

The Influence of Country of Origin, Brand Awareness, Perceived Risk and Brand Image on Purchase Intention on China Wuling Air Electric Vehicles

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How to cite this paper: Li, X.X. and Setiowati, R. (2023) The Influence of Country of Origin, Brand Awareness, Perceived Risk and Brand Image on Purchase Intention on China Wuling Air Electric Vehicles. *Open Journal of Applied Sciences*, 13, 618-635. <https://doi.org/10.4236/ojapps.2023.135049>

Received: March 9, 2023

Accepted: May 9, 2023

Published: May 12, 2023

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Abstract

In 2019, Indonesia was ranked second with 619,840.03 carbon emissions, after India. Therefore, the Indonesian government issued a zero emission plan in 2022 and encouraged Indonesians to purchase electric vehicles, striving to achieve zero emissions by 2060. Facing the huge potential market for the development of electric vehicles in Indonesia, the Chinese brand Wuling took this opportunity to launch its first electric vehicle, Wuling Air EV, in Indonesia. This study aims to analyze the influence of the brand image of Wuling electric vehicles, brand awareness, country of origin and perceived risk on the purchase intention of Indonesian consumers. Data collection in this study was carried out through offline and online questionnaires which were distributed to 150 respondents who met the research criteria in the JABODETABEK area, and they all owned cars and had driving experience. Partial Least Squares-Structural Equation Modeling (PLS-SEM) was adopted for data analysis. The results of this study indicate that country of origin, perceived risk, and brand image have a significant effect on consumer purchase intention. In addition, perceived risk also has a significant positive impact on brand image. However, the influence of country of origin and brand awareness has no significant effect on brand image.

Keywords

Chinese Electric Vehicles, Chinese Brands, Indonesian Market, Indonesian Consumers

1. Introduction

In recent years, global warming and greenhouse effect have been increasing at an

alarming rate. Rapid economic growth is accompanied by high consumption, resulting in large amount of carbon emissions, thus the reduction of greenhouse gas emissions has become a global hot issue. Transportation is one of the most important sources of global greenhouse gas (GHG) emissions, due to frequent transportation activities and high use of fossil fuels [1]. In this context, electric vehicles (EV) that can reduce CO₂ emissions have attracted extensive attention, for electricity can be generated from renewable energy sources [2]. To manufacture batteries of electric vehicles, three main raw materials are needed, namely nickel, lithium and cobalt. The abundant nickel ore is one of the main reasons for the government to develop the electric vehicle battery industry. However, to ensure the age of nickel reserves to be between 25 - 30 years, the Ministry of Energy and Mineral Resources banned exports of nickel ore raw materials in 2020 [3], which is why an increasing number of foreign companies choose to invest in Indonesia, such as LG, Tesla, CATL, Toyota, Wuling, etc.

Currently, in response to the severe carbon emission situation in Indonesia, ESDM issued relevant policies [3], aiming to reduce carbon footprint and achieve net zero emissions, based on which the government requires to increase the use of electric vehicles. In addition, in 2021, Indonesia sold 689 Battery Electric Vehicles (Bev), 46 plug-in Hybrid Electric Vehicles (PHEV), and 2472 Hybrid Electric Vehicles (Hev). In March 2022, the sales of Battery Electric Vehicles (Bev) is 64, while the sales of Plug-in Hybrid Electric Vehicles (PHEV) and Hybrid Electric Vehicles (Hev) is 10 and 646, respectively [4]. In the Indonesian market, apart from the government support, consumers' purchase intention is also a major factor influencing the use of electric vehicles.

Consumers take many factors into account when they need to make a decision on whether to buy an electric vehicle, including brand awareness and brand image, as well as brand perception [5]. Hence it is of great importance to increase brand awareness and brand image. Due to the low penetration rate of electric vehicles, consumers often have bias against electric vehicles and concern about safety, reliability, battery life, etc. [5]. Additionally, electric vehicle fires occurred several times, which is even more worrying. Consumers need to consider many aspects when buying an electric vehicle, creating a perceived risk. Perceived risk is an individual's subjective belief about the potential negative consequences of their decisions [6]. Brand image is defined as a description of the external characteristics of products and services, including brand efforts to meet social or psychological needs of customers [7]. Brand image plays a very important role and brand image can help consumers accept brand products, thereby increasing purchase intention [5]. In other words, if a company intends to increase consumer desire to buy electric vehicles, it needs to build a good brand image. Brand awareness refers to the attributes that enable customers to recognize a brand. In this era of sophisticated internet technology, brands in any industry hope to promote through brand awareness [5]. As a result, for the Indonesian market with enormous development potential in the electric vehicle sector, Wuling needs to consider all aspects of Indonesian consumers if they want to

achieve good results in the Indonesian market. Therefore, brand awareness, perceived risk, brand image and purchase intention will be discussed as variables in this study.

In addition, as a Chinese brand, Wuling also needs to consider the country of origin of the product for consumers. In today's business world, consumers regard country of origin as the important information for evaluating products, because a large number of companies provide similar products [8]. When consumers know that a product belongs to a certain brand, they tend to emphasize the country of origin [8]. There was a previous research conducted by Jiang *et al.* [5] and Zhang [9], but no research has been found regarding the country of origin. Hence country of origin is adopted as a variable in this study to analyze whether the Chinese brand Wuling has an effect on consumer purchase intention.

In summary, this study takes Wuling as an example and uses brand image, brand awareness, perceived risk, purchase intention and country of origin as variables to analyze the factors that influence Indonesian consumers to buy electric vehicles of Chinese brand. This research finally identifies the variables that influence Indonesian consumers to buy Chinese electric vehicles, and provides further references for the development of Chinese electric vehicles in the Indonesian market.

2. Literature Review

2.1. Country of Origin

Country of Origin is often considered by consumers when evaluating a product [10], and it is often regarded as a part of the product characteristics [11]. Pirayut's research [12] demonstrates that country of origin, country of manufacture, country of assembly, country of parts, and country of brand all have an impact on environmentally friendly vehicles. Furthermore, country of origin is an indication of product attributes that influence consumers' evaluation when identifying the country of origin of the product [13]. Some common evaluation criteria include price, brand and country of origin [14]. For example, country of origin is what consumers are likely to consider [14] when they want to buy a car. Consumer perceptions of product quality are often strongly influenced by the information about country of origin conveyed by the word "manufactured" [15]. As explained in Pirayut's research [12], Thai consumers often consider the country of origin in choosing a product, and whether it matches the characteristics of Thai consumers, including environmentally friendly vehicles.

Yunus [16] believes that country of origin is one of the important factors that consumers consider when buying a product. Merabet [17] considers the positive effect of country of origin on perceived quality, price perceptions and the mediating role of perceived price in the relationship between country of origin and purchase intention. According to Hien's research [8], the image of the country of origin has an impact on consumer purchase intentions, which shows that the country of origin plays an indispensable role in the purchasing decision process,

and also explains that consumers are more inclined to products from developed countries.

According to Pirayut [12], country of origin includes country of origin, country of manufacture, country of assembly, country of spare parts, and country of brand. Consumers identify among all these factors to judge the product quality and the perceived product value indirectly influences purchase intention. Based on the research content above, the hypothesis proposed is as follows:

H1: Country of origin has a positive influence on consumer purchase intention.

2.2. Brand Image

Keller *et al.* [18] point out that brand image is consumers' perception of a brand, which is reflected in brand associations in consumer memory. Fang *et al.* [19] believe that brand competition is a company's last resort in market competition, and brand image is of great importance. A company should not only meet customers' needs of product functions, but also meet their psychological needs in several aspects with brand image [19]. Fang *et al.* [19] state in their research that brand image comes from customer perceptions of products or brands. In addition, brand image is also the basis for making better strategic marketing decisions by targeting certain market segments and positioning a product [20]. Therefore, a company with a good brand image will have a stronger brand influence than its competitors [21].

Consumers often associate the country of origin with the brand image of the products they will buy, thus a good brand image is significant to companies [22]. An image influence model was analyzed and it was found that the country of origin of a product can affect the brand image of a product because it can be the basis for influencing consumer purchase intentions [23] [24].

Furthermore, research conducted by Hamzaoui-Essoussi [25] also found that the macro image of the country of origin has a positive impact on brand image. Diamantopoulos [26] also reveals that country of origin influences brand image. According to Wang and Liu [27], in the international market, due to counterfeit products exported from China, consumers give negative labels to products manufactured in China, thus affecting the international image of Chinese brands, and ultimately influencing consumer desires. Based on the discussions above, the hypothesis proposed is as follows:

H2: Country of origin has a positive influence on brand image perception.

2.3. Brand Awareness

Aaker [28] argues that brand awareness is the ability of buyers to recognize or remember that a brand is part of a product. Brand awareness describes the extent to which the brand is held in the minds of consumers [29]. Therefore, when brands encounter the problem of weak brand expansion caused by the increase of competitors and increasingly fierce market competition, increasing brand awareness and influence becomes one of the methods to overcome this problem

[30]. Additionally, a brand's greater popularity will make consumers naturally think that they will not be cheated since the brand should value its image, thus the consumers will feel more comfortable and confident in their purchasing decisions [9].

Furthermore, in the research of Zhang *et al.* [31], brand awareness is the ability of consumers to recognize or remind brand memories, and the level of brand awareness influences consumer cognition and attention to brand products. Therefore, consumers' knowledge of a brand will lead to different responses to brand marketing [31].

Brand awareness refers to the way in which consumers generate brand associations or identify and remember a brand through the desired product [32]. Li [30] believes that the higher the brand awareness is, the more similar products appear on the market, thus affecting the brand image. Malik *et al.* [33] hold that brand awareness is an important capital because it is one of the factors that influence purchase intention. According to Wen [34], the factors that influence brand awareness include brand personality, consumer factors, environmental factors, etc., and the brand integrates corporate philosophy into consumer behavior habits by highlighting a unique brand image. In Jiang *et al.*'s research [5], it was concluded that brand awareness has an impact on brand image, and well-known brands enable consumers to identify brand products through brand image characteristics. Based on the review above, the following hypothesis is proposed:

H3: Brand awareness has a positive influence on brand image.

2.4. Perceived Risk

In their research, Jose and Mohammad [6] argue that perceived risk is an individual's subjective belief about the potential negative consequences of their decisions, and that the theory of perceived risk can be extended to almost all types of consumer goods and services. Perceived risk refers to the consumer's expectation of loss [35]. Pei *et al.* [36] found that regardless of the shopping environment, consumers express uncertainty about the adverse consequences they might face when the product does not match their purchase purpose. Perceived risk in the study carried out by Han and Kim [37] is multi-dimensional, including product, privacy, financial, security, social/psychological, and time. Zhao and Wang [38] propose that consumers will feel uncertainty when choosing electric vehicle products because the perceived risk of electric vehicle function, time, psychology, finance, health, society and privacy affect consumers. Therefore, it is necessary to focus on eliminating consumer concerns about electric vehicles to promote the development of electric vehicles, which means to reduce the risks that consumers feel [39].

Perceived risk is classified as a situation where consumers are faced with products or services that they do not trust because they feel the potential for harm and cause dissatisfaction or imbalance, thus consumers tend to choose brands with a

strong image to reduce the perceived risk [40]. Technical deficiencies in electric vehicle batteries may expose consumers to higher traffic risks (e.g. battery fires) compared with gasoline vehicles [41]. According to Jiang *et al.* [5], perceived risk has a negative correlation with brand image, and perceived risk has a negative impact on brand image. It was also found in the same research that due to the limitations of battery technology and spontaneous combustion of electric vehicles, consumers' perceived risk has reduced consumers' assessment of brand image to a certain extent. Based on the research content above, the following hypothesis is proposed:

H4: Perceived risk has a negative influence on consumer perceptions of brand image.

2.5. Purchase Intention

Purchase intention is a decision-making method that studies the reasons why consumers buy certain brands [42]. Morinez *et al.* [43] defines purchase intention as a consumer's tendency to buy a product under certain conditions. Chen & Xia's research [44] shows that purchase intention represents the possibility of consumers to buy a product of certain brand, and is a manifestation of consumer psychology as well as the premise of consumer buying behavior, which will ultimately predict whether consumers have buying behavior.

In a study carried out by Jiang *et al.* [45], consumers need to consider aspects of the manufacturer, product value, social, financial, physical and psychological values when buying an electric vehicle. In addition, accessories, brand, place of production, car design, and characteristics of electric vehicles are also factors that influence consumer purchase intentions [12]. Kim and Lenon [46] state that perceived risk has a significant negative effect on purchase intention. However, Bhukya and Singh [47] conducted empirical tests on perceived risk dimensions that can affect consumer purchase intentions, such as perceived functional risk, financial risk, and psychological risk. It was found that perceived risk has a direct and significant impact.

Moreover, Jiang's research [45] also proves that the factors that influence consumers' desire to buy electric vehicles include perceived value and perceived risk, including financial, physical, psychological and performance dimensions. Perceived risk is one of the reasons for low sales of electric vehicles [45]. Hong and Cha [48] state that there is a negative relationship between perceived risk and purchase intention, but this relationship is also moderated by consumer trust in online merchants. According to the above discussions, the hypothesis is as follows:

H5: Perceived risk has a negative influence on consumer purchase intention.

Brand image is usually understood as an association that consumers generate through their understanding of the meaning of the brand [49], thus brand image is one of the factors that companies consider to create interest for consumers [50]. Burmann [51] studied this topic and put forward the theory that brand image is an important determinant of purchase intention. Adenan *et al.* [52] and

Heikal [53] believe that brand image has an impact on customer purchase intention. Armawati *et al.* [54] conclude that brand image has a positive and significant effect on purchasing decisions. Jiang *et al.* [5] show that brand image is one of the factors that influence purchase intention when consumers purchase electric vehicles. Brand image has a positive effect on consumer purchase intention, and a company should place emphasis on its brand image, because it can be the basis for influencing consumer purchase intention [24]. Based on the research content above, the following hypothesis is proposed:

H6: Brand image has a positive influence on consumer purchase intention.

From the explanation above, the research model is created and presented in **Figure 1**.

3. Methodology

Questionnaire survey was adopted in this research. The digital questionnaires were distributed online. This research invited respondents to answer or state the questions in the questionnaire directly online.

A Likert scale was used to change the variables to be measured into indicator variables. The rating of the scale ranges from 1 to 5, namely, Number 1 is Strongly disagree, Number 2 is Disagree, Number 3 is Neutral, Number 4 is Agree, and Number 5 is Strongly agree [55].

This study used non-probability convenience sampling methods as sampling techniques, namely several groups of people who are easy to find and meet certain criteria are selected as respondents to assist the research process. Considering that Wuling launched and promoted its first Air EV product in Tangerang [56], consumers around the Tangerang (Jabodetabek) area are more familiar with this product than those in other cities. The population in this study is Indonesians who own cars or have driving experience. Since the research product of this study is the Wuling electric vehicle, the respondents were required to

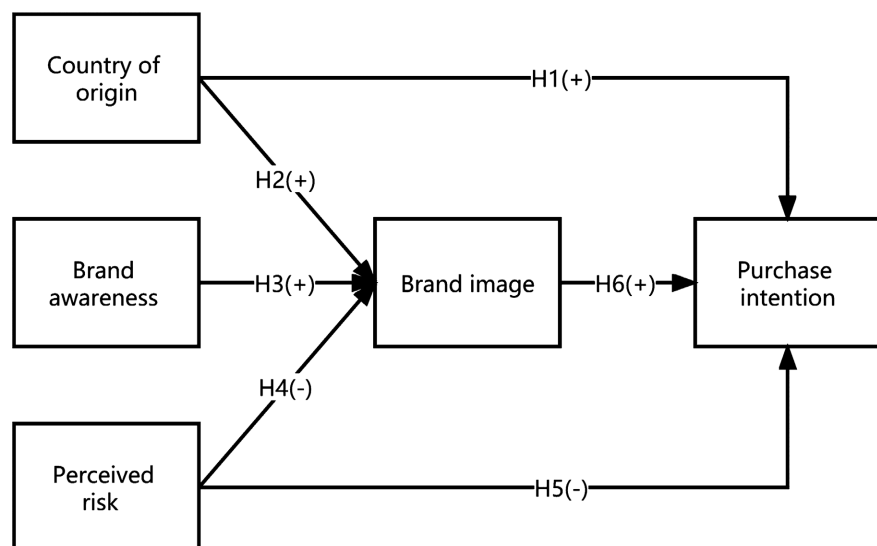


Figure 1. Research mode.

have a basic understanding of Wuling EV cars, so the sample in this study includes male or female consumers who are at least 17 years old with a car or driving experience and are domiciled in Greater Jakarta.

4. Results

In this study, to measure the validity and reliability of the questionnaires, the researchers distributed the questionnaires to 30 respondents who were friends and colleagues of the author for a pre-test. Solimun [57] shows that the recommended sample range should be between 100 and 200, and at least 50, and it should be considered that the sample size is equal to 5 - 10 times the number of all latent variables. So 20 questions were asked in this study, which is the minimum sample size is $20 \times 5 = 100$, and the maximum is $20 \times 10 = 200$. To ensure that the number of respondents could reach more than 100, this study used a sample size of 150 respondents which is different from the 30 respondents from the pre-test. The 150 respondents' characteristics are as follows (Table 1):

Table 1. Sample characteristics.

Items	Classification	Frequency	Percentage
Age	<17 tahun	0	0%
	17 - 25 tahun	46	30.7%
	25 - 30 tahun	61	49.6%
	35 - 40 tahun	30	8.7%
	>40 tahun	13	6.4%
Gender	Male	107	71.3%
	Female	43	28.7%
Education	High School	1	0.7%
	Diploma	3	2%
	Undergraduate	128	85.3%
	Graduate	15	10%
	PhD	3	2%
Level of Income	<Rp 3.000.000	31	20.7%
	Rp 3.000.001 - Rp 8.000.000	47	31.3%
	Rp 8.000.001 - Rp 13.000.000	58	38.7%
	Rp 13.000.001 - Rp 18.000.000	8	5.3%
	>Rp 18.000.001	6	4%
How long have you been driving a car?	<1 tahun	5	4%
	1 - 3 tahun	22	14.7%
	3 - 5 tahun	70	46.7%
	>5 tahun	52	34.6%

From the results of the research data obtained, it can be seen that most of the respondents were teenagers aged between 25 to 30, most of whom were men. In terms of identity, most of them have university degrees and work as employees. Most of the respondents have a monthly income of between IDR 8 million and IDR 13 million. The average length of driving experience of respondents in this study is 3 - 5 years.

The actual research results were tested again through validity and reliability tests, which were designed to define acceptable metrics. Based on the results of the convergent validity test, factor loading and AVE values, 21 indicators were declared to have passed the validity and reliability tests. The results of the validity and reliability tests (Actual-test) are presented in **Table 2**.

Based on the actual research reliability test, **Table 2** shows that a total of 21 variable indicators passed the reliability test, and the comprehensive composite reliability value of each variable is higher than 0.5.

Table 2. Convergent validity and composite reliability test results.

Construct	Item	Loading	AVE	Composite Reliability
Age	CO1	0.768	0.611	0.863
	CO2	0.796		
	CO3	0.796		
	CO4	0.767		
	CO5	0.768		
Brand Awareness	BA1	0.580	0.595	0.878
	BA2	0.830		
	BA3	0.822		
	BA4	0.826		
	BA5	0.769		
Perceived Risk	PR1	0.748	0.537	0.822
	PR2	0.692		
	PR3	0.701		
	PR4	0.786		
Brand Image	BI1	0.743	0.654	0.883
	BI2	0.816		
	BI3	0.852		
	BI4	0.822		
Purchase Intension	PI1	0.502	0.609	0.857
	PI2	0.869		
	PI3	0.816		
	PI4	0.873		

Table 3. Discriminant validity test results.

BA	BI	CO	PR	PI	BA
BA	0.771				
BI	0.423	0.809			
CO	0.555	0.406	0.782		
PR	0.630	0.630	0.628	0.733	
PI	0.628	0.627	0.604	0.753	0.780

Table 4. Hypothesis testing results.

Hipotesis	Path	Path Coefficient	T-statistic	P-value	Kesimpulan
H1	CO -> PI	0.160	2.155	0.032	Supporte
H2	CO -> BI	0.005	0.056	0.956	Not Supported
H3	BA -> BI	0.042	0.492	0.623	Not Supported
H4	PR -> BI	0.600	6.906	0.000	Supporte
H5	PR -> PI	0.372	8.119	0.000	Supporte
H6	BI -> PI	0.242	3.137	0.002	Supporte

To see whether a variable is acceptable for discriminant validity, the square root value of AVE for each construct must be higher than the correlation value compared to other constructs [58]. The results of the discriminant validity test are shown in **Table 3**.

As can be seen from **Table 4**, H1, H4, H5, H6 in this study are all accepted. For Hypothesis 1, the result shows that country of origin has a positive influence on consumer purchase intention (path coefficient difference = 0.160, p-value = 0.032). For Hypothesis 2, the result presents that country of origin does not have a significant positive effect on brand image (path coefficient difference = 0.005, p-value = 956). For Hypothesis 3, the result reveals that brand awareness does not have a significant positive effect on brand image (path coefficient difference = 0.042, p-value = 0.623). For Hypothesis 4, the result shows that perceived risk has a positive influence on consumer perceptions of brand image (path coefficient difference = 0.600, p-value = 0.000). For Hypothesis 5, the result proves that perceived risk has a positive influence on consumer purchase intention. (path coefficient difference = 0.372, p-value = 0.000). For Hypothesis 6, the result presents that brand image has a positive influence on consumer purchase intention (path coefficient difference = 0.242, p-value = 0.002). The path coefficients of the model are presented in **Figure 2**.

Based on the results of hypothesis testing (H1), country of origin has a positive influence on brand image, thus H1 is accepted, which is consistent with the result of Hien's research [8] that the image of the country of origin influences consumer purchase intentions, and people are more inclined to products from

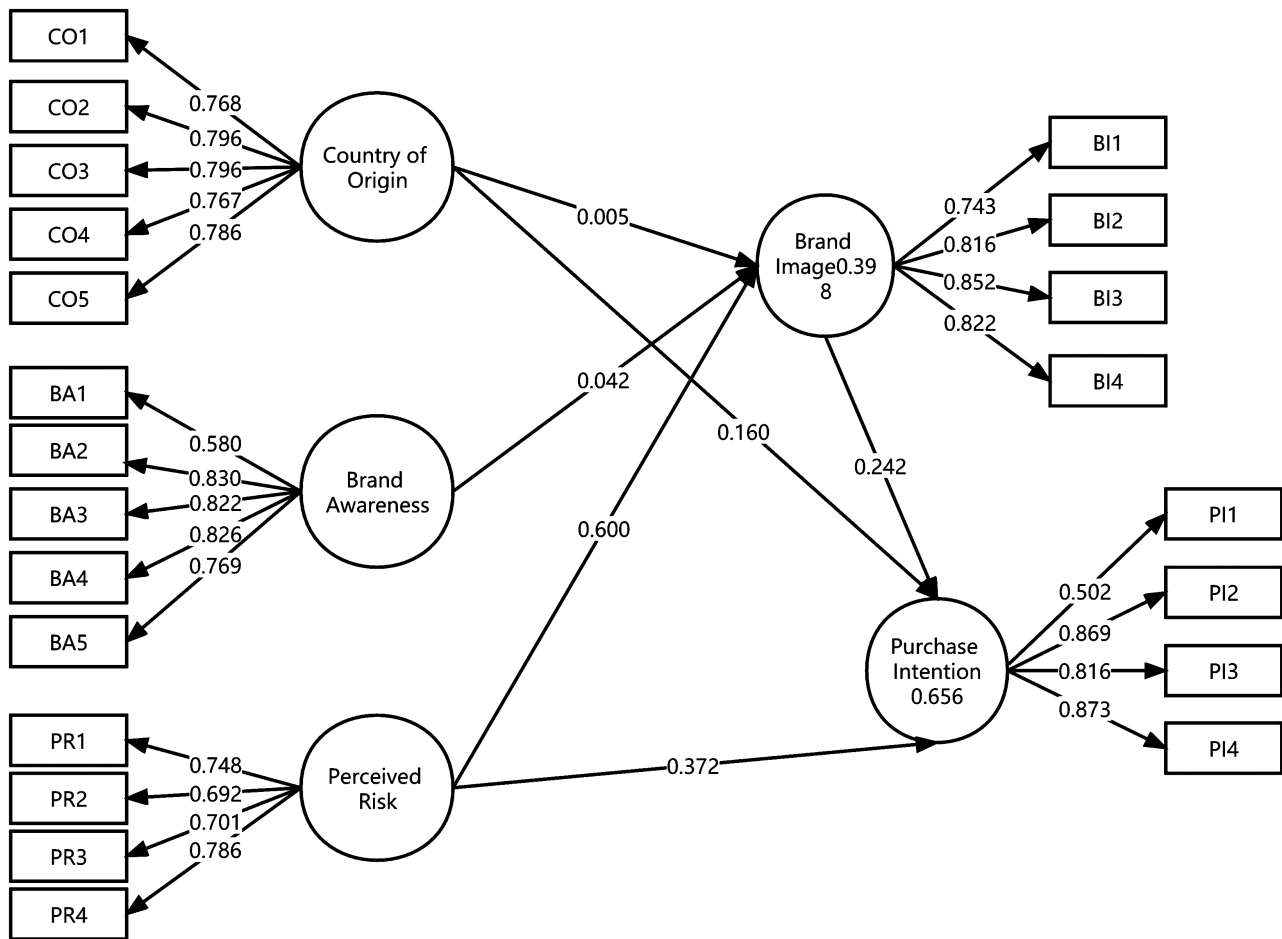


Figure 2. Path coefficients of the model.

developed countries. The results of this study indicate that country of origin has an influence on consumer perceptions of brand image. In this research, according to the criteria described above, the CO4 = 4.007 indicator is the highest average, indicating that the respondents in this study agree that China is a developed country, so more people believe that China is advanced in manufacturing, thereby affecting people’s willingness to buy.

Based on the results of hypothesis testing (H2), country of origin has no effect on brand image, thus H2 is rejected. The results of this study indicate that country of origin does not affect consumer perceptions of brand image. In this study, 49.6% of respondents were aged 25 to 30, 30.7% were aged 17 to 25, 38.7% had an income of 8-13 million, and 31.3% had an income of 3 - 8 million. Indonesian consumers in this age group and income level consider more factors when buying products. Wuling Ari EV is a luxury product for these consumers who not only consider the origin of the brand, but also the brand or product value, hence the country of origin has little influence on the brand. Significantly, these results are also consistent with the results of Wang’s research [59], saying that when consumers encounter luxury brands, the country of origin of the products does not matter.

Based on the results of hypothesis testing (H3), brand awareness has no effect on brand image, thus H3 is rejected, which is consistent with the result of Zhang's research [60] that popularity has no significant effect on brand image. Among the brand image (BI) variables, the highest average result is BI1 = 4.247, which means that respondents in this study consider Wuling as a well-known brand. However, among the perceived risk (PR) variables, the average result of PR3 = 4.287 is the highest, indicating that the respondents in this study are worried that the used Wuling Air EV electric vehicles may be sold at a lower price. It means that Indonesian consumers generally perceive Wuling as a well-known brand, but they are still worried about the price of used products. As a result, it can be concluded that since consumers do not have a deep understanding of the brand, even if they have heard or know about the brand, high popularity does not have a significant impact on brand image.

Based on the results of hypothesis testing (H4), perceived risk has a positive effect on brand image, because the Path Coefficient is greater than 0, thus H4 is accepted. All conclusions are inconsistent with the findings of Jiang *et al.* [4] who argue that perceived risk has a negative impact on brand image. Since there is no relevant literature support in the previous literature, the researcher of this study chose to interview the poll respondents and obtained the following responses as support and conclusions. "I know EV batteries are a flammable material, but all EV brands need batteries, and I wouldn't dislike a brand just because they make battery EVs. If I need this product, I will still buy it." (Christina, 26 years old). According to the opinions of these interviewees, it can be concluded that flammable batteries will not reduce consumers' willingness to buy electronic vehicles. If Wuling Air EV can meet the needs of consumers, consumers' risk perception will even have a positive impact on their willingness to buy.

Based on the results of hypothesis testing (H5), perceived risk has a positive effect on purchase intention, because the Path Coefficient is greater than 0, thus H5 is accepted. It can be seen from the descriptive statistics of the variable that perceived risk 2 is 4047, which indicates that the respondents in this study had doubts about the raw materials used in the Wuling Air EV electric vehicle. However, for the purchase intention variable, the average PI4 result is the highest, which is 4280, indicating that the respondents in this study hope to own a Wuling Air EV electric vehicle. Therefore, despite that Indonesian consumers doubt about the quality of Wuling Air EV, they are still interested in buying it.

Since there is no relevant literature support in the previous literature, the researcher chose to interview the poll respondents and obtained the following responses as support and conclusions. "If I want to buy an electric car, even though Wuling is well-known and loved and bought by people in China, I will still worry about the quality of the car, the materials used, and the value. However, I will compare it with other cars from these aspects, and if Wuling is still good, I can consider it." (Suriyani, 29 years old). The answers of these respon-

dents indicate that consumers will not reduce their purchase intention because of the perceived risk of Wuling Air EV, but they will compare it to other vehicles. If Wuling Air EV beats other EV brands in perceived risk, consumers will actually increase their desire to buy.

Based on the results of hypothesis testing (H6), brand image has a positive effect on purchase intention, thus H6 is accepted. These results are also supported by several studies conducted by Jiang *et al.* [5] and Armawati *et al.* [54], demonstrating that brand image is one of the factors that influence on consumer purchase intentions. Furthermore, as can be seen from the descriptive statistics of the brand image variable, the highest BII average value is 4247, indicating that the respondents in this study agree that Wuling is a well-known brand. For the purchase intention variable, the highest average results were obtained at PI4, namely 4.280, indicating that the respondents in this study wanted to own a Wuling Air EV electric car. Hence it can be concluded that Wuling's brand image has a positive impact on positive consumption purchase intention.

5. Managerial Implication

Chen & Xia [44] and Shah *et al.* [42] state that purchase intention is the premise of consumer purchase behavior, and will ultimately predict whether consumers have purchase behavior. For Chinese electric vehicle companies that have entered or are about to enter the Indonesian market, it is necessary for their managers or stakeholders to understand the factors that influence consumer purchase intention.

The results of this study reveal that brand image, country of origin and perceived risk have a positive and significant effect on the purchase intention of Indonesian consumers. To increase consumers' desire to buy products, companies should try their best to maintain a good brand image, improve and optimize technologies from the country of origin, and attach importance to risk factors that consumers are concerned about.

When Indonesian consumers buy electric vehicles, they will highly consider the price of used electric vehicles, for the reason that if the price of used electric vehicles is too low, consumers will consider the price of new electric vehicles to be high and unacceptable. In order to relieve consumers' worries when buying a car, managers can plan electric vehicle recycling projects to recycle electric vehicles or their batteries with stable prices.

In addition, the risks that Indonesian consumers perceive when buying electric vehicles make consumers compare various brands of electric vehicles. Managers should be aware of the performance and materials of their competitors' products, and improve the performance of their own products in all aspects. Providing sense of safety for consumers will help to increase consumers' willingness to buy.

Electric vehicles are a luxury item. Indonesian consumers often consider more about the origin of the product when they tend to buy luxury goods. If the origin

of a product is from a country that is technologically advanced, then the quality of the product can be guaranteed to a certain extent. Therefore, managers need to maintain and improve the technologies to ensure that the quality of products can match the image of the country of origin.

6. Conclusion and Suggestions

6.1. Conclusion

This study aims to analyze and test hypotheses regarding the relationship between country of origin, perceived risk, brand awareness, brand image and purchase intention. The conclusions from this study can be used as a reference for the government, consumers or professionals in electric vehicle industry to promote sales of electric vehicles and achieve low-carbon transportation, and can also help the EV companies to capture a larger share of the domestic market. From the data processing and analysis results in this study, the following conclusions can be drawn.

Among the 6 existing hypotheses, 4 hypotheses are accepted, namely H1, H4, H5 and H6, while the 2 rejected hypotheses are H2 and H3. Country of origin, risk perception, and brand image have a significant effect on consumer purchase intention. In addition, the perception of risk also has a significant positive impact on brand image.

In this study it was found that perceived risk has a positive effect on purchase intention. For consumers who will buy Wuling Air EV, the perception of product risk has a positive effect on consumer purchase intention. Moreover, brand awareness and product origin have no significant positive effect on brand image.

6.2. Suggestions for Future Research

Despite the results, limitations still exist in this study. Since the non-probability convenience sampling method used in this study may affect the generalizability of findings, the survey results will not affect the final results of this research project. In addition, this empirical research takes Wuling Air EV as an example to explore the factors that influence Indonesian consumers' purchase intention on electric vehicles, which may limit the scope of the sample of this research. Follow-up research can select more brands or models in the electric vehicle industry, and a comparative study can be conducted with China Wuling Air EV to explore whether users have different characteristics when purchasing electric vehicles. In fact, the price of Wuling Air EV is not much different from gasoline-powered vehicles. The factor of price was not integrated into this research, which is also one of the weaknesses of this research. Furthermore, this research does not include several other important factors, such as perceived policy, perceived usefulness, environmental value, etc., which are all considered as factors influencing consumers' purchase intention on electric vehicles. For future research, more variables can be added to build a more comprehensive and reasonable research model.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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