International Academic Multidisciplinary Research Conference 2023

Proceeding of

INTERNATIONAL ACADEMIC MULTIDISCIPLINARY RESEARCH CONFERENCE IN AMSTERDAM 2023

Amsterdam, Netherlands
17-19 February 2023

ICBTS 2023

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Conference Series 1: ICBTS 2023 Amsterdam
ISBN 978-616-497-544-7 (electronic book)

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Published: 2023-03-19

STUDY OF LEADERSHIP LEVELS, PLANNING, SUPPORT, OPERATIONS, PERFORMANCE EVALUATION, IMPROVING AND SUCESSFUL BUSINESS OPERATIONS OF THE AUTOMOTIVE COMPONENT INDUSTRY

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ABSTRACT

Study of leadership levels, planning, support, operations, performance evaluation. Improving and successful business operations of the automotive component industry. 600 people are the sample group using stratified sampling. The results showed that most of the sample were male, 412 people, representing 68.60 percent, 41-50 years old, 201 people, representing 33.50 percent, working experience less than 10 years, 189 people, representing 31.50 percent, with a bachelor's degree. 308 people, representing 51.40 percent. In businesses with employees 201-499 people, 231 people, representing 38.50%. Manufacturer business, 200 people, representing 33.30%. 100% foreign owned companies, 157 people, representing 26.20%. Joint-venture companies, 133 people, 22.20%. Supplier Tier, 131 people, 21.80%. The company that does not have a design unit, 382 people, 63.71%. No research or product development unit (R&D Unit), 423 people, representing 70.50 percent. Results of the study of leadership, planning, support, operation, performance evaluation, improvement, and success in business operations of the component automotive manufacturing industry was found that leadership (lead) is at a high level. The mean is 3.83. Planning (plan) is at a high level. The mean is 3.26. The support (supp) is at a high level. The mean is 3.99. The operation (oper) is at a high level. The average value is 3.84. Efficiency rating (peev) is at a high level with an average of 4.00. The improvement (impr) is at a high level. The mean is 3.87 and the success in business (suss) is moderate with an average of 3.33.

Keywords: Automotive parts manufacturing industry /Business operations/ Leadership

INTRODUCTION

Among the various challenges that are the main obstacles for the country's long-term development. It is a common awareness among all sectors that developing Thailand into a developed country with security, prosperity and sustainability in the long run is possible. The country must accelerate the development of strategic fundamentals in all areas, including increasing investment in research and development, develop of science, technology, and innovation, which must be carried out in parallel with accelerating the upgrading of skilled workers for groups entering the labor market and those in the current labor market in line with the targeted sectors of production and service and changes in technology. As well as, developing people to be completed people of all ages who can manage Change is a lifestyle environment especially well developed from human capital. Improving the quality of education, learning, skill development and elevating the quality of public health services to be

comprehensive in all areas. As well as promoting the role of social institutions in cultivating good people with discipline and good values and have social responsibility. In addition, in the coming period, development must focus on spatial development and increasing the economic potential of cities under the application of international quality management system standards.

Thailand's auto parts industry started about 100 years ago, at first it was only repairing parts or producing spare parts that could not be bought in the country. Later, when Thailand has more cars, auto parts manufacturers began to have more sales in the form of artificial parts or counterfeit parts. They are simple parts that do not require much technology and investment in machinery, tools, and production equipment.

In the 12th National Economic and Social Development Plan (2017-2021), industrial development, in order for Thailand to become a high-income country, it is necessary to determine target industries with current potential to drive the Thai economy in the next phase. Including the determination of future industries that can take advantage of the opportunities of changing new contexts in the world, such as entering aging society, climate change, technological advances, adapting to the industry 4.0 era driven by intense technology, digital and innovation to enhance Thailand's economic development. By setting target industries and guidelines of development during the 12^{th} plan is considered from two dimensions: Thailand's opportunity from changes in various world contexts and Thailand's true competitiveness at present. The target industries can be divided into 2 groups: (1) industries where Thailand currently has a strong foundation to develop into industries that use more advanced technology, and (2) future industries that take advantage of opportunities from new contexts of the world, in which both groups of industries have Different guideline on core developments such as the development of building on the strength of the industry with current potential to upgrade to a high-tech industry by developing innovation, technology and creativity based on environmentally friendly production. The target industry is the automotive industry and parts that will develop into future vehicles such as electric vehicles (Office of the National Economic and Social Development Board, 2017).

In today's highly competitive business environment, manufacturing companies around the world strive to continually improve production efficiency and quality of goods or services. Organizations therefore apply various quality management system standards that can reassure customers and stakeholders, such as ISO. 9001:2015, which focuses on considering potential risks. And set measures to prevent problems that may occur, including IATF 16949, a standard applied in the automotive industry. Due to standardization of automotive products and automotive parts in the future is likely to continue to increase, including the safety standards of road users and environmental standards. Therefore, the automotive industry and auto parts need to pay more attention to standards and production technology. There is a very high possibility of replacing high-tech machine in production labor, such as automated production systems, as well as the combination of mechanical and electronic technologies. (mechatronics) to increase quality and increase production volume. It also compensates for the labor shortage in the future of the country at the same time. Therefore, future workers need to be skilled in using advanced and more complex production machines and technologies.

Therefore, the business of entrepreneurs in the automotive parts industry in order to survive, there are many factors, both internal and external environment, including leadership, planning, support, operations, performance evaluation, improvement, etc.

OBJECTIVE

To study the level of leadership, planning, support, implementation, performance evaluation. Improving and successful business operations of the automotive component industry.

METHODS

The investigators used a quantitative research approach to obtain findings that met the study objectives.

The population used in this study were automotive parts enterprises in Thailand whom is a manufacturer of raw materials and automotive parts That produces and delivers parts to automobile assembly plants in Thailand, namely Isuzu, Toyota, Hino, Nissan, Mitsubishi, Honda, Mazda, Ford and GM, which have 1,316 establishments that produce raw materials and parts. Factory, (Referenced in Chatkaew Hatrwung, 2012, p. 144) a sample of 600 people was used using a stratified sampling method.

Preliminary data analysis is an analysis of the general information of the respondents. to display the symbol distribution of variables Descriptive statistics were used: frequency, percentage, minimum, maximum, mean ($\bar{X}$) and standard deviation (S.D.) to describe the general characteristics of the sample. Level analysis of variables, Leadership, Planning, Support, Operations, Performance Evaluation, Improvement, and Business Success, and examining differences. Difference of leadership (Leadership)

RESULTS

Results of analyzing the personal information of the sample

Table 1 Number and percentage of general characteristics of of the sample (n=600)

Personal Information	Quantity	Percentage
Sex		
Male	412	68.60
Female	188	31.40
Result	**600**	**100.00**
Age		
Less than 30 years old	129	21.50
30 – 40 years old	194	32.40
41 - 50 years old	201	33.50
More than 50 years old	76	12.60
Total	**600**	**100.00**
Work experience		
Less than 10 years	189	31.50
10 - 20 years	134	22.40
21 - 30 years	183	30.50
More than 30 years	94	15.60
Total	**600**	**100.00**
Highest level of education		
Less than bachelor’s Degree	99	16.50
Bachelor’s Degree	308	51.40
Master’s Degree	183	30.50
Higher than Master degree	10	1.60
Total	**600**	**100.00**

Table 1 found that most of the samples were male, 412 people, representing 68.60%, 41-50 years old, 201 people, representing 33.50%, with work experience of less than 10 years, 189 people, representing 31.50%. The highest level of education was a bachelor's degree of 308 people, representing 51.40 percent.

Table 2 Number and percentage of business operations of respondents (n=600)

Personal information	Quantity	Percentage
Number of employees		
Less than 200	172	28.60
201 - 499	231	38.50
500 - 999	128	21.30
More than 1,000	70	11.60
Total	**600**	**100.00**
Type of Business		
Raw material supplier	176	29.40
Component supplier	188	31.30
Manufacturer	200	33.30
Others	36	6.00
Total	**600**	**100.00**
Company ownership proportion		
Thai nationals hold 100% of the shares.	158	26.40
Having Thai nationality holding shares more than 50% but not more than 100%	153	25.50
Foreigners hold 100% of shares.	157	26.20
Foreigners holding more than 50% but not more than 100%	131	21.90
Total	**600**	**100.00**

Personal information	Quantity	Percentage
Shareholders of business		
Thai national private owned	152	25.40
Thai companies hold majority shares.	129	21.50
Joint venture	133	22.20
Wholly foreign owned	102	17.00
Technical Assistant-Agreement	73	12.10
Others	11	1.80
Total	**600**	**100.00**
Type of business		
Supplier Tier 1	117	19.50
Supplier Tier 2	109	18.20
Supplier Tier 1, 2	121	20.10
Supplier Tier	131	21.80
Supplier Tier 2, 3	98	16.40
Others	24	4.00
Total	**600**	**100.00**
Design Unit		
Have design unit	218	36.29
Does not have design unit	382	63.71
Total	**600**	**100.00**
R&D Unit		
Have R&D Unit	177	29.50
Does not have R&D Unit	423	70.50
Total	**600**	**100.00**

Table 3 Mean, Standard deviation and interpretation of the level of leadership (lead), planning (plan), support (supp), operation (oper), performance evaluation (peev), improvement (impr) and business success (suss). (n = 600)

Variation	M	S.D.	Meaning
1. Leadership (lead)			
1.1 Commitment of the administration (strlea)	3.98	0.67	High
1.2 Customer focus (cuslea)	4.00	0.67	High
1.3 Quality policy (pollea)	3.91	0.68	High
1.4 Management review (revlea)	3.49	0.80	Medium
1.5 Ability of leader (abilea)	3.74	0.81	High
Average Total	**3.83**	**0.73**	**High**
2. Planning (plan)			
2.1 Assessment of internal and external risks (rispla)	3.16	0.90	Medium
2.2 Defining contingency plans based on risks and impacts with customers (bacpla)	2.98	0.91	Medium
2.3 Business process risks (propla)	3.31	0.91	Medium
2.4 Business value planning (valpla)	3.60	0.88	High
Total average	**3.26**	**0.90**	**Medium**
3. Support (supp)			
3.1 Senior management support (ceosup)	3.77	0.74	High
3.2 Training and technical developments (trasup)	4.08	0.75	High
3.3 Supplier Quality Management System (quasup)	4.11	0.71	High
Total average	**3.99**	**0.73**	High
4. Operation (oper)			
4.1 Senior management support (desope)	3.82	0.75	High
4.2 Product control processes and services provided from outside (proope)	4.07	0.69	High
4.3 Organizational learning capabilities (lerope)	3.87	0.79	High
4.4 The ability to manage knowledge (knoope)	3.74	0.67	High
4.5 Stakeholder relations (steope)	3.72	0.67	High
Total average	**3.84**	**0.71**	High

Variation	M	S.D.	Meaning
5. performance assessment (peev)			
5.1 Auditing the effectiveness of the control plan (conpee)	3.95	0.74	High
5.2 Determining the competence of internal auditors (audpee)	3.94	0.75	High
5.3 Assessment of customer satisfaction (satpee)	4.06	0.76	High
5.4 Review of the organization's quality management system (quapee)	4.06	0.72	High
Total average	**4.00**	**0.74**	High
6. Improvement (impr)			
6.1 Using innovation to improve (inoimp)	3.71	0.75	High
6.2 Proper implementation of continuous improvement, adequate, and effective quality of management system (conimp)	4.03	0.71	High
6.3 employee engagement level (parimp)	3.86	0.80	High
Total average	**3.87**	**0.75**	High
7. Success in business (suss)			
7.1 Financial (finsus)	3.60	0.75	High
7.2 Customer (cussus)	3.43	0.80	Medium
7.3 Internal Process (etrsus)	3.14	0.93	Medium
7.4 learning and development (radsus)	3.17	0.84	Medium
Total average	**3.33**	**0.83**	**Medium**

From the table, it was found that leadership (lead) is at a high level. The mean was 3.83. Planning (plan) is at a high level. The mean is 3.26. The support (supp) is at a high level. The mean is 3.99. The operation (oper) is at a high level. The average value is 3.84. Efficiency rating (peev) is at a high level with an average of 4.00. The improvement (impr) is at a high level. The mean is 3.87 and the success in business (suss) is moderate with an average of 3.33

CONCLUSION

A study of leadership levels, planning, support, operations, performance evaluation. The improvement and success in business operations of the automotive parts industry showed that the leadership (lead) is at a high level. The mean is 3.83. Planning (plan) is at a high level. The mean is 3.26. The support (supp) is at a high level. The mean os 3.99. The operation (oper) is at a high level. The average value is 3.84. Efficiency rating (peev) iss at a high level. with an average of 4.00. The improvement (impr) is at a high level. The mean is 3.87 and the success

in business (suss) is moderate with an average of 3.33, consistent with the research of F. R., Oprime, P. C., & Lizarelli, F. L. (2017), Renato Ribeiro Alves Tunes. (2018). Pelin Arsezen-Otamis, Isil Arikan-Saltik, Sumeyra Babacan, (2015). Omar Rabeea Mahdi, Erzan Shafizan Bin Gulam Mohd, Mahmoud Khalid Almsafir, (2014). Permata Wulandari, Wustari Mangundjaya, and Dharmayati B. Utoyo, (2015). Jordi Canals, (2014)

REFERENCES

Chatkaew Hatraung. (2012). Innovation management. administrative skills and production echnology Competitive potential of Thai auto parts enterprises. Doctor of hilosophy Management Innovation Program Suan Sunandha Rajabhat University.

F. R., Oprime, P. C., and Lizarelli, F. L. (2017). **Impact analysis of critical success factors on the benefits from statistical process control implementation**. Production, 27, e20162040. http://dx.doi.org/10.1590/0103-6513.204016.

Jordi Canals. (2014). **Global leadership development, strategic alignment and CEOs commitment**. Journal of Management Development, Vol. 33 Issue: 5, pp.487-502, https://doi.org/10.1108/JMD-02-2014-0014.

Office of the National Economic and Social Development Board. (2017). Economic Development Plan and National Society No. 12 (2017-2021). Bangkok. Retrieved from http://www.nesdb.go.th/ewt_news.php?nid=6420.

Omar Rabeea Mahdi, Erzan Shafizan Bin Gulam Mohd, and Mahmoud Khalid Almsafir, (2014). **Empirical Study on the Impact of Leadership Behavior On Organizational Commitment in Plantation Companies in Malaysia**. Procedia - Social and Behavioral Sciences 109 (2014) 1076–1087. Available online at www.sciencedirect.com.

Pelin Arsezen-Otamis, Isil Arikan-Saltik, and Sumeyra Babacan, (2015). **The relationship between paternalistic leadership and business performance in small tourism businesses: The moderating role of affective organizational commitment**. Procedia - Social and Behavioral Sciences 207 (2015), 90–97. Available online at www.sciencedirect.com.

Permata Wulandari, Wustari Mangundjaya, and Dharmayati B. Utoyo, (2015). **Is job satisfaction a moderator or mediator on the relationship between change leadership and commitment to change?**. Procedia - Social and Behavioral Sciences 172 (2015), 104-111. Available online at www.sciencedirect.com.

Renato Ribeiro Alves Tunes. (2018). **Development of a Supplier Requirements Manual: A Case Study in the Automotive Industry**. Master's thesis in Engineering and Industrial Management, guided by Professor Dr. Cristovão Silva and presented at the Department of Mechanical Engineering of the Faculty of Sciences and Technology of the University of Coimbra. (Online).