INNOVATION OF PRODUCT LIABILITY PREVENTION MODEL FOR FOOD PROCESSING INDUSTRY IN THAILAND

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ABSTRACT

Product liability law brings entrepreneurs to have a burden and a greater risk. They have a responsible for prove the safety of product; prevent the defect, and a remedy when damage occurs. Especially the entrepreneurs in food processing industry, the damage will affect the health of the consumer. It aims to find a prevention model for entrepreneurs in food processing industry to prevent the liability from the Unsafe Goods Act B.E.2551. This study uses a qualitative method by literature review and in-depth interview with one large purposively selected sample plant then synthesize the legal factor compared with the entrepreneurs safety system. The innovative prevention model from this study will help entrepreneurs to prepare themselves for the rise of the product liability lawsuits in Thailand and to increase confidence in the product to consumers.

Keywords: Innovation, Product liability prevention model, Risk Management, Unsafe Goods Act B.E.2551, Food processing industry

I. INTRODUCTION

Environmental change is a cause of production limitation in each country and the movement of the food resource becomes more global including food contamination has become a key concern [1]. Open of the free trade area for commercial according to the international commercial condition makes many countries changing their measurements in order to obstruct goods from foreign countries by using the sovereignty of the state in going out regulations and using standard voluntarily as tools [2] [3]. Product liability law is one of the popular tools in the world and marks as a world trend [4] [5] [6] [7] [8] [9] [10]. The product liability law is not only use for protect in-house consumer but also to be an efficiency tools using for international trade barrier [11] [12] and block low quality product from...
foreign countries because of the inequality trade [13]. The Product liability law is increased duties especially for the importer to take responsibilities with their product [11] [14]. Where Thailand is in the position of exporter country so Thailand has affected by this law and is also disadvantage commercial in international market [11] [12].

The product liability law is the tort law presents under the special law that uses the principle of strict liability [15]. The faults according to this law occur by determining the liability by the law [12]. However, no statistical data can identified that product liability laws able to reduce complaint cases yet. It would clear that the manufacturing increases carefulness and attention rate more and more [16].

In Thailand, the committee had a draft of the product liability law and arranged a meeting to receive comments on the year 1999 [17] and enacted in a government gazette in a name of “Unsafe Goods Act B.E. 2551” on February 20, 2008 [18]. This law has been accepted an important concept in the form of the United States law such as the strict liability, res ipsa loquitur (Thing speak for itself), Punitive Damage, Defense of the operators in the supply chain and distribution [19]. It has an effect to entrepreneur especially in food processing industry because its damage will affect to consumer health. Moreover, Thailand's food industry is important in term of an industry that brings money into the country more than 700,000 million baht in the year 2009-2010 and plays as the largest food exporter country in Asia, the 5th in the world food trade surplus and the 12th of the food exporter in the world [20]. The key question is how entrepreneur prevent themselves from the “Unsafe Goods Act B.E. 2551” and maybe the Product Liability Prevention Model is an answer.

II. OBJECTIVE OF THE STUDY

The objective of this study is to create a model innovation of product liability, thus to prevent potential product liability against the processed food industry in Thailand.

III. RESEARCH METHODOLOGY

The purpose of this research is to create a practical novelty with regard to which search process and content is not known. Therefore, qualitative research is used by conducting an in-depth interview with one large company in the food processing industry, with high-standard of manufacturing the products for sales in the domestic market and for export. The research includes studying relevant documented information.

IV. PRODUCT LIABILITY PREVENTION MODEL

The research results show that it is possible to create an innovation of the model of management to prevent product liability against the processed food industry in Thailand, and to be a guideline for entrepreneurs in the processed food industry and other industries, to objectively apply to a preventive measure with regard to product liability based upon a provision and the purpose of the “Unsafe Goods Act B.E.2551”. Entrepreneurs can apply the process and store necessary evidence to affirm a defect of the products as shown in Figure 1 and it can be explains the model structure in the following 4 parts:

1. Manufacturing perception to produce food safety
2. Manufacturing’s Product Liability Prevention Focus
3. Organization Structure & Accountability
4. Output

**Figures 1** Product liability prevention model for food processing industry in Thailand (Adapted from the ISO 31000: 2009 framework [21] and The Conceptual framework of Design for Safety and Liability [22])

1. **Manufacturing perception to produce food safety**
   There are 2 sources of the manufacturing perception to produce food safety:
   a. Force input
   b. Voluntary input

   a. Force input
   Force input means regulations or standards that entrepreneur must do before send products to the market. Otherwise it shall be deemed to be guilty and have not authorized to distribute such as the “Unsafe Goods Act B.E.2551”, “Food Act B.E.2522” etc.

   b. Voluntary input
   Voluntary input means activities that have no state enforcement then entrepreneur can choose to practice or not. It can be considered in 3 types:
   i. Standard
   ii. Marketing Requirement
   iii. Insurance Requirement
i. Standard depends on the nature of the industry and usually a requirement of the consumer to ensure that the products are manufactured in compliance to consumption. There are many standard in food processing industry such as: GAP; Good Agriculture Practices, GMP; Good Manufacturing Practices, and HACCP; Hazard Analysis Critical Control Point.

ii. Marketing Requirement is something that customer or partners needs such as the implementation according to the British Retail Consortium Standard; BRC Standard or other special demands.

iii. Insurance Requirement as importance as a tool to spread the risk of product liability. And the insurance company has the right to deny the requested by the entrepreneur or accept in a high premium.

2. Manufacturing’s Product Liability Prevention Focus

When the entrepreneurs comprehend manufacturing safe foods, they are to consider an issue focusing on the prevention of product liability. There are three unsafe types which will have preventive activities in every manufacturing and distribution process.

To prevent an unsafe product, it can be considered that there are the following 3 unsafe types:

a. Manufacturing Defect
b. Design Defect, and
c. Warning Defect

a. Manufacturing Defects

The manufacturing defect can explain in 3 meaning as:

i. When the product departs from its intended design, even if all possible care was exercised [19] or

ii. The defect that may occur in the procedure [12] or

iii. The company produces the product differing from those designs and the damage occurs as a result of the product [23].

b. Design Defect

The design defect means the unsafe point that concealed in the engineering of product [24] or scientific ideas that can be and reasonable to avoid by designing a different formula for the safety or reduce the risk that unsafe but has not done [24].

c. Warning Defect

Lacking of sufficient information for user to avoid the dangers of the product, the sufficient information means the information for user that can reduce the risk or danger which may arise as a result of using the product. However, there are 2 basic objectives to warn or to give the information to customer as follow [24]:

i. To reduce the risk of injury and accidents.
ii. Inform in order to get admit.

3. Organization Structure & Accountability

The entrepreneurs’ scope of knowledge in respect of safety and the protection of unsafe products will define organizational safety activities which are present in each responsible level of the organization. An executive will determine a policy and its objective,
and then transmit the policy to be a practice in each process for manufacturing safe products, which is separated into the two following periods:

a. Activities before the distribution; and
b. Activities after the distribution.

a. Activities before the distribution are activities where the manufacturing of food products can be separated into three processes, i.e. input, process and output, which have the following sub-activities in each activity:

i. Input is a process at the beginning of the manufacture with regard to design and receiving raw materials.

ii. Process is the transformation of raw materials into products. This step is very important for manufacturing safe products. Therefore, there are a lot of standards in place, as well as the performance of risk analysis and the control of a critical point, i.e. manufacture activity and the monitoring of activity after manufacturing.

iii. Output is an activity performed after the raw materials are processed; to monitor safety before being used by consumers. This activity involves storing products and reviewing product deliveries to consumers again.

In each step of manufacturing, there will be a safety operation to ascertain that the products produced follow the relevant regulations, laws and customers’ requirements by applying standards, rules and controls for manufacturing and applying a risk management procedure in seven steps, such as: Establish the context, Identify risks, Analyze risks, Evaluate risks, Treat risks, Monitor and review, and Communication and Consult. The seven steps listed above relate to analyzing and controlling any risk occurring in this industry so that the utilization of good risk control will reduce the chances of product defects.

b. Activities after the distribution are listening to customers’ comments, customer complaints, product recalls, and the provision of additional information after sales, and customer service support. Such activities significantly show a consumer responsibility, and there might be a special department for this proposed after sales customer service.

4. Output

Output of this model can separate in 2 outputs as:

a. Safety goods
b. Evidence for Product Liability Law

a. Safety goods are a result of an analysis, quality control, and activities in manufacturing process that concerned in safety.

b. Evidence for Product Liability Law is a result of all safety activity in manufacturing process to prevent a defective product such as a design product record, a manufacturing quality control record, and a safety check of products before delivery etc. The document should store completely and keep in a long period sufficient to product liability litigation. The sufficient period should be at least 10 years after a sale date which cover the limitation in the normal case of damage.
V. CONCLUSION

This study tries to find an answer for an entrepreneur problem with Thai Product liability law. The result of the study is the Product Liability Prevention Model. It classified as a process innovation and uses a qualitative research method. It is developed by combine the body of knowledge in law and engineering and use in food processing situation. This model use as a direction for entrepreneur to keep the product liability evidence which to confirm that the product is safe and can prove under the product liability litigation.

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