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Research Article

Approaches to the Development of Electric Vehicle Parts Industry to Support the National Strategy

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Abstract:

With the growing emphasis on environmental conservation, many countries are actively promoting the use of electric vehicles. Thailand, as a major automobile production hub in ASEAN, has the potential to evolve into a center for electric vehicle manufacturing and emerge as a leader in the electric vehicle parts market in the future. This research aims to explore development strategies for the electric vehicle parts industry to support the national strategy. The study employs both qualitative research methods and in-depth interviews. The research findings indicate that the guidelines for developing the electric vehicle parts industry to support the national strategy can be ranked in order of importance across four key components: 1) Technology Transformation, 2) Business Alliance, 3) Agile Marketing, and 4) Personnel Development. This study proposes a fusion-based strategic framework that synthesizes these four components into an integrated model for industry advancement. In addition, hypothesis testing revealed a significant difference between the two business groups at the 0.05 level. The analysis of the developed structural equation model indicates that it met the evaluation criteria and aligned with the empirical data. The model's fit indices were as follows: chi-square probability level = 0.117, relative chi-square = 1.103, goodness-of-fit index (GFI) = 0.955, and root mean square error of approximation (RMSEA) = 0.014.

1. Introduction

Nowadays, technological advancements are occurring rapidly, with a growing emphasis on integrating innovations and modern technologies into everyday life. As the global market increasingly demands environmentally friendly products, traditional methods of electric vehicle parts production may no longer suffice. Consequently, the electric vehicle parts industry has evolved to support modern vehicles, requiring advanced design and innovation driven by cutting-edge technologies.

To create added value and gain a competitive advantage in the automotive parts industry, entrepreneurs must adapt, particularly by accelerating product development to align with market trends. This includes competing with both existing domestic players and new entrants, whether local investors or foreign competitors, in today's free market era [1]. In addition, electric vehicles have become a global priority, with many countries promoting their adoption to conserve energy and protect the environment. Some nations also aim to position themselves as global electric vehicle manufacturers or production hubs, recognizing this emerging industry as a key driver of economic growth and a catalyst for entering the New S-Curve, an industrial revolution in the digital age.

Currently, the electric vehicle manufacturing industry is highly competitive, as automakers worldwide strive to dominate the rapidly expanding electric vehicle market, which is expected to surpass the combustion engine vehicle market shortly. This trend is evident in the continuous increase in global electric vehicle sales [2].

1.1 Concepts and Theories

Organization Development

Organizational development is a systematic change process within an organization that involves advanced planning in various aspects, such as assigning responsible individuals for the change process, assessing impacts, and identifying solutions to ensure the organization's sustainability and operational efficiency. In addition, it focuses on developing personnel to increase their capabilities and improve their quality of work life. In a constantly evolving environment, organizational development serves as a structured approach to facilitating change [3]. Effective organizational development requires not only setting guidelines and selecting appropriate methods but also ensuring tangible implementation and overcoming obstacles smoothly. Those responsible for organizational development must carefully plan and execute action plans to facilitate a seamless development process. Successful organizational development can be achieved by adhering to the following principles: respect for people, trust and support, equality of power, openness or transparency, and active participation [4].

Competitive Advantage

The competitiveness of a country's industry depends on four key factors that determine its competitive advantage: production factor conditions, demand conditions, supporting and related industries, and the company's structure and competitive strategies [5]. In addition, two factors—opportunities and government—can either support or pose obstacles. These factors are interrelated, meaning that the impact of one factor can affect the others. For example, if the workforce lacks the skills to produce advanced products, it will be unable to meet the complex needs of buyers. Similarly, if there is no strong competition, there will be little incentive to improve products and services. In short, weaknesses in any one factor will limit the potential of an industry to progress and upgrade [6].

Technology Transformation

Innovation from external connections to the organization arises from the organization's openness to developing new ideas, not only from the inventions of personnel within the organization. The concept of external openness allows new ideas to emerge more quickly and diversely, and may also incur lower costs than developing everything internally [7]. Therefore, the idea of creating innovation by connecting more with external organizations has emerged. This comes from exchanging knowledge and receiving technology from outside the organization. Such techniques help organizations create innovations in production and operations [8] without being limited to ideas or expertise solely within the organization. Therefore, organizations that focus on developing open innovation will be able to receive a variety of ideas and expertise from external organizations promptly, without having to rely entirely on internal development [9].

Business Alliance

Networking aims to help each other as both a giver and a receiver, exchange experiences, create a mutual learning process, share benefits, and disseminate information among members. It opens channels for participation and creates powerful groups [10]. It also provides opportunities for members to collaborate, create a source of capital, and emphasize self-reliance. This grouping will create bargaining power to demand that relevant agencies join in solving problems, present issues, and develop or suggest solutions, ultimately leading to appropriate policy planning [11].

Personnel Development

Currently, many organizations must adjust their operations and improve employee performance to survive in the dynamic business environment [12]. There are constant changes in the economy, society, and technology, leading to rapid and unpredictable shifts both inside and outside the organization. One important variable for every organization is its employees, as they are the ones who drive various activities through operational contexts to create productivity and performance [13].

Agile Marketing

Modern marketing management under agile working focuses on presenting products and services faster than traditional marketing by creating small marketing campaigns or evaluating customer needs in real time through continuously collected data [14]. In addition, agile marketing helps increase sales by presenting products at the right time for consumers. If businesses want to create a competitive advantage and offer products and services that meet consumer needs, it is crucial for modern marketers to adjust their strategies to keep up with changes in consumer habits and spending behaviors [15].

2. Research Hypothesis

H1: The Technology Transformation component has a direct influence on the Business Alliance component.

Transforming into a modern technology organization requires awareness of environmental changes, consideration of new future business models, designing the structure of a modern technology organization, and enhancing personnel skills in using modern technology. To operate quickly and efficiently, the organization should collaborate with external organizations that have expertise in the modern technology it utilizes, such as through training and consulting [16].

H2: The Technology Transformation component has a direct influence on the Agile Marketing component.

The dynamic capability of an organization relies on external knowledge by identifying market opportunities and integrating and reformulating both existing and new external knowledge to create new resources and capabilities that align with the organization's environment. It must have the ability to acquire and absorb external knowledge and transform it into internal knowledge. In addition, the organization should integrate and adapt its existing internal knowledge into new resource-based knowledge, forming a novel integration process that generates valuable marketing insights [17].

H3: The Technology Transformation component has a direct influence on the Personnel Development component.

The organization's executives should establish a network to introduce modern technology that can increase productivity, such as automated production systems and intelligent robots. These technologies can reduce working time and improve overall productivity. In addition, human resources should be developed by providing personnel with knowledge of automatic machine control skills. This approach will help boost employee morale, ensuring that personnel understand that automated systems and robots are not meant to replace human labor. Instead, the aim is to develop the organization's workforce so that they can effectively work with such modern technologies. Given that these developments require significant financial investment, a detailed development plan should be created, and an evaluation should be conducted after the activities are completed. The results should then be reported to the executives [18].

H4: The Business Alliance component has a direct influence on the Agile Marketing component.

Adjusting the working culture with business partners and the attitudes of personnel in the organization to align with proactive marketing [19] involves promoting communication within the team, continuously developing oneself, working effectively across departments and organizations, seeking ways to attract new customers, creating agile marketing campaigns, and being able to quickly adapt and deliver services [20].

H5: The Agile Marketing component has a direct influence on the Personnel Development component.

The core of any business organization is agility. Organizations must continuously adapt and develop to create business opportunities and competitive advantages, utilizing the potential and resources of both the organization and its network to the greatest benefit. This approach encourages innovations that can respond to the market and network accurately and quickly. Enhancing the organization's dynamic potential directly impacts its ability to meet market demands. Therefore, it is essential to develop personnel in line with these changes and encourage emhanceproactive marketing [21].

H6: The structural equation model for the development guidelines of the electric vehicle parts industry to support the overall national strategy differs based on the size of the industrial business organization.

Large businesses are investing in the adoption of modern technologies in their production and operations, such as autonomous robots, the Internet of Things (IoT), cloud computing, additive manufacturing, augmented reality, and big data analytics, which will increase production efficiency and cost-effectiveness. Meanwhile, SMEs focus on adopting automation systems for machines that use commonly used control programs and enable communication online between the organization and its partners [22]. However, SMEs face weaknesses in business management, product development capabilities, access to funding sources, technology and innovation development capabilities, lack of marketing opportunities, and access to in-depth market data [23]. Figure 1 shows research framework.

3. Methodology

This study is anchored in a fusion-oriented theoretical framework that integrates four pivotal constructs: technological transformation, interfirm strategic collaboration, adaptive market orientation, and human capital enhancement. These constructs are synthesized to systematically investigate the advancement of Thailand’s electric vehicle parts industry in alignment with national policy directives. This research is focused on creating new

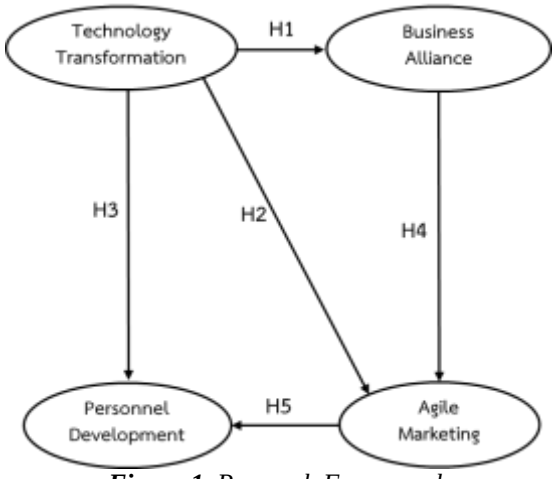

Figure 1. *Research Framework*

knowledge (Inductive Research) using a mixed-methods approach.

1. Qualitative research was conducted using in-depth interview techniques, involving 9 experts from three groups: 3 entrepreneurs or executives in business organizations, 3 representatives from government agencies and related organizations, and 3 academics. The researchers developed interview guidelines based on 4 components: 1) Technology Transformation, 2) Business Alliance, 3) Agile Marketing, and 4) Personnel Development.
2. Quantitative research: The draft questionnaire, along with the assessment form, was given to 5 experts to evaluate the quality of the instrument by checking the index of consistency between the questions and the research objectives (IOC). The values ranged from 0.60 to 1.00 (greater than 0.50). The questionnaire was then pre-tested. The analysis of the discriminant power of each item ranged from 0.32 to 1.22 (greater than 0.30). The reliability of the questionnaire was measured using Cronbach's Alpha Coefficient, which was 0.99 (greater than 0.80).

The population used in the research consisted of 500 people, selected using the Lottery Method, with 250 people in each group. General basic data were analyzed using descriptive statistics and reference statistics with the SPSS program. The structural equation model was analyzed with multiple statistics using the advanced statistical data analysis program AMOS (Thanin, 2024). The criteria for evaluating the consistency of the structural equation model consisted of 4 values as follows: 1) Chi-square probability level (CMIN–p) > 0.05, 2) Chi-square relative value (CMIN/DF) < 2, 3) Goodness-of-fit index (GFI) > 0.90, and 4) Root Mean Square Error of Approximation (RMSEA) < 0.08 (Arbuckle, 2016).

3. Qualitative research was conducted using the focus group technique to verify the model. The population used in this research consisted of 11 qualified individuals.

4. Results

The research results from Table 1 found that, overall, large businesses place more importance on the development of the electric vehicle parts industry to support the national strategy than medium and small businesses, with the highest level of importance indicated by an average value of 4.57.

The research results in each area revealed that large business executives place more importance on the development of the electric vehicle parts industry to support the national strategy than medium and small businesses, with the highest importance given to Technology Transformation, which had an average value of 4.62. The results of the research on the statistical values used to compare differences in the level of importance, overall, classified by the size of the industrial business, found statistically significant differences at the 0.05 level.

Table 1. *Importance level of guidelines for developing the electric vehicle parts industry to support the national strategy Classified by the size of the industrial business.*

Industrial development guidelines Electric vehicle parts to support national strategy	Small and medium-sized enterprises			Large enterprises		
	$\bar{X}$	S.D.	Level of Importance	$\bar{X}$	S.D.	Level of Importance
Overall	4.44	0.30	Hight	4.57	0.24	Highest
1. Technology Transformation	4.49	0.31	Hight	4.62	0.27	Highest
2. Business Alliance	4.46	0.35	Hight	4.58	0.32	Highest
3. Agile Marketing	4.40	0.40	Hight	4.57	0.32	Highest
4. Personnel Development	4.42	0.31	Hight	4.53	0.27	Highest

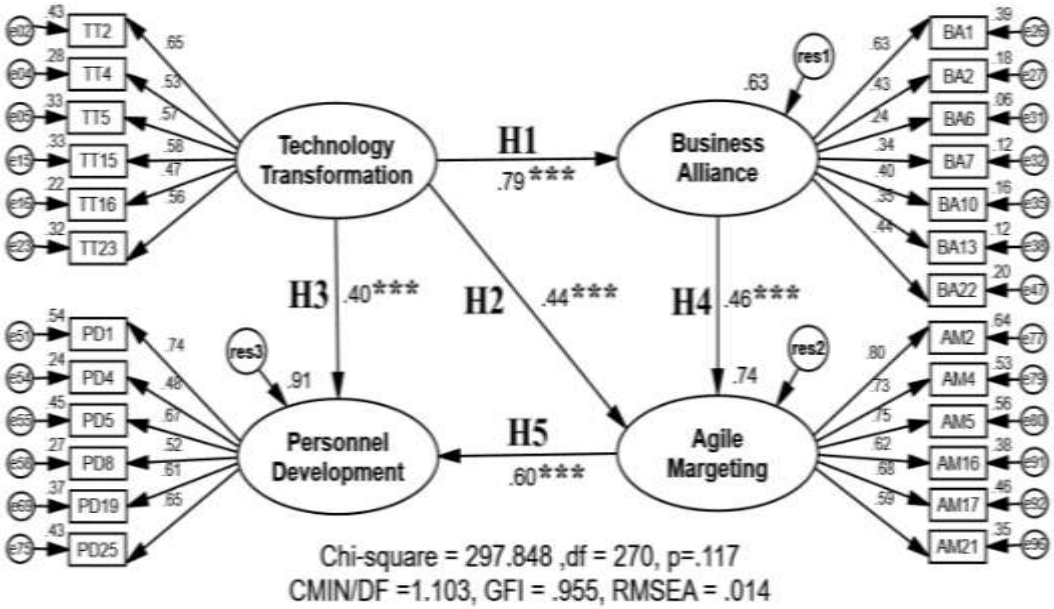

Figure 2: *Structural equation model after model improvement.*

Table 2. *Statistical Values from Structural Equation Modeling Analysis After Model Improvement*.

Variables	Estimate		R^2	Variance	C.R.	P
	Standard	Unstandard				
Technology Transformation				0.13		
Business Alliance	0.79	0.87	0.63	0.06	9.79	***
Agile Marketing	0.44	0.68	0.74	0.08	4.18	***
Personnel Development	0.40	0.44	0.91	0.01	4.76	***
Business Alliance			0.63	0.06		
Agile Marketing	0.46	0.64	0.74	0.08	4.07	***
Agile Marketing			0.74	0.08		
Personnel Development	0.60	0.42	0.91	0.01	7.21	***
Technology Transformation				0.13		
TT2	0.65	1.00	0.43	0.18		
TT4	0.53	0.90	0.28	0.28	10.13	***
TT5	0.57	0.94	0.33	0.23	10.91	***
TT15	0.58	1.11	0.33	0.32	10.96	***
TT16	0.47	0.79	0.22	0.28	9.20	***
TT23	0.56	1.02	0.32	0.29	10.74	***
Business Alliance			0.63	0.06		
BA1	0.63	1.00	0.39	0.25		
BA2	0.43	0.71	0.18	0.35	7.87	***
BA6	0.24	0.25	0.06	0.16	4.64	***
BA7	0.34	0.67	0.12	0.54	6.45	***
BA10	0.40	0.69	0.16	0.39	7.45	***
BA13	0.35	0.56	0.12	0.35	6.59	
BA22	0.44	0.74	0.20	0.36	8.06	***
Agile Marketing			0.74	0.08		
AM2	0.80	1.00	0.64	0.17		
AM4	0.73	0.81	0.53	0.18	17.14	***
AM5	0.75	0.96	0.56	0.22	17.73	***
AM16	0.62	0.77	0.38	0.29	14.20	***
AM17	0.68	0.81	0.46	0.23	15.79	***
AM21	0.59	0.62	0.35	0.22	13.44	***
Personnel Development			0.91	0.01		
PD1	0.74	1.00	0.54	0.13		
PD4	0.48	0.80	0.24	0.32	10.37	***
PD5	0.67	1.00	0.45	0.19	14.47	***
PD8	0.52	0.72	0.27	0.22	11.19	***
PD19	0.61	0.82	0.37	0.18	13.12	***
PD25	0.65	0.92	0.43	0.17	14.10	***

*** Statistically significant at the 0.001 level.

From Figure 2, the results of hypothesis testing to analyze the causal influence between latent variables in the structural equation model of diversity management approaches for unity in industrial business organizations show 5 hypotheses. The results are as follows:

H1: Technology Transformation has a statistically significant direct influence on Business Alliance at the 0.001 level, with a Standardized Regression Weight of 0.79, which is consistent with the research hypothesis.

H2: Technology Transformation has a statistically significant direct influence on Agile Marketing at the 0.001 level, with a Standardized Regression Weight of 0.44, which is consistent with the research hypothesis.

H3: Technology Transformation has a statistically significant direct influence on Personnel Development at the 0.001 level, with a Standardized Regression Weight of 0.40, which is consistent with the research hypothesis.

H4: Business Alliance has a statistically significant direct influence on Agile Marketing at the 0.001 level, with a Standardized Regression Weight of 0.46, which is consistent with the research hypothesis.

H5: Agile Marketing has a statistically significant direct influence on Personnel Development at the 0.001 level, with a Standardized Regression Weight of 0.60, which is by the research hypothesis, as shown in Table 2.

The statistical values that assessed the fit of the structural equation model after model improvement were found to be: Chi-Square Probability Level equal to 0.117, CMIN/DF equal to 1.103, GFI equal to 0.955, and RMSEA equal to 0.014. All four statistics passed the assessment criteria for fit with the empirical data.

From Table 2, it was found that the structural equation model for the development guidelines of the electric vehicle parts industry to support the national strategy, after model improvement, consisted of four latent variables. These were categorized into one exogenous latent variable, Technology Transformation, and three endogenous latent variables: Business Alliance, Agile Marketing, and Personnel Development.

The Technology Transformation component: has a direct influence on the following components:

Business Alliance with a Standardized Regression Weight of 0.79, a Multiple Correlation (R^2) of 0.63, and a Variance of 0.06, with statistical significance at the 0.001 level. Agile Marketing with a Standardized Regression Weight of 0.44, a Multiple Correlation (R^2) of 0.74, and a Variance of 0.08, with statistical significance at the 0.001 level. Personnel Development with a Standardized Regression Weight of 0.40, a Multiple Correlation (R^2) of 0.91, and a Variance of 0.01, with statistical significance at the 0.001 level.

The Business Alliance component: has a direct influence on the Agile Marketing component, with a Standardized Regression Weight of 0.46, a Multiple Correlation (R^2) of 0.74, and a Variance of 0.08, with statistical significance at the 0.001 level.

The Agile Marketing component has a direct influence on the Personnel Development component, with a Standardized Regression Weight of 0.60, a Multiple Correlation (R^2) of 0.91, and a Variance of 0.01, with statistical significance at the 0.001 level.

The Technology Transformation component: consists of 6 observed variables, arranged in order of weight (Standardized Regression Weight) from highest to lowest as follows:

1. Determine a strategic plan to develop and present new innovations that can create added value and be accepted by the target group (TT2), with a Standardized Regression Weight of 0.65, a multiple correlation coefficient (R^2) of 0.43, and variance of 0.18.
2. Connect data from sales systems, raw materials, and warehouse systems to plan production management appropriately (TT15), with a Standardized Regression Weight of 0.58, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.33, and variance of 0.32.
3. Follow up on information about electric vehicle parts technology and innovation to analyze the feasibility of further investment (TT5), with a Standardized Regression Weight of 0.57, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.33, and variance of 0.23.
4. There is the use of technology in management, planning, tracking, inspection, and quality control of electric vehicle parts production (TT23), with a Standardized Regression Weight of 0.56, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.32, and variance of 0.29.
5. Study the components of the electric vehicle parts production line in order to adapt it to the existing production line (TT4), with a Standardized Regression Weight of 0.53,

statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.28, and variance of 0.29.

6. Receive the transfer of electric vehicle parts technology and innovation for further research and development (TT16), with a Standardized Regression Weight of 0.47, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.22, and variance of 0.28.

The Business Alliance component: consists of seven observed variables, arranged in descending order based on their Standardized Regression Weight as follows:

1. Study government support policies regarding the production, import, and export of electric vehicle parts in order to align them with the organization's policy (BA1), with a Standardized Regression Weight of 0.63, a Multiple Correlation Factor (R^2) of 0.39, and variance of 0.25.
2. Create networks and associations to create business advantages and reach more customers (BA22), with a Standardized Regression Weight of 0.44, statistically significant at the 0.001 level, a Multiple Correlation Factor (R^2) of 0.20, and variance of 0.36.
3. Share resources and expertise with business partners (BA2), with a Standardized Regression Weight of 0.43, statistically significant at the 0.001 level, a Multiple Correlation Coefficient (R^2) of 0.18, and variance of 0.35.
4. Exchange authorized customer information with business partners (BA10), with a Standardized Regression Weight of 0.40, statistically significant at the 0.001 level, a Multiple Correlation Coefficient (R^2) of 0.16, and variance of 0.39.
5. Cooperate with the government sector in developing regulations and business standards for easier market expansion (MOU) (BA13), with a Standardized Regression Weight of 0.35, statistically significant at the 0.001 level, a Multiple Correlation Coefficient (R^2) of 0.12, and variance of 0.35.
6. Cooperate with importers of electric vehicle parts technology and machinery in exchanging investment information (BA7), with a Standardized Regression Weight of 0.34, statistically significant at the 0.001 level, a Multiple Correlation Coefficient (R^2) of 0.12, and variance of 0.54.
7. Find potential partners to jointly develop the production of modern electric vehicle parts to meet the demands of the electric vehicle market (BA6), with a Standardized Regression Weight of 0.24, statistically significant at the 0.001 level, a Multiple Correlation Coefficient (R^2) of 0.06, and variance of 0.16.

The Agile Marketing component: consists of six observed variables, arranged in order of weight (Standardized Regression Weight) from highest to lowest as follows:

1. Set new conditions or privileges for existing customer groups to create satisfaction and encourage referrals to new customer groups (AM2), with a Standardized Regression Weight of 0.80, a multiple correlation coefficient (R^2) of 0.64, and variance of 0.17.
2. Analyze the results and evaluate the marketing outcomes of electric vehicle parts in order to improve the campaign and iterate quickly (AM5), with a Standardized Regression Weight of 0.75, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.56, and variance of 0.22.
3. Create various offline and online contact channels to reach target customers both domestically and internationally (AM4), with a Standardized Regression Weight of 0.73, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.53, and variance of 0.18.
4. Develop new products to meet customer needs by aligning with the demand of the electric vehicle market (AM17), with a Standardized Regression Weight of 0.68, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.46, and variance of 0.23.
5. Study customer needs for product quality (AM16), with a Standardized Regression Weight of 0.62, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.38, and variance of 0.29.
6. Have flexible and adaptable marketing planning (AM21) and adapt to the current situation (AM21), with a Standardized Regression Weight of 0.59, statistically significant at the 0.001 level, a multiple correlation coefficient (R^2) of 0.35, and variance of 0.22.

The Personnel Development component: consists of 6 observed variables, arranged in order of weight (Standardized Regression Weight) from highest to lowest as follows:

1. Support personnel in attending training to upgrade (Up-Skill) and increase (Re-Skill) their skills related to electric vehicle parts regularly (PD1). Standardized Regression Weight: 0.74, Multiple Correlation Factor (R^2): 0.54, Variance: 0.13.

2. Have personnel join agencies or organizations related to electric vehicle parts to receive new information (PD5). Standardized Regression Weight: 0.67, statistically significant at the 0.001 level, Multiple Correlation Factor (R^2): 0.45, Variance: 0.19.
3. Develop personnel to have the ability and a positive attitude toward change (PD25). Standardized Regression Weight: 0.65, statistically significant at the 0.001 level, Multiple Correlation Coefficient (R^2): 0.42, Variance: 0.17.
4. Implement a process for recruiting and selecting candidates that meet the requirements of the job position (PD19). Standardized Regression Weight: 0.61, statistically significant at the 0.001 level, Multiple Correlation Coefficient (R^2): 0.37, Variance: 0.18.
5. Allocate a budget for human resource development to increase work performance capability (PD8). Standardized Regression Weight: 0.52, statistically significant at the 0.001 level, Multiple Correlation Coefficient (R^2): 0.27, Variance: 0.22.
6. Implement job rotation within the organization (Rotation) to provide personnel with diverse skills related to electric vehicle parts (PD4). Standardized Regression Weight: 0.48, statistically significant at the 0.001 level, Multiple Correlation Coefficient (R^2): 0.24, Variance: 0.32.

5. Discussion

Comparing the differences in the importance levels of the components of the guidelines for developing the electric vehicle parts industry to support the national strategy, classified according to the size of the industrial business organization, by testing the difference between the means of two independent groups using a t-test, it was found that the importance levels of the components of the guidelines for developing the electric vehicle parts industry to support the national strategy were significantly different overall when classified according to the size of the business organization, at a statistical significance level of 0.05.

The most important aspect of the development of the electric vehicle parts industry to support the national strategy is Technology Transformation. This indicates that the arrival of electric vehicles will have a wide impact on many industries, as electric vehicles are considered one of the disruptive technologies. Both the growth of electric vehicles and the emergence of technologies such as driverless vehicles will contribute to this transformation. The arrival of electric vehicles will bring changes to the entire traditional automotive industry, causing original automotive parts manufacturers to be affected by the reduced demand for parts in the production of internal combustion engine vehicles [24].

Finding potential partners to jointly develop the production of modern electric vehicle parts to meet the demands of the electric vehicle market is the most important factor. An essential element that will enable Thai automotive parts manufacturers to quickly adapt and develop to keep up with modern technology is opening up opportunities for joint ventures between Thai companies and foreign entrepreneurs. This cooperation will lead to advancements in various areas, including technology transfer, personnel development, business network expansion, and increased opportunities to use domestic raw materials, and will help Thai automotive parts manufacturers increase their competitiveness and integrate into the global supply chain [25].

Technology Transformation directly influences Business Alliances. Empirical data shows that EV manufacturing requires modern technology. The EV supply chain is therefore a network consisting of component manufacturers, connectivity manufacturers, telecommunications network providers, online service providers, and IT service providers. Automotive industry operators need business partners related to such technology or joint ventures to effectively operate in the EV industry [26,27].

6. Conclusion

The automotive industry is one of the sectors that the Thai government has continuously promoted. It has implemented various measures to attract investment, such as providing tax benefits, encouraging foreign investment, and facilitating technology transfer from multinational companies to Thai businesses. The government has also relaxed foreign shareholding restrictions and promoted the production of automotive parts to support the growth of the electric vehicle industry.

The demand for electric vehicles is expected to grow worldwide, particularly in Southeast Asia. The development of the electric vehicle parts industry to support the national strategy requires organizational executives to consider the components of the electric vehicle parts production line and adapt them to the existing production line. They should track information on electric vehicle parts technology and innovation to analyze the feasibility of further investment, study customer demand for product quality, and set new conditions or privileges for existing customers to create

satisfaction and generate referrals to new customers. To ensure sustainable growth and long-term competitiveness, a fusion of technology, business collaboration, marketing agility, and talent development should be embraced as an integrated strategic approach. In addition, executives should share resources and expertise with business partners to strengthen the overall value chain.

Author Statements:

- **Ethical approval:** The conducted research is not related to either human or animal use.
- **Conflict of interest:** The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper
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