCC countries market we need to focus tree main parts: technical, financial and political. The first part which means the ability of EV automobile to perform in those countries which have hard nature condition like dust and high temperature that effect

batteries performance. That makes consumers avoid owning such kind of vehicles. The second part which means the ability and willingness of Golf countries to pay such a price as they have high income rate even more than EU. The most important part is the political trend between Turkey and those countries, we can say that the good relations between Qatar and Turkey will give a big advantage to TOGG in case it wants to enter Qatar market especially after 2018 after Turkey's political, economic, military and defence support that it the 1st choice of Qatari government to import from. In such case, Qatar government might support and attract consumers to prefer TOGG brand in aim of keeping the political relations in high level.

Conclusion

The international market for electric and hybrid vehicles has developed impressive momentum in recent years, fuelled by environmental concerns, an increased awareness of the importance of environmental sustainability and an understanding of the long-term economic benefits of the industry. In the past, the Turkish market for electric vehicles was rather small compared to other countries that have more advanced electric vehicle infrastructure. Despite the failure in the past to close this gap, the launch of TOGG in addition to government incentives to promote the Turkish e- vehicle market, including a special consumption tax reduction for electric and hybrid vehicles and a new legal regulation for e-scooters, represents a major leap forward for Turkey.

The public and private partnership launched by TOGG could make Turkey a major producer of electric hybrid and autonomous vehicles, reduce economic dependence on foreign countries and help Turkey tackle environmental problems such as carbon emissions.

Turkey's automobile issue is more than just any commercial business. So, it's not just about producing cars. In this production; automotive, electronic command/control and telecommunication sectors will be combined at one point. Digitization will touch technology and every part of the automotive. Therefore, those who lead the digital transformation will also determine the future of the automotive industry.

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Information about the authors:

Chernikov Sergey U. – Candidate of Economic Sciences, MBA, Associate Professor, Department of Marketing, Faculty of Economics. SPIN-code: 6391-2343, ResearcherID: M-1346-2016, Scopus AuthorID: 57191344141; **Amino Mahmud** – Master student, Department of Marketing, Faculty of Economics.

Place of work of the authors: Peoples' Friendship University of Russia named after Patrice Lumumba (RUDN University), 6 Miklukho-Maklaya st., Moscow 117198, Russia.

Информация об авторах:

Черников Сергей Юрьевич — кандидат экономических наук, MBA, доцент, кафедра маркетинга, экономический факультет. SPIN-code: 6391-2343, ResearcherID: M-1346-2016, Scopus AuthorID: 57191344141; **Махмуд Амино** — магистр, кафедра маркетинга, экономический факультет.

Место работы авторов: Российский университет дружбы народов имени Патриса Лумумбы (РУДН), ул. Миклухо-Маклая 6, Москва 117198, Россия.

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