

GREEN WAREHOUSING FOR THAI CARGO.

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ABSTRACT

Ministry of Natural Resources and Environment are related agencies to supervise the role of the business sector and the public sector to be in accordance with the standards of the environmental management system which has a primary mission to create sustainability for natural resources and the environment by proceeding through the development of citizens in Thai society to become aware and ready to participate in the preservation, rehabilitation and utilization of the environment with value and sustainability forever. However, an important organization in the industry that is responsible for overseeing environmental management system standards is The Environmental Technology Promotion for Factory Division a part of The Division of the Industrial factory that under The Ministry of industry. The division has a mission to establish 5 levels of criteria for the industrial sector in order to promote and push industrial operators to develop and improve continuously to become a green industry. The air Cargo industry is one of the integrated approaches and driving strategies which under the 12th National Economic and Social Development Plan (2017-2013). In addition to Strategy 7 which is the main strategy for system development Logistics and supply chain.(Rattanawan,2018) Strategy 4 is other strategies that are relevant guidelines to support development. Thai Airways International Public Company Limited is part of the conclusion of the discussion discussed the work conditions, the employees were less satisfied due to the cleanliness of the workplace, working equipment and working tools. Surrounding environment causes employees not to be enthusiastic about their work. The step towards becoming a green warehouse is a very challenging activity as it has to go through many details and requires a large amount of operating budget to achieve the standard. Therefore, the development of the Thai Air Cargo warehouse of Thai Airways Public Company Limited should find the driving force resulting from the prerequisite understanding knowledge of employees at the first place. If employees have a better understanding of green management as a result, it will easier to step into the green air warehouse development process and reduce operating budgets.

Keyword: Green Warehousing, Drive Factors, Thai Air cargo

INTRODUCTION

The trend of environmental friendly entrepreneurship has been established for over 2 decades. In March 1992, the BSI (Maruf, 2014) (British Standards Institution) published the world's first environmental management system standard as BS 7750. As part of the response to increased public driving on environmental protection. Previously, environmental management was part of a larger standard system, The Responsible Care Standard BS 7750, which was the development model of the ISO 14000 Environmental Management System Standard that released in 1996 and represented by the ISO committee around the world. Since 2017, more than 30,000 items have been certified in ISO 14001 in 171 countries. The word ISO stands for International Organization for Standardization (Juan,2012) which was established on 23 February 1947 in response to the trend of environmental protection. International Organization for Standardization established the ISO 14020 and ISO 14024 standards in order to establish principles and procedures regarding environmental labels including certificates issued to certify and determine the method of obtaining an environmental label as well as methods that should be followed. In particular, these standards involve the avoidance of conflicts between operators and the environment in which the organization has an interest in the entire supply chain in which things that the organization is involved. By using scientific processes and methods that are accepted in the testing process. In Thailand, The Department of Environmental Quality Promotion (Environment Quality Promoting Department, 2018) Ministry of Natural Resources and Environment are related agencies to supervise the role of the business sector and the public sector to be in accordance with the standards of the environmental management system which has a primary mission to create sustainability for natural resources and the environment by proceeding through the development of citizens in Thai society to become aware and ready to participate in the preservation, rehabilitation and utilization of the environment with value and sustainability forever. However, an important organization in the industry that is responsible for overseeing environmental management system standards is The Environmental Technology Promotion for Factory Division (Environmental Law Enforcement Coordination Center, Pollution Control Department, 2015) a part of The Division of the Industrial factory that under The Ministry of industry. The division has a mission to establish 5 levels of criteria for the industrial sector in order to promote and push industrial operators to develop and improve continuously to become a green industry.

The air Cargo industry is one of the integrated approaches and driving strategies which under the 12th National Economic and Social Development Plan (2017-2013). In addition to Strategy 7 which is the main strategy for system development Logistics and supply chain.(Rattanawan,2018) Strategy 4 is other strategies that are relevant guidelines to support development.

 <p>www.ecolabel.eu</p>	<p>ISO 14024 Environmental labels and declarations (Type I environmental labelling)</p>
 <p>www.recycle-more.co.uk</p>	<p>ISO 14021 Self-declared environmental claims (Type II environmental labelling)</p>
 <p>www.environdec.com</p>	<p>ISO 14025 Environmental labels and declarations (Type III environmental declarations)</p>

Environmental labels by ISO Standard

Strategy 4 discusses environmentally friendly growth for sustainable development. By promoting investment in agriculture environmentally friendly industrial and service sectors and also support measures to reduce greenhouse gases in the transportation sector to promote sustainable transportation systems. Therefore, the development of the air cargo industry is a development process that must be done in conjunction with environmentally friendly measures. Air Transport is a service industry (Jitratada, 2016) that is important to the global economy of transporting passengers and goods from one place to another. In this regard, passengers traveling for business, work, and passengers traveling for tourism make it closely associated with the tourism industry, as well as supporting the industries that link with tourism. In addition, air transportation also plays a role in the transportation of goods, parcels and international mail. Air cargo industry involves international trade (International trade), especially products that require high speed and safety. In addition to airline business, air transport is also linked to many types of upstream businesses as follows:

1. Management of aviation services (Ground Services) such as ticket sales, tourism services and the linkage to the hotel industry
2. Airport operations (Aviation Management) such as flight scheduling and flight planning along with immigration, customs and security.
3. Ground Handling Services such as aviation fuel services, aircraft maintenance, luggage service and cleaning including food services and facilities for passengers
4. Small shipment & Multi Models Transportation
5. The production of products that related to the aviation business. Tourism (Related Goods)
6. The Aviation Institute

Therefore, air transportation is an industry that deeply plays a role in the economy of many countries. In the world. However, air transportation is subject to many rules and conditions involving a lot of various agencies at the national level and international levels which are extremely complex because it is an industry that has a high level of security risk. So there are various measurement to protect and provide safety for passengers, goods, operators, and the public. Even though these risks are now considerably reduced. By the way air transportation is an industry that is extremely vulnerable to various measures. The measurement may appear to be a trade barrier. By the reason, the study of the environmentally friendly air transportation industry is therefore another way to understand the application of fair and transparent throughout international measures.

Measures to develop the growth of environmentally friendly air cargo is one of the measures to encourage consumers to pay attention and use the services of the organization. Thus, the organization must show sincerity to operate with very little impact on the environment. Air cargo industry have to comply with various measures both national and international measures also various organizations that oversee aviation activities. Consisting of (Office of the National Economic and Social Development Board, 2013-217)

1. International Civil Aviation Organization: ICAO
2. The International Air Transport Association: IATA
3. The Central Aviation Administration (USA): FAA
4. Europe Aviation Safety Agency: EASA

By the way, the commercial aviation business must comply with the rules and regulations announced by these 4 key organizations. Although there is a penalty if the commercial aviation business do not follow, there are not many regulations and measures related to environmental friendliness. Therefore, eco-friendly measures are used just for marketing measure to encourage consumers to pay attention and use the services of the

organization. By this reasons, the study of the driving forces which have effects on the decision making could occur to develop air freight services to be environmentally friendly services. It is interesting to find out what factors are affecting the decision of the organization, as each organization cannot use the mechanism price to motivate users as much as the service fees collected from the trading partners (Supratti,2008) is the rate regulated by the International Air Transport Association (Putjai,2018) (IATA).

Government indicators

The result of an excessive consumption of resources since the Industrial Revolution until today, resulting tend to severe imbalances in natural resources. And affecting the living conditions of humans around the world. Therefore, in every country, both the public and private sectors, therefore turn their attention to restoring the balance to nature. For Thailand, after declaring endorsing ratification (American Export Lines, 2016) the Johannesburg Declaration in 2002 and the Manila Declaration in 2009 with the hope to move towards becoming a country with Sustainable Development, the Ministry of Industry has formulated a strategy for industrial development for the environment and society. By taking proactive steps in creating a strategy for industrial development for the environment and society The Ministry of Industry(Chitralada, 2016) has organized the Green Industry Project that call Green Industry to promote the industrial sector to operate environmentally friendly. Create a good image of the Thai industry. Resulting in people's confidence in the safety of the environment, society and economic security. With the ultimate aim of economic growth for an environmentally friendly industry or the Green Economy, with the country's green product or Green GDP as an indicator of economic growth that is environmentally friendly. With clear guidelines for entrepreneurs to apply for the step towards becoming a green industry with 5 steps as follows

Level 1: Green Commitment is a commitment to reduce environmental impact.

Caused by the activities of the organization and internal communication for the organization's personnel by informing through the public.

Level 2: Green activity: Activities are conducted to reduce the impact on environment. Finally, the organization has been achieved as determined.

Level 3: Green System: Systematic environmental management, the system will be done by monitoring, evaluation and review for continuous development. Including receiving recognized environmental awards and certifications for various environmental standards

Level 4: Green culture: means everyone in the organization try to cooperate by operating in an environmentally friendly way in all aspects of business operations until becomes a part of organizational culture.

Level 5: Green Network: is a demonstration of network expansion throughout the green supply chain. By encouraging trading partners and partners to enter the green industry certification process.

Green marketing

Suntana, 2009. "Green products" must include the 4R principle, which is to reduce waste, reuse, recycle and repair in every phase of the product life cycle which ranges from product planning, design, production, distribution, deployment and destruction after completion.

Treetip, 2010, green consumption is the consumption that occurs by customers who are aware of the environment and conserving the world's resources In order to reach the needs of the market that is emerging. Entrepreneurs are increasingly focusing on the green market. Because consumers use environmental criteria as part of their purchase choose in

using various products or services. At the same time, entrepreneurs have discovered important reasons for adjusting to produce this type of product. Because some products are concerned with the law of each country. Including clear information about market opportunities, awareness or personal consciousness of the entrepreneur may make consumers protect entrepreneurs to run their business successfully.

Suangrawee, 2013 Green Design is to reduce waste. Extend the period of use, increase the proportion of recycling and avoid environmental impact on the product system. The application of environmentally friendly design principles have to consider the Eco-Design Strategy in 7 main areas, namely

1. Reduction of low-impact materials
2. Reduce the amount and type of materials used (Reduction of materials used).
3. Improve the efficiency of production (Optimization of production techniques).
4. Improve the efficiency of distribution system.
5. Improve the effectiveness of products during use
6. Improve product life (Optimization of initial lifetime)
7. Improve the process of disposal and destruction of products. (Optimization of end-of-life)

Karanphat, 2016 The concept of green marketing means that the producer proceeds with the environmental impact from the upstream to the downstream, starting from the production source selection, raw material purchasing, production adaptation of marketing mix to green marketing mix as well as methods for disposing waste. Including creating credibility and good understanding with the surrounding society, taking into account the participation of people involved in order to create consumers' confidence and ultimately have green consumption behavior.

Thai Airways air cargo warehouse with green measures

The industrial sector as a whole, it is often believed that industrialization (Tumnong and Nalin, 2018) is the cause and factor that affects the environment today. If there is an efficient green supply chain management system, the business can reduce the environmental impact but increase the efficiency of the business operations. Currently, the expectations of the interested parties that need to meet the environmental needs are respectively increasing. The manufacturing industry needs to focus on adaptation and adjustment of production processes in the pursuit of environmental-friendly raw materials and social responsibility not only bringing green supply chain systems to connect activities from upstream to downstream also promoting the industrial sector to have a good image. If the manufacturing can make credibility till people trust. In the end, it will create a green economy. As a result, the green product of the country has higher value. Thai Airways International Public Company Limited is a department that has been certified and passed the standard of being a green office (Facebook, Thai airways). The Department of Environmental Quality Promotion has granted 2 prizes, including Building 1, Laksi, Very as Good Level Office (G silver medal) and Building 3, Good Level Head Office (G bronze medal) at the World Environment Day 2016


931 Yonge Street Green Office Program REPORT CARD			Toronto Community Housing 															
NAME: 5 th floor	DATE: Nov 27, 2007	PERIOD COVERED: July - Nov, 2007	green works															
STATUS: <input checked="" type="radio"/> Progressing well towards greenness. <input type="radio"/> Progressing with some difficulty towards greenness. <input type="radio"/> At risk.		Overall grade: A⁻																
<table border="0"> <tr> <td>A- to A+</td> <td>(80-100%)</td> <td>Achievement exceeds Green Works standard.</td> </tr> <tr> <td>B- to B+</td> <td>(70-79%)</td> <td>Achievement meets Green Works standard.</td> </tr> <tr> <td>C- to C+</td> <td>(60-69%)</td> <td>Achievement approaches Green Works standard.</td> </tr> <tr> <td>D- to D+</td> <td>(50-59%)</td> <td>Achievement falls much below Green Works standard.</td> </tr> <tr> <td>R</td> <td>(0-49%)</td> <td>Extensive remediation is required.</td> </tr> </table>				A- to A+	(80-100%)	Achievement exceeds Green Works standard.	B- to B+	(70-79%)	Achievement meets Green Works standard.	C- to C+	(60-69%)	Achievement approaches Green Works standard.	D- to D+	(50-59%)	Achievement falls much below Green Works standard.	R	(0-49%)	Extensive remediation is required.
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SUBJECTS		SCORE	GRADE															
Recycling Bins (kitchen, meeting room, next to office printer, workstations)		100	A ⁺															
Office Equipment (printers, computers, peripherals, screens)		23	R															
Office Products (print cartridges, paper)		100	A ⁺															
Lighting (turned off/on)		100	A ⁺															
Waste (garbage, recycling)		65	C															
Food Service Products (paper napkins, bottled water, dishes)		95	A ⁺															
TOTAL SCORE:		81	A⁻															
OVERALL COMMENTS: Critical improvement is needed on turning off the office equipment. Excellent placement of recycling bins in the office. Some work is needed on garbage and recycling practices. Overall, excellent achievement in Green Office practices.																		

Table 1: The sample of score achieve to standard, Toronto Community Housing Green Office Manual

In order to praise the green office. However, from the study of the operational satisfaction of the employees in the international warehouse, Thai Airways International Public Company Limited (Chalernpol, 2014) is part of the conclusion of the discussion discussed the work conditions, the employees were less satisfied due to the cleanliness of the workplace, working equipment and working tools. Surrounding environment causes employees not to be enthusiastic about their work. The step towards becoming a green warehouse is a very challenging activity as it has to go through many details and requires a large amount of operating budget to achieve the standard. Therefore, the development of the Thai Air Cargo warehouse of Thai Airways Public Company Limited should find the driving force resulting from the prerequisite understanding knowledge of employees at the first place. If employees have a better understanding of green management as a result, it will easier to step into the green air warehouse development process and reduce operating budgets.

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