# **Logistics Management in Thailand with Adaption of Enterprises to the Logistics 4.0**

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#### **ABSTRACT**

This research "Logistics Management in Thailand with adaptation of enterprises to the Logistics 4.0. The objective: 1) To Study management logistics in Thailand and 2) To study the adaptation of enterprises to the Logistics 4.0. To develop and Improvement the adaptability of enterprises to the Logistics 4.0. This research examines the Mixed methods research and quantitative (1) in-depth interviews, semi-structured (2) Questionnaire and (3) Documentary research. The samples used in the analysis The logistics in Bangkok Metropolis area 10 organizations to collect data. by questionnaires Then analyze the potential for The logistics of the fourth dimensions. Consisting of strategic planning, corporate operations and environmental. Analysis of the data by using K-Means. The group can be classified into three groups based on the potential of the logistics. including The potential very good level to successfully meet by the organization's strategic plan. The environmental Assessment and continuous improvement. The potential at moderate level policy or strategy. The logistics and policy management logistics. and the potential very few. Most policy formulation Logistics and strategic analysis of obstacles to adapting to logistics 4.0. Provider of Logistics in particular. Perspective of reducing environmental impact. In addition, Logistics Provider that management Logistics 4.0. Will don't reduce costs and Cann't optimize the production. Also included Absence personnel with knowledge and understanding of logistics with 4.0.

Keywords: Logistics Management in Thailand, Adaptation, Enterprises, Logistics 4.0

#### Introduction

Strategic infrastructure development and logistics is one of 10 national strategic plan for economic development and social No. 12 (BE 2560-2564) under the vision of "a stable, prosperous country. Sustainable development is a developed country with the philosophy of sufficiency economy", so to prepare for industry operators, Thailand has a deep understanding of management systems and logistics industry can bring. Used to develop real business is important as well. This will result into Thailand. The vision of a developed country by the current government. An approach which is geared towards Thailand 4.0 Industry4.0 element is also to encourage industrial enterprises with Thailand competitiveness equal leading industrial nations in the region, which will impact on many sectors. Related to develop logistics industry, to strengthen industrial enterprises Thailand. The adaptability and competitiveness higher. With a platform to exchange experiences, learn the system logistics industry among the industry.

Currently, the world has entered the "Smart" or the so-called "4.0", which is the digital age. The technology took a major role. And create value in all activities of daily living activities. Activity in the commercial production or even activities that support product Copyright © 2017 GMP Press and Printing (http://buscompress.com/journal-home.html)

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manufacturing. Activities such as logistics or technology involved, more or less. The current cycle of technology is said to be the world recognize the value of technology. And the application of technology to be utilized seriously. The unstoppable cycle of technology during the first technology to create a virtual stream of new toys to the attention and alertness, but also can n't take advantage of it too. Later, when the technology will be developed over time. To peak And then flows Trends in technology are beginning to fall In this period there will be a group of people to see the benefits. And can exploit the technology to be used seriously. In today's world, which is called the world or in the world Smart 4.0.

Logistics 4.0 is the introduction of digital technology to help in the activities of the management of logistics If you look at the concept of logistics, which is a task management needs of Demand and Supply to develop the Logistics 4.0. to shorten the gap between the supply chain. Manufacturers can meet consumer demand for more. The development of the supply chain more efficient. However, the gap between producers and consumers narrow down does not mean business or intermediaries in the supply chain will be cut to persist, but to survive as well, one that is based on ability. Adaptation And the capability of raising and the values that exist in the world has entered an era 4.0 The manufacturing sector shifted from Mass Production to Customized Production sector logistics to compete with capabilities. demand and Supply management Business Division to reach and meet the needs of customers by way of marketing to pass the value of the product to consumers. What is the need to pay attention. Entrepreneurs Thailand is ready to enter the race in this era or not. If operators can deploy the concept Thailand. And development of Industrial 4.0 and Logistics 4.0 and Marketing 4.0, in line with the business. Will bring benefits and value-added business. You also can endure competitiveness in the global arena. However, considering the current state of entrepreneurship Thailand. Especially small and medium-sized enterprises (SMEs) that lack the quality in many aspects. So that entrepreneurs can qualify for Thailand to compete in the digital age. Thailand enterprises need to adjust their business model to enter the Digital Process.

- 1. The operator should adjust the concept of doing business. The operators are largely viewed the changes as a business cost (Cost) is more business value (Value), so operators need to adapt new concepts. The view that the boom is the growth of the business. Namely the creation of the investment in new digital technologies. The appropriate level is to add value and enhance competitiveness. Resulting in business growth and competitiveness in the long term.
- 2. Support the use of digital technology in business wisely. Although Thailand is not a country-tech manufacturers. But to maximize the opportunities and decisions that cause the most business. We need to encourage entrepreneurs to Thailand. Using digital technology to a level that suits their individual business basis for the creation of alternative decisions, including management processes.

Business intelligence (Intelligent data) The Internal Process and Business Transaction coupled with the further development of existing technologies. To create a competitive advantage in the long run. The operator Thailand, especially SMEs, the public sector is the driving force that will help push operators to adapt to the Digital Process has started to improve the operations of government. Digitize Emphasize operational integration. To reduce complexity And facilitate the private sector's full potential. However, in the 4.0 era, the era of digital technology to play a role in the Key Success Factors of existence and competitiveness

of the business. Not just in the tech or advanced higher than possession. But the use of the technology available to achieve maximum benefit is significant.

Researchers realized "Logistics Management in Thailand with adaptation of enterprises to the Logistics 4.0 . from which to manage logistics in Thailand, an important issue to be studied further. The key to a knowledge base about the logistics of a particular data. Entrepreneurs in the management of logistics enterprises, leads the development of the capabilities of the management of enterprises to build capacity. And the ability to manage logistics. And the overall economic development of the country. Strengthened even further.

# **Purpose of this research**

- 1. To study the logistics in Thailand.
- 2. To study the adaptation of enterprises to enter the Logistics 4.0.

# **Scope of Research**

This study aims to study "Managing the logistics in the adaptation of enterprises to enter the Logistics 4.0" The scope is as follows.

Research content: Management of logistics in the Logistics 4.0 include general information of respondents.

# **Scope Population: entrepreneurs logistics.**

Area of research: Bangkok and vicinity.

#### Benefits are expected to receive.

- 1. The guidelines of logistics in the era Logistics 4.0.
- 2. The results have led to the adaptation of the operator.
- 3. To increase the opportunities and decisions that cause the most business. Encourage entrepreneurs to Thailand Using digital technology To access the Logistics 4.0.
- 4. To build a competitive advantage in the long run. Thailand to operators, particularly SMEs.
- 5. helping operators to adapt to the Digital Process by improving the operation of the public in digital form.

# The concept about managing logistics.

Managing logistics for the meaning or definition of logistics management (Logistics Management) has been defined as follows.

Council to manage logistics of the United States (Council of Supply Management Professionals) as defined below. "Managing the logistics of the planning process. Compliance Plan and control the movement and storage of goods, services and related information. The starting point for consumers to meet customers' needs for efficiency and effectiveness

#### Framework for research

Management of logistics 4 dimension.

- Corporate Strategy
- Planning
- Operations
- Environment



Adaptability of enterprises to enter the Logistics 4.0.

#### **Materials and Methods**

Cluster analysis technique (Cluster Analysis) to analyze the potential of the logistics. The leading provider of logistics by cluster analysis technique (Cluster Analysis) to segment enterprise. As the potential for the logistics provider's side. Logistics In this analysis of data by using K-Means and segmented into three groups based on the potential of the logistics are very good, moderate and very little analysis of the data. technique (Cluster Analysis)

## Cluster found that:

Cluster 1 Potential logistics moderate. The organization has a grip Policies or strategies logistics. And is dedicated to promoting logistics include most medium-sized enterprises. The average corporate strategy followed by most large organizations. With the strategy of most organizations. And Small The average operational highest order.

Cluster 2 Potential logistics very good. The organization plans to achieve environmental policy assessment and continuous improvement includes large enterprises with the most average. Planning & Environment most, followed by medium-sized enterprises. The average of the most environmentally. And Small The strategic and organizational. The most environmentally respectively

Cluster 3 Potential logistics low level. The organization has no policy or strategic logistics base. Most small enterprises The average The strategy of most organizations While Enterprise Medium and large, with the same number. And have an average side Most environmentally

Considering the overall picture of each Cluster, both 3 Cluster consists of both organizations, small, medium and large in Cluster 2, the potential for logistics in overall very good level consists of smaller organizations. one organization, in contrast, Cluster 3, the potential logistics in overall low level includes large enterprises with up to six organizations from the data that the form of small enterprises in Cluster 2 is a private organization are. the organization provides transportation services A management structure in The organization is 100% Thailand for a period of service. Logistics period between 5-10 years of earnings. The average annual 1-3 million baht a recall of employees less than 50 people, is a provider of global logistics and the organization to success. Significant potential Logistics areas. In very

good The pattern of large enterprises in the Cluster 3 consists of six enterprises and private enterprises, most enterprises are organizations that provide transportation. Storage Products And warehouse management and clearance services related to logistics is the management structure of the organization as a whole is 100% Thailand.

Both Thailand and foreign shareholders are Thailand over a period providing logistics between 5-10 years and from 11 years to equal the average earnings. per year over 10 million baht. All organizations have a number of employees from 201 to more people and organizations are providing logistics worldwide, is an organization with a focus on potential. Logistics areas. In a little less so. The successful development of the logistics are. Based on the corporate strategy is. Does not depend on the operational plan. And environmental

Analysis impetus to adapt to logistics 4.0 level impetus to adapt to the logistics Thailand 4.0 sort out the most to least: 1) reduce the environmental impact. 2) meet the customer demand, improve the image of the organization, 3) optimization. The flow of logistics 4) create advantages 5) to improve return (profit grip) 6) costs of logistics and 7) to optimize the production sequence.

#### Conclusion

In analyzing potential providers of logistics in the four dimensions that are significantly different. The study shows that large organizations have to offer. The potential importance of logistics service providers. Over medium-sized enterprises And smaller in all dimensions The cluster analysis technique (Cluster Analysis) Cluster found that the two-level potential in logistics. Overall a very good level. Consists of smaller organizations one organization, in contrast, Cluster 3, the potential logistics in overall low level includes large enterprises with up to six organizations shows that the size of the organization does not affect the potential logistics. Logistics Analysis of the driving forces in the service. Logistics in the form of logistics in 4.0 that the driving force of the organization providing logistics at a high level. In particular, the reduction of environmental impacts are. The level most expected. And overlooked the Reducing the cost of logistics and optimization of production. That is the driving force in the body for ultimate barriers affecting adaptation to logistics in 4.0.

He collection and analysis of data Conceptual Most of the respondents are of the opinion that the provision of logistics services with higher cost is not an issue for the company, a provider of a large company. The process of medium and small. Limitations on technology and personnel Can meet The logistics system is somewhat more difficult than large companies. The option package is of the opinion that the choice of packaging for the product or products that are safe. And more friendly to the environment. A restriction For some organizations, especially organizations that are not ready or small companies that can not modify packaging to comply with the logistics of it. Management Delivery Return has to be recycled by customers. The packaging for the original pieces. Packaging for the transfer to be made to the cost of imports. Packaging recycling more than ever. And distribution The fuel source can support. Natural gas (NGV) is also limited in some areas, only the majority or nearly all of the opinion that the principle management logistics Green logistics is an obstacle or impediment in many ways

The cost and personnel with the knowledge and understanding is not enough, the government should promote visitors. Serious support by the higher costs and expenses that the government should provide financial support for the budget. For organizations that are adopting Logistics system used. This could take the form of funds. Or may be in the form of Copyright © 2017 GMP Press and Printing (http://buscompress.com/journal-home.html)

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lower taxes for corporations. Or logistics company that used it. Which increases And create incentives to attract companies or organizations. Going management logistics. Another very important thing is to increase personnel. The Knowledge And provides insight for managing logistics, adequate and continuing government or policy should be assigned to the Ministry of Education. To determine whether or taught the logistics in particular. In universities Thorough and adequate

Thailand may take time to enter the industry because they are not able to produce 4.0 technology itself. Despite a lot of research and development, but also can n't applied in full. And can not lead to the creation of products that are technologically advanced. We should be looking for a new way out. In today's world with the technology to be used in the production of it. How the technology needed to help in the production. We are driven to the country's potential as a producer of world-how. For the production of goods for consumers around the world. By finding yourself a good business suits or anything. The technology can be used to make the most of it, however. Government and businesses should be prepared to reform this industry together.

Thailand still need to rely on the manufacturing industry to the economy of the country. Although Thailand is industry competitive in many industries. You should also be required to select the correct product and platform. May look like an industry that is dominated by the country's food industry. Or agro-processing industry Start targeting strategy And rely on technology to increase productivity. To reduce the labor costs are higher. To retrieve the full potential of development. Using technology as a tool to give us the strength to continue to the limit. Focusing on driving IT system brought in to help in the development process even more. Since the production process Packaging and transport and so on, where possible, to reduce costs. Reduce losses And lead to better competition. However, modifying the technology to use it. Should be selected to suit the industry in our country. And must take into account the impact on the lifestyle of the people of Thailand

## **APPENDIX**



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