

Market Acceptance Strategy through Customer Centricity Approach in Electric Truck Product Development with Systematic Method Literature Review

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ABSTRACT

Keywords: Electric Vehicles; Customer Centricity; Market Acceptance

Transportation is one of the contributors to CO² pollutants that cause Greenhouse Gas (GHG) emissions, ultimately impacting global climate change. The creation of electric vehicles is concerned with clean energy and handling global climate change. This aligns with the 17 global goals of the United Nations, which are the world agenda to protect planet Earth and for everyone to live a decent life by 2030. However, creating innovations in production and transforming consumers to switch from fuel vehicles to electric vehicles, especially electric trucks, is equally difficult. In 2022, based on data from Vehicle Type Approval, electric truck sales in Indonesia have the lowest number compared to other types of electric vehicles. This study aims to discover how innovation should be carried out and how consumer desires can be fulfilled from these innovations so that the market easily accepts electric truck products with the hope that interest and sales can increase. This study uses a literature study method that provides an overview of how the customer-centricity approach is applied to support innovation during production. The results of this study provide suggestions in the development of electric trucks that companies should not only focus on technology but also focus on consumer needs to adopt electric truck technology such as cost and economic benefits, charging infrastructure available in various locations, government support and policies, social influence, economic and social factors, promotion policies and regional support.



Introduction

The adverse impact of CO² pollutants from the transportation sector, such as global warming and Greenhouse Gas (GHG) emissions, also affects the changing needs of consumers for more environmentally friendly transportation. The presence of electric vehicles is a solution to reducing costs and environmental impacts from the mobilization of society and logistics operations. Therefore, manufacturing in the carousal sector has begun to develop electric vehicles. Innovation is important in the business cycle to provide novelty (van Riel et al., 2021). In modern marketing concepts, manufacturers are not only required to be able to create innovative products but also have a competitive

advantage (Reshetko et al., 2021). This concept must also be applied to the electric vehicle industry. Because the electric vehicle industry promises to reduce carbon dioxide emissions and dependence on oil (Huang et al., 2021). As a solution to reducing costs and environmental impacts from mobilizing public goods and logistics operations, manufacturers now widely develop electric vehicles in carousels, including electric trucks as vehicles for transporting goods (Bansal et al., 2021).

Research and development of electric trucks are not only carried out and are in demand by carousel manufacturers but have also begun to be developed by educational institutions/universities. Telkom Institute of Technology Surabaya is one of the universities that has developed electric trucks starting in 2021-2022. The features offered on electric truck products include using a 50kw motor dynamo with a 96v 400ah controller that can produce a speed of 70km/h, the battery used is 96v 200ah capable of traveling a distance of 60km, this electric truck is also equipped with a feature that can detect the load carried. However, the current obstacle is that ready-made electric truck products have not been in demand by the industry, and the marketing carried out has not been maximized, so electric truck products researched by the Telkom Institute of Technology, Surabaya have not been commercialized. The following is a prototype electric truck from the Telkom Institute of Technology Surabaya.



Figure 1. Electric Truck Prototype of Telkom Institute of Technology Surabaya

In the development of electric vehicles, manufacturers often focus on innovation and technology, such as features on electric trucks, as an effort to differentiate products to achieve competitive advantages. But the real challenge is how the product can be marketed and accepted by the market. Often, manufacturers only focus on the process and ignore customer centricity. The lack of consumer acceptance of electric vehicles is the main problem in increasing the growth of electric vehicle production (Huang et al., 2021). The total sales of lyric vehicles in Indonesia in 2022 were 21,987 units, based on the following vehicle type comparison.

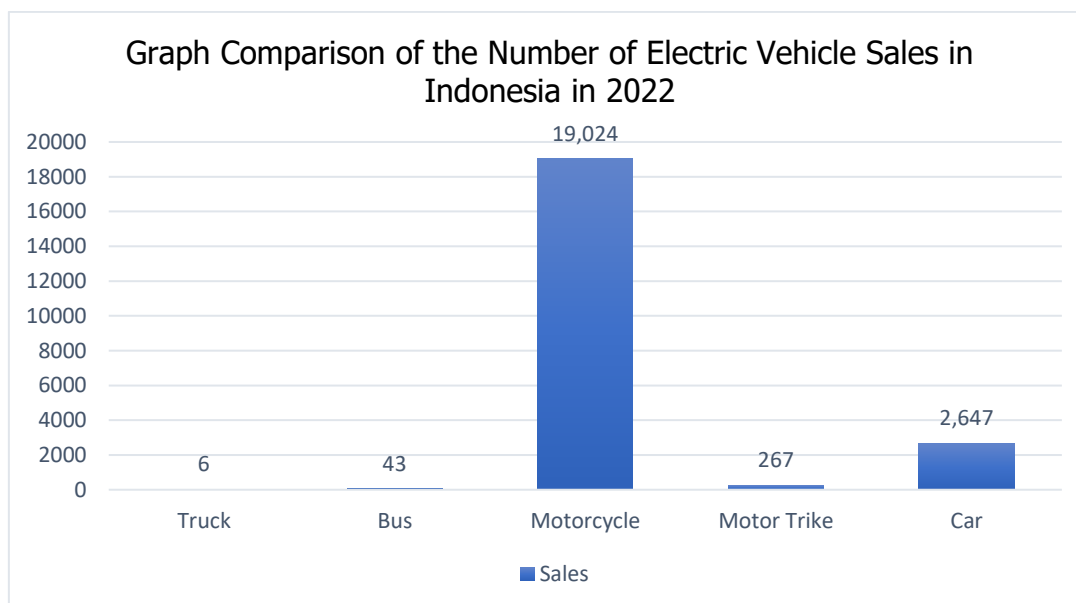


Figure 2. Comparison Chart of the Number of Electric Vehicle Sales in Indonesia in 2022

Source: Vehicle Type Approval (2022)

The graph shows that truck/freight electric vehicles have the lowest sales. The results of the study confirm that consumer preference for electric vehicles for transporting goods with batteries is low (Rommel & Sagebiel, 2021). The low interest in electric vehicles transporting goods in Indonesia is influenced by infrastructure limitations such as the number and distance of charging stations; while abroad, this is not an obstacle, so transportation in the form of trucks has been electrified. Therefore, in the manufacture of electric trucks, it is necessary to adjust to the existing conditions in the market to attract consumer interest, this means that a customer-centric approach is very important when carrying out the development and production process (Benzidia et al., 2021)

Customer-centric is a strategy that puts customers at the center of all the Company's activities (Kreuzer et al., 2020). The customer-centricity strategy has been widely used and has given success to the Company. Companies that implement this strategy will focus their business processes on customer desires ranging from manufacturing, pre-sales and services so that the products produced are according to customer needs, which will ultimately increase customer retention (Magatef et al., 2023). What is needed in customer centricity is to understand the expectations of product features and the interaction between customers and the company in the business process (Hampton et al., 2022).

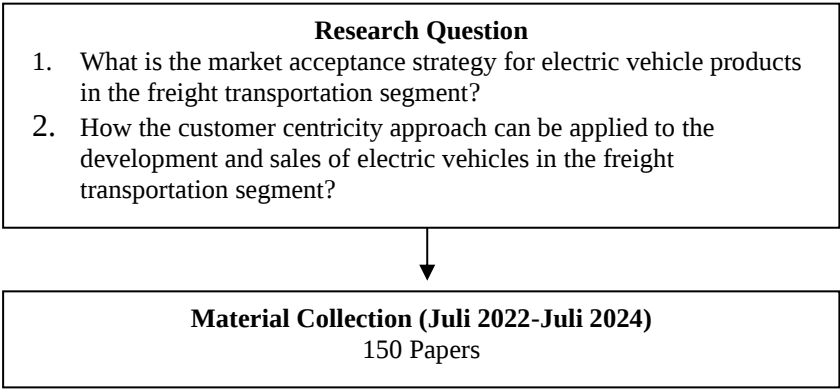
This research is part of the development of electric vehicles that is being carried out by a research team at the Telkom Institute of Technology Surabaya campus. The focus of this study is to apply a customer-centric approach in the production process of electric trucks because in 2023, the electric vehicle development team at the Telkom Institute of Technology Surabaya plans to be able to commercialize the results of the electric vehicle.

This research departs from two main questions, which focus on understanding the market dynamics and adoption strategies for electric vehicle products in the freight transportation segment. The first question seeks to determine the most effective market acceptance strategy for electric vehicle products, specifically in the context of freight transportation. It aims to explore various factors that influence market readiness and consumer interest in transitioning from traditional fuel-based vehicles to electric trucks. The second question examines how the customer centricity approach can be effectively applied in the development and sales processes of electric vehicles within the freight transportation segment. This involves investigating how focusing on consumer needs and expectations during product development can enhance the overall marketability and adoption rate of electric trucks. Together, these questions guide the research towards developing actionable insights for improving electric truck adoption by aligning innovation with consumer preferences.

Methods

Research Design

This research aims to solve the problem by answering the main question of how to develop electric vehicles, especially freight transportation that is ideal for consumers, how the production of electric trucks can meet the desires and needs of consumers so that they can be accepted and even compete in the electric vehicle market for freight transportation. This research is qualitative, and the problems in this study will be solved using a systematic literature study method, namely a methodology that provides suggestions to researchers in a structured and explicit manner to support the solution to the problem being researched. Research methods through literature study start from identifying, evaluating and synthesizing a collection of research produced by researchers, academics and practitioners (Klein Marodin et al., 2023). Literature studies are also analyses in the form of criticism and suggestions from research that is being carried out on a specific topic. This method was chosen because it is most suitable for the problem being researched, namely how to apply customer-centric in the development of electric trucks so that the commercialization of electric vehicles becomes successful; in this case, the development team needs to solve the problem through suggestions from the scientific literature. The following is a systematic literature review framework that will be used to answer the problems in this study.



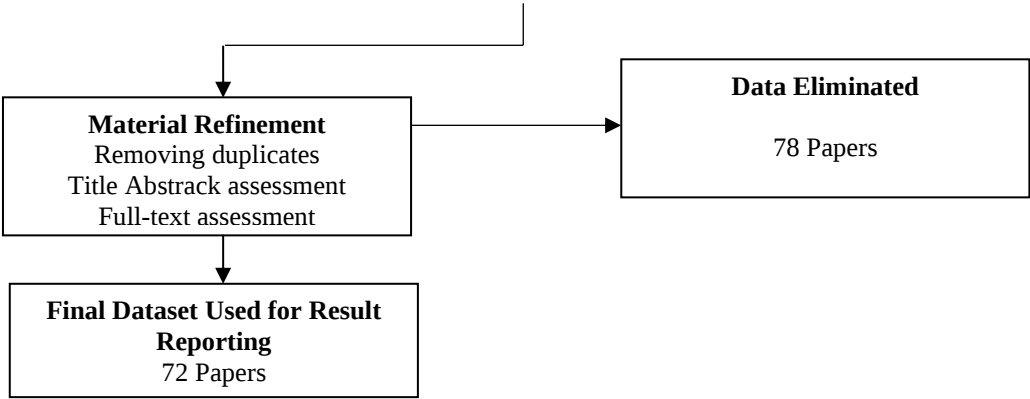


Figure 1. Literature Review Framework

Case Selection

The research object is an electric truck product developed by the Telkom Institute of Technology Surabaya. The problem was discovered through direct observation during 2021-2023. The resource persons in this study are an electric truck development team consisting of students and lecturers.

Results and Discussion

At the same time, electric vehicle developers are faced with two circumstances; on the one hand, they must maintain efficiency in the electric vehicle development process due to limited resources and on the other hand, they cannot ignore the satisfaction of customer needs (Scherrer et al., 2020)This section will discuss the application of a customer-centricity strategy in the development of electric vehicles based on the results of literature studies.

From the results of the dataset synthesis that has been carried out, key points are obtained that can be used as a customer-centricity approach. By implementing these key points, it is hoped that the development of electric truck technology can affect the adoption of electric vehicle technology. These key points have been summarized in the following table

Tabel 1. Poin Kunci Pendekatan Customer Centricity untuk Adopsi Teknologi Pengembangan Truk Listrik

No	Key Point	Sitisis Result	Implementation	Literature
1.	Environmental Awareness and Concern	The study results show that interest in technology adoption in electric vehicles is influenced by consumer technology awareness.	The strategy that can be implemented is for automakers to focus on increasing environmental awareness and organizing more customer-centric, experience-based activities.	(Pai et al., 2023), (Zhao et al., 2016), (Rotaris et al., 2021), (Ling et al., 2021), (Okada et al., 2019), (Shetty et al., 2020), (Pramajaya & Haryanto, 2021), (Huang & Ge, 2019), (Fan et al., 2020),

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				(Zhao, Noori, & Tatari, 2016).
2	Economic Costs and Benefits	a. Long-distance truck electrification could generate economic benefits of more than \$5 billion per year in climate and health damage avoidance, b. Medium electric trucks offer cost advantages and lower GHG emissions in the life cycle compared to non-electric technologies. c. Break-even analysis shows that electric trucks can achieve cost parity with diesel trucks within a few years, depending on their weight class. d. Semi-electric trucks have a payback period of about 3 years, depending on the battery replacement factor and the price of electricity. e. The purchase cost and maximum range are important vehicle attributes for potential buyers of electric vehicles.	Developing electric trucks with the lowest weight class first to produce trucks at more affordable prices to increase consumer interest in adopting these electric trucks. Affordable electric truck prices make the payback period shorter. Developing electric trucks with long mileage capabilities Developing electric trucks with long battery life	(Babu et al., 2022), (van Riel et al., 2021),
3	Charging Infrastructure	a. The availability of charging at work and public locations is the	Developing charging stations in offices and various public locations such as rest areas and ports.	Michael et al. (2022), (Zhao et al., 2016), (Shetty et al., 2020), (Fan et al.,

		most considered factor by consumers when buying an electric truck after their residence. b. Most households will pay annually to develop and install fast charging stations. c. Sufficient charging infrastructure must be adopted to improve EV owners' convenience and reduce queues' duration.	Developing fast charging stations in electric truck pools. Increase the number of charging stations to reduce queues.	2020), (Huang & Ge, 2019), (Pramajaya & Haryanto, 2021), (Ling et al., 2021), (Pai et al., 2023), (Rotaris et al., 2021), (Okada et al., 2019)
4	Government Support and Policy	a. policies and investments, charging infrastructure layout and planning, and operation and safety services are consumer considerations for the adoption of electric trucks b. advanced dynamic subsidy and taxation policies can improve charging infrastructure and economic efficiency. c. Government policies such as free licenses and at-home charging facilities significantly influence EV purchase intentions in China.	Establishment of cooperation with the government in terms of investment and planning of electric truck charging infrastructure, for example, on provincial roads, in ports and in industrial areas. Providing incentives in the form of lower taxes for the purchase of electric trucks and granting free licenses for charging facilities in the pool.	Qiao dan Raufer (2022), (Sripad & Viswanathan, 2018), (Lee et al., 2013), (Tong et al., 2021), (Li et al., 2021), (Tanco et al., 2019), (Lee & Thomas, 2017), (Mandys, 2021), (Dumortier et al., 2015), (Abotalebi et al., 2019)

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5	Innovation Technology Research	a. Using mobile charging trucks with V2V energy transfer can reduce reliance on stationary infrastructure. b. Consumer purchasing preferences depend on the type of vehicle, c. Technological innovations, such as autonomous vehicles to improve safety, are crucial in overcoming barriers to electric vehicle adoption in the growing Asian market.	Developing electric trucks with power transfer features from one truck to another. Developing electric trucks with shared types that can be adjusted to consumer needs Developing electric trucks with autonomous technology	Hu et al. (2018), (N. Wang et al., 2014), (Bertucci et al., 2023), (Kong et al., 2018), (Ardeshiri & Rashidi, 2020), (Kabir et al., 2021), (Fang et al., 2020), (Liimatainen, 2021), (Globisch et al., 2019), (Greene et al., 2020), (Hardman et al., 2018)
6.	Logistics and Operational Needs	a. The use of electric vehicles in supply chain management and charging optimization can optimize logistics functions to reduce the operating costs of electric trucks. b. A multi-criteria analysis shows that electric trucks offer significant advantages in urban delivery.	Development of sufficient charging stations Drafting of the policy on the use of light electric trucks for urban areas	Byun dan Choi (2021), (Lou et al., 2017), (Allahmoradi et al., 2022), (Lu et al., 2020), (Xu et al., 2019), (Liao et al., 2019), (Liu et al., 2021), (Qian et al., 2019), (Nie et al., 2016)
7.	Social Influence and Community Awareness	a. Social influence becomes significant when there is a positive public opinion about electric cars and the market share increases. b. Social interaction has a significant role in consumer choices.	Creating a good brand experience to improve the word-of-mouth strategy in electric truck marketing. Building customer relations through the formation of electric truck owner members with various educational events about	(Coffman, Bernstein, & Wee, 2017), (Thakre et al., 2020), (Ghasri et al., 2019), (Albrahim et al., 2019), (Madrid, 2022), (Mittal, 2023), (Moon, 2021), (Borlaug et al., 2021), (Morton et al., 2016), (Tu & Yang, 2019)

		c. Seller-customer interaction and positive experience value significantly affect EV purchase intent.	after-sales products and services	
8.	Faktor Ekonomi dan Sosial	Vehicle leasing models are the most preferred option for BEVs.	Policies to facilitate electric truck ownership through leasing schemes.	Studi oleh Xia, Wu, dan Zhang (2022), (Tovarianskyi et al., 2022), (Mohammed & Villegas, 2023), (Sadati et al., 2022), (Qasim & Csiszár, 2021), (Peng et al., 2023), (Lyu et al., 2023), (Wątróbski et al., 2017), (Qiao & Raufer, 2022), (Moll et al., 2020)
9.	Regional Promotion and Support Policy	Non-financial incentives such as dedicated lane access and free parking can increase EV adoption.	The formation of policies such as free toll access for electric trucks within a certain period. Enforcement of free parking fees for electric trucks.	(Samet et al., 2021), (Axsen et al., 2013), (W. Wang et al., 2023), (X. Wang et al., 2021)

From the key point of our customer-centric approach, we form a model for adopting electric truck development technology. The following are the models we have developed

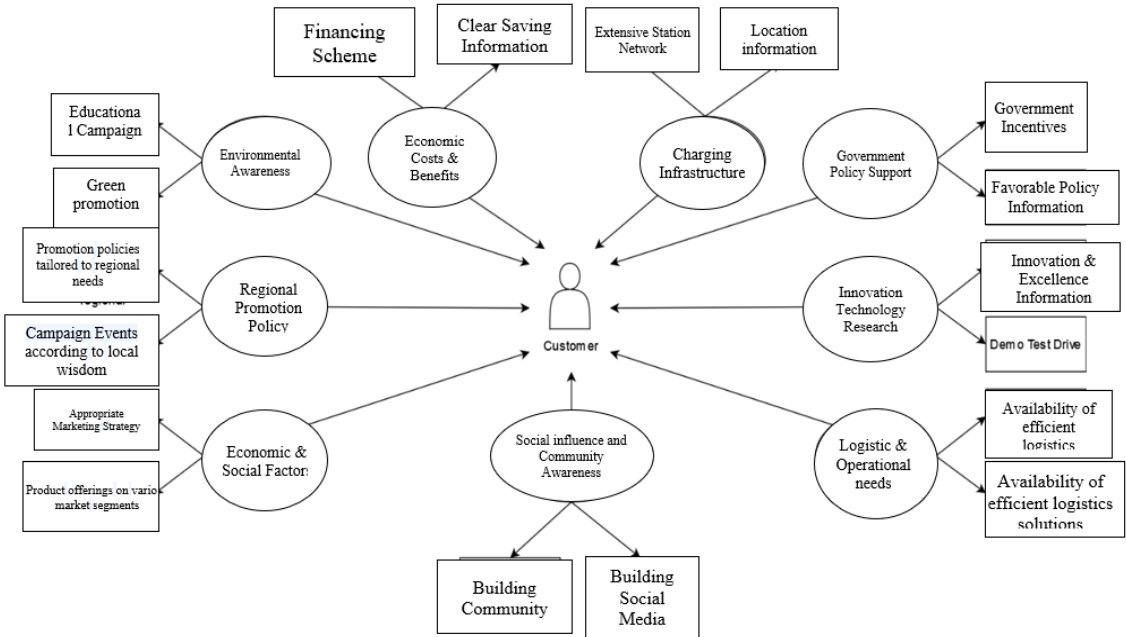


Figure 3. Customer Centricity Approach Model for Adoption of Lisrik Truck Technology

Conclusion

Electric trucks are a form of innovation in the field of transportation, in general a product innovation only focuses on the development of the product itself (centric products), but from the existing problem that it is not easy to innovate electric trucks to enter the transportation market. In this study, we found a strategy to enter the market, namely with a customer-centric approach where the focus on technology development and focus on customer needs must go hand in hand so that the innovations developed in accordance with consumer preferences to adopt technological innovations, thus market acceptance will be easier.

There are nine keys to implementing a customer-centric approach, including focusing on Environmental Awareness and Awareness, Economic Costs and Benefits, Charging Infrastructure, Government Support and Policies, R&D, Technology and Innovation, Logistics and Operational Needs, Social Impact and Community Awareness, Economic and Social Factors, and Regional Promotion and Support Policies. These key points are the main needs of consumers to adopt electric vehicles in the freight transportation segment. By implementing customer centricity, it is hoped that electric vehicle manufacturers in the freight transportation segment will find it easier to enter the market and products will be easier to be accepted by the market.

Bibliography

- Abotalebi, E., Scott, D., & Ferguson, M. (2019). Can Canadian households benefit economically from purchasing battery electric vehicles? *Transportation Research Part D: Transport and Environment*, 77, 292–302.
- Albrahim, M., Zahrani, A. A., Arora, A., Dua, R., Fattouh, B., & Sieminski, A. (2019). An overview of key evolutions in the light-duty vehicle sector and their impact on oil demand. *Energy Transitions*.
- Allahmoradi, E., Mirzamohammadi, S., Naeini, A. B., Maleki, A., Mobayen, S., & Skrush, P. (2022). Policy Instruments for the Improvement of Customers' Willingness to Purchase Electric Vehicles: A Case Study in Iran. *Energies*.
- Andrych-Zalewska, M., Chlopek, Z., Merkisz, J., & Pielecha, J. (2022). Comparison of Gasoline Engine Exhaust Emissions of a Passenger Car through the WLTC and RDE Type Approval Tests. *Energies*, 15(21), 8157. <https://doi.org/10.3390/en15218157>
- Ardeshiri, A., & Rashidi, T. (2020). Willingness to pay for fast charging station for electric vehicles with limited market penetration making. *Energy Policy*, 147, 111822.
- Axsen, J., Orlebar, C., & Skippon, S. (2013). Social influence and consumer preference formation for pro-environmental technology: The case of a U.K. workplace electric-vehicle study. *Ecological Economics*, 95, 96–107.

- Bansal, P., Kumar, R. R., Raj, A., Dubey, S., & Graham, D. J. (2021). Willingness to pay and attitudinal preferences of Indian consumers for electric vehicles. *Energy Economics*, 100, 105340. <https://doi.org/10.1016/j.eneco.2021.105340>
- Benzidia, S., Luca, R. M., & Boiko, S. (2021). Disruptive innovation, business models, and encroachment strategies: Buyer's perspective on electric and hybrid vehicle technology. *Technological Forecasting and Social Change*, 165(December 2020), 120520. <https://doi.org/10.1016/j.techfore.2020.120520>
- Bertucci, J. P., Hofman, T., & Salazar, M. (2023). Joint Optimization of Charging Infrastructure Placement and Operational Schedules for a Fleet of Battery Electric Trucks. In *ArXiv*.
- Borlaug, B., Muratori, M., Gilleran, M., Woody, D., Muston, W., Canada, T., Ingram, A., Gresham, H., & McQueen, C. (2021). Heavy-duty truck electrification and the impacts of depot charging on electricity distribution systems. *Nature Energy*, 6, 673–682.
- Dumortier, J., Siddiki, S., Carley, S., Cisney, J., Krause, R. M., Lane, B. W., Rupp, J., & Graham, J. (2015). Effects of providing total cost of ownership information on consumers' intent to purchase a hybrid or plug-in electric vehicle. *Transportation Research Part A: Policy and Practice*, 72, 71–86.
- Fan, J.-L., Wang, Q., Yang, L., Zhang, H., & Zhang, X. (2020). Determinant changes of consumer preference for NEVs in China: A comparison between 2012 and 2017. *International Journal of Hydrogen Energy*, 45, 23557–23575.
- Fang, Y., Wei, W., Mei, S., Chen, L., Zhang, X., & Huang, S. (2020). Promoting electric vehicle charging infrastructure considering policy incentives and user preferences: An evolutionary game model in a small-world network. *Journal of Cleaner Production*, 258, 120753.
- Ghasri, M., Ardeshiri, A., & Rashidi, T. (2019). *Perception towards electric vehicles and the impact on consumers' preference*.
- Globisch, J., Plötz, P., Dütschke, E., & Wietschel, M. (2019). Consumer preferences for public charging infrastructure for electric vehicles. *Transport Policy*.
- Greene, D., Kontou, E., Borlaug, B., Brooker, A., & Muratori, M. (2020). Public charging infrastructure for plug-in electric vehicles: What is it worth? *Transportation Research Part D: Transport and Environment*, 78, 102182.
- Hampton, H., Foley, A. M., Del Rio, D. F., & Sovacool, B. (2022). Developing future retail electricity markets with a customer-centric focus. *Energy Policy*, 168(June), 113147. <https://doi.org/10.1016/j.enpol.2022.113147>
- Hardman, S., Jenn, A., Tal, G., Axsen, J., Beard, G., Daina, N., Figenbaum, E., Jakobsson, N., Jochem, P., Kinnear, N., Plötz, P., Pontes, J., Refa, N., Sprei, F., Turrentine, T., & Witkamp, B. (2018). A review of consumer preferences of and interactions with

- electric vehicle charging infrastructure. *Transportation Research Part D: Transport and Environment*.
- Huang, X., & Ge, J. (2019). Electric vehicle development in Beijing: An analysis of consumer purchase intention. *Journal of Cleaner Production*.
- Huang, X., Lin, Y., Zhou, F., Lim, M. K., & Chen, S. (2021). Agent-based modelling for market acceptance of electric vehicles: Evidence from China. *Sustainable Production and Consumption*, 28, 206–217. <https://doi.org/10.1016/j.spc.2021.04.007>
- Kabir, M. E., Sorkhoh, I., Moussa, B., & Assi, C. (2021). Joint Routing and Scheduling of Mobile Charging Infrastructure for V2V Energy Transfer. *IEEE Transactions on Intelligent Vehicles*, 6, 736–746.
- Klein Marodin, J., Wechtler, H., & Lehtonen, M. J. (2023). Systematic literature review on networks of innovative teams: Current trends and future research avenues. *European Management Journal*, October 2022. <https://doi.org/10.1016/j.emj.2023.08.007>
- Kong, Q., Fowler, M., Entchev, E., Ribberink, H., & McCallum, R. (2018). The Role of Charging Infrastructure in Electric Vehicle Implementation within Smart Grids. *Energies*.
- Kreuzer, T., Röglinger, M., & Rupperecht, L. (2020). Customer-centric prioritization of process improvement projects. *Decision Support Systems*, 133(July 2019), 113286. <https://doi.org/10.1016/j.dss.2020.113286>
- Lee, D.-Y., & Thomas, V. (2017). Parametric modeling approach for economic and environmental life cycle assessment of medium-duty truck electrification. *Journal of Cleaner Production*, 142, 3300–3321.
- Lee, D.-Y., Thomas, V., & Brown, M. A. (2013). Electric urban delivery trucks: energy use, greenhouse gas emissions, and cost-effectiveness. *Environmental Science & Technology*, 47(14), 8022–8030.
- Li, J., Liang, M., Cheng, W., & Wang, S. (2021). Life cycle cost of conventional, battery electric, and fuel cell electric vehicles considering traffic and environmental policies in China. *International Journal of Hydrogen Energy*, 46, 9553–9566.
- Liao, F., Molin, E., Timmermans, H., & Wee, B. (2019). Consumer preferences for business models in electric vehicle adoption. *Transport Policy*.
- Liimatainen, H. (2021). Truck electrification has minor grid impacts. *Nature Energy*, 6, 580–581.
- Ling, Z., Cherry, C., & Wen, Y. (2021). Determining the Factors That Influence Electric Vehicle Adoption: A Stated Preference Survey Study in Beijing, China. *Sustainability*.

- Liu, X., Sun, X.-H., Zheng, H., & Huang, D. (2021). Do policy incentives drive electric vehicle adoption? Evidence from China. *Transportation Research Part A: Policy and Practice*, 150, 49–62.
- Lou, Y., Wang, W., & Yang, X. (2017). *Customers' Attitude on New Energy Vehicles' Policies and Policy Impact on Customers' Purchase Intention BT - Energy Procedia*. 105, 2187–2193.
- Lu, T., Yao, E., Fanglei, J., & Pan, L. (2020). Alternative Incentive Policies against Purchase Subsidy Decrease for Battery Electric Vehicle (BEV) Adoption. *Energies*.
- Lyu, Z., Pons, D., & Zhang, Y. (2023). Emissions and Total Cost of Ownership for Diesel and Battery Electric Freight Pickup and Delivery Trucks in New Zealand: Implications for Transition. *Sustainability*.
- Madrid, J. A. (2022). Beyond the Steering Wheel: Exploring the Frontiers of Automotive Technology. *International Journal of Advanced Research in Science, Communication and Technology*.
- Magatef, S., Al-Okaily, M., Ashour, L., & Abuhussein, T. (2023). The impact of electronic customer relationship management strategies on customer loyalty: A mediated model. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(4), 100149. <https://doi.org/10.1016/j.joitmc.2023.100149>
- Mandys, F. (2021). Electric vehicles and consumer choices. *Renewable & Sustainable Energy Reviews*, 142, 110874.
- Mittal, A. (2023). Advancements in Electric Vehicle Technology: from Batteries to Emerging Innovations. *International Journal of Science and Research (IJSR)*.
- Mohammed, J., & Villegas, J. (2023). Total impact of electric vehicle fleet adoption in the logistics industry. *Frontiers in Sustainability*.
- Moll, C., Plötz, P., Hadwich, K., & Wietschel, M. (2020). Are Battery-Electric Trucks for 24-Hour Delivery the Future of City Logistics?—A German Case Study. *World Electric Vehicle Journal*, 11, 16.
- Moon, S.-J. (2021). Effect of consumer environmental propensity and innovative propensity on intention to purchase electric vehicles: Applying an extended theory of planned behavior. *International Journal of Sustainable Transportation*, 16, 1032–1046.
- Morton, C., Anable, J., & Nelson, J. (2016). Exploring consumer preferences towards electric vehicles: The influence of consumer innovativeness. *Research in Transportation Business and Management*, 18, 18–28.
- Nie, Y., Ghamami, M., Zockaie, A., & Xiao, F. (2016). Optimization of incentive policies for plug-in electric vehicles. *Transportation Research Part B: Methodological*, 84, 103–123.

- Okada, T., Tamaki, T., & Managi, S. (2019). Effect of environmental awareness on purchase intention and satisfaction pertaining to electric vehicles in Japan. *Transportation Research Part D: Transport and Environment*.
- Pai, F.-Y., Shih, Y.-J., Chuang, Y.-C., & Yeh, T.-M. (2023). Supporting Environment Sustainability: Purchasing Intentions Relating to Battery Electric Vehicles in Taiwan. *Sustainability*.
- Peng, D., Wu, G., & Boriboonsomsin, K. (2023). Energy-Efficient Dispatching of Battery Electric Truck Fleets with Backhauls and Time Windows. *SAE International Journal of Electrified Vehicles*.
- Pramajaya, A. E., & Haryanto, J. O. (2021). Tacit Knowledge and Product Information about the Environmental Impact towards the Purchase Intention of Electric Motorcycles. *Jurnal Teknik Industri*.
- Qasim, M., & Csiszár, C. (2021). Major Barriers in Adoption of Electric Trucks in Logistics System. *Promet - Traffic&Transportation*.
- Qian, L., Grisolia, J. M., & Soopramanien, D. (2019). The impact of service and government-policy attributes on consumer preferences for electric vehicles in China. *Transportation Research Part A: Policy and Practice*.
- Qiao, Y., & Rauber, R. (2022). Electric truck deployment in Chinese cities: Promotion policies and implications for future policymaking. *Wiley Interdisciplinary Reviews: Energy and Environment*, 11.
- Reshetko, N. I., Vakulenko, S. P., Kurenkov, P. V., Alexandrova, J., Merkulina, I., Kuzina, E. L., Vasilenko, M. A., Chebotareva, E. A., Solop, I. A., & Gašparík, J. (2021). Analysis of marketing efficiency on the example of Faraday future (Manufacturer of electronic machines). *Transportation Research Procedia*, 55(2019), 348–355. <https://doi.org/10.1016/j.trpro.2021.07.091>
- Rommel, K., & Sagebiel, J. (2021). Are consumer preferences for attributes of alternative vehicles sufficiently accounted for in current policies? *Transportation Research Interdisciplinary Perspectives*, 10(December 2020), 100385. <https://doi.org/10.1016/j.trip.2021.100385>
- Rotaris, L., Giansoldati, M., & Scorrano, M. (2021). The slow uptake of electric cars in Italy and Slovenia. Evidence from a stated-preference survey and the role of knowledge and environmental awareness. *Transportation Research Part A: Policy and Practice*, 144, 1–18.
- Sadati, M. E. H., Akbari, V., & Çatay, B. (2022). Electric vehicle routing problem with flexible deliveries. *International Journal of Production Research*, 60, 4268–4294.
- Scherrer, A., Plötz, P., & Van Laerhoven, F. (2020). Power from above? Assessing actor-related barriers to the implementation of trolley truck technology in Germany. *Environmental Innovation and Societal Transitions*, 34(June 2019), 221–236. <https://doi.org/10.1016/j.eist.2020.01.005>

- Shetty, D., Shetty, S., Rodrigues, L. R., Naik, N., Maddodi, C., & Sooriyaperakasam, N. (2020). Barriers to widespread adoption of plug-in electric vehicles in emerging Asian markets: An analysis of consumer behavioral attitudes and perceptions. *Cogent Engineering*, 7.
- Sripad, S., & Viswanathan, V. (2018). Quantifying the Economic Case for Electric Semi-Trucks. *ArXiv*.
- Tanco, M., Cat, L., & Garat, S. (2019). A break-even analysis for battery electric trucks in Latin America. *Journal of Cleaner Production*.
- Thakre, M. P., Mahadik, Y., Yeole, D. S., & Chowdhary, P. K. (2020). *Fast Charging Systems for the Rapid Growth of Advanced Electric Vehicles (EVs) BT - 2020 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)*. 1–6.
- Tong, F., Jenn, A., Wolfson, D., Scown, C., & Auffhammer, M. (2021). Health and Climate Impacts from Long-Haul Truck Electrification. *Environmental Science & Technology*.
- Tovarianskyi, V., Renkas, A., & Rudenko, D. (2022). Improving of Processes of Transport and Logistics Activity by Applying Electric Vehicles in Supply Chain Management. *Bulletin of Lviv State University of Life Safety*.
- Tu, J.-C., & Yang, C. (2019). Key Factors Influencing Consumers' Purchase of Electric Vehicles. *Sustainability*.
- van Riel, A. C. R., Andreassen, T. W., Lervik-Olsen, L., Zhang, L., Mithas, S., & Heinonen, K. (2021). A customer-centric five actor model for sustainability and service innovation. *Journal of Business Research*, 136(August), 389–401. <https://doi.org/10.1016/j.jbusres.2021.07.035>
- Wang, N., Liu, Y., & Fu, G. (2014). *City readiness system assessment of electric vehicle charging infrastructure BT - 17th International IEEE Conference on Intelligent Transportation Systems (ITSC)*. 2805–2810.
- Wang, W., Xie, Z., Feng, M.-F., Qi, Y., & Dou, Y. (2023). Investigation of the Influencing Factors on Consumers' Purchase Willingness towards New-Energy Vehicles in China: A Questionnaire Analysis Using Matrix Model. *Energies*.
- Wang, X., Cao, Y.-M., & Zhang, N. (2021). The influences of incentive policy perceptions and consumer social attributes on battery electric vehicle purchase intentions. *Energy Policy*, 151, 112163.
- Wątróbski, J., Małecki, K., Kijewska, K., Iwan, S., Karczmarczyk, A., & Thompson, R. (2017). Multi-Criteria Analysis of Electric Vans for City Logistics. *Sustainability*, 9, 1453.

- Xu, Y., Zhang, W., Bao, H., Zhang, S., & Xiang, Y. (2019). A SEM–Neural Network Approach to Predict Customers’ Intention to Purchase Battery Electric Vehicles in China’s Zhejiang Province. *Sustainability*.
- Zhao, Y., Noori, M., & Tatari, O. (2016). Vehicle to Grid regulation services of electric delivery trucks: Economic and environmental benefit analysis. *Applied Energy*, 170, 161–175.