

# Human Resource Development Strategy in Automotive Industry (Eco-Car) for ASEAN Hub

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**Abstract**—The purposes of this research were to study concepts and strategies of human resource development in the automotive manufacturers and to articulate the proposals against the government about the human resource development for automotive industry. In the present study, qualitative study was an in-depth interview in which the qualitative data were collected from the executive or the executive of human resource division from five automotive companies - Toyota Motor (Thailand) Co., Ltd., Nissan Motor (Thailand) Co., Ltd., Mitsubishi Motors (Thailand) Co., Ltd., Honda Automobile (Thailand) Co., Ltd., and Suzuki Motor (Thailand) Co., Ltd. Qualitative data analysis was performed by using inter-coder agreement technique. The research findings were as follows:

The external factors included the current conditions of the automotive industry, government's policy related to the automotive industry, technology, labor market and human resource development systems of the country. The internal factors included management, productive management, organizational strategies, leadership, organizational culture and philosophy of human resource development. These factors were affected to the different concept of human resources development -the traditional human resource development and the strategies of human resource development. The organization focuses on human resources as intellectual capital and uses the strategies of human resource development in all development processes. The strategies of human resource development will enhance the ability of human resources in the organization and the country.

**Keywords**—Human Resource Development Strategy, Automotive industry, Eco-Cars, ASEAN.

## I. INTRODUCTION

**I**N Thailand, automotive industry has been regarded as a main industry with a continuous growth since 1961. In the present, Thailand has become an automotive manufacturing base that exports up to 2.5 million units [1]. Due to its high importance, the government has supported and set a clear goal to make Thailand a manufacturing-exporting hub or "Detroit of Asia". In 2012, all ten ASEAN had a collective production capacity of automobiles around 3 million units, 2.5 million of those had been produced in Thailand and approximately 1 million were exported. As stated, Thailand has the highest production potential among in countries in Southeast Asia, ranked ninth worldwide and fifth in Asia respectively [2]. The product champion category falls into pick-up trucks with one-ton capacity with international acceptance. In order to move forward and become a manufacturing base of Asia, Product champion for project 2 was initiated as a new product to display potential in manufacturing as well as to gaining

international acceptance. The project is considered as a starting point for eco-car plan. Also, the project is able to support Thailand's economy, to generate higher employment rate and technological development, and to attract foreign direct investment in Thailand, especially Japanese firms which move its production sites in Thailand.

Key positive factors to make an industry of automobile and its spare parts continuously growing are domestic and global demand, long-term supporting government policy to support this main industry, coordination between the government and private sectors, and all automotive-related personnel, including skilled worker as the main resource [3].

Whereas, negative factors affecting the industry of automobile and its spare parts can also be both domestic and global demand for automobile due to free trade areas under ASEAN Economic Community (AEC) policy. The government should reconsider the country's energy plan in order to cope with the global uncertainty due to energy crisis, natural disasters to industrial estates and other secondary manufacturing bases with the production capacity close to Thailand in Southeast Asia such as Indonesia, Malaysia, Philippines, and Vietnam or outside Southeast Asia region such as China and India that have massive production capacity [4]. However, the potential problem certainly affects the industry in the future is the scarcity of skilled workers. To create sustainability for the industry to compete in global level, knowledge and competency of automotive-related personnel are urgently required as a key to develop the industry because human resources are able to transfer technology and coordinate to all sides of problems.

## II. OBJECTIVE OF THE STUDY

In this study, the researcher would like to study on the strategies regarding human resource development in automotive industry, especially eco-car market, in order to make Thailand as a hub in Southeast Asia. The researcher highly expects that the study's findings and results would provide useful information and create impact on human resource development planning and aid to handle with the upcoming ASEAN Economic Community (AEC) and thus deal with rapid changeovers and the rising intensive including external competition effectively.

## III. RESEARCH METHODOLOGY

This study is a qualitative-based research using in-depth interview and collect data from key informants, chief executives from 5 eco-car manufactures such as (1) Toyota Motor Thailand Co., Ltd., (2) Nissan Motor (Thailand) Co.,

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Ltd., (3) Mitsubishi Motor (Thailand) Co., Ltd., (4) Honda Automobile (Thailand) Co., Ltd, and (5) Suzuki Motor (Thailand) Co., Ltd. this research will provide the information about success key factors, threats, and recommendation on the automotive industry. After data collection, the researcher analyzes qualitative data on the basis of inter-coder agreement from experts. The criteria in decision is that the average on inter-coder agreement must be more than 80 percent (average agreement >80 %) [5] so that the intercoder will be agree with the study variables for the purpose to make findings more accurately as well as reducing bias of the researcher.

#### IV. RESULTS OF THE STUDY

The researcher makes use of secondary data through in-depth interview as mention before. The conclusion and discussion on concepts and strategies on human resource development concerning the five eco-car manufacturers will be further discussed.

In the in-depth interview, the researcher conducts the interview of the five eco-car automotive manufacturers and then makes the conclusion on the concepts and the choices of patterns used for human resource development strategies as follows:

##### *Toyota Motor Thailand Co., Ltd.:*

The company has practiced on the philosophy of “intellectual capital” human resource development as its human resource is the most valuable asset in the organization. Also, the organization has the clear vision aiming at human resource development, and its pattern has connected with all related organizational parties. Moreover, the organization also has conducted needs analysis for human resource development and organizational culture to assist in learning and develop the organization to the right direction.

##### *Nissan Motor (Thailand) Co., Ltd.:*

The organization has taken the philosophy of “business cost” human resource development in use. The company views its workers as a type of cost that requires effective management. The role of human resource department is to provide advice and recommendation as necessary, while training has been practiced in many main job fields. The organization has focused on class training and conduct needs analysis on human resource development. Also, the company has realized that the culture can create learning behavior and lead to the same target.

##### *Honda Automobile (Thailand) Co., Ltd.:*

The organization has taken the philosophy of “intellectual capital” strategy for human resource development. The organization gives the first priority on human resource as seen in its vision. The pattern of human resource development is connected in harmony to create learning, and the organization also conduct needs analysis and use this philosophy as a working guideline.

##### *Suzuki Motor (Thailand) Co., Ltd.:*

The organization values human resources as “asset” or “asset” human resource development like other financial and other physical resources. No vision is clearly stated. The organizational pattern is in cooperative network to develop human resources. Human resource department takes the responsibility to coordinate and create activities to develop its human resources. The organization employed class training as the way to develop human resources. Moreover, the organization also conducts needs analysis in human resource development. The company “Way of life” is the organizational culture to determine the working direction for its workers.

##### *Mitsubishi Motor (Thailand) Co., Ltd.:*

The organization values human resources as “asset” or “asset” human resource development like other financial and other physical resources. No vision is directly stated. The pattern in human resource development is in a vertical manner and is separable from the human resource department. The organization consistently conducts needs analysis in human resource development. Learning by working as a team is the organizational culture. The organization also focuses on Japanese working style.

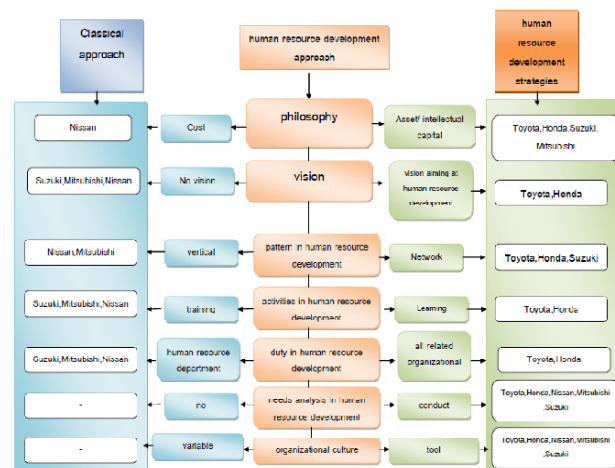


Fig. 1 The overall concepts on human resource development of the 5 automotive manufacturers

From the analysis on the patterns of strategies, there are overall different 40 strategies, with the study, they can be put into 6 main patterns as follows: (1) strategies to aid cultivating organization culture (2) strategies to encourage learning-assisted system, (3) learning-based strategies (4) self-learning strategies, (5) electronic learning-based strategies, (6) strategies on training and development. The pattern selection is based on different functions. The categorization technique is based on in-depth interview, document check, and inter-coder techniques from three experts. To find a rule on pattern in human resource development, if an organization has a concept for strategic human resource development, it will make the pattern of those strategies go along with strategic human resource development (out of 40 strategies, 38 found for

Toyota and 32 for Honda respectively). Meanwhile, if an organization has traditional strategies, it will inverse to strategic concepts (out of 40 strategies, 15 found in Nissan, 20 for Mitsubishi, and 16 found in Suzuki respectively) as show in the Fig. 1.

The researcher has found out that if any organizations that give the first priority on human resources as an intellectual capital, such organizations would invest on human resources through many different strategies. This is not only improving a development level but also improve in organization learning as well as personal learning [7].

Besides, different patterns reflect on concepts concerning human resource development into the main 2 models: Harvard and Michigan models [8]. Both models reflect the manufacturer's concepts on the issue. Toyota and Honda can be recognized in Harvard model because it is best practice for human resource development to create sustainability in their organizations. Meanwhile, Nissan, Mitsubishi and Suzuki focus on the organizations themselves over human resources or in Michigan model. Nissan is the best example that uses the Michigan model to determine the organizational success by best fitting with many factors. Moreover, the company is most successful company in sales of eco-cars.

Therefore, from the study, both internal and external factors drive each organization in turn to use strategic human resource development concept to fight against intensive competition. Besides, there is no fixed formula for strategy selection, so an individual organization should choose them in practice based on a specific situation. Therefore, the researcher analyzes the findings on human resource development strategies in the automotive industry as shown in Fig. 2.

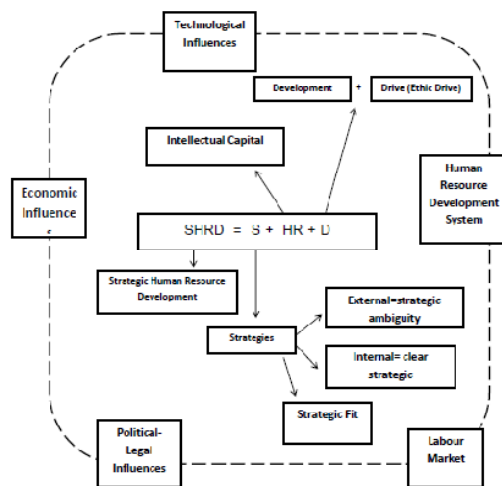


Fig. 2 Human resource development strategies from the study's results

From Fig. 2, the researcher has analyzed that a good strategy should contain strategic ambiguity for external communication because any company should not let its rival companies to know its strategies (the best strategy is to keep the rival companies unknown) in the opposite, the intra-organization strategies should be clear strategic in

communication and strategic-fit [6]. Furthermore, an organization should recognize improving human resources as intellectual capital by integrating information technology with knowledge and intelligence to for the sake of the organization. Moreover, the strategies on human resource development should have been continuously developed, and the organization should take ethic drive, concerning external pressure and changeovers, to make the workers good people.

## V. CONCLUSION

From the equation on human resource development, the researcher has found out that any organizations that adapt themselves to practice are able to connect with other external factors. The results show that, in eco-car market, even if Nissan uses the smallest number of human resource development strategies, it has gained the most business success on sales. It is because the organization can adapt itself to get along with all external factors. It has taken state-supported business opportunity and dealt with energy-saving technological changes, leading the company become the first manufacturer to save cost over other brands. The company still takes maximum exploitation of labor market through its own effective job-training system and thus makes Nissan become the number one in eco-car industry while handle external factors effectively. However, Nissan has not improved its human resources and don't take it seriously it as should to create sustainability like Toyota and Honda (even the two might lose opportunity to share the market). In the meantime, Suzuki and Mitsubishi share the same strategy as Nissan (short-term effective). If the companies go in this way sustainability in human resource development might not be found in the organization.

All in all, if automotive manufacturers adapt the equation into human resource development, they must take all factors in consideration and cope with the factors to create sustainability competition.

## VI. RECOMMENDATION

The results are important to concepts and strategic patterns of human resource development in eco-car industry, leading to develop human resources in government and private sectors, including educational institutions to cope with globally dynamic changeovers. In this study, the researcher would like to offer recommendation to related parties as follows:

### A. Overall Recommendation to Automotive Industry

Due to the growth of the industry, Thailand's labor market has been heavily affected in the way that the demand and supply of the market are not equal. If the industry grows in a consistent and sustainable manner, it would be useful because cars is categorized as luxurious goods and actually depends on economic condition so the labor market could be unstable as well. Besides, employee trading might not be a good practice during organization's higher costs, affecting not only an organization but the country's employment system.

Furthermore, salary management failure could affect organization culture. Therefore, an organization, especially in automotive industry should ponder on these issues. Moreover, less ethics in working have been found; therefore, the researcher would like to recommend by putting the moral instruction into training courses, so it can make their workers both good and smart people.

#### *B. Recommendation to the Government Sector*

Due to the automotive industry is a main industry, the government should have readiness to support and works on the laws regarding external impacts over monetary benefit or solely focuses on popularity policy. Such practices can affect both industry and people, leading to rising household sector debts, traffic problems, and environment pollutions. Therefore, the researcher has realized that to establish cooperate universities is very important for the automotive industry as the institutions can produce skilled workers and match the demand for the industry in the future. Thus, the government should earnestly support on such issues to make possible concrete results.

#### *C. Recommendation to Thailand Education*

Thailand has highly-skilled workers and gain international acceptance, especially in automotive industry, from the findings, the organizations has realized that thinking skill is a main problem against higher standard of Thailand education system. Less effort in workers is another problem, so the organization should add a lot of supporting factors as well as give opportunities for undergraduates to train in the organization as working experience. Therefore, it is very useful for the organizations after such undergraduates graduated and then apply their working experience on sites for their future careers.

#### *D. Further Research Recommendation*

1. The researcher study, collect data and analyze qualitative data using inter-coder agreement technic from the experts. For further study, inter-coder agreement technique should be adapted as well as interpretation techniques to gain more accurate results.
2. As a study on strategies, each organization has its limit to provide in-depth details, so the researchers have to make use of data from many secondary sources. Moreover, in this topic, for the researcher view, can be recognized as a threat to retrieve information on automotive industry regarding human resource issues. Therefore, the consideration of confidential data on information retrieval and data collection should be taken in consideration in a further study, so that sufficient data and information could be collected to make more effective results.
3. From the study, the researcher has found that eco-cars share the same kind of labor to be produced as other kind of automobiles. Therefore, for the further research, a researcher might study on other different type(s) of automobile or conducts an alternative study on other multinational automotive manufacturers from Asia or Europe instead of Japanese ones. It might bring about

different strategies on human resource development and can be useful to the automotive industry in overall.

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