

This file has been cleaned of potential threats.

If you confirm that the file is coming from a trusted source, you can send the following SHA-256 hash value to your admin for the original file.

119a3d5d535a0076c833dd6f3dc94e5f60ae2f5f8868deb10e7e3cc918caf14b

To view the reconstructed contents, please SCROLL DOWN to next page.

# FACTORS AFFECTING THE EFFICIENCY OF TRANSPORTATION OF DUCK EGGS IN DON CHEDI DISTRICT, SUPHAN BURI PROVINCE

Wanee Sutthachaidee\*, Bavornluck Kuosuwan\*\*, Nipawan Poojom\*\*\*

\*,\*\*\* College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, Bangkok, Thailand

\*\* Science, Panyapiwat Institute of Management, Pak Kred District, Nonthaburi Province, Thailand

E-Mail: \*wanee.su@ssru.ac.th, \*\*bavornluckkuo@pim.ac.th, \*\*\*nipawan.po@ssru.ac.th

## ABSTRACT

Important things to observe in searching for information on duck egg technology in Chedi Don District, Suphanburi Province, to look at: 1. To study and research the duck egg technology control system 2. To know the problems of the duck egg technology multifunction server 3. To study and search Opinions about the transport of duck eggs is a quantitative research to investigate and a sample sample of 80 employees of a super egg farm. The research instrument is research. The research found general information and the majority of respondents were age ranges. Age 36- 40 years, income 7,001 - 9,000 baht per month, Vocational Certificate level - Vocational Certificate, position in the egg size sorting department and egg transportation department, working in 1 - 2 years, losses in various stages are Steps between checking and separating comments in duck egg technology. Inspection of eggs to check the ingredients and normal duck eggs had an average opinion level of 2.82. Received a medium signal for receiving signals and picking up the product with an average opinion level of 3.68. Many remarks on product protection had a level of Smells saw an average of 3.57. Many types of odors for product packaging had an average opinion level of 2.93. Medium cheese sorting products had an average opinion level of 4.17. Much drive for controlling reception efficiency in technology and inspect eggs and increase safety in response with an average opinion level of 2.82. Moderate concentration increases. Of the warehouse in time, the average opinion level was 3.45. The product's tablets had a moderate level of completion time. It has an average rating of 3.08. The weight control is average and the inside of the product has an average rating of 3.72. The drive is exceptional.

**Keywords:** factors affecting , transportation , duck eggs

## INTRODUCTION

Duck and Egg Farm Business It is another profession that Thai people engage in to make ends meet. It is an occupation that creates work and income for entrepreneurs as well. Eggs can be sold both domestically and exported abroad. price insurance sales The quantity of duck eggs sold will be more or less depending on many factors such as price, season, disease outbreaks. However, raising duck eggs requires knowledge and management techniques. Suphan Buri Province is a production and export center for duck eggs. Super Khai Company Limited is located in Don Chedi District. Suphanburi Province is the largest producer, processor and distributor of fresh duck eggs in Suphanburi Province. They will collect duck eggs from egg-laying duck farmers in Don Chedi District. and nearby districts in order to wholesale duck eggs to small traders throughout Suphanburi Province. Duck eggs are transported 3,000 - 12,000 eggs per day. When the eggs reach their destination, there will be 3- 5% of eggs damaged per transport trip. Therefore, the research team is interested in studying factors that affect increasing

the efficiency of egg transportation. duck In Don Chedi District Suphanburi Province To reduce damage to duck eggs that occur during transportation.

## **OBJECTIVE**

1. To study problems in the operational process of transporting duck eggs.
2. To find guidelines for developing the operational process for transporting duck eggs.

## **Scope of Research**

The research team has determined the scope of research to analyze factors affecting increasing the efficiency of transporting duck eggs in Don Chedi District Suphanburi Province as follows:

Content scope Study the process of transporting duck eggs of Super Kai Co., Ltd.

Demographic scope and sample Used in the study were 40 employees of Super Kai Company Limited, working on packing eggs into packaging and transporting duck eggs.

spatial extent The area for transporting and distributing eggs is local. Don Chedi District and nearby districts in Suphanburi Province

Period scope The study period is set to be between January 2023 - April 2023.

## **Related Concepts, Theories and Research**

### **1. Optimization concept**

Performance refers to a person's abilities and skills in his or her actions. or others to improve and prosper in order to achieve your own and the organization's goals. which will make oneself other people and organizations Satisfaction and peace finally arise. Factors affecting organizational efficiency consist of 3 factors:

1. Organizational structure factors How effective an organization is depends on how well it is structured. It involves important sub-factors including:

1) Policy factors covering vision setting Setting mission commitments that are consistent with the vision Setting the objectives and goals of the organization, including setting standards regarding work performance and operations

2) Administrative and management factors covering work restructuring, complexity, formality, centralization, line organization, and command. Grouping of work Organizing relationships between work groups, planning, ordering, and controlling work. Resource allocation monitoring and supervision and performance evaluation

2. Personal factors It is the most important factor because individuals are groups that form organizations. have a common purpose Have a role in work or carry out various work in relation to each other in order to achieve objectives Therefore, people with various positions and duties according to the work structure in the organization It covers senior, middle and lower level individuals as well as individuals at all functional levels. The efficiency of an organization depends on its characteristics and desirable qualities in various areas.

3. Technology factors It is a factor that influences product design. management design Using tools and modern equipment in the production process Quality control and inspection Creating an information system linking marketing and services for distributing products to society.

Harutai Buttachan. (2017) said Developing work efficiency is improving the abilities and skills of oneself or others in order to achieve organizational goals. This will ultimately make oneself, others, and the organization happy. The development of work efficiency is very important for organizational development or social development. In summary, optimization refers to a planning process that aims to improve organizational capabilities. An organization

in order to perform its duties to the satisfaction of mankind, including employees and business owners, must manage in many areas. Including the use of strategies or techniques that are appropriate and can lead to results quickly, to the point and with quality. Meaning of storing and transporting duck eggs.

## 2. Transportation management concepts

Stoke and Bert. (2015) said transportation means moving goods from the place of production to the place of consumption of that good which moves goods between locations. This creates added value to the product. This added value is called Place Utility. In addition, transportation also creates time utility (Time Utility) which arises from storing the product until there is a need for consumption of that product.

Sombat Sirirak. (2015) said transportation is considered a main activity in logistics management. In addition to other activities and transportation costs, it is one of the main costs of the entire logistics process. In operating the transportation to achieve the lowest cost, this may result in higher costs elsewhere in the logistics process. Therefore, it is necessary to consider this by increasing knowledge. By providing training for personnel to understand the principles of transportation management and can be used as a guideline to increase the efficiency of your own transportation, including the process of moving and storing goods. Raw materials from their origin to the final consumer, transportation systems are used in material management and distribution processes. Currently, there is an internet network that provides high speed, low cost, and can increase capabilities on a global scale.

Supamit Srisawat. (2023) said The Express Transport Service Selection of Thailand E-commerce Business. The samples were people who worked in e-commerce business and had the experience on using the transport express service. The 129 samples were selected based on formulation and theory of Cohen (1977) and increased to 150 samples in order to prevent error in data collecting process with purposive sampling method. The research result at significance level of 0.05 showed that services and reputation affected the decision on choosing the transport express service while price and company's identity did not affect the decision on choosing the transport express service in the aspect of Thailand e-commerce business.

In summary, transportation management means movement of goods from the place of production to the place of consumption of that good which moves goods between locations. This creates added value to the product. Therefore, transportation must always be developed. To increase business competitiveness because another impression that customers will give us is the fast delivery of products. If there are many customers in places scattered throughout but being unable to deliver the goods on time is a disaster for the business. (Somchai Pathomsira. 2016) Meaning of transportation management that the goal of transportation management to reduce costs. It is a popular goal for all logistics management activities. Including transportation. Entrepreneurs often set their first goal that when they have good transportation management, they must be able to reduce business costs. to increase work efficiency

## RESEARCH METHODOLOGY

This research is a quantitative research. Population and sample Used in the study were 40 employees of Super Kai Company Limited, working on packing eggs into packaging and transporting duck eggs.

The research instrument is a questionnaire, divided into 3 parts: Part 1: General information of the respondents; Part 2: Damage to eggs from the operating process of transporting duck eggs; Part 3: Opinions on increasing efficiency in transporting duck eggs. Statistics used in data analysis are percentage, mean, standard deviation. To analyze and present data to achieve the objectives of the study

## RESULTS

The research results found that Results of general data analysis of respondents 53.8% were male, 46.3% were female, with ages between 36 - 40 years 25.9%, 41 - 45 years 21.0%, 31 - 35

years 19.8%, 26 - 30 years 14.8%, 20 - 25. years 9.9 percent, 46 - 50 years old 6.2 percent, and less than 20 years old accounted for 1.2 percent, respectively. Monthly income 7,001 - 9,000 baht,

35.0 percent, income 5,001 - 7,000 baht, 27.5 percent, income 9,001 - 12,000. baht, 20.0%, income 3,000 - 5,000 baht, 10.0%, income 12,001 - 15,000 baht, 6.3%, and income 15,001 - 20,000 baht, respectively, education level Have a vocational certificate level education. – Vocational Certificate: 40.0 percent, less than middle school, 30.0 percent, high school level: 27.5 percent, and bachelor's degree or higher. Accounting for 2.5 percent, respectively. Job positions: Duck egg size sorting department, 52.5 percent, duck egg transportation department, 26.3 percent, and sorting and storage department, 21.2 percent, respectively. Work experience. 37.5% had 1 - 2 years of work experience, 32.5% had 3 - 4 years of experience, 17.5% had less than 1 year of experience, and 12.5% had 5 years or more of experience, respectively.

Part 2: Damage to eggs from the operating process for transporting duck eggs. The research found that egg damage during transportation from origin to destination was 33.8 percent, during the sorting and packaging process, 31.3 percent, during the loading and unloading process into the truck. Origin transport 20.0 percent and loading and unloading process into destination transport vehicles 15.0 percent

Part 3: Opinions on increasing efficiency in transporting duck eggs. There are opinions including: Reducing product damage The average opinion level was 3.72, which was at a high level. In terms of increasing safety in transporting goods The average opinion level was 3.45, which was at a moderate level. In terms of increasing convenience in moving The average opinion level was 3.08, which was at a moderate level. Increasing the orderliness of the warehouse The average opinion level was 3.02, which was at a moderate level. The work was completed on time. The average opinion level was 2.28, which was at the moderate level, respectively.

## SUMMARY AND DISCUSSION OF RESULTS

After the study, it was found that the problem of the duck egg transportation operating process that causes the most damage to eggs is the damage of eggs during transportation from origin to destination, reaching 33.8 percent. Because eggs are fragile products, they are easily damaged. The distance of Transportation, road conditions, and product arranging therefore result in damage to the eggs. Followed by the process of sorting and packaging at 31.3 percent. Egg sorting is separated according to the size of the eggs and arranged on a package that is a tray with holes, with the blunt side of the eggs placed on top and on the side. The cape is below. This is because the egg yolk is lighter than the egg white. The yolk will float up on the obtuse side. This is the area of empty air inside the egg. Helps prevent the egg yolk from hitting the shell. And the process of loading into the origin transport vehicle 20.0% and the process of unloading into the destination transport vehicle 15.0% will be the operational steps of the transporter who will lift the duck egg packages to be placed on the transport vehicle. and lift from the truck to deliver the goods to the customer, which will require the use of manual labor. If there are a lot of goods, this will affect the fatigue of the employees. Including the order of arranging products onto trucks at the point of origin for delivery that facilitates the operator also affects the damage.

Guidelines for developing operational processes for transporting duck eggs

Egg damage during transportation from origin to destination is the step that results in the greatest damage to eggs. Eggs are a fragile product and are therefore easily damaged. The distance of transportation, the condition of the roads, and the arrangement of the products have an effect on the damage of the eggs. Therefore, it should be given importance in Safety and transportation. The company wants to train employees on safety in driving vehicles transporting duck eggs. All transportation workers must receive transportation safety training before starting work. To prevent accidents and losses that will occur to employees or products. This is consistent with the Transportation safety awareness (Safety Awareness) from the supervisor level. Until reaching the very important final cog. That's the driver, which creates safety awareness. Starting from supervisor level employees to drivers. Must pass the Safety Driving Course training course and must review the course at least once a year.

Sorting and packaging steps Damage that occurs from this process. Increasing the efficiency of work to reduce damage requires training to provide knowledge to operators to be proficient and skilled. Realize the importance of sorting and packaging. Arranging personnel who have experience and have worked long enough to do the job will help reduce damage. Careful sorting of duck eggs Due to problems with broken or damaged eggs This is mostly due to the carelessness of the employees in sorting the eggs. Therefore, there must be training and discussion with employees before starting work to be more careful in this part. Which explains how to protect the product from cracks or damage. Resulting in the need to prevent damage. To reduce the problem of returned products

Steps for picking up the transport vehicle at origin and steps for loading and unloading the destination transport vehicle It is the operating procedure of the transporter who will lift the duck egg packages onto the transport vehicle. and unloading from trucks to deliver products to customers. Therefore, good packaging will help reduce damage to eggs. The research results of Ante Galic et al (2018) studied the protection and reduction of damage to eggs during transportation and handling. The results of the study concluded that Paper egg panels are hard. It can protect eggs from being damaged or broken better than egg panels made from polystyrene. Which is flexible and expandable, the company should therefore use packaging that is made of hard paper egg panels. Arranging goods onto trucks at the point of origin to provide convenience that facilitates the operator and affects Qatar's first-in, last-out operation in order to perform its duties. Lifting products to help. To increase the convenience of moving, you should have specific equipment to help move, such as a long steel "cart". For holding and resting eggs The bottom has two wheels on the back and a three-pronged one on the front for supporting and lifting the eggs. The employees had the opinion that Using this equipment is the most convenient and fastest way to transport eggs from one place to another. It is also convenient for loading and unloading eggs into the car.

## REFERENCES

- Ante Galic, Stjepan Pliestic, Dubravko Filipovic, and tam (2018). Mechanical properties ten-egg boxes made of different materials. *Journal of Food Science and Technology*, Volume 55, pages 1325-1330.
- Anuch Nampinyo, Bunyaporn Phoothong, Sudarat Pimonratanakan.(2023). Transportation Efficiency Influences the Decision to use the service flash express in Phutthamonthon district Nakhon Pathom Province. *International Academic Multidisciplinary Research Conference in Seoul 2023*. Seoul, South Korea. 27 February – 1 March 2023. pages 184-190.
- Katesara Boonkrob and Phattaranan Surachatri.(2022). Personnel Development Affecting the Performance Efficiency of Mitsui Precision Thai Co., Ltd. *Journal of Management Science Review* Year 24, Issue 2 (May-August 2022), page 51

- Khamnai Apiraprachasakul. (2013). Goods Transportation in Logistics works. Publisher: Focus Media and Publishing. Bangkok.
- Natthaphong Kongprasert (2019). [Online]. A good internal working network is more than half the battle. [Retrieved on 24 January 2023]. From <http://qd.swu.ac.th/Portals/2077/pdf?ver=2562-05-24-082514-070>
- Ornicha Butphrom and Marisa Pombubpha. (2018). FIFO to increase warehouse efficiency. A case study of an automotive parts company. Journal of Administration and Management. 1, 4-18. [16]
- Supamit Srisawat, Nongsom Srisawat, and Supeeraya Kritsanankoon .(2023). The Express Transport service selection of Thailand e-commerce Business. International Academic Multidisciplinary Research Conference in Seoul 2023 Seoul, South Korea. 27 February –1 March 2023. pages 145-149. 145-149.