

The Role of Trust in Shaping Purchase Decisions: Promotion, Design, and Insurance in Wuling Electric Vehicles

Sandy Andika¹, Sugeng Lubar Prastowo², Sutarjo³

Universitas Islam Syekh-Yusuf¹²³

E-mail: sandyandika81@gmail.com¹, slubar@unis.ac.id², sutarjo@unis.ac.id³

ABSTRACT

This study investigates the influence of promotion and design on purchasing decisions for Wuling electric cars in Tangerang City, with consumer trust as a mediating variable and insurance as a moderating variable. A quantitative approach was employed using non-probability purposive sampling, involving 125 respondents. Data were collected through an online questionnaire and analyzed using Structural Equation Modeling (SEM) with SmartPLS 3.0. The results reveal that promotion has a significant positive effect on purchasing decisions, while design and consumer trust show no direct influence. Promotion, design, and insurance significantly affect consumer trust; however, insurance does not moderate the relationships between promotion, design, and consumer trust. Furthermore, consumer trust does not mediate the effects of promotion or design on purchasing decisions. These findings provide valuable implications for marketing strategies in the electric vehicle industry, particularly for Wuling, by emphasizing the importance of promotional effectiveness and the strategic management of factors shaping consumer trust.

Keywords:

Purchasing Decisions, Promotion, Design, Insurance, Consumer Trust, Wuling.

INTRODUCTION

The global automotive industry is undergoing a significant transformation, driven by the transition to electric vehicles (EVs) (Rísquez Ramos & Ruiz-Gálvez, 2024). In Indonesia, EV adoption is accelerating, supported by government incentives, environmental awareness, and technological advances (Timilsina et al., 2025). Wuling, as one of the leading EV manufacturers, plays a critical role in shaping consumer perceptions of electric mobility (Achillas, 2024). Despite growing interest, consumer purchasing decisions for EVs remain complex and influenced by multiple factors, including marketing communication, design, trust, and risk considerations (Pavlínek, 2023).

Existing studies suggest that consumer trust is a pivotal factor in purchase decision-making, especially for high-involvement products such as EVs (Martínez-Valdivia et al., 2020); (Parsons et al., 2020). However, there is limited research exploring how insurance an essential aspect of automotive risk management affects consumer trust and purchasing behavior in the EV market. Furthermore, while design is traditionally considered a determinant of consumer choice, its role in the EV context in emerging markets remains unclear. This research addresses these gaps by investigating:

1. The influence of promotion and design on purchasing decisions.
2. The mediating role of consumer trust.
3. The moderating effect of insurance on the relationship between consumer trust and purchasing decisions.

The novelty of this study lies in testing insurance as a moderating factor, offering theoretical and managerial insights into EV consumer behavior in emerging markets.

Literature Review

This research is anchored in the Theory of Planned Behavior (TPB), which posits that consumer intentions and behaviors are shaped by attitudes, subjective norms, and perceived behavioral control (Murtini, 2021). In the context of electric vehicle (EV) purchasing, promotional strategies and product design are expected to influence consumer attitudes, while trust and insurance affect perceived behavioral control and risk mitigation (Rafiq et al., 2024).

1. Purchase Decision

According to Tanady & Fuad, (2020), the purchasing decision-making process involves customers evaluating and comparing brands and available options, which eventually leads to the intention to acquire the brand they prefer. Similarly, Ilmiyah, (2020) emphasizes that a purchase decision implies the presence of several alternatives to choose from, requiring consumers to select one among many options. A decision not to purchase also reflects a certain choice in the decision-making process. Therefore, a purchase decision involves consumer evaluation, preference formation, and the final decision to buy, influenced by both rational and emotional drivers (Martínez-Valdivia et al., 2020).

2. Promotion

According to Dwi Cahya et al., (2023), promotion is an activity that introduces products to consumers so they understand product characteristics, and through education and encouragement, develop positive attitudes toward the promoted products. Similarly, Martowinangun et al., (2019) describe promotion as a form of communication that provides product and service information to attract, educate, and influence consumer attention. In this regard, promotion encompasses marketing campaigns, discounts, digital advertising, and brand communication, all of which enhance consumer perceptions and strengthen purchase intention (Martínez-Valdivia et al., 2020).

3. Design

Sain et al., (2023) argue that product design is a critical attribute that influences consumer interest and eventual purchase, as design encompasses features affecting product appearance, functionality, and suitability to customer needs. Gunawan, (2022), also highlights design as a comprehensive feature shaping product usability and consumer perception. Tana, (2023) adds that product design consists of features that allow consumers to perceive, experience, and utilize the product effectively, while to Pertiwi et al., (2020), note that design impacts the appearance, feel, and overall function of a product. Hence, design involves aesthetic appeal, functionality, ergonomics, and innovation, which are central determinants of consumer preferences for EVs (Sun & Lee, 2024).

4. Insurance

According to Maulina et al., (2023), insurance functions as a communication mechanism between insurers and policyholders to ensure risk protection. Febrina, (2020), further defines assurance as a process in which companies build customer trust through reliability, competence, and positive service experiences, thereby

strengthening consumer behavior. Consequently, insurance represents risk protection, reliability of coverage, and perceived value in ownership decisions, influencing consumer risk management perceptions in the adoption of EVs (Chien-Shan Han, Yu-Ming Hsu, Hsu, 2024).

5. Consumer Trust

Kasinem, (2020), defines trust as the willingness to depend on another party, highlighting its essential role in building long-term relationships. Revangelista et al., (2022), describe consumer trust as the totality of consumer knowledge and opinions regarding product attributes and benefits, whereas Solihin, (2020), similarly emphasizes that trust reflects consumer perceptions of product reliability and value. In the EV context, consumer trust is defined as confidence in brand reliability, integrity, and product quality, which reduces perceived risks in high-involvement purchases (Parsons et al., 2020).

6. Conceptual framework

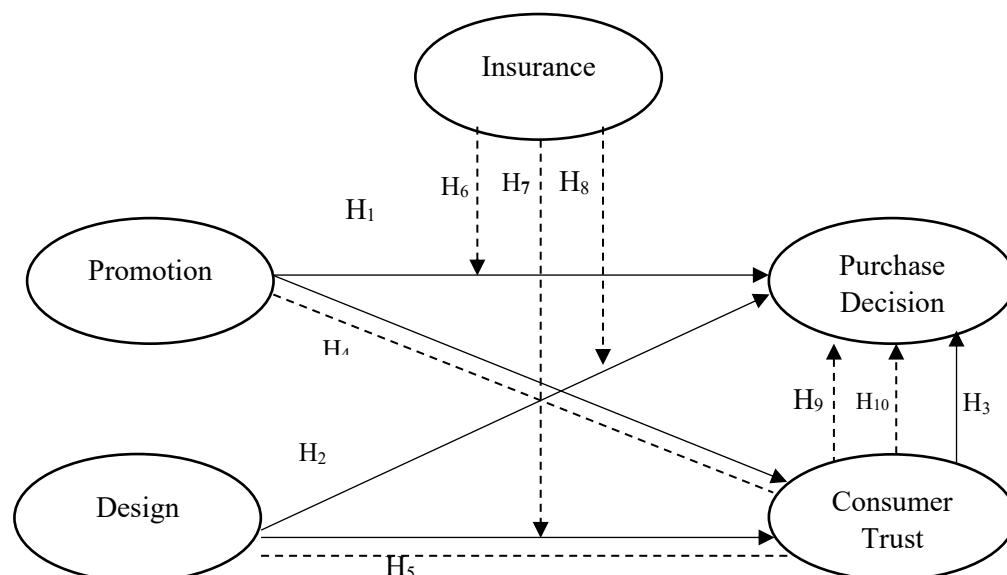


Figure 1 Conceptual Framework

Prior studies highlight that effective promotion enhances product visibility and consumer confidence, thereby increasing purchasing decisions (Martínez-Valdivia et al., 2020). Similarly, innovative and functional design has been found to positively affect consumer trust and overall evaluation of EVs (Xia et al., 2022). Consumer trust plays a central role in reducing uncertainty, making it a key mediator between promotion, design, and purchase decisions (Parsons et al., 2020). On the other hand, insurance acts as a risk-mitigating mechanism, potentially strengthening the relationship between trust and purchase decisions (Handoyo, 2024).

Based on these arguments, the following hypotheses are proposed:

H1: Promotion has a positive influence on purchasing decisions.

H2: Design has a positive influence on purchasing decisions.

H3: Promotion positively influences consumer trust.

H4: Design positively influences consumer trust.
H5: Consumer trust positively influences purchasing decisions.
H6: Consumer trust mediates the relationship between promotion and purchasing decisions.
H7: Consumer trust mediates the relationship between design and purchasing decisions.
H8: Insurance moderates the relationship between consumer trust and purchasing decisions.

METHOD

This study employed a quantitative research approach using a survey method with a non-probability purposive sampling technique. The research population consisted of consumers in Tangerang City who were aware of or had considered purchasing Wuling electric cars. A total of 125 respondents participated in the survey, fulfilling the criteria of electric vehicle (EV) awareness and purchase consideration. Data were collected using an online structured questionnaire comprising closed-ended questions measured on a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree." The instrument was adapted from validated prior studies to ensure content validity, and a pilot test was conducted to confirm reliability.

The questionnaire was distributed through social media platforms and EV-related community networks, which have been recognized as effective tools for reaching potential EV adopters. Collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 3.0 software. The analysis procedure included reliability and validity testing (Cronbach's Alpha, Composite Reliability, and Average Variance Extracted), assessment of discriminant validity (HTMT), evaluation of multicollinearity (VIF), and structural model testing (path coefficients, effect size f^2 , R^2 , and bootstrapping significance values). Furthermore, mediation and moderation analyses were performed to assess the role of consumer trust and insurance in purchase decision-making (Hair J.F., Ringle C.M, 2011); (Henseler et al., 2015).

The sample size justification followed the guidelines of Hair J.F., Ringle C.M, (2011), which recommend a minimum range of 100 to 200 respondents for PLS-SEM studies with medium complexity. Therefore, the use of 125 respondents in this study was deemed both methodologically acceptable and statistically reliable for hypothesis testing.

RESULTS AND DISCUSSION

The descriptive statistical analysis was conducted on data collected from 125 Wuling electric car users in Tangerang, using a structured questionnaire consisting of 25 items measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). As presented in Table 1, the dataset was complete with no missing values, allowing all responses to be processed and analyzed reliably. Descriptive statistics provide essential insights into the central tendency and distribution of responses, which serve as the foundation for subsequent structural model analysis (Hair et al., 2021).

Table 1. Descriptive Analysis

	Missing	Mean	Median	Min	Max	Standard Deviation	Number of Observation Used
X1.1	0.000	4.488	5.000	1.000	5.000	0.688	125.000
X1.2	0.000	4.496	5.000	2.000	5.000	0.628	125.000
X1.3	0.000	4.560	5.000	3.000	5.000	0.585	125.000
X1.4	0.000	4.416	5.000	1.000	5.000	0.729	125.000
X1.5	0.000	4.464	5.000	1.000	5.000	0.733	125.000
X2.1	0.000	4.504	5.000	1.000	5.000	0.733	125.000
X2.2	0.000	4.408	5.000	3.000	5.000	0.717	125.000
X2.3	0.000	4.456	5.000	2.000	5.000	0.675	125.000
X2.4	0.000	4.552	5.000	3.000	5.000	0.558	125.000
X2.5	0.000	4.552	5.000	3.000	5.000	0.543	125.000
Z1.1	0.000	4.552	5.000	3.000	5.000	0.528	125.000
Z1.2	0.000	4.416	5.000	2.000	5.000	0.672	125.000
Z1.3	0.000	4.424	5.000	2.000	5.000	0.684	125.000
Z1.4	0.000	4.472	5.000	1.000	5.000	0.652	125.000
Z1.5	0.000	4.104	4.000	1.000	5.000	0.911	125.000
M1.1	0.000	4.480	5.000	2.000	5.000	0.665	125.000
M1.2	0.000	4.432	4.000	3.000	5.000	0.570	125.000
M1.3	0.000	4.536	5.000	3.000	5.000	0.573	125.000
M1.4	0.000	4.544	5.000	3.000	5.000	0.529	125.000
M1.5	0.000	4.464	5.000	3.000	5.000	0.652	125.000
Y1.1	0.000	4.616	5.000	3.000	5.000	0.518	125.000
Y1.2	0.000	4.536	5.000	3.000	5.000	0.627	125.000
Y1.3	0.000	4.584	5.000	3.000	5.000	0.554	125.000
Y1.4	0.000	4.552	5.000	3.000	5.000	0.572	125.000
Y1.5	0.000	4.560	5.000	3.000	5.000	0.543	125.000

Table 1 indicates that the highest mean score was recorded for item Y1.1 ($M = 4.616$), reflecting respondents' agreement that "The Wuling electric model aligns with my lifestyle preferences." This highlights lifestyle compatibility as a key determinant of EV evaluation, consistent with evidence that lifestyle congruence significantly drives purchase decisions in the automotive sector (Ambole et al., 2021).

All items reported standard deviation values below 1, showing consistent responses and strong agreement across indicators of promotion, design, consumer trust, and insurance. Such low variability strengthens data reliability and indicates stable consumer perceptions.

Measurement Model Evaluation (Outer Model)

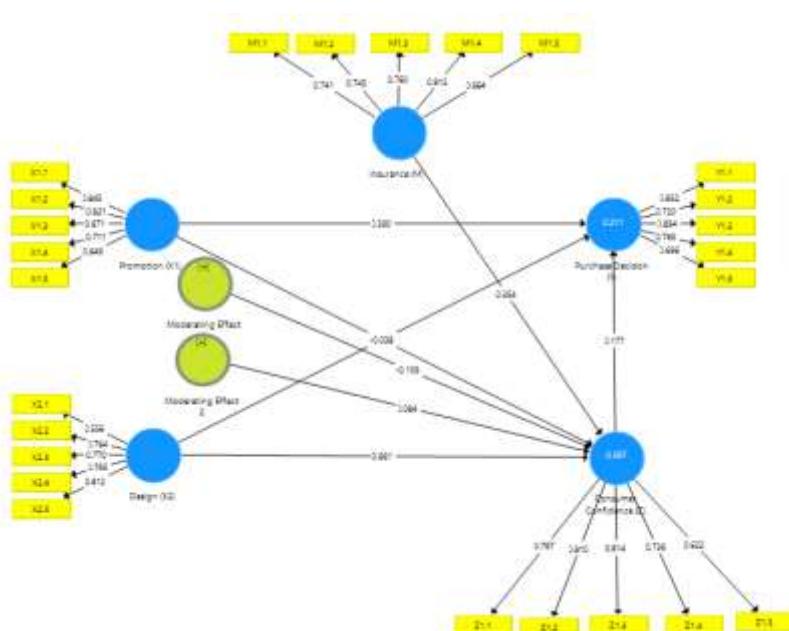


Figure 1. PLS Algorithm Output

Validity And Reliability Test

Validity testing was conducted using the Average Variance Extracted (AVE) value. According to (Joseph F. Hair et al., 2019), measurement indicators achieve convergent validity when the AVE value exceeds 0.50, which indicates that more than 50% of the variance in the indicators can be explained by the latent construct. Table 2 shows the results of the validity and reliability testing for each variable.

Table 2. Validity and Reliability Test

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Conclusion
Promotion (X1)	0.839	0.887	0.614	Valid & Reliable
Design (X2)	0.809	0.860	0.555	Valid & Reliable
Consumer Confidence (Z)	0.809	0.867	0.568	Valid & Reliable
Insurance (M)	0.837	0.862	0.556	Valid & Reliable
Promotion * Insurance	1.000	1.000	1.000	Valid & Reliable
Design * Insurance	1.000	1.000	1.000	Valid & Reliable
Purchase Decision (Y)	0.854	0.894	0.629	Valid & Reliable

The results confirm that the measurement model meets convergent validity and reliability standards. All constructs achieved AVE values above 0.50, indicating that each variable adequately explains its indicators (Joseph F. Hair et al., 2019). Reliability was also confirmed, with Cronbach's Alpha and Composite Reliability values exceeding 0.70, demonstrating consistent measurement across items (Prastowo, 2024). These outcomes align with prior research, which highlights AVE, Cronbach's Alpha, and Composite Reliability as essential criteria for ensuring valid and dependable constructs in structural equation modeling (Prastowo et al., 2024).

Heterotrait-Monotrait Ratio (HTMT)

Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT). According to (Prastowo et al., 2023), discriminant validity is established if the HTMT value is below 0.90.

Table 3. Heterotrait-Monotrait Ratio (HTMT)

	Insurance (M)	Design (X2)	Consumer Trust (Z)	Purchase Decision (Y)	Promotion* Insurance	Design* Insurance
Insurance (M)						
Design (X2)	0.548					
Consumer Trust (Z)	0.537	0.774				
Purchase Decision(Y)	0.759	0.394	0.346			
Promotion* Insurance	0.149	0.295	0.278	0.077		
Design* Asuransi	0.169	0.332	0.209	0.106	0.736	
Promotion (X1)	0.557	0.868	0.460	0.491	0.267	0.319

The findings show that all constructs meet discriminant validity, with HTMT values below 0.90, confirming that each variable measures a distinct concept and avoids multicollinearity (Henseler et al., 2015). HTMT is recognized as a more reliable criterion in PLS-SEM compared to traditional methods (G. F. M. Sarstedt, 2019), and achieving discriminant validity strengthens model robustness and hypothesis testing accuracy (Benitez et al., 2020).

Collinearity Statistics (VIF)

This test ensures the absence of high linear correlations among exogenous variables. A VIF value of less than 10 or 5 indicates no multicollinearity, and the values can be obtained using SmartPLS (Prastowo, 2024).

Table 4. Collinearity Statistics (VIF)

	Consumer Trust (Z)	Purchase Decision (Y)
Promotion (X1)	1.968	1.857
Design (X2)	2.025	3.063
Consumer Trust (Z)		2.005
Insurance (M)	1.442	
Promotion* Insurance	2.206	
Design* Insurance	2.246	
Purchase Decision (Y)		

The results confirm that multicollinearity is not a concern, as all VIF values fall below the recommended threshold of 5 (Joseph F. Hair et al., 2019). This ensures that the predictor variables, Promotion, Design, Consumer Trust, Insurance, and their interactions, are statistically independent, improving the reliability of the structural model. Recent studies emphasize that maintaining low VIF values enhances the accuracy of path coefficient estimation and prevents bias in structural equation modeling (M. Sarstedt & Liu, 2024).

f-Square Value

Effect size was evaluated using the f-square (f^2) statistic, which measures the contribution of exogenous constructs to the explained variance (R^2) of endogenous variables. According to (Hair, Jr. et al., 2022), f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively, while values below 0.02 are negligible. Table 5 presents the f^2 values for all constructs in the model.

Table 5. f-Square Values

	Consumer Trust (Z)	Purchase Decision (Y)
Promotion (X1)	0.061	0.104
Design (X2)	0.536	0.001
Consumer Trust (Z)		0.020
Insurance (M)	0.215	
Promotion * Insurance	0.015	
Design * Insurance	0.008	
Purchase Decision (Y)		

The analysis indicates that Design exerts the strongest influence on Consumer Trust (Gunawan, 2022), while Promotion and Insurance provide smaller but supportive contributions. The moderating effects of Promotion Insurance and Design Insurance are negligible, confirming that only key constructs contribute meaningfully to the model (Hair, Jr. et al., 2022); (Ringle et al., 2020). Overall, the results highlight the main explanatory factors while confirming that low f^2 values can be ignored without weakening causal interpretation (M. Sarstedt & Liu, 2024).

Path Coefficient

This non-parametric technique uses 5,000 bootstrap samples, which is greater than the initial sample size. At a significance level of 0.05, an effect is considered significant if the t-value ≥ 1.96 (Prastowo, 2024).

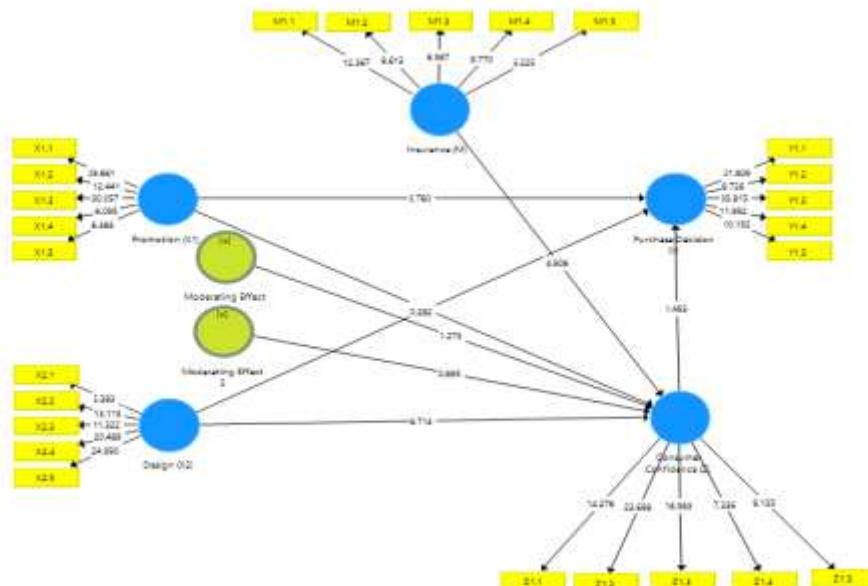


Figure 2. Bootstrapping Output

This study tested two structural models: direct and indirect effects. The direct influence model consisted of three sub-structures:

- 1) The effect of Promotion, Design, and Consumer Trust on Purchase Decisions,
- 2) The effect of Promotion, Design, and Insurance on Consumer Trust, and
- 3) The moderating role of Insurance in the relationship between independent variables and Consumer Trust. Path coefficient results are presented in Table 6.

Table 6. Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Promotion (X1) -> Purchase Decision (Y)	0.390	0.415	0.104	3.733	0.000
Design (X2) -> Purchase Decision (Y)	-0.038	-0.057	0.134	0.285	0.776
Consumer Trust (Z) -> Purchase Decision (Y)	0.177	0.194	0.119	1.496	0.135
Promotion (X1) -> Consumer Trust (Z)	-0.221	-0.227	0.083	2.665	0.005
Design (X2) -> Consumer Trust (Z)	0.661	0.675	0.076	8.660	0.000
Insurance (M) -> Consumer Trust (Z)	0.354	0.364	0.071	4.980	0.000
Promotion * Insurance -> Consumer Trust (Z)	-0.109	-0.103	0.088	1.239	0.215
Design * Insurance -> Consumer Trust (Z)	0.084	0.085	0.097	0.866	0.386

Direct Effects

Sub-Structure 1:

The results indicate that Promotion exerts a positive and significant effect on Purchase Decisions ($\beta = 0.390$, $p < 0.001$), reinforcing the critical role of marketing strategies in influencing consumer choice in competitive markets (Dwivedi et al., 2021). By contrast, Design does not significantly affect Purchase Decisions ($p = 0.776$), suggesting that aesthetic or functional product attributes alone are insufficient to directly drive purchase behavior. Similarly, Consumer Trust does not significantly predict Purchase Decisions ($p = 0.135$), implying that trust functions more as a contextual or mediating factor rather than a direct determinant of purchase outcomes.

- In terms of Consumer Trust formation, the findings reveal that Promotion negatively affects trust ($\beta = -0.221$, $p = 0.005$), highlighting the risk of credibility erosion from excessive or overly persuasive promotional tactics. Conversely, Design ($\beta = 0.661$, $p < 0.001$) and Insurance ($\beta = 0.354$, $p < 0.001$) significantly enhance Consumer Trust, confirming that product quality and risk-reduction mechanisms are essential in fostering confidence (Niemann et al., 2022); (Benitez et al., 2020). This underscores that while promotions can influence purchase intentions, long-term consumer trust is more effectively built through product reliability and assurance mechanisms.
- Regarding moderating effects, Insurance does not significantly moderate the relationships between Promotion and Trust ($p = 0.215$) or between Design and Trust ($p = 0.386$). This suggests that Insurance functions more effectively as a direct antecedent of trust rather than as a moderator, consistent with methodological insights that moderation paths in PLS-SEM often yield limited additional explanatory power without strong theoretical justification (Ringle et al., 2020).

Overall, these findings highlight that Promotion is the dominant driver of Purchase Decisions, while Design and Insurance play critical roles in strengthening Consumer Trust. Trust, although not directly predictive of purchasing in this context,

remains a pivotal construct that interacts with other variables to influence consumer behavior. This integrated perspective refines the structural model by distinguishing between constructs that directly drive purchase outcomes and those that indirectly contribute by shaping trust, offering both theoretical clarity and managerial guidance for the electric vehicle market.

Based on the results of the hypothesis testing for direct effects in Sub-structure 1, the regression model can be formulated as follows:

$$Y = \beta_1.X_1 + \beta_2.X_2 + \beta_3.Z_3 + e \dots \quad (1)$$

$$\text{Purchase Decision} = \beta_1. \text{Promotion} + \beta_2. \text{Design} + \beta_3. \text{Consumer Trust} \dots \quad (2)$$

By substituting the estimated coefficients obtained from the path analysis, the regression equation becomes:

$$\text{Purchase Decision} = 0.390. \text{Promotion} + -0.038. \text{Design} + 0.177. \text{Consumer Trust} + e \dots \quad (3)$$

$$Y = 0.390.X_1 - 0.038.X_2 + 0.177.Z_3 + e \dots \quad (4)$$

The coefficients indicate that Promotion exerts a positive and significant effect on Purchase Decisions, while Design and Consumer Trust show non-significant effects. This reinforces that promotional strategies are the primary determinant of purchase behavior in this context, whereas design and trust serve more as supporting rather than decisive factors in shaping purchase decisions.

Sub-structure 2:

The bootstrapping analysis reveals the direct and moderating effects of promotion, design, and insurance on consumer trust and purchase decisions for Wuling electric vehicles in Tangerang:

a. Direct Effects on Purchase Decision

Promotion shows a significant positive effect on purchase decisions ($\beta = 0.390$, $t = 3.733$, $p < 0.001$), suggesting that marketing efforts directly increase consumer likelihood to purchase. In contrast, design does not significantly influence purchase decisions ($\beta = -0.038$, $t = 0.285$, $p = 0.776$), indicating that product design alone is insufficient to drive purchase intentions. Similarly, consumer trust, although positive, does not show a statistically significant effect on purchase decisions ($\beta = 0.177$, $t = 1.496$, $p = 0.135$). These findings align with recent studies that highlight the stronger role of promotional activities compared to product aesthetics in shaping consumer purchase behavior in the EV sector (Chen et al., 2023).

b. Direct Effects on Consumer Trust

Promotion negatively influences consumer trust ($\beta = -0.221$, $t = 2.665$, $p = 0.005$), suggesting that aggressive marketing may create skepticism among consumers. Conversely, design exerts a strong positive effect on consumer trust ($\beta = 0.661$, $t = 8.660$, $p < 0.001$), showing that appealing and functional design enhances consumer confidence in EVs. Insurance also contributes significantly to consumer trust ($\beta = 0.354$, $t = 4.980$, $p < 0.001$), indicating that risk protection mechanisms play a critical role in fostering confidence. These results are consistent with prior findings that perceived quality and post-purchase risk coverage strengthen trust in new vehicle technologies (Kuryliak, 2021); (Liao et al., 2025).

c. Moderating Role of Insurance

The moderating effects of insurance on the relationship between promotion and consumer trust ($\beta = -0.109$, $t = 1.239$, $p = 0.215$) and between design and consumer trust ($\beta = 0.084$, $t = 0.866$, $p = 0.386$) are not significant. This indicates that insurance does not strengthen or weaken the effects of either promotion or design on trust. This outcome supports recent findings that insurance primarily functions as a direct determinant of consumer trust rather than a moderating factor in marketing-related constructs (Zhang, 2022).

Overall, these results suggest that while promotion is crucial for driving purchase decisions, its overuse may undermine consumer trust. Instead, design and insurance emerge as the most important factors for building trust in EVs, which indirectly supports long-term adoption. This reinforces the idea that consumer trust in sustainable mobility is built on product quality and risk mitigation rather than on promotional intensity (Hossain et al., 2021).

Sub-structure 3:

The moderating role of insurance was examined in the relationship between promotion, design, and consumer trust among Wuling electric vehicle users in Tangerang:

a. Promotion → Consumer Trust moderated by Insurance

The path coefficient of -0.109 indicates a negative direction, yet the T-statistic ($1.239 < 1.96$) and P-value ($0.215 > 0.05$) confirm that the moderating effect is not statistically significant. This suggests that insurance does not strengthen or weaken the relationship between promotion and consumer trust. Prior studies also indicate that while promotion shapes consumer perceptions, trust formation in sustainable products depends more on perceived value and product reliability than on external moderators such as insurance (Wei et al., 2024).

b. Design → Consumer Trust moderated by Insurance

The path coefficient of 0.084 shows a weak positive effect, but the T-statistic ($0.866 < 1.96$) and P-value ($0.386 > 0.05$) reveal no significant moderating influence of insurance. This implies that product design independently affects consumer trust, while insurance does not amplify this relationship. Existing research highlights that consumer trust in electric vehicles is primarily driven by product design quality and innovation rather than by moderating factors such as insurance coverage (Liao et al., 2025).

Mediation Analysis

Mediation testing examines indirect effects, showing how exogenous variables exert influence on endogenous variables through mediators. The specific indirect effect provides evidence of this relationship. When the T-statistic exceeds 1.96 and the P-value is below 0.05, the mediation effect is considered statistically significant, indicating that the exogenous variable influences the endogenous variable via the mediating variable (Prastowo, 2024).

Table 7. Specific Indirect Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Promotion (X1) -> Consumer Trust (Z) -> Purchase Decision (Y)	-0.039	-0.044	0.034	1.154	0.248
Design (X2) -> Consumer Trust (Z) -> Purchase Decision (Y)	0.117	0.128	0.083	1.410	0.159

This study tested whether Consumer Trust (Z) mediates the relationship between Promotion (X1), Design (X2), and Purchase Decisions (Y). The results of the bootstrapping analysis are presented in Table 7.

a. Promotion → Consumer Trust → Purchase Decision

The path coefficient of -0.039 indicates a negative but statistically insignificant indirect effect of Promotion on Purchase Decisions through Consumer Trust. The T-statistic value of 1.154 is below the threshold of 1.96, while the P-value of 0.248 exceeds 0.05. These findings suggest that Consumer Trust does not mediate the relationship between Promotion and Purchase Decisions. In practice, aggressive or persuasive promotions may reduce consumer confidence, thereby limiting their impact on purchase behavior in the electric vehicle (EV) market (Jessen et al., 2020).

b. Design → Consumer Trust → Purchase Decision

The path coefficient of 0.117 suggests a positive but insignificant indirect effect of Design on Purchase Decisions through Consumer Trust. The T-statistic of 1.410 falls below 1.96, and the P-value of 0.159 is greater than 0.05, indicating that Consumer Trust does not serve as a significant mediator in this relationship. Although product design is critical in shaping initial perceptions, its influence on purchasing behavior is not automatically strengthened through trust. Instead, consumers often prioritize product reliability, safety, and long-term performance when making EV purchase decisions.

The mediation analysis confirms that Consumer Trust does not significantly mediate the effect of either Promotion or Design on Purchase Decisions. This indicates that trust, while important, is not the primary mechanism linking these marketing factors to consumer purchasing behavior in the EV context. Other elements such as technological reliability, after-sales service, and government incentives may play a stronger role in shaping purchase decisions (Gu et al., 2022).

Moderation Analysis

Table 8 presents the results of the moderation test, examining whether Insurance (M) moderates the effects of Promotion (X1) and Design (X2) on Consumer Trust (Z), which in turn influences Purchase Decisions (Y).

Table 8 Specific Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Promosi * Asuransi -> Kepercayaan Konsumen (Z) -> Keputusan Pembelian (Y)	-0.019	-0.018	0.022	0.899	0.369
Desain * Asuransi -> Kepercayaan Konsumen (Z) -> Keputusan Pembelian (Y)	0.015	0.016	0.024	0.630	0.529

Table 8 Specific Indirect Effect (Moderation Test) provides a moderation effect test of the Insurance variable on the influence of the Promotion and Design variables on Consumer Trust, as follows:

a. Promotion \times Insurance \rightarrow Consumer Trust \rightarrow Purchase Decision

The path coefficient of -0.019 indicates a negative indirect effect of Promotion on Consumer Trust when moderated by Insurance. However, the T-statistic of 0.899 is below 1.96, and the P-value of 0.369 exceeds 0.05, suggesting that this moderating effect is not statistically significant. This finding implies that insurance does not enhance the credibility of promotional strategies in shaping consumer trust. Previous research also notes that aggressive promotion strategies may undermine trust if not supported by strong institutional assurances such as after-sales support or warranties (Jessen et al., 2020).

b. Design \times Insurance \rightarrow Consumer Trust \rightarrow Purchase Decision

The coefficient of 0.015 suggests a weak positive indirect effect of Design on Consumer Trust through Insurance. Yet, the T-statistic (0.630) is lower than 1.96, and the P-value (0.529) is greater than 0.05, indicating that the effect is statistically insignificant. This result suggests that while product design contributes to consumer perception, insurance does not significantly strengthen the role of design in fostering trust. Prior studies show that consumers prioritize tangible product attributes such as durability, functionality, and safety over financial protection mechanisms when forming trust in EVs.

CONCLUSION

This study confirms that promotion has a significant direct effect on purchase decisions but weakens consumer trust, while product design and insurance serve as stronger drivers of trust in Wuling electric vehicles. However, consumer trust does not mediate the relationship between promotion and design on purchase decisions, and insurance does not significantly moderate these effects. These findings align with evidence that trust in electric vehicles depends more on product quality and reliability than on marketing communication (Gu et al., 2022).

Based on these results, the most urgent priority for Wuling is to strengthen product quality and reliability, as consumers in emerging EV markets place higher confidence in long-term performance and safety assurance compared to promotional messages (Wei et al., 2024). The second priority is to enhance innovative and functional design features, since appealing design contributes to stronger brand credibility and consumer purchase intentions. Furthermore, providing comprehensive insurance and transparent warranty services remains essential as a complementary

strategy to reduce perceived risks and improve trust in adoption decisions (Liao et al., 2025).

By prioritizing product reliability as the main solution, supported by design innovation and robust risk protection mechanisms, Wuling can foster stronger consumer trust, accelerate purchase decisions, and sustain competitiveness in the Indonesian EV market. This approach is consistent with research emphasizing that trust-building strategies beyond promotions are critical for the long-term adoption of sustainable vehicle technologies (Kuryliak, 2021).

Reference

Achillas, C. (2024). Shifting towards Electric Vehicles : A Case Study of Mercedes-Benz from the Perspective of Cross-Functional Teams and Workforce Transformation. *World Electric Vehicle Journal*, 15(7), 1–16. <https://doi.org/10.3390/wevj15070325>

Ambole, A., Koranteng, K., Njoroge, P., & Luhangala, D. L. (2021). A review of energy communities in sub-saharan africa as a transition pathway to energy democracy. *Sustainability (Switzerland)*, 13(4), 1–19. <https://doi.org/10.3390/su13042128>

Benitez, J., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Information and Management*, 57(2), 103168. <https://doi.org/10.1016/j.im.2019.05.003>

Chen, C. F., Fu, C., & Siao, P. Y. (2023). Exploring electric moped sharing preferences with integrated choice and latent variable approach. *Transportation Research Part D: Transport and Environment*, 121(July), 103837. <https://doi.org/10.1016/j.trd.2023.103837>

Chien-Shan Han, Yu-Ming Hsu, Hsu, H.-J. (2024). Charging forward: unveiling the dynamics of consumer EV adoption in Asia's transition to green mobility. *Asia Pacific Journal of Marketing and Logistics*, 3(11). <https://doi.org/10.1108/APJML-03-2024-0346>

Dwi Cahya et al., (2023). The Influence Of Promotions, Online Consumer Reviews, And Brand Image On Purchasing Decisions (Study On Shopee E-Commerce Users In Central Java Pengaruh Promosi , Online Consumer Review, Dan Citra Merek Terhadap Keputusan Pembelian (Studi Pada Pengguna E-. *Management Studies and Entrepreneurship Journal*, 4(5), 5667–5677.

Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., Kumar, V., Rahman, M. M., Raman, R., Rauschnabel, P. A., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, 59(June 2020), 102168. <https://doi.org/10.1016/j.ijinfomgt.2020.102168>

Febrina, R. (2020). Pengaruh Bukti Fisik, Keandalan, Daya Tanggap, Jaminan, Dan Empati Terhadap Kepuasan Wajib Pajak Kendaraan Bermotor Pada Sistem Administrasi Manunggal Satu Atap (Samsat) Bukittinggi. *El-Kahfi | Journal of Islamic Economics*, 1(01), 22–35. <https://doi.org/10.58958/elkahfi.v1i01.29>

Gu, Y., Ben, S., & Lv, J. (2022). Peer Effect in Merger and Acquisition Activities and Its Impact on Corporate Sustainable Development: Evidence from China. *Sustainability (Switzerland)*, 14(7). <https://doi.org/10.3390/su14073891>

Gunawan. (2022). Pengaruh Harga, Promosi, Kualitas Pelayanan dan Desain Produk Terhadap Keputusan Pembelian Sepeda Motor Honda Beat Pada CV Istana Motor Bandar Jaya. *Jurnal Manajemen DIVERSIFIKASI*, 2(1), 190–198. <https://doi.org/10.24127/diversifikasi.v2i1.1425>

Hair, Jr., J. F., M. Hult, G. T., M. Ringle, C., Sarstedt, & Marko. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) [3 ed]. In *Angewandte Chemie International Edition*, 6(11), 951–952. (Vol. 3, Issue 1). SAGE Publications. <https://medium.com/@arifwicaksanaa/pengertian-use-case-a7e576e1b6bf>

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. https://doi.org/10.1007/978-3-030-80519-7_7

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>

Hair J.F., Ringle C.M, S. M. (2011). *PLS-SEM: Indeed A Silver Bullet*. Journal of Marketing Theory and Practice.

Hall, J. E., & Callahan, T. L. (2005). Economic considerations. *Multiple Pregnancy: Epidemiology, Gestation, and Perinatal Outcome*, 889–894. <https://doi.org/10.4324/9781315769479-14>

Handoyo, S. (2024). Purchasing in the digital age: A meta-analytical perspective on trust, risk, security, and e-WOM in e-commerce. *Helion*, 10(8), e29714. <https://doi.org/10.1016/j.heliyon.2024.e29714>

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>

Hossain, M. A., Chakrabortty, R. K., Elsawah, S., & Ryan, M. J. (2021). Very short-term forecasting of wind power generation using hybrid deep learning model. *Journal of Cleaner Production*, 296, 126564. <https://doi.org/10.1016/j.jclepro.2021.126564>

Ilmiyah. (2020). Pengaruh Ulasan Produk, Kemudahan, Kepercayaan, Dan Harga Terhadap Keputusan Pembelian Pada Marketplace Shopee Di Mojokerto. *Maker: Jurnal Manajemen*, 6(1), 31–42. <https://doi.org/10.37403/mjm.v6i1.143>

Jessen, A., Hilken, T., Chylinski, M., Mahr, D., Heller, J., Keeling, D. I., & de Ruyter, K. (2020). The playground effect: How augmented reality drives creative customer engagement. *Journal of Business Research*, 116(September 2019), 85–98. <https://doi.org/10.1016/j.jbusres.2020.05.002>

Kasinem, K. (2020). Pengaruh Kepercayaan dan Kualitas Pelayanan Terhadap Kepuasan Konsumen Pada Hotel Bukit Serelo Lahat. *Jurnal Media Wahana Ekonomika*, 17(4), 329. <https://doi.org/10.31851/jmwe.v17i4.5096>

Kuryliak, O. (2021). Designing a system of anticipative marketing for automotive industry. *ASEJ Scientific Journal of Bielsko-Biala School of Finance and Law*, 25(2), 37–44. <https://doi.org/10.19192/wsfp.sj2.2021.6>

Liao, C. W., Chang, C. P., Lee, H. C., Lee, H. Y., & Liao, Y. C. (2025). Research on Core Competency Indicators for Battery Electric Vehicle Sales Personnel: Aligning with SDG Goals for Sustainable Mobility and Workforce Development. *World Electric Vehicle Journal*, 16(4), 1–24.

<https://doi.org/10.3390/wevj16040213>

Martínez-Valdivia, E., Pegalajar-Palomino, M. del C., & Burgos-García, A. (2020). Social responsibility and university teacher training: Keys to commitment and social justice into schools. *Sustainability (Switzerland)*, 12(15), 1–15. <https://doi.org/10.3390/su12156179>

Martowinangun et al., (2019). (2019). Pengaruh Strategi Promosi Terhadap Peningkatan Penjualan Di Cv. Jaya Perkasa Motor Rancaekek Kabupaten Bandung. *Jurnal Co Management*, 2(1), 139–152. <https://doi.org/10.32670/comanagement.v2i1.162>

Maulina et al., (2023). (2023). Analisis Pengaruh Produk, Premi, Lokasi Dan Promosi Terhadap Keputusan Pembelian Polis Asuransi Kendaraan Di Provinsi Sumatera Selatan. *Ekonomika Sharia: Jurnal Pemikiran Dan Pengembangan Ekonomi Syariah*, 9(1), 149–170. <https://doi.org/10.36908/eshash.v9i1.849>

Murtini, S. (2021). Normative Consideration on Purchase Decision. *Golden Ratio of Mapping Idea and Literature Format*, 1(2), 108–133. <https://doi.org/10.52970/grmilf.v1i2.89>

Niemann, C. C., Mai, R., & Dickel, P. (2022). Nurture or nature? How organizational and individual factors drive corporate entrepreneurial projects. *Journal of Business Research*, 140(November 2021), 155–169. <https://doi.org/10.1016/j.jbusres.2021.11.065>

Parsons, G., Firestone, J., Yan, L., & Toussaint, J. (2020). The effect of offshore wind power projects on recreational beach use on the east coast of the United States: Evidence from contingent-behavior data. *Energy Policy*, 144, 1–30. <https://doi.org/10.1016/j.enpol.2020.111659>

Pavlínek, P. (2023). Transition of the automotive industry towards electric vehicle production in the east European integrated periphery. In *Empirica* (Vol. 50, Issue 1). Springer US. <https://doi.org/10.1007/s10663-022-09554-9>

Pertiwi et al., (2020). (2020). Pengaruh Desain Produk, Kualitas Produk Dan Harga Kompetitif Terhadap Keputusan Pembelian Sandal Wanita Merek Cardinal Di Wilayah Kota Bandung. *Jurnal Sain Manajemen*, 2(2), 41–49.

Prastowo, S. L. (2024). *PRILAKU KONSUMEN LAZADA* (A. Suwardhani (ed.)). PT Catalyst Development Partners.

Prastowo, S. L., Djaenudin, E. M., & Apyanti, N. V. (2023). Pengaruh e-Promotion, Pelayanan, Kemudahan, e-WOM Terhadap Keputusan Pembelian, melalui Perilaku Konsumen pada Marketplace Lazada. *ECODEMICA: Jurnal Ekonomi, Manajemen Dan Bisnis*, 7(1), 130–141.

Prastowo, S. L., Sobirov, B., Shafhah, K., & Alunis, S. (2024). The Role of Trust as a Mediator in Enhancing Purchase Decisions for iPhone. *International Journal of Business, Law, and Education*, 5(2), 2647–2662. <https://doi.org/10.56442/ijble.v5i2.944>

Rafiq, F., Parthiban, E. S., Rajkumari, Y., Adil, M., Nasir, M., & Dogra, N. (2024). From Thinking Green to Riding Green: A Study on Influencing Factors in Electric Vehicle Adoption. *Sustainability (Switzerland)*, 16(1), 1–16. <https://doi.org/10.3390/su16010194>

Revangelista et al., (2022). (2022). Kepercayaan Konsumen, Kualitas Layanan Terhadap Keputusan Pembelian pada Aplikasi E-Commerce Shopee di Kota

Tondano. *Jurnal VICIDI*, 12(1), 26–36.
<https://doi.org/10.37715/vicidi.v12i1.2934>

Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modeling in HRM research. *International Journal of Human Resource Management*, 31(12), 1617–1643.
<https://doi.org/10.1080/09585192.2017.1416655>

Rísquez Ramos, M., & Ruiz-Gálvez, M. E. (2024). The transformation of the automotive industry toward electrification and its impact on global value chains: Inter-plant competition, employment, and supply chains. *European Research on Management and Business Economics*, 30(1).
<https://doi.org/10.1016/j.iedeen.2024.100242>

Sain et al., (2023). (2023). Pengaruh Harga Psikologis, Desain Produk, dan Citra Merek terhadap Minat Beli Perempuan pada Merek Pencuci Piring. *Jurnal Inada: Kajian Perempuan Indonesia Di Daerah Tertinggal, Terdepan, Dan Terluar*, 6(1), 1–13. <https://doi.org/10.33541/ji.v6i1.4997>

Sarstedt, G. F. M. (2019). Heuristics versus statistics in discriminant validity testing: a comparison of four procedures. *Internet Research*, 29(3), 430–447.
<https://doi.org/10.1108/IntR-12-2017-0515>

Sarstedt, M., & Liu, Y. (2024). Advanced marketing analytics using partial least squares structural equation modeling (PLS-SEM). *Journal of Marketing Analytics*, 12(1), 1–5. <https://doi.org/10.1057/s41270-023-00279-7>

Solihin, D. (2020). The Effect of Customer Trust and Promotion on Consumer Purchasing Decisions at Mikaylaku Online Shop with Purchase Intention as an Intervening Variable. *Journal Mandiri : Ilmu Pengetahuan, Seni, Dan Teknologi*, 4(1), 38–51.

Sun, Z., & Lee, B. (2024). Exploring Factors Influencing Electric Vehicle Purchase Intentions through an Extended Technology Acceptance Model. *Vehicles*, 6(3), 1513–1544. <https://doi.org/10.3390/vehicles6030072>

Tana. (2023). *Pengaruh Harga , Promosi Dan Desain Produk Terhadap Keputusan Pembelian Kendaraan Honda Scoopy Pada PT . Kembang Jawa Permai langsung di lokasi yakni PT . Kembang Jawa Permai memberikan hasil bahwasannya konsumen membelikan untuk anaknya sekolah . Bagi me.* 1(6).

Tanady, E. S., & Fuad, M. (2020). Analisis Pengaruh Citra Merek Dan Kualitas Layanan Terhadap Keputusan Pembelian Tokopedia Di Jakarta. *Jurnal Manajemen*, 9(2), 113–123. <https://doi.org/10.46806/jm.v9i2.663>

Timilsina, R. R., Zhang, J., Rahut, D. B., Patradool, K., & Sonobe, T. (2025). Global drive toward net-zero emissions and sustainability via electric vehicles: an integrative critical review. *Energy, Ecology and Environment*, 10(2), 125–144.
<https://doi.org/10.1007/s40974-024-00351-7>

Wei, S., Xu, H., Zheng, S., & Chen, J. (2024). Research on the Impact of New Energy Vehicle Companies' Marketing Strategies on Consumers' Purchase Intention. *Sustainability (Switzerland)* , 16(10), 1–14. <https://doi.org/10.3390/su16104119>

Xia, Z., Wu, D., & Zhang, L. (2022). Economic, Functional, and Social Factors Influencing Electric Vehicles' Adoption: An Empirical Study Based on the Diffusion of Innovation Theory. *Sustainability (Switzerland)*, 14(10).
<https://doi.org/10.3390/su14106283>

Zhang, L. (2022). *Research on Genius Marketing Strategy from NIO*. 1661–1666.
https://doi.org/10.2991/978-94-6463-036-7_248