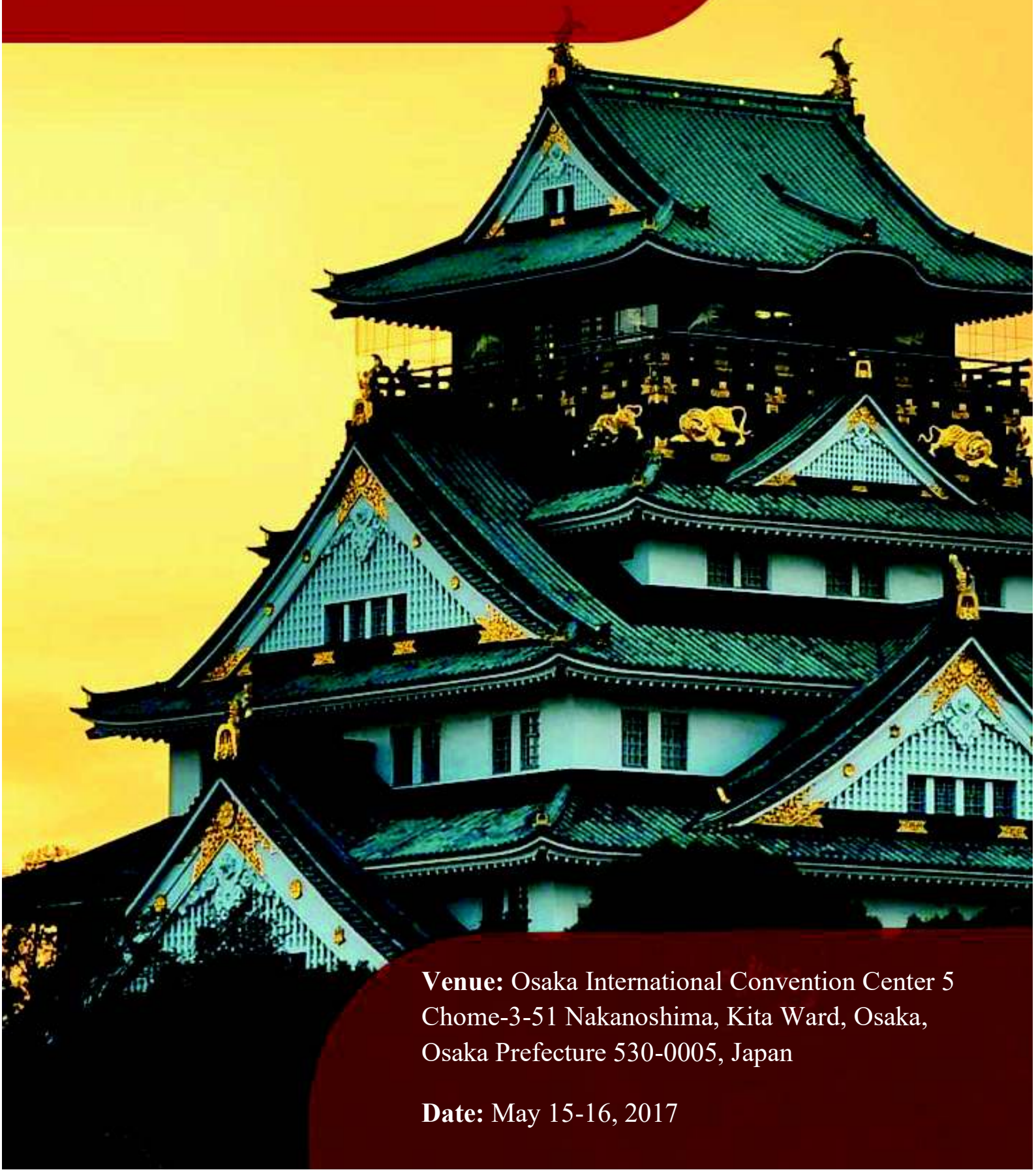


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CONFERENCE CHAIR MESSAGE

Dr. Sukri Palutturi

International Conference of Akademika Nusa Internasional Association of Social Sciences and Humanities} is a platform that thrives to support the worldwide scholarly community to analyze the role played by the multidisciplinary innovations for the betterment of human societies. It also encourages academicians, practitioners, scientists, and scholars from various disciplines to come together and share their ideas about how they can make all the disciplines interact in an innovative way and to sort out the way to minimize the effect of challenges faced by the society. All the research work presented in this conference is truly exceptional, promising, and effective. These researches are designed to target the challenges that are faced by various sub-domains of the social sciences and applied sciences.

I would like to thank our honorable scientific and review committee for giving their precious time to the review process covering the papers presented in this conference. I am also highly obliged to the participants for being a part of our efforts to promote knowledge sharing and learning. We as scholars make an integral part of the leading educated class of the society that is responsible for benefitting the society with their knowledge. Let's get over all sorts of discrimination and take a look at the wider picture. Let's work together for the welfare of humanity for making the world a harmonious place to live and making it flourish in every aspect. Stay blessed.

Thank you.

Dr. Sukri Palutturi

Conference Chair

Email: conference.chair@anissh.com

Feasibility Study for the Establishment of The Restaurant Business in the Market : A Case Study of the Market, Dusit Bangkok Thailand

Bunyaporn Phoothong,

College of Logistics and supply chain, Suansunandha Rajabhat University, Thailand

boonsbac@hotmail.com

Abstract. Investment Worthiness Study of Setting up Food Shop in a Floating Market: A Case Study of Dusit Floating Market was a quality research using in depth interviews and focus groups interviews and had the following objectives: 1) To evaluate investment worthiness of setting up a food shop in Dusit floating market, and 2) To study the trend of food shop in Dusit floating market. There were 2 sample groups in this research, they were, a group of shops running business in Dusit Pier slum and a group of leaders of Dusit Pier slum. Each sample group consisted of 10 persons which made a total of 20 people. Data analysis utilized the content analysis technique to verify topic/category and the pattern/themes of the research. The study results on investment of setting up food shop in Dusit Pier slum revealed that when 12 percent interest ratio was used, the value of the investment on the Setting up of food shop in Dusit Pier Project was equal to 8,949,800 baht at present, and investment return to capital investment ratio was equal to 2.09 while the duration of the investment return of the Project was 1.71 years. Apparently, investors should invest in the Setting up of food shop in Dusit Pier Project since the Project value at present was positive, benefit to capital investment ratio was high in value, and internal return of the Project was higher than the interest ratio.

Keywords— Investment Worthiness, food shop business

INTRODUCTION

Under conditions of global economic growth is changing rapidly. The policy of the ASEAN Community by the year 2015, resulting in different departments. Need to prepare for the race. Tourism as an industry is to play a key role in supporting the economic development of the country to compete in the world economy by tourism and services related to the field of intensive integration (Priority Integration Sector: PIS) under the framework. opening the ASEAN free trade The World Tourism Organization (World Tourism Organization: WTO) expects the number of foreign tourists in the region will increase to 120 million in 2558 from an average 67.5 million per year in the past (Siam Business, 2015). Thailand is considered a tourist attraction that has been most popular in Asia. The tourism industry can generate income for the country continuously since 1997 because the country has a unique culture and attractions and tourism activities, a variety of factors that attract both local and foreign. The tourism industry is expanding rapidly. The current policy is to promote tourism for the tourists in the country by the government and the Ministry of Tourism and Sports.

The tourism industry in Thailand to receive attention in the global market can be segmented by geography into three parts (Christine, 2011): 1) region in the South (Thailand's South) 2) regional and central areas of the city (central Thailand with metropolis of Bangkok), and 3) in the northern region (the emerging tourist destination of Northern Thailand), which each have different features and advantages of tourism.



Currently, the tourism industry is evolving and changing forms of doing business and can meet the diverse needs of more tourists. To prepare for the growth in the tourism industry. The factors that make tourists come to Thailand. Due to the abundance of natural beauty. The restaurant business is a business that is linked to lifestyle to all groups. And the business is likely to grow steadily, especially in the economic area where people are spending a lot of consumer commodities. Thus, attention has to be a program worth investing in the restaurant business in established markets. Case Pier Rd It aims to analyze and assess the feasibility and likelihood of success of business development, food for the community. Activity in the market is to support tourists to increase tourism and generate income for the community.

Dusit waterfront community is a community that is located behind the palace Consulate Sukhothai. Which is considered as an area with potential for tourism development in the area is a highlight of the area's history and civilization. The condition of the area is located in Bangkok. The community also plans to set up a public port, which is of strategic importance to the economic development of the community. But the community does not have the knowledge to develop those areas that add value. An economic area that offers a variety of products and services.

RESEARCH OBJECTIVES

To assess the value of investment in establishing floating restaurant and To study the market trends in the restaurant business, Dusit.

SCOPE OF RESEARCH

The feasibility study on the economics of the business community in the Market Restaurant for the Lonely Rd. To prepare and provide the means to operate a successful restaurant business. The scope and population samples. The data from observation Depth interviews Interviews groups (Focus group) house-holds restaurant business to contribute to the planning of business efficiency. The subjects in this study were two groups, merchants and community leaders Pier Rd. The target group of 10 people, including 20 people in the audience were interviewed entrepreneurs, shops and services, a structured interview process consists of three individual factors. Restaurant business model in the market. And expenses in various fields. The business stores.

RESEARCH METHODOLOGY

Qualitative data collection process is as follows.

1. Study the data and information to make contact with the target audience.
2. Conduct a group interview (Focus Group) and observe the reaction of an emotional as well as a sense of tone and expression. To be thorough, in-depth data analysis.
3. Allowing the sample to taped interviews to collect detailed interviews as much as possible.
4. Taken note of the raw data and verify the completeness of the information carefully.

Data analysis techniques, data analysis, content analysis (content analysis) to determine the topic / thread concept. (Topic / category) and systemic issues as the importance of research. (Pattern / themes)

1. Descriptive Analysis (descriptive analysis) study of business regulations in food stores. Type of food stores The establishment of the Floating Restaurant And the general state of the project.
2. Quantitative Analysis (Quantitative analysis), data analysis, including financial. Cost of the project Earnings estimates And susceptible to changes Using the financial indicators. The net present value (Net Present Value - NPV) and internal rate of return for the costs. (Benefit-Cost Ratio - B / C Ratio).

THE RESEARCH DEBATE

Assessed value for investment established restaurants. From data collection and detailed budgeting, cash - to pay. Of the restaurant business in Port Rd. From start to finish, the project data is shown in Appendix Table. During the first year of the project. The cash flow is presented on a monthly basis. And starting from two years to 20 years of cash flow shows annually. In the first year of the project Have invested in the construction of the restaurant. contain with The restaurant is in one of the community and invest in other fixed assets used in cooking. The restaurant opened two years the number of customers per day over 33 years, two customers, resulting in all 11,880 people in the first year. The restaurant business has negative losses - 3.379 million baht.

In the years following the project's cash flow has been increased from the customer into the store more than 12,600 people, and the following year it had more customers. According to calculations in the appendix. The calculation of the present value of the project found that the restaurant business is the present value of 8,949,800 Baht The data in Table 15 (Appendix B) means that the value of net benefits occurring in the future when a deduction is worth. current shows Investment funds with an interest rate of 12 percent to the advantage and profit. Representing the net present value is greater than zero. It was concluded that the restaurant business in Port Rd. Worth the investment.

Results Return on total cost of the project (BCR). Results Return on total cost of the project, the restaurant business. By this model is 2.09, the data in the appendix shows that the restaurant will be rewarded with more money. Investment in this project is right. The study payback period. The calculated payback period of 1.71 years, the data in the appendix refers to the restaurant business. You can begin rewarding investors. From the second year onwards. The study trends in the restaurant business Floating Pier Rd. Found that when using a discount rate of 12 percent established restaurant in Pier Rd. A present value equal to 8.9498 million baht Return on total cost of the project is equal to 2.09 for a period of payback of 1.71 years, the figures were analyzed trends in entrepreneurial restaurant operators should invest in the restaurant. Community

waterfront Rd The present value of the project is also a plus. Interest rates, the cost of the project remains high. And the project's internal rate of return greater than the interest rate.

Investment in a project that will require a large investment. The decision to invest it In addition to the economic situation In today's society And future trends The external factors that should be considered. Investors should also consider the value of the investment rate of return to be earned. It also requires measures to manage the risks that can occur. To analyze the possibility of establishing investment projects in waterfront restaurants Rd. The purpose is to assess the value for the investment. Restaurants in establishing floating pier Rd. The trend in the restaurant business Floating Pier Rd. Which in this study can be summarized as follows.

Establishment restaurant in Pier Rd. The study Found that when using a discount rate of 12 percent established restaurant in Pier Rd. Present value of THB 8,949,800 Return on total cost of the project is 2.09, with a payback period of 1.71 years show that entrepreneurs should invest in a restaurant in the waterfront community Sen. The present value of the project is also a plus. Interest rates, the cost of the project remains high. And the project's internal rate of return greater than the interest rate. Devi Roza Kausar (2012) "Sustainability in the Management of World Cultural Heritage" (Europe: InTech) UNESCO (2004:79) "IMPACT: The Effects of Tourism on Culture and the Environment in Asia and the Pacific: Tourism and Heritage Site Management in Luang Prabang, Lao PDR." (Office of the Regional Advisor for Culture in Asia and the Pacific, UNESCO Bangkok and School of Travel Industry Management University of Hawai'i, USA.) Under conditions of global economic growth is changing rapidly.

The policy of the ASEAN Community by the year 2015, resulting in different departments. Need to prepare for the race. Tourism as an industry is to play a key role in supporting the economic development of the country to compete in the world economy by tourism and services related to the field of intensive integration (Priority Integration Sector: PIS) under the framework. opening the ASEAN free trade The World Tourism Organization (World Tourism Organization: WTO) expects the number of foreign tourists in the region will increase to 120 million in 2015 from an average 67.5 million per year in the past (Siam Business, 2015).

Study the cost of establishing a restaurant in the waterfront community Sen found that the project is an investment in the view of investors. However, the operator must take into account not only the profits but must take into account the benefits to the community effectiveness of network management restaurants. Potential Investors And those who come to eat are spending any size. To manage the restaurant. If the community can support. Investment plan And the impact on the livelihood of the community and the impact on the business of restaurants. Therefore, entrepreneurs should have a plan.

Project Management restaurants. Taking into account the impact of the volatility of the economy. A number of factors, both internal - external effect of changes in revenue and costs may vary according to the current economic climate. Including changes in interest rates of commercial banks in general. The school administrators need to plan a budget cost of the project to be prudent. This will affect the quality of the restaurant. Make the right people to be served in a restaurant to achieve the best value for money. The government This research study One approach would be to find measures to help support the income of the community. And a choice of restaurants with quality comfort to people in the community.

SUGGESTION

1. Do research on this issue in a matter of time to explore the market. The current market is scheduled to open and selling maps of the area so easy to control, clean water and communities nearby.
2. Vendors and investors in the commercial market, Dusit is unclear. Because of turnover in the area of sales, the data collection. So, be by appointment
3. The research led to the problems seen it UPDATES to do research in the next time.

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The Development of logistics and supply chain to increase the export value of shrimp farming beautiful Thailand, Samut Prakan.

Duangjai Jandassng^{*1}, Santidhorn Pooripakdee²

College of Logistics and supply chain, Suansunandha Rajabhat University, Thailand¹, Faculty of Management Science Silpakorn University, Thailand²

Konchawan5@hotmail.com¹, Santidhorn@gmail.com²

Abstract. Research to development, logistics and supply chain to increase the export value of shrimp raising Thailand's beautiful. The purpose of the research is to. 1) to develop logistics shrimp a reduction in the cost of exported shrimp to the beauty of Thailand 2) to develop support decisions to optimize export shrimp beauty of Thailand 3). to guide the preparation of a strategic plan to export shrimp beauty of Thailand. The study of supply chain shrimp beauty of Thailand consisting of 1) the aquaculture farms or 2) collect or middlemen 3) export or export agent 4), operators, logistics 5) marketing partner. trade 6) Government. The study logistics systems. Modes of transport such studies indicate the cost of logistics. The duration of the transit routes, as well as the issues facing various obstacles that should improve education and decision support systems. Strategies to optimize the output. The data were collected by brainstorming. In-depth interviews and questionnaires were used for statistical analysis. Average standard deviation BY purpose of education The research found that System route master buses to export shrimp beautiful. Can tame route between farm-to-export companies. In comparison to the nearest and most economical route for the operation to a great extent. Packaging for Transport (Brewing g) can be packed into a cylindrical plastic crates. (Fruit crate) the volume of freight per trip, up 26.23 percent and packaged into a cylindrical foam volume transport per trip increased 33 percent. 33 packaging Brewing fish to maximize the value of retail trade in the country. Can add value has increased more than 20 times the original price. And can be applied to a very great extent. Decision support system for optimizing the output Brewing beautiful beach of Thailand. Can help in investment decisions with shrimp. Analysis of Brewing fish species. Can be used to perform at a good level. And supply chain strategies Fish Brewing beautiful creative. The approach to strategic supply chain Brewing beautiful beach to enhance exports.

Keywords— development, logistics, supply chain, exports, shrimp beauty of Thailand.

INTRODUCTION

In the past, the aquaculture activities for sustenance. Production to meet the needs of a household. If production exceeds demand, household consumption, thus leading to a trade. And is a professional society that is paired with Thailand for a long time. The Feast of farmers mimics nature. Later, with the development of science and technology. And the economy The production and aquaculture products has been linked to trade into a production and aquaculture, commercial and manufacturing products to meet the needs of both domestic and foreign markets. Shrimp beautiful Fresh water crayfish or crawfish Retriever. The overall shape great body. Aquaculture is one of the leading groups in the country to be beautiful and cultured aquatic animals for human consumption. May develop an aquaculture industry. At present, the party widely. Especially in aquatic beautiful. The shrimp are beautiful creatures that consume fossil is the staple food, but in a culture where food is limited. The shrimp catch from other living things for food or even shrimp beautifully together.

The issue of raising shrimp. In breeding shrimp species have developed different ways. That can prevent cannibalism and reduce mortality as much as possible. Shrimp can grow in nature, it may well be because the shrimp get micronutrients from the soil under the water accumulated in some parts (Pegbuy, 2552). The key issue in the development of transport logistics and supply chain management to increase the value of exported shrimp beauty of Thailand and the sale must be packed each in a separate container to prevent aquatic Bobby repeated. or death due to fighting To transport animals without anesthetic that is a very good one and is widely used abroad. Because animals are transported by this method is still going strong as well. The body is not a repeat or have any wounds. During transport As well as transport equipment is simple and not complicated. It can also be transported in quantities greater than normal, up to 2-3 times the water can cause asphyxiation in transit can packaging animal water containers in the same period of many. Making it easy to save space and reduce the cost of transportation (Tassanai, 2548). But recent research, there has never been a study on the cultivation and marketing of shrimp, either beautiful or not the circuit. That presents a new concept of modern education to analyze the operation of the business has.

Such a concept is The value chain Or Supply Chain (Value Chain), which is a concept with a focus on the analysis of all the activities in the production of goods and services. The analysis of the flow of goods. Cash flow and the flow of information at each stage of production. The goal is The added value of products ranging from raw materials (Raw Material) for the production of a cascade. Or a chain in each period until conversion into finished goods (Finished Good). And leverage the entire value chain of the business to a higher shrimp. Therefore it is absolutely necessary and urgent to research and analysis system, logistics and supply chain to maximize the value of exported shrimp beauty of the farm to contribute to the competitiveness and self-reliance basis. priority of government.



RESEARCH OBJECTIVES

- 2.1 The development of logistics shrimp in a cost reduction of export shrimp to the beauty of Thailand.
- 2.2 To develop a decision support system to enhance the export of shrimp beauty of Thailand.
- 2.3 To guide the preparation of a strategic plan to export shrimp beauty of Thailand.

SCOPE OF RESEARCH

3.1 Scope of the population And determine the sample used in this research. The population as a source for research about the development of logistics and supply chain to maximize the value of exported shrimp beauty of Thailand. Samut Prakarn Province Sample Configuration groups are entrepreneurs beautiful farm in Samut Prakan province. With a simple random (Simple random sampling) scheduled sampling, omitting the night. The calculation method of Taro Yamane lack of samples used in the research of the 155 samples.

3.2 Scope of Content Set about the development of logistics and supply chain to maximize the value of exported shrimp beauty of Thailand. Of households The five research areas:

1. Theory. Management of logistics and supply chains.
2. Concepts and theories about reducing the length of the cargo.
3. Theory logistics costs.
4. Theories about the decision.
5. Overview of shrimp farmers beautiful.

3.3 The period of data collection.

This research takes in data collection during the month of March 2560 - April 2560 period to 55 days.

The importance of logistics and supply chains

Logistics (Logistics) "and" supply chain (Supply Chain) "in a way that may make many readers wonder if these two terms are different. In fact, we could say that the logistics and supply chains are almost inseparable. If two words to describe it would have to start from the first broad theory or a Value Chain Value Chain.

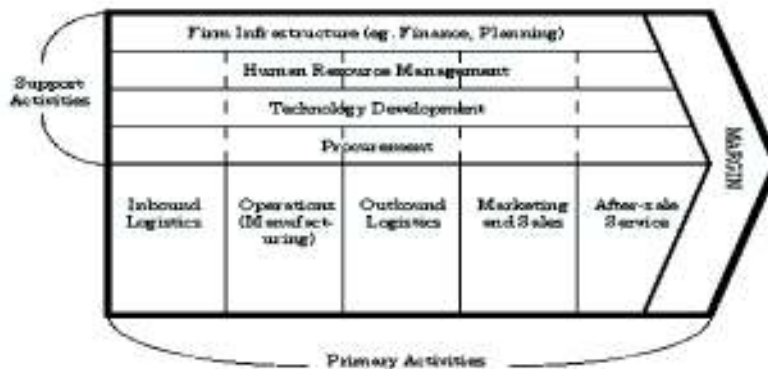


Illustration 1.1 Value Chain

Primary Activities: Line Functions

Main activities consist of adding value to the product throughout the process. Whether it be in manufacturing, shipping, marketing and after sales services. Inbound Logistics is an activity where raw materials or components are used for production to prepare. It consists of input, storage and production planning. For example, in the computer industry, Inbound Logistics is the acquisition of various components into the computer as the next step. It is the process of producing a product and including all the processes of changing the state of the raw material or component into a product or final product. Here it is assembling various components into a computer. These activities also include Packing Quality control of products to meet standards and maintenance of machinery to be available regularly. Outbound Logistics is the storage and delivery of goods to buyers. For this example, it is to store the assembled and manufactured computers in the warehouse. And delivery to Marketing and Sales. Is the process of analyzing customer needs. And meet the need for the company to sell the product. After-Sale Services After-Sale Services After sales service, the company must have after sales service to satisfy customers. And it's a great opportunity to make the next sale. Such as product warranty Inspection and Repair Service Service centers.

4.2 Support Activities

Supportive activities are activities that will enable the core activities to run smoothly. Infrastructure The main activities that companies need. Like financial management Strategic Planning Management structure, etc. Human Resources Management Selection and development of personnel in the organization. Include all personnel management, such as employment policy and compensation management. Technology Development encompasses technology that will support the implementation of all core activities. Warehouse Management System and Inventory Management Procurement of raw materials and machinery for production when each company has a Value Chain that contributes to the creation of added value and competitiveness. We will take a broader look at our partners and customers.

EXPECTED RESULTS FROM THIS RESEARCH

1. The expansion of trade and investment in the development of logistics system, the beautiful shrimp to reduce the cost of Thai exports.
2. Factors in Thailand's development of decision support systems for exports and investment.
3. Make a strategic plan for the delivery of Thailand and more expansion as an opportunity for Thai products.

DATA ANALYSIS

The complete questionnaire was analyzed and processed using descriptive statistics. Frequency percentage The analysis of data from structured interviews will be performed on the data. By compiling, grouping answers. To be able to analyze and process data more easily because the interview data is many or very scattered.

RESEARCH RESULT

The researcher studied the theory and related works.

7.1 Logistics Supply Chain Management Concepts Today in Thailand, there is a great deal of talk about logistics and supply chain management. The government has begun to focus on supply chain management and logistics as a means to increase supply and demand. Can compete for the country. As can be seen from the government. Determining the direction of logistics development in the country. The Strategic Mapping, which defines the responsibilities for the agencies involved in the development of logistics and supply chains. Include the following details.

7.1.1 Definitions of Logistics Management For the definition or definition of logistics management, the definition is as follows. The Council of Supply Management Professionals is defined as follows: "Logistics management is the planning process." Compliance Plan and control the movement and storage of goods, services and related information from The beginning to the point of consumption to meet the needs of customers effectively and effectively" (Chaiyot Chaiyudh and Muyaphan Chaiyanan, 2007). Martin Christopher (2005, cited in Tanith Socrates, 2007) defines logistics as the process of strategic management. It involves buying, moving and storing raw materials. And finished goods, including processes related to The flow of information within the organization and between organizations. The purpose is to increase the effect. Profit and efficiency both reduce costs. And order fulfillment The implication of logistics is The process of managing and building upstream partnerships upstream. To create value under the cost reduction included in the supply chain or logistics management is the management process. Movement and storage from raw material suppliers to the final consumer. (Mr. Uphich Phisakasakul, 2006)

7.1.2 Logistics activities are divided into 13 activities as follows: Group is the core activity of the organization. It consists of eight main activities: (1) Customer Service is an activity that the organization seeks to fulfill. Customer needs How well it depends on the efficiency of other logistics activities, including the delivery of goods on time and on time. (2) Order Processing (Order Processing) is an activity that is required. Try to act as quickly as possible to meet customer needs. At present, most organizations Often, computer systems and e-business management are used. For convenience and speed (3) Demand Forecasting is a forecast. Demand for goods or customer service in the future. This is an important activity in that. Will generate profits or cause companies to lose money on operations. Predict customer needs in advance. It will help the company. Determine the direction in which the product will be produced, or how many personnel and equipment will be provided. If customer demand forecasts are wrong, it will affect the cost and performance of the company. Inventory Management is one of the most important activities. Because of the amount of inventory available, there is no way to influence the organization, especially in terms of capital.

Organizations with high levels of inventory can respond well to customer needs, but at the same time. Large quantity of goods It results in the organization wasting its capital-raising opportunity to recycle its storage costs. Goods. Therefore, the organization must take into account the level of inventory. Suitable to meet the needs of customers. To be able to reduce costs. (5) Transportation activities. Transportation covers all activities that move. The product from the point of origin to the point where consumption is most effective. The shipping must be accurate. Completely in perfect condition. And on time It can be said that from the perspective of the people, transportation is the most obvious logistic activity. (6) Warehousing and Storage is an activity related to Warehouse management such as storage. Warehouse Management Equipment needed to carry out activities within the warehouse. At present, the warehouse management activities are Another value-added activity for the item. (7) Reverse Logistics is the process of managing returned items. (8) Purchasing is an activity related to purchasing. Supply raw materials and Services in the selection of raw material suppliers. Set time and volume to order and build relationships with raw material suppliers.

The group is a supportive activity. The organization's work consists of 5 activities:

(1) Part and Service Support, which is responsible for aftermarket products. Which is part After-sales service is provided to the customer by supplying spare parts and tools. To prepare for fast service and Effective for customers in the event of a defective product. Responsibility for after-sales is Satisfy customers. This will have a long-term impact on your

future purchase decision. 8. Good feelings with the brand. Therefore, it can be said that this activity has helped the company to maintain its Long-term relationships with customers.

(2) Plant and Warehouse Site Selection The location of the plant and the warehouse must be selected. It is important for the nearness of raw materials and customers. To facilitate the access and related to the transport distance and the ability to meet the needs of customers.

(3) Material Handling is an activity related to the movement of raw materials and inventory during production. Including moving the finished goods. Within a factory or warehouse The purpose of the management is to - minimize the amount of transportation possible - reduce the number - correct the bottleneck process for better flow - reduce as much transport as possible to save labor and costs. In order to achieve this objective, the organization seeks to minimize the number of objects displaced as much as possible each time it moves. There are costs incurred from moving objects, so if you can reduce the cost, this will reduce the cost per piece.

(4) Packaging in marketing. Packaging, which is characteristic of nature. Outside of the product This must be able to draw consumers interested in the product. But packaging logistics will play a significant role in marketing. First, packaging is what it is. Protect the product itself from damage while it is moving. Second, good packaging. It helps the process. Moving and storage of goods is more convenient.

(5) Logistics Communications. Performance within the organization It can be considered as one of the important factors that affect the success of an organization. Corporate communication should be as follows: - Communication between organizations, suppliers and customers. - Communication between departments within the organization, especially the accounting department. Production Marketing - There are 13 communication activities between the logistics activities. - Communication in the sub-departments. For example, the sales department with the customer service department in the marketing department. - There is communication between the members of the supply chain who do not have direct contact with the organization, such as the first supplier in the supply chain. The 13 main activities of logistics activity can be classified into 5 groups: production management Marketing and customer service Supply of raw materials and equipment Distribution and inventory management, delivery covering logistics knowledge (<http://logistics.dpim.go.th/>, 18/11/2012 at 21.31)

7.2 Concepts and theories on reducing transit time Improving work processes or reducing workflows to reduce transit time is a part of increasing productivity, helping the transportation process to work more efficiently. Many academics give the meaning and importance of reducing time. Or transport procedures as follows; Manochritiyo (2008: 1-3) states that the study of how to work in various stages is to develop new, easy, fast, and cheap ways of working that are more effective than the original method. The work process is less than the original. The goal is to increase productivity. Reduce losses. And the cost was lower in 1911. Frank Bunker Gilbreth Motion Study is defined as a technique for analyzing performance to eliminate motion. No need to leave and recruit the best and fastest way to work. Including improvements The standard way of working Tools And coaching staff to work the right way. The word education, work and study movement. Have the same meaning and have The goal is to optimize the same production process. The popular use of the word The "Study of Work" refers to the term "study of movement".

The purpose of study is to work as follows.

1. To improve the production process, to improve performance.
2. To develop new work. To reduce fatigue.
3. To increase the efficiency of the use of inputs such as people, raw materials, machinery, technology, energy, Managed services and other necessities. There is a need for product or service.
4. To improve the place and work environment to suit the behavior of the organization.
5. To determine how to move materials during production to maximize performance.
6. to use for the standardization of how it works.

CONCLUSION

Research studies The development of logistics and supply chain systems to increase the value of Thai shrimp exports. Samut Prakarn Province Is a qualitative research It focuses on the problems and obstacles in the export of beautiful prawns, as well as the research on how to export beautiful prawns to foreign countries.

Problems and Obstacles of Exporting Beautiful Shrimp

Can summarize key points as follows.

1. The problem of production standards is the beautiful shrimp culture is free. Lack of good production planning and management. Uneven yield Lack of knowledge and understanding in shrimp breeding, beautiful shrimp makes no quality.
2. Plague problem It is the main problem that damages shrimp farmers and exporters.
3. Competitive issues. The impact on the export of beautiful shrimps, because the country has competed in a standardized management. The government is very supportive. The beautiful shrimp in Thailand is not standard lack of diversity. Lack of production techniques Make no quality shrimp without quality.

The export of Thai shrimp to abroad

From the export of beautiful shrimp to abroad, export value is increasing each year. The most exquisite prawns that are exported are the beautiful shrimps of Thai farmers. Research on the development of logistics and supply chains to increase the value of Thai shrimp exports. Samut Prakan Province to foreign countries Depending on the following factors:

1. Factors in production and marketing. It plays an important role in the development of exports, both in terms of production processes and standards. To get quality fish and to develop advanced technology. Promote good public relations by government and private agencies.
2. Factors that support international marketing The beginning of the export operation The beautiful shrimp. The first thing to take into account is. Market demand Each species of shrimp species. Popular countries to support shrimp culture growers to meet the needs of the market. There are also factors related to the export of prawns, the most important is the variety of lines. Shrimp farming is beautiful and has a quality management system for prawns, with a focus on cutting edge technology. Used in research And to develop beautiful shrimp to match. The needs of customers and can meet the needs of

customers quickly, without delay, including the financial liquidity of the customer. Contributing to further development and investment. Today, communication and transportation systems are easier with the Internet. It is easy to communicate with customers around the world, and the government has developed a more convenient transportation system. As a result, the export of shrimp is less damaged, but the exporters must learn and develop themselves to keep up with the changes as well

3. Environmental factors in terms of political and legal issues in Thailand have very limited import and export. The law is redundant. Exporters lack understanding. In the relevant legislation At present, the government has given importance. And academic and legal knowledge is disseminated. Including the promotion of shrimp farming beautiful. By the way. Fisheries strategy Both the public and private sectors jointly drive the operation to success. It will affect job creation, income and competitiveness in the beautiful shrimp market.

DISCUSSION

Shrimp farming in the world market is more than 50.00% of the market in Asia. The most beautiful shrimp sold in the world market is 90.00% is a beautiful shrimp that is freshwater shrimp. The remaining 10.00% will be sea shrimp. On average, 90.00% of the beautiful shrimps are freshwater shrimp sold. In the world market is from farming on the farm. The remaining 10.00% are naturally captured by the availability of appropriate climate. There are many varieties of fish in the country and beautiful. Imported variety of beautiful shrimp from various countries and then cultured and propagated until the new species. Make international buyers more interested and increase the volume of orders. Even more consistently. But Thai exporters have to accelerate the development of new techniques for development.

Shrimp farming is beautiful. To the highest efficiency In addition, farmers. Also gave Help with information about the export of beautiful shrimp. Including licensing services to The aquaculture industry business for export business of shrimp farming beautiful. Increased flexibility in exports. Thailand is considered to be a beautiful shrimps of more than 300 species. The main sources are located in Samut Prakarn, Nakhon Pathom, Bangkok, Phetchaburi and Suphanburi. Due to the beautiful shrimp farming business is growing. Continuous Causing farmers into a new business is not less than 200-300 households each year. For the opportunity to expand the export market, shrimp farming is also very open, especially the distribution channels of beautiful shrimp through the Internet. Because it is low cost and Opportunity to expand base. Customers are widely around the world. Made in the past. There are new exporters based on marketing channels. Through the Internet increasingly.

In summary, Thailand is ready for the potential. Breeding The variety, price and quality of the shrimp is beautiful. Can compete with key competitors in Foreign Both the government and the private sector need to speed up their solutions in terms of production and marketing, whether it is to develop a beautiful shrimp production system in line with the needs of the market. Domestic and foreign markets Promote knowledge and techniques of culture; To raise The standard of shrimp farming is beautiful, so that it can penetrate the international market more and build on the confidence of trading partners on the quality of disease-free shrimp, which will help expand the export.

RECOMMENDATION

Policy Recommendations

The results showed that aquatic species in Thailand are very diverse but cultured. There are not many species. Compared to the number of species exported and the value of exports of beautiful shrimp. It is found that the export value. There is a tendency to rise. Which should be supported and promoted by the public and private sectors in the following areas.

1. The state should have a policy to promote the culture of freshwater shrimp. Important Trade ethically By studying the needs of the market. Trade rules and regulations find break-even points. Prior to the promotion of commercial cultivation. Because some beautiful fish may be strange but less demanding, culture may not be worth the investment.
2. Samut Prakan does not have fishery promotion and development units at the district and provincial levels, as well as in the provinces. Only the Institute of Shrimp Culture and beautiful water plants. Academic is the main.
3. In the commercial shrimp business, it is also necessary to have legal measures to help. To supervise Plan and organize To maintain the country's trade stability Confident of partner countries. And it is the implementation of international conventions.

Practical Suggestions

The Department of Fisheries should have a measure to control the quality of shrimp farms to be beautiful standards. Farm quality according to international standards To prevent trade barriers And prevent the problem. Environmental impact that may be caused by contamination of pathogens. Residual chemicals and water quality, and should encourage the use of electronic mediums to assist with marketing. Shrimp farmers have the opportunity to receive timely news updates. And sell shrimp At a fair price It should assist in establishing a central agency. contain with Government Sector And the private sector involved in the trade of shrimp. Have to register the farm Shrimp farming beautiful. And entrepreneurs who import and export. For administration And manage the beautiful shrimp resources of Thailand to suit. With the needs of the market And a policy plan to promote the export of Thai shrimp to the potential. To provide insights into the market system, to improve the production process. Control of production according to need, standardized farm control system and environmental protection.

Academic suggestions

1. The government should provide technical support. Research on endangered shrimp culture and new species of fish that can be promoted as economic animals to replace natural catches. Ready to disseminate information to target farmers seriously and continuously.

2. Academic policy should be developed. To study Gathering biology data Spread the breed Of the species to propose amendments to the list of aquatic species.

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The Market Factors that Influence the Decision to Buy the Product from the Retailer, Wattana, Bangkok, Thailand.

Anuch Nampinyo,

College of Logistics and supply chain, Suansunandha Rajabhat University, Thailand

anuch2010@hotmail.com

Abstract. This research is a qualitative research. The objective of this study was to study the marketing mix influence purchasing from a retailer Big C, Wattana, Bangkok. By studying the individual consumer has to purchase and the marketing mix to influence purchase decisions. The findings from the analysis of consumer behavior at the service retailer Big C, Wattana, Bangkok, found that the motive for making a purchase from a retailer. Price cheaper shops 37.5 per cent of services from retailers. Sales Percentage 17.0 habit of shopping. 13.75 percent of products in a variety of products (all sizes), representing a 12 percent promotional discount as a give-away delivery service. And 11 percent of its stores near your property or 8.75 percent frequency of purchase from retailers is 3-4 times / month, representing 39.75 percent 1-2 times / week. 27.75 percent, more than four times / month 17.0 percent 1-2 times / month and 10 percent 3-4 times / week. 5.5 percent of influencing their purchasing decisions, representing 46.2 per cent, followed by family members accounted for 29.8 percent. Friends 18.3 percent And actor / Advertising 6.0 per cent buy from retailers. About 501 baht per time up to 75 per cent, followed by 301-500 THB 101 -300 12.5 per cent and 9.7 per cent lower than 100 baht per visit, representing 2.8 percent of the purchase price and acceptance. from retailers Most of the products of the home, such as soap, toothpaste, flour percent of 55.5, followed by alcoholic beverages such as soft drinks, UHT milk, fruit juice accounted for 21.5 percent snacks like nuts, canned Lay Hanami cent. 10.0 percent drink alcohol and cigarettes accounted for 8.2 percent and miscellaneous goods. 4.8 percent of consumers buy goods from the retailer at the time of 10:01 to 14:00. The most 54.0 percent from 14:01 to 18:00. 18:01 to 22:00 at 22.0 percent. 13.3 percent 06:00 to 10:00. in., and 8.2 percent after 22.00 am onwards. 2.5 per cent respectively.

Keywords— Influence , Decision , Retailers

INTRODUCTION

The trade has a long history with human society, especially retail, retail activity is buying from the manufacturer. Either through an intermediary, and not through an intermediary, for resale to consumers. Development of retailers throughout the past affect consumer behavior has changed dramatically significantly Art Works consumer purchasing behavior. Which originally purchased the product from the market. General Store But when developing a Superstore. There are a Storefront convenience A variety of products to choose from many brands. Services at prices that are standard with the development of the physical infrastructure to the shop and can buy more. Such behavior Make the retail business is likely to have some form of retail new place. The life cycle of the retail business is relatively short. There is an increase in non-store retailing. The increase in competition The change in the purchase by visiting a single purchase. With the growth of the market vertical. The store design is modern. A grouping of business or product lines. The use of new technologies.

The expansion of major retailers around the world. And retailers into the center of the greater community. Retail trade is the major trend of the modern world. It is a high-performance trading systems. Comfortable conditions of competition in the retail industry today. The pattern of trade operators, retailers have greatly changed from the original. The rapid expansion of modern retail stores. Or even a convenience store with a number of branches increased steadily every year. Consumers are giving customers a way to spend more. The impact on traditional retail business is small. Therefore, to ensure the merchant retailers can survive the changing environment. It needs to change its business practices. This is an adaptation for survival, such as product presentation. And services to suit the needs of consumers. The target group The updated model of the sort of items within the store.



To facilitate the choice of the consumer. As well as management and cost control, which must be considered. Inventory management to be effective, these factors are what operators, retailers should pay attention more. The target group

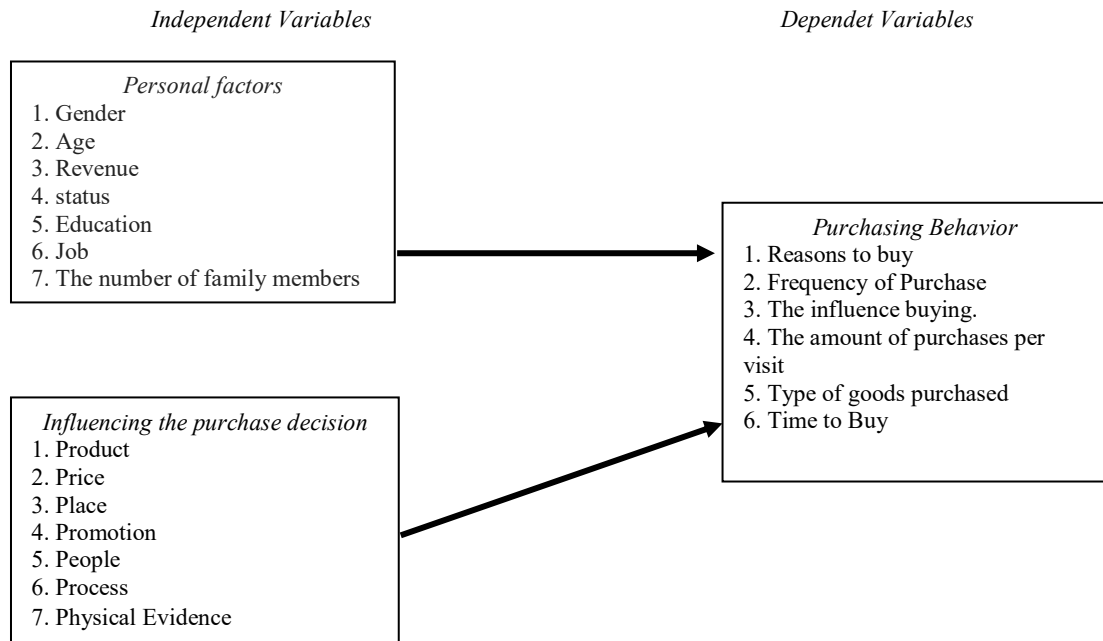
The updated model of the sort of items within the store. To facilitate the choice of the consumer. As well as management and cost control, which must be considered. Inventory management to be effective, these factors are what operators, retailers should pay attention more. The target group The updated model of the sort of items within the store. To facilitate the choice of the consumer. As well as management and cost control, which must be considered. Inventory management to be effective, these factors are what operators, retailers should pay attention more. For this reason, the researchers studied the personal factors that influence consumers' decisions to buy products from retailers that influence the decision to buy products from retailers, Wattana, Bangkok.

RESEARCH OBJECTIVES

Individual factors affecting consumer purchase decisions from a retailer, Wattana, Bangkok.

SCOPE OF RESEARCH

Conceptual framework of the research project.



Independent variables include personal factors include gender, age, income, marital status, education level, occupation, number of family members who influence purchasing decisions. products (Product), price (Price) and distribution channel (Place) and promotion (Promotion) of the person (People) and technical processes (Process) the physical environment (Physical Evidence).

Variables include purchasing behavior. Reasons to buy Frequency of purchase The influence purchase Purchase volume per time Products purchased Time to buy.

RESEARCH METHODOLOGY

The researchers used questionnaires to collect data. The content of the questionnaire is divided into three parts. The first is a questionnaire with personal information including gender, age, income, marital status, education level, occupation, number of family members. The second is a questionnaire about the factors that influence the decision to buy the product from retail stores in Bangkok, including product pricing and distribution channels. Promotion, marketing personnel and technical processes. The third is a query about the behavior of consumers to purchase from retailers. In Bangkok, including the main reasons to shop. Frequency of shopping The influence purchase Purchase volume per time Types of products purchased and the timing of the purchase.

THE RESEARCH DEBATE

The analysis of personal factors of the sample in this study consisted of 400 people identified the victims were males, most females accounted for 65.5 percent and males accounted for 34.5 percent of age found that a majority 20. 35 years accounted for 59.3 percent, followed by a 36-year, 50 percent are under 20 years old accounted for 22.5 percent of 10 and over 50 years and 8.2 per cent respectively. The study found that the highest levels of education Diploma / Advanced Diploma or equivalent is. The figure was 49.75 per cent, followed by the highest levels of education. High school / vocational certificate or below accounted for 22.5 percent of bachelor's degree or higher. Elementary and 15.50 percent, respectively, 12.50. Job found that more than half of the employees / employee organizations accounted for 63.5 percent, followed by a trade / business. 25.0 percent of pupils / students accounted for 7 per cent government / enterprise. 3.2 percent and 1.2 respectively.

The monthly income of the maximum level of monthly income 5001-15000 baht or 42.7 percent, followed by a monthly income. 15001-30000 THB 30,000 THB 40.5 percent, 8.5 percent less than 5000 baht and 8.3 percent respectively. Marital status reveals that most are single. 49.5 percent, followed by marital status. And 38.0 percent for widowed / divorced / separated and 12.5 percent respectively. The number of family members were found to have 2-3 people, representing 44.25 per cent, followed by 1 percent to 31.75 4-5 percent and 15 percent over a five ninth, respectively. Price cheaper shops 37.5 per cent, followed by services from retailers. Sales Percentage 17.0 habit of shopping. 13.75 percent of products in a variety of products (all sizes), representing a 12 percent promotional discount as a give-away delivery service. And 11 percent of its stores near your property or 8.75 per cent, respectively.

The frequency of purchases from retailers is 3-4 times / month, representing 39.75 per cent, followed by 1-2 times / week. 27.75 percent, more than four times / month 17.0 percent 1-2 times / month and 10 percent 3-4 times / week. 5.5 per cent respectively. The influence their decision to buy 46.2 per cent, followed by family members accounted for 29.8 percent. Friends 18.3 percent And actor / Advertising 6.0 per cent respectively. Purchases from retailers About 501 baht per time up to 75 per cent, followed by 301-500 THB 101 -300 12.5 per cent and 9.7 per cent lower than 100 baht per visit, representing 2.8 per cent respectively.

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SUGGESTION

- I. This study was conducted in only. BANGKOK Wattana only study to be conducted to cover. Bangkok To compare how each area is different.
- II. The study should study the other factors that are barriers of retailers. When competitors are retailers who arrived in the country. And more international
- III. The study further The study will be satisfied with the retailer. To guide improvement. Plan and marketing strategy for the business.
- IV. Study to be conducted on what consumers expect retailers. Customer expectations are that any factor. Development of retailers that have the potential to provide services and higher competition.

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Potentiality Enhancement of Supply Chain: with Agility and Resilience Capability

Natpatsaya Setthachotsombut,
Suansunandha Rajabhat University, Thailand
natpatsaya.se@ssru.ac.th

Abstract. This article aims to identify and classifying Supply Chain Agility (SCA) and Supply Chain Resilience (SCR), what strategy are appropriate to the computer industry supply chain in Thailand among Agility, Resilience, and Firm's Performance (FP) and examine the across relationships among Agility, Resilience, Efficiency Capability, Marketing Capability, and Firm's Performance. Using mixed research methodology, for qualitative method using the questionnaire with sample size 560 places, 1,120 populations, for qualitative method using deep interview for collecting insight from manufacturers and distributors in the industry, by interviewing 6 companies with 12 populations using stratified random sampling, data analyze by various statistical techniques to ensure reliability and validity in Structural Equation Modeling (SEM). Found that, SCA and SCR had proper strategy to apply potentiality enhancement for the computer industry supply chain. Despite of using parallel strategy perhaps it increased cost and need to prepare many resources, but the useful as worth. Although SCR had not positive effect directly to FP, but it had very high positive effect indirectly, that can't ignore. Furthermore SCA had not significance to FP, but it had positive effect directly and indirectly to Marketing Capability (MKC), which MKC support FP.

Keywords— Agility, Resilience, Supply Chain Agility and Resilience

INTRODUCTION

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LITERATURE AND THEORY

Supply Chain Resilience (SCR)

SCR is the capability for help to anticipate and overcomes the disruption. As well as, seize the opportunity to create a competitive advantage (Pettit et al., 2013). SCR is a strategy for cope high-risk situation and high-impact (Wieland, 2013), system capability to recovery and return to origin status or change new status to more satisfying after experiencing turmoil, and avoid failures (Carvalho et al., 2011). However, based on the literature review able to conclude the definition of SCR is ability to respond and cope with unexpected disruptions, to recover from disturbed and return to normal state or change to new state that more desirable, move forward stronger, increasing the potentiality for work with supply chain complexity and high risk, to survive, adaptation, growth, when facing of turbulent transition.

Supply Chain Agility (SCA)

SCA is the reactive capability to apply for communication between supplier and buyer, business continuity planning, visibility, assortment planning, make-to-order, or postponement (Wieland and Wallenburg, 2013). SCA is a way to handle changing, response to customer requirement increasing, and learning to tangle in the market. This concept is praise regarded as essential for improving the company's competitiveness, use knowledge and take the market advantage for create an opportunities profit in a varies environment. Then, in an era of business world, the companies do not compete alone. SCR It is an important ability to survive (Gligor and Holcomb, 2012). And it is a supply chain agile, focus on rapid response to market changes (Carvalho et al., 2011). However, based on the literature review able to conclude the definition of SCA is ability to rapid respond to demand fluctuates such as; quality, price, quantity, and diversity, and unique to the turbulent market at the right time, coordinate internal and external collaboration, create a challenging strategic dimension for take profit and achieve competitive advantage, and customers value added.

Efficiency Capability (EFC)

EFC is the capability for the production with minimal resources and more efficiency, use effectively ability with lower resource stipulation. That gold of efficiency is costs reduction and drive to customer demand. However, things related to performance such as; Labour productivity (Melnik, 2007), asset utilization, waste elimination (Goldsby et al., 2006), product variability reduction (Christopher and Holweg, 2011), and failure prevention (Rijpma, 1997), including manufactured by labour and equipment as constantly as possible able to total costs reduced. In addition, the cause of performance lose is the bottleneck process.

Marketing Capability (MKC)

An Organization adopt to advanced marketing strategies, have to tend a strong performance in supply chain management (Lin et al., 2010), developing a strong marketing strategy able to enhance the organization efficiency (Stonebraker and Liao, 2004). Direction in the market should take on the strategic role and marketing management, for create the most effective marketing operations. It is essential to value creation for organization performance. In addition, Marketing orientations that focused on corporate culture are also relevant to the customer and competition, that requires cross-functional collaboration, data sharing, synchronization, and quickly respond to competitors and market changing. However, performance improvement based on the creation of a strong market, need to focus on response and adaptation to customer and market for outperform (Min et al., 2007). Market direction is the starting point for a strong strategy Green Jr et al. (2006). There are also many studies that attempt to link the relationship between market direction and customer value, including ability of innovation that support working on cross-industry and variety-businesses (Henard and Szymanski, 2001). In addition, Market position, that status of their company or product on the market such as; different products, loyalty, market share, brand. Brand is an outstanding advantage. It ensures that there is a high probability for consumers will buy and like the product, while, customer loyalty it is a measure of willingness to buy a product and preventative for breaks down chain from disruption and back after sales. Most industry surveys found that, maintaining existing customers 5-7 times can be more profitable than attracting new customers 1 times. Then, customer loyalty is a good indicator of profitability in market share (Pugh et al., 2002). While, market share is percentage of retail sales earned by the brand, it is a reward from customers over a period time (Hart et al., 1990).

Firm's Performance (FP)

Supply chain performance is often determined by cost, quality, delivery, flexibility, durability, innovation and service, may be measure by Balanced Scorecard method including; (1) Financial (2) Customer (3) Internal Business, and (4) Learning and Growth (Kaplan and Norton, 1992). In addition, still have a difference between tangible and intangible measuring, because each indicator relies on one, it may affect the measurement of supply chain performance (Chen and Paulraj, 2004). Time Quality measuring are reflected high capability to customer service, while, Flexibility and Innovativeness measuring are reflects ability to cope in demand changing rapidly (Lee, 2004; Morgan, 2004). However, Improve performance can be measured from higher average sales growth, cost reduced, inventory reduced, and customer's value. This will indicate the level of satisfaction of the company compared to competitors. While, Business performance can be measured from profit increased, market products, and shareholder return. However, Supply chain performance should be an overview measurement such as; sustainability and competitiveness (Gunasekaran et al., 2001), and Financial measurement is ideal for strategic decisions, while, It is better to daily performance measuring if using intangible measures (Martin and Patterson, 2009) and should be covered to financial indicators. In addition, key performance indicators including; environment, flexibility, innovation, integration and operation (Carvalho et al., 2011).

However, Firm's Performance should be measured by tangible and intangible included (1) Supply chain's customer including; customer fulfillment, delivery reliability, warranty, return process costs (Kroes and Ghosh, 2010), customer satisfaction (Chen and Paulraj, 2004) and delivery speed (Wagner and Bode, 2008), (2) Business performance including; financial outcomes, product-market and Shareholder-return related areas (Richard et al., 2009), excellence (Fugate et al., 2010), (3) Excessive risk including; erode profit, operation disruption, reputation and confidence decreased, (4) Improved performance including; higher average sales growth, cost reduced, durability, inventory reduced, time, flexibility, responsiveness, innovation and information.

HYPOTHESIS

H1: SCA have positive direct effect and positive indirect effect to SCR.

H2: SCA, SCR, EFC and MKC have positive direct effect to FP.

H3: SCR have positive direct effect and positive indirect effect to EFC.

H4: SCA have positive direct effect and positive indirect effect to MKC.

METHODOLOGY

The research methodology was used mixed method between quantitative research and qualitative research. The population was manufacturers and distributors in computer industry supply chain in Thailand. The sample for quantitative data collection was questionnaire, 560 companies, 1,120 Peoples. The sample for quantitative data collection was deep interview, 6 companies, 12 people with 3 manufacturers and 3 Distributors. The company size was large, medium and small company, selection 3 people per company (1 executive and 1 employee). The questionnaires have 4 parts with 56 items (257 sub-clauses), used 5 rating scale, evaluated by 5 experts (academic 3 persons and business 2 persons), IOC value = 1 and Confidence value = 0.91.

RESULTS

The result is based on the hypothesis testing. After EFA analysis, there have SEM Analysis and path analysis with LISREL software. The analysis of data can be shown in Figure 1 and 2.

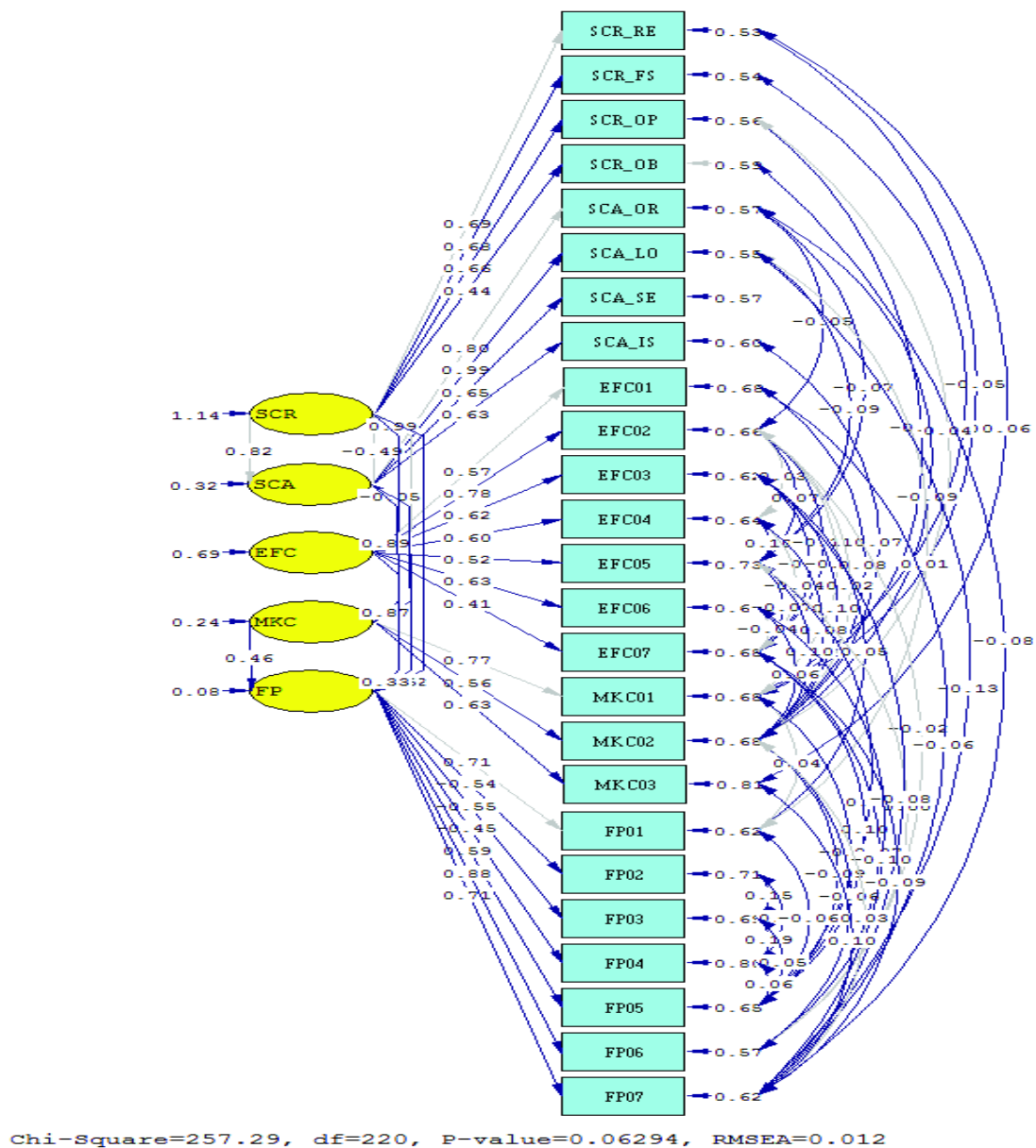


Figure 1
The result of model fit with run SEM model, after EFA analysis

| Path | Total Effect | | Direct Effect | | Indirect Effect | |
|-----------|--------------|---------|---------------|---------|-----------------|---------|
| | Std. | t-value | Std. | t-value | Std. | t-value |
| | Estimate | | Estimate | | Estimate | |
| SCR → SCA | -0.92 | -6.47 | -0.49 | - | -0.43 | -3.04 |
| SCR → FP | 0.46 | 4.86 | -0.22 | -3.48 | 0.68 | 5.79 |
| SCA → SCR | 0.97 | 6.47 | 0.82 | -3.73 | 0.15 | 3.04 |
| SCA → FP | 0.13 | 0.75 | 0.26 | 3.87 | 0.32 | -2.00 |
| EFC → SCR | 0.98 | 4.35 | 0.89 | 11.47 | 0.09 | 3.64 |
| EFC → FP | 0.77 | 5.63 | 0.33 | 6.80 | 0.44 | 4.86 |
| MKC → SCA | 0.20 | 2.01 | 0.87 | 6.96 | -0.67 | -5.23 |
| MKC → FP | 0.45 | 4.01 | 0.46 | 4.10 | -0.01 | -0.46 |

Figure 2
The result of path analysis

CONCLUSION AND RECOMMENDATIONS

- 1) SCA have including the capability; Organization, Logistics, Sensitivity, Information System, and SCR have including the capability; Recovery, Financial Strength, Operation Business. Both strategies are appropriate to apply for capability enhancement in computer industry in Thailand. Although using parallel have high cost and need to more resources preparing. But the benefits are worth it. And although using SCR has not positive direct effect to FP, FP have including the capability; Delivery Reliability, Erode Profit, Disruption, Reputation Reduced, Cost Reduced, Time, Flexibility, but can be positive indirect effect, that more significant and do not ignore. In addition, although using SCA no have significant to FP, but it is positive direct effect and positive indirect effect to MKC, MKC have including the capability; Marketing Position, Data Exchange, Growth Sales, that positive to FP.
- 2) Direct and indirect relationships are significant, found that direct relationships among SCR and SCA, SCR and EFC, EFC have including the capability; Responsiveness, Waste Elimination, Labour Productivity, Asset Utilization, Quality, Failure Prevention, Inventory Reduced, SCA and MKC, EFC and SCR. And found that direct and indirect relationships between SCA and MKC, SCR and FP, this relationship tells that, the company should develop these capabilities and apply followed by the couple relationship, this will benefit to FP.
- 3) Identifying and examining in a cross-flow relationship have 3 pair such as; SCR and EFC found that have cross-flow relationship that high direct effect and significant. SCR and SCA found that have lower direct effect but have significant. And SCA and MKC found that no have cross-flow relationship. Then, if apply a pair of cross-flow relationship by parallel, can be more positive to FP.

RECOMMENDATIONS

- 1) For apply should be well planning and preparing, may be using the consultants team for developing the capability above mentioned to efficiency in the supply chain.
- 2) For future research should be studied to matching risk and ability, and should extend the scope of research into ASIA and SEAN country that high potentiality in computer industry such as Malaysia, Indonesia, Singapore, Vietnam and China. And should be evaluate research and monitor the results after used in computer industry in Thailand.

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The Application of Greedy Randomized Adaptive Search Procedure (GRASP) for Vehicle Routing Optimization

Pornkiat Phakdeewongthep,
Rajabhat University, Thailand
pkphakdee@gmail.com

Abstract. This research aimed to optimize vehicle routing of manufacturer by application of Greedy Randomized Adaptive Search Procedure (GRASP). This methodology was used to find out the shortest distance and increase the highest vehicle routing efficiency. The manufacturer had several kinds of products such as mold, jig, fixture, auto parts and machine parts. Customers, trading regularly for a period of 6 months, had 8 for the case study. Performance indicator of vehicle routing was shortest distance by comparison the results of Greedy Randomized Adaptive Search Procedure and employee experience. The results showed that the transportation distance was reduced by 95.4 km per day, from 602 km per day to be 506.6 km per day or 15.85%. Moreover Using pickups were reduced from 3 pickups per day to be 2 pickups per day.

Keywords— Heuristic, Routing, Greedy, Vehicle.

INTRODUCTION

This manufacturer has several kinds of products such as mold, jig and fixture, auto parts and machine parts. Manufacturer will deliver products to 8 customers every day. Researcher wants to optimize vehicle routing of manufacturer in table 1 by application of Greedy Randomized Adaptive Search Procedure (GRASP).

Table 1: Present route

| Car | Route | Distance (km) |
|-----------|-------------|---------------|
| Pick up 1 | 0-1-2-3-4-0 | 88.3 |
| Pick up 2 | 0-5-6-0 | 127.7 |
| Pick up 3 | 0-7-8-0 | 386 |
| Total | | 602 |

LITERATURE AND THEORY

There are 2 steps for application of Greedy Randomized Adaptive Search Procedure (GRASP)

Initial Solution

This method, initial solution, will consider possible answers that do not conflict with the condition. Route selection and adding customers in route will consider weight, size, time window and other.

Improvement Solution

This method, improvement solution, will choose best solution from initial solution and improve solution by using swap customer method and move exchange method.

RESEARCH METHODOLOGY

Creating Initial Solution

1.1 Input information such as customer detail, demand, condition number of cars and other. This case study does not have special conditions.

1.2 Find distance from manufacturer to customers and show them in table 2.

Table 2: Distance table

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|------|------|------|------|------|------|------|-----|-----|
| 0 | | 10.9 | 17.1 | 19 | 27.6 | 33.8 | 35.9 | 125 | 153 |
| 1 | 10.9 | | 11.2 | 21.9 | 24.1 | 36.6 | 33.1 | 120 | 133 |
| 2 | 17.1 | 11.2 | | 26 | 16.6 | 40.7 | 22.4 | 108 | 141 |
| 3 | 19 | 21.9 | 26 | | 40.2 | 19.3 | 48.1 | 128 | 156 |
| 4 | 27.6 | 24.1 | 16.6 | 40.2 | | 49.3 | 11.5 | 103 | 138 |
| 5 | 33.8 | 36.6 | 40.7 | 19.3 | 49.3 | | 58 | 138 | 149 |
| 6 | 35.9 | 33.1 | 22.4 | 48.1 | 11.5 | 58 | | 96 | 145 |
| 7 | 125 | 120 | 108 | 128 | 103 | 138 | 96 | | 108 |
| 8 | 153 | 133 | 141 | 156 | 138 | 149 | 145 | 108 | |

1.3 Select one closest customer, include the distance of the selected customer to the next customer, initialize $i=10\%$. Finally, create route by selecting total distance of customer which less than value of $i=10\%$ in table 3.

Table 3: Sample calculation

| | | | | | | | | | |
|------------------|--|----------|-------|------|------|------|------|-------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Route1 : 0-1-2-0 | | 10.9 | 11.2 | 21.9 | 24.1 | 36.6 | 33.1 | 120 | 133 |
| | | | 22.1 | 32.8 | 35 | 47.5 | 44 | 130.9 | 143.9 |
| | | | 33.3 | 54.7 | 59.1 | 84.1 | 77.1 | 250.9 | 276.9 |
| | | $i=10\%$ | 36.63 | | | | | | |

| | | | | | | | | | |
|----------------------|--|---|---|---|----------|-------|------|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Route2 : 0-3-4-5-6-0 | | | | | 40.2 | 19.3 | 48.1 | 128 | 156 |
| | | | | | 59.2 | 38.3 | 67.1 | 147 | 175 |
| | | | | | 78.2 | 57.3 | 86.1 | 166 | 194 |
| | | | | | $i=10\%$ | 86.02 | | | |

| | | | | | | | | | | |
|-----------------|--|---|---|---|---|---|---|---|----------|-----|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Route3: 0-7-8-0 | | | | | | | | | 108 | |
| | | | | | | | | | 233 | |
| | | | | | | | | | $i=10\%$ | 233 |

1.4 Add value $i=20\%$, 30% ... 100% .

Improvement Solution

2.1 Swap customer by choosing best solution of i , minimum distance, from initial solution and swap customer in route.

2.2 Move exchange by moving a customer from one route to another.

RESULTS

4.1 The results of initial solution showed that $i=100\%$ has minimum total distance in table 4.

Table 4: The results of initial solution

| i | Route | Distance | Total Distance |
|-----|-------------|----------|----------------|
| 10% | 0-1-2-0 | 39.2 | 627.6 |
| | 0-3-4-5-6-0 | 202.4 | |
| | 0-7-8-0 | 386 | |
| 20% | 0-1-2-0 | 39.2 | 627.6 |
| | 0-3-4-5-6-0 | 202.4 | |
| | 0-7-8-0 | 386 | |
| 30% | 0-1-2-0 | 39.2 | 627.6 |
| | 0-3-4-5-6-0 | 202.4 | |
| | 0-7-8-0 | 386 | |
| 40% | 0-1-2-0 | 39.2 | 627.6 |
| | 0-3-4-5-6-0 | 202.4 | |
| | 0-7-8-0 | 386 | |
| 50% | 0-1-2-0 | 39.2 | 627.6 |
| | 0-3-4-5-6-0 | 202.4 | |
| | 0-7-8-0 | 386 | |
| 60% | 0-1-2-0 | 39.2 | 627.6 |
| | 0-3-4-5-6-0 | 202.4 | |
| | 0-7-8-0 | 386 | |
| 70% | 0-1-2-3-0 | 67.1 | 729 |
| | 0-4-5-6-7-0 | 355.9 | |
| | 0-8-0 | 306 | |

| | | | |
|------|-------------|-------|-------|
| 80% | 0-1-2-3-4-0 | 88.3 | 602 |
| | 0-5-6-0 | 127.7 | |
| | 0-7-8-0 | 386 | |
| 90% | 0-1-2-3-4-0 | 88.3 | 707.1 |
| | 0-5-6-7-0 | 312.8 | |
| | 0-8-0 | 306 | |
| 100% | 0-1-2-3-4-0 | 115.9 | 564.7 |
| | 0-5-6-7-8-0 | 448.8 | |

4.2 The results of swapping customer showed that 0-1-2-4-3-0 and 0-5-8-7-6-0 have minimum total distance in table 5.

Table 5: The results of swapping customer

| Route | Swap Customer | | | | | | | | | | | Total distance |
|-------------|---------------|---|---|---|---|---|---|---|---|---|---|----------------|
| 0-1-2-3-4-0 | 0 | - | 1 | - | 2 | - | 3 | - | 4 | - | 0 | 115.9 |
| | 0 | - | 2 | - | 1 | - | 3 | - | 4 | - | 0 | 118 |
| | 0 | - | 3 | - | 2 | - | 1 | - | 4 | - | 0 | 107.9 |
| | 0 | - | 4 | - | 2 | - | 3 | - | 1 | - | 0 | 103 |
| | 0 | - | 1 | - | 3 | - | 2 | - | 4 | - | 0 | 103 |
| | 0 | - | 1 | - | 4 | - | 3 | - | 2 | - | 0 | 118.3 |
| | 0 | - | 1 | - | 2 | - | 4 | - | 3 | - | 0 | 97.9 |
| 0-5-6-7-8-0 | 0 | - | 5 | - | 6 | - | 7 | - | 8 | - | 0 | 448.8 |
| | 0 | - | 6 | - | 5 | - | 7 | - | 8 | - | 0 | 492.9 |
| | 0 | - | 7 | - | 6 | - | 5 | - | 8 | - | 0 | 581 |
| | 0 | - | 8 | - | 6 | - | 7 | - | 5 | - | 0 | 565.8 |
| | 0 | - | 5 | - | 7 | - | 6 | - | 8 | - | 0 | 565.8 |
| | 0 | - | 5 | - | 8 | - | 7 | - | 6 | - | 0 | 422.7 |
| | 0 | - | 5 | - | 6 | - | 8 | - | 7 | - | 0 | 469.8 |

4.3 The results of moving exchanges showed that 0-1-2-5-3-0 and 0-4-8-7-6-0 have minimum total distance in table 6.

Table 6: The results of moving exchanges

| Swap | Move Exchanges | | | | | | | | | | | Total distance |
|------|----------------|---|---|---|---|---|---|---|---|---|---|----------------|
| | 0 | - | 1 | - | 2 | - | 4 | - | 3 | - | 0 | 520.6 |
| | 0 | - | 5 | - | 8 | - | 7 | - | 6 | - | 0 | |
| 1-5 | 0 | - | 5 | - | 2 | - | 4 | - | 3 | - | 0 | 534.1 |
| | 0 | - | 1 | - | 8 | - | 7 | - | 6 | - | 0 | |
| 1-8 | 0 | - | 8 | - | 2 | - | 4 | - | 3 | - | 0 | 692.1 |
| | 0 | - | 5 | - | 1 | - | 7 | - | 6 | - | 0 | |
| 1-7 | 0 | - | 7 | - | 2 | - | 4 | - | 3 | - | 0 | 693.6 |
| | 0 | - | 5 | - | 8 | - | 1 | - | 6 | - | 0 | |
| 1-6 | 0 | - | 6 | - | 2 | - | 4 | - | 3 | - | 0 | 555.8 |
| | 0 | - | 5 | - | 8 | - | 7 | - | 1 | - | 0 | |
| 2-5 | 0 | - | 1 | - | 5 | - | 4 | - | 3 | - | 0 | 554 |
| | 0 | - | 2 | - | 8 | - | 7 | - | 6 | - | 0 | |
| 2-8 | 0 | - | 1 | - | 8 | - | 4 | - | 3 | - | 0 | 655.5 |
| | 0 | - | 5 | - | 2 | - | 7 | - | 6 | - | 0 | |
| 2-7 | 0 | - | 1 | - | 7 | - | 4 | - | 3 | - | 0 | 675.2 |
| | 0 | - | 5 | - | 8 | - | 2 | - | 6 | - | 0 | |

| | | | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|---|-------|
| 2-6 | 0 | - | 1 | - | 6 | - | 4 | - | 3 | - | 0 | 530.6 |
| | 0 | - | 5 | - | 8 | - | 7 | - | 2 | - | 0 | |
| 4-5 | 0 | - | 1 | - | 2 | - | 5 | - | 3 | - | 0 | 506.6 |
| | 0 | - | 4 | - | 8 | - | 7 | - | 6 | - | 0 | |
| 4-8 | 0 | - | 1 | - | 2 | - | 8 | - | 3 | - | 0 | 656.1 |
| | 0 | - | 5 | - | 4 | - | 7 | - | 6 | - | 0 | |
| 4-7 | 0 | - | 1 | - | 2 | - | 7 | - | 3 | - | 0 | 645.3 |
| | 0 | - | 5 | - | 8 | - | 4 | - | 6 | - | 0 | |
| 4-6 | 0 | - | 1 | - | 2 | - | 6 | - | 3 | - | 0 | 533 |
| | 0 | - | 5 | - | 8 | - | 7 | - | 4 | - | 0 | |
| 3-5 | 0 | - | 1 | - | 2 | - | 4 | - | 5 | - | 0 | 536.7 |
| | 0 | - | 3 | - | 8 | - | 7 | - | 6 | - | 0 | |
| 3-8 | 0 | - | 1 | - | 2 | - | 4 | - | 8 | - | 0 | 642.7 |
| | 0 | - | 5 | - | 3 | - | 7 | - | 6 | - | 0 | |
| 3-7 | 0 | - | 1 | - | 2 | - | 4 | - | 7 | - | 0 | 689.5 |
| | 0 | - | 5 | - | 8 | - | 3 | - | 6 | - | 0 | |
| 3-6 | 0 | - | 1 | - | 2 | - | 4 | - | 6 | - | 0 | 523.9 |
| | 0 | - | 5 | - | 8 | - | 7 | - | 3 | - | 0 | |

4.4 The results of comparison showed that new routes have 506.6 km. and use 2 pickups in table 7.

Table 7: The results of comparison

| Present Route | | | New Route | | |
|---------------|-------------|---------------|-----------|-------------|---------------|
| Car | Route | Distance (km) | Car | Route | Distance (km) |
| Pickup 1 | 0-1-2-3-4-0 | 88.3 | Pickup 1 | 0-1-2-5-3-0 | 101.1 |
| Pickup 2 | 0-5-6-0 | 127.7 | Pickup 2 | 0-4-8-7-6-0 | 405.5 |
| Pickup 3 | 0-7-8-0 | 386 | | | |
| Total | | 602 | Total | | 506.6 |

CONCLUSION

Present route have 602 km. and use 3 pickups. New routes have 506.6 km. and use 2 pickups. So, new route can reduce total distance from 602 km to 506.6 km or the transportation distances are reduced by 95.4 km per day. Using pickups are reduced from 3 pickups to 2 pickups.

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Factors Influencing the Reduction of Transportation Costs of Container Operators at Laem Chabang Port, Thailand Applied by AHP Technique

Tanasarn Panichayakorn
Rajabhat University, Thailand
tanasarn.pa@ssru.ac.th

Abstract. This research shows that, in all subject areas, the majority factor comes with the fuel expenses; 42.9% of sample groups, toward influencing the reduction of transportation costs of the container operators at Laem Chabang Port, Thailand. The fuel expenses as variable costs are significantly considered to work in accounting and finance. As a result, high maritime shipping higher transportation costs, the container operators have to properly monitor these expenses under controlled conditions though. Additionally, the quarter of sample groups (approximately 25.4%) goes to the maintenance expenses similar to the fuel expenses in terms of variable costs. The maintenance costs are up, thereby driving on the transportation traffics. The preventive maintenance program would thus prevent all equipment failure before it occurs and get ready for the next round. Eventually, in the end of research, the effective optimization of transportation routing management comes up with 15.4% of sample groups. Enabling setup, routing, and route plan to be managed to avoid the empty container transportation as well using GPS technology for on time, all reduces the costs of transportation.

Keywords— Container operators, Transportation costs, Maritime shipping, Laem Chabang port, AHP technique

INTRODUCTION

Shipping and goods transportation are very significant, from the past to present. The transportation has grown with the growth of the economy, social and political. The important role of transportation is the basis for encouraging resource mobilization to gain the value of business. For example, the raw materials transportation from suppliers to the manufacture factory, warehouse to the retailer and destination customers. If the container operator has a very high transportation costs (Venter, C. J., Molomo, M., & Mashiri, M., 2014) that will cause higher transportation prices as well. When the container operator can handle the transportation cost, which in the proper container operator prices. Pricing can be used to gain the competitive advantage with other container operators. Most of the transportation in Thailand is land transport. Because it is convenient, fast, safe and able to transport goods to the destination seamlessly. And to the place that is easily determined (Door to Door) (Yung-yu TSENG and Wen Long YUE (2005).

With the competitive conditions, trade, transportation business in domestic and international violence intensified. Therefore, the transport operators are trying to adjust, to develop the transportation services to cost-effective or less expensive and in order to increase services competency. Transportation management system and costing management are very important factors in the container transport operators business potential. Trends in the number of journeys for transportation have increased steadily every year due to the increasing of services demand and the result of the government's policy to push Thailand to become a hub for transportation and logistics. That consists of three main factors: (1) lowest cost; (2) quick response to customer; (3) safety and reliability of the system must always be trusted by customers. The number of container truck trips will exclude empty containers trip (backhaul) if the operators are still not able to fully utilize container trucks, which means that economic losses are incurred by the transport operator.

The trucking loss in one year was a great deal of these issues. To assess the situation research, by using the factors to reduce the container transportation cost and increasing the container transportation (reduce backhaul trip) the transport model of the container will be transported by a trailer, which will have two characteristics, the short tail and long tail. But today it uses a longer tail, because it can carry two containers of 20 feet in two containers and the transport will take the cargo from Laem Chabang Port to ICD Lat Krabang destination and then drive back to Laem Chabang Port. The factors such as price changing, quick response to the customers, safety and reliability as an alternative to shipping service customers. In order to have a cargo container in return trip to Laem Chabang Port, it will increase the revenue generated and reduces the cost of backhaul trip. For the trends of oil pricing in the world market are expected to remain high and upward impact to the business. In the short term, concerning about supply disruptions has been called for OPEC producers to increase crude oil production. It is a problem affecting all countries including Thailand. At present, in Thailand, the increasing demand for energy continues, fuel consumption remains the main factor whether for the private vehicles, mass transit or transport industry.

Therefore, alternative energy in the transport sector should be used as a factor in reducing container transport costs. From all of these issues, it is up to the educator to investigate the situation and improve or modify the cost factor of the container transport operator.

LITERATURE AND THEORY

Providing logistics services that are tailored to the specific needs of individual clients is a boon to many, such as increasing market competitiveness. Make the organization or entrepreneur trying to find ways to reduce costs in order to survive in the long run. To focus on just managing cost effectively is not enough. The goal is to provide the right service to the customer and to find a factor in cost reduction and including new logistics services (Annelie I. Pettersson and Anders Segerstedt, 2013). This is a service that responds to customer needs. Both can effectively manage cost reduction because of the general business. The entrepreneur will consider the cost as the main and to find ways to lower costs to compete with other operators. In the market consequently, the cost of transportation is a factor of a relatively high cost. A hierarchical analysis (AHP) analysis (Doraid Dalalah, Faris AL-Oqla and Mohammed Hayajneh.,2010) is used to determine the cost factor for container shipping.

Decision making

Decision is a human part that could not be avoided. Because of the problem, the decision is not as easy as it sounds, because it may be complicated and make a simple solution. The wrong way to try it is not working. And importantly, that decision does not only affect the decision maker. But it also affects others, such as family, friends, business associates or even people who do not know. Good judgment is a factor to point out. Did the decision succeed in the goal? (Kahraman, C., Cebeci, U., & Ulukan, Z., 2003)

The rational decision process

Good decision does not depend on the decision-making process. This requires a process with steps in order to walk to the right path and successful with optimize the decision making process by using the learning rational judgment process. (Chan , F. T., Kumar, N., Tiwari, M. K., Lau, H. C. W., & Choy, K. L. ,2008)

Good decision-making processes must be as follows.

- Easy to understand
- Focus on key issues or issues.
- There is a consistency of reason.
- Can bring the decision factors that are both concrete and abstract to compare.
- The structure mimics the human thinking process.
- Make a compromise and build a referendum.
- No need for specialists to control.

The concept of AHP is a decision-making process.

AHP is a process (Shahroodi and Kambiz, 2012). Use diagnostics to find the reason. It has been invented since 1970 by Professor Thomas Saaty, who has been awarded a doctorate in mathematics from Yale University. AHP is a rational decision-making process by the six steps mentioned above, because AHP imitates human decision. This makes it easier to make complex decisions on issues. It will divide some elements of the problem into concrete and abstract parts and then re-arranged in chart form by grade level, then determine the number resulting from the diagnosis. In order to calculate which factor or choice has the highest priority value and how does it affect the outcome of the solution? AHP also improves the efficiency of group decision making because it helps organize the group's thinking process by consistently determining in the decision-making process and support the referendum of the group, in helping the diagnosis corresponding with more logical. This is what confirms that AHP is a powerful and reliable decision-making process for the most rational decisions. It also determines the logic for analyzing logical reasoning. This is very necessary and reason properly in the rational decision process.

There must be two features: It must be properly linked and there must be consistency between the elements. The three main principles used in the AHP process (Wang, C. Y. (2014) are: (1) principles of charting; (2) principles of prioritization; (3) Layout of the hierarchy chart (Hierarchy). Human beings have the ability to perceive objects and ideas, to give meaning to what they perceive. And to provide information on the perception of human knowledge, it is kept in mind that it separates the stored knowledge into parts. In a coherent manner, the AHP chart was invented to imitate the human decision and the element numbers in each level, the division of factors into groups. This grouping allows us to aggregate large amounts of data into categories, which makes it easy to organize the elements of the problem. And make the image of the system more clearly. The chart can be divided into several levels, depending on the complexity of the problem and each level of importance. Top level is the aim or the overall goal Example Grade chart for AHP decision making (Saaty, T. L., 2008).

RESEARCH METHODOLOGY

The tool used in this study was a questionnaire to determine the importance of factors in cost reduction of Laem Chabang Container Operators. The primary source data was a direct from a focus population, then collected from them. The secondary data was from the study of relevant documents and research.

Population and sample

The research population included 10 container operators of Laem Chabang Port, the selection was selected by container operators who have more than 10 years of experience.

Questionnaire

The process of issuing a questionnaire to weigh the cost factor of the container transport operator was as follows.

Step 1: Study relevant documents and research.

Step 2: Questionnaire for weighting factors of cost reduction of container Operators in Laem Chabang Port.

Step 3: Take the questionnaire to the consultant for verification improvement.

Step 4 : Bring the completed questionnaire to the sample, to compare factors of cost reduction of Laem Chabang container shipping operators. In this research the researcher had issued three questionnaires. The factors used in this research were asked the expert. The factors that related to cost reduction are many choices. But in order not to over complicate for this research. Only 10 factors were identified.

Data collection

The method of collecting data of this research paper had presented in academic papers such as thesis, textbooks, related papers, and classified into primary data, based on the questionnaire on cost factors of transport operators Laem Chabang Port container and secondary data from the various journals and related research papers.

Data analysis

The data obtained from the questionnaire was analyzed by a hierarchical analysis technique (AHP), with a focus on determining the relative importance of each factor in reducing the cost of the container transport operator. The Analytic Hierarchy Process (AHP) was a multi-criterion decision making method or priority of choice. When there were several criteria to consider, then it was a powerful process and easy to prioritize and let us made the best decisions. This could be used with complex decisions by using the AHP benchmarking method. Not only it helped decision makers make the best decisions but also clearly demonstrates why the choice was the best. At each level, consider the importance of the criteria on the same level by analyzing comparative criteria or pairwise comparison. According to the importance or preference table as follows:

Table 1: Pairwise Comparison Table

| Preference Level | Numerical Value |
|--------------------------------------|-----------------|
| Equally Preferred | 1 |
| Equally to Moderately Preferred | 2 |
| Moderately Preferred | 3 |
| Moderately to Strongly Preferred | 4 |
| Strongly Preferred | 5 |
| Strongly to Very Strongly Preferred | 6 |
| Very Strongly Preferred | 7 |
| Very Strongly to Extremely Preferred | 8 |
| Extremely Preferred | 9 |

A preliminary analysis for determine the priority factors.

Comparison of Factors in cost reduction of Laem Chabang Container terminal from a total of 10 factors, where A was the fuel cost, B was the maintenance cost. C was the operating cost. D was the operating cost. D was the number of empty trips, E represented the transport accident. On the driver's knowledge of safe driving, G was stand for long-term transport agreements or contracts, H was stand for the proper route transport scheduling and J mistakes in transport mean creating a business partner.

Calculation of critical weight

Step 1 : Bring the average value from the query priority matrix to the matrix. Comparison of factors in cost reduction of containers operators.

Step 2: Calculate the values obtained from step 1 to determine the weight values. It can be displayed as follows.

- 2.1. Calculate the sum of each score in the row of each row in the matrix under all 10 factors.
- 2.2. Put each number in a row of the matrix table divided by the sum of the numbers in that row.
- 2.3. Find the average of the numbers in each row of the row, the importance of each factor, which was the Calculation value

Determining the Consistency of Reason

Step 1: Calculate the magnitude of each factor to be multiplied by the vertical of each matrix, such as the fuel cost (0.17) value multiplied by the vertical value in the metric. The value of the maintenance cost (0.15) multiplied by the vertical value of 2 was continued and the value of the business partner (0.07) was multiplied by after that, calculate the sum in each row horizontally. Bring the significance level of each factor to the above sum calculated on each row of each factor.

Step 2: Calculate the value λ by summing the sum from the calculated value from Step 2 and then calculated the mean by dividing by the number of factors.

$$\frac{\sum_{i=1}^N (K_i/R_i)}{N}$$

Step 3: Calculate the CI calculated by taking the calculated value minus the number of factors (N) and dividing by N-1. All calculations were within the absolute sign.

$$CI = \frac{|\lambda - N|}{N - 1}$$

Step 4: Calculate the CR by taking RI () to divide the CI calculated from Step 3. If the CR value was less than 0.1, then the data from the questionnaire was consistent

$$CR = \frac{CI}{RI} < 0.1$$

RESEARCH RESULTS

Analytical results using hierarchical sequence analysis (AHP) based on the data analysis from the questionnaire on the cost factor of container transporters in Laem Chabang Port, by comparing the importance of each factor. The analysis of the consistency of the data has resulted in the data collected from the above questionnaire. The consistency of the data,

subsequently, the data was analyzed for comparison to prioritize each factor. The comparative analysis can be shown as follows.

Table 2: The Importance of Cost Factors for Cost Reduction of Laem Chabang Port Container Operators.

| Factors for Cost Reduction of Container Operators | Priority |
|---|----------|
| 1. Fuel costs | 17.3 % |
| 2. Maintenance costs | 15.4 % |
| 3. Proper scheduling of transportation | 14.2 % |
| 4. Operating expenses | 12.2 % |
| 5. Accident in transportation | 8.5 % |
| 6. Safety driving skill | 8.0 % |
| 7. Creating a Business Alliance | 6.5 % |
| 8. Transportation errors | 6.4 % |
| 9. Number of backhaul | 6.0 % |
| 10. Long-term transport contract or agreement | 5.5 % |
| | 100% |

CONCLUSION AND RECOMMENDATIONS

The results of the study found that.

1. *Fuel Cost Factors*, all respondents agreed with the idea that the fuel cost factor was a factor in reducing container transportation costs by the following methods.
 - Change the fuel system from an oil system to a shared fuel system. Or fuel system Natural gas (NGV)
 - Installation of fuel saving equipment.
 - Maintaining the engine in good condition.
 - Safe and energy-saving driving policies
 - The contract with the fuel supplier for credit and the payment period.
2. *Maintenance factors*, all respondents agreed with the idea that the maintenance factor, this is a factor affecting the cost reduction of container shipping by the following methods.
 - Inspection and maintenance by distance and duration.
 - Maintenance using genuine parts.
 - Outsource service providers are used.
 - Contract with the maintenance provider for credit and payment terms.
 - Training staff on basic truck care.
3. *Proper transport scheduling factors*, all respondents agreed with the idea that the appropriate transport scheduling factor. This is a factor affecting the cost reduction of container shipping by the following methods.
 - Planning route to the smallest backhaul transportation.
 - Planning route to be better and safer routes.
 - Technology is used to help control the truck to be in a specific route, such as GPS.
4. *Factors in operating expenses*, all respondents agreed with the idea that the cost of operating. This is a factor affecting the cost reduction of container shipping by the following methods.
 - Provide skilled staff. And there are a number suitable for the job.
 - Supply office equipment. That is suitable for use.
 - A computer is used to assist in the operation.
5. *Accident factor in transportation*, most respondents agreed with the idea of transport accidents. This is a factor affecting the cost reduction of container shipping by the following methods.
 - Install speed limit
 - Provide knowledge to build a safe driving attitude.
 - Give awards to employees who drive well. No accident
6. *Factors of safety driving skill*, all respondents agreed with the concept that drivers' knowledge of driving safer. This is a factor affecting the cost reduction of container shipping by the following methods.
 - Training staff on safe driving skill.
 - Policy for drivers to drive for no more than 12 hours a day, for example, to drive a shift in a 12 hour period.

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The Survey of High School Student's Behaviours' towards International Programme in the Universities, Case Study of High School Students in Salaya Sub-District, Phutthamonthon District, Nakornpathom Province

Natthakan Roothamnong

Nakhonpathom Education Centre, Thailand

natthakan.ro@ssru.ac.th

Abstract. To study on behavioural learning in higher education in international colleges of upper secondary school students in Salaya in order to research and explore the habits of higher education in international programs. Moreover, to identify the factors influencing to educate the universities which international program of high school students in Salaya. The research population was consisted of 200 students, which the methodologies were the self-constructed questionnaire developed by the researcher also manually collected the data. While information obtained from the questionnaires were analysed by using Percentage, Mean and Standard Deviation for supporting demographic factors, the deciding data to educate an international course and comparing to the decision to study international curriculum with the demographic factors of the respondents. It was analysed by t-test, One Way Analysis of Variance 95%, The results illustrated those sample students most of the 16-year-old was a female who currently learnt on a science-based course. The samples selected for studying in international curriculum were at a high level, which the mean score was 3.91, the highest in academic human resources was 4.03, followed by the academic factor was 3.97 and the lowest related to the infrastructure and environment. The mean score was 3.79 by comparing to opt an international curriculum with the demographic factors, it was found students in different sexual interested in international curricula differently. Next, students' different ages selected the international courses in differed fields. Lastly, learners who varied syllabuses similarly picked an international programme in academic fields. At statistically significant level 0.05

Keywords— Survey, Behaviours, International Programme

INTRODUCTION

It is well known that "ASEAN Economic Community" (ASEAN Economic Community: AEC) AEC is set to open on 31 December 2558, a total of 10 ASEAN countries including Vietnam, Malaysia, Singapore, Indonesia, Philippines, Brunei, Cambodia, Laos, Myanmar and Thailand. The combined population of about 600 million people aims to promote ASEAN as a single market and production base. There are also requirements between Member States in the area of free movement of labor (Mutual Recognition Arrangements: MRAs) in core subjects, 7 branches together is the key factor that impacts the labor market of Thailand. Positive Impact on Workers in Thailand is making the labor market more magnified. Investors of various nationalities invest in the country. Thailand and the workers have more work done. But the impact was negative. The competition has done by workers from ASEAN. Or bringing foreign workers to replace Thai workers (Penprapa prospered and Implementation prospered., 2011), so Thailand workers want to prepare them to develop their own quality and the needs of the labor market, both domestic and international markets. International workers cause an impact on the positive side than the negative side in order to have the growth of the economy in the future.

Education is a factor that promotes social growth, economic and political stability of the country and progress through the education of Thailand has evolved over the years. Due to these factors demand for social progress and modernization. Furthermore, external factors are driven by changed in global society. Economic and political as well as communication with each other makes the country and its people have to adjust to modern Thailand for the survival and development of the country on par with other countries. Due to the use of English as the global language has taught around the world than any other languages. The English language is a universal language that can interact with others around the world. The language used in the system. To prepare the children to help them learn and have English language skills is required that cannot be avoided. As a result, the school has received international attention successor.

International schools in any given courses taking into account the popularity of the course curriculum and standards as well as state school. It is encouraging parents to choose schools to place a future for their children anyway. However, the decision to continue their education must be based on the individual learner as well. Moreover, the main factors those make international students choose to study in higher education which is attractive as a group of students, parents quite as good. In addition to the potential develops a high level from environmental factors and parental support. The decision to study higher education is critical to future planning is the foundation of education and constitutes the first step towards deciding on a career, interested Student is the guiding teacher must pay attention to see if any of your subjects are appropriate for children and higher education in international schools, where children will have access to education. The world has changed to cooperate and compete more human resources, so it is important for every country, it is education reformed to date to the public in their countries as well as to allow foreign students to study in the countries The figures showed that in 2010

international students from around the country come to study than 54,649 people (Source: Statistical Office of Higher Education), which is a high figure.

At present, universities open learning courses for international students interested in coming to study in higher education. The study subjects to choose from multiple disciplines to meet the increasing demand. STATISTICS Education Commission on Higher Education), which is a high figure. Nakhon Pathom province with a number of high schools offering courses to international numbers accommodate the needs of parents educated in English, both in Thailand and abroad. The research was to study the behaviour of students studying higher education courses for international students at the high school. The Case High School in Salaya sub-district. Phutthamonthon district Nakhon Pathom province. To guide the exploration data and the needs of students for university study in international schools.

OBJECTIVES

1. To study and explore the learning behaviour of students on higher education courses High School in Salaya.
2. To study the factors those influence the decision to study higher education courses for international students of secondary schools in Salaya.

METHODOLOGY

In this research is a survey research. The aim is to study the course curriculum, students of International high school in Salaya and researchers have carried out the steps below.

1. Population and sample
2. The instrument used in the research.
3. Data collection
4. Analysis of the data and statistics used

Population and sampling

The population in this study is that student's grade 4-6 high school and the sample used in this research is that 200 student's in Salaya sub-district, Phutthamonthon district Nakhon Pathom province.

Research tools

The tools used in this research is a questionnaire made up of concepts and theories and related research. The questionnaire is divided into 2 parts as follows. Episode 1 was a questionnaire on demographic characteristics of student's grade 4-6 high school in Salaya sub-district, Phutthamonthon district Nakhon Pathom province. Sexual, study level and family income per month. The second is a questionnaire about the decisions of the International Program for elementary school students; high school students are divided into the following five aspects.

- Academic
- Personnel
- The fees
- The Premises
- The facilities and services.

The nature of the questions that created a questionnaire measuring scales Lil Kurt (Likert Scale) are scoring Level 5 is the most small, medium and minimum.

Data collection

Data collection for this research. There are procedures to follow.

1. Questionnaires to students grade 4-6 high school in Salaya sub-district, Phutthamonthon district Nakhon Pathom province and 200 using questionnaires on their own. (Self-administered Questionnaires)
2. Data collection targeted during November and December 2016.
3. Verify the accuracy and integrity of information.
4. The classification of the information in the questionnaire the data was analyzed statistically.

Data analysis and statistical methods used to analyze data.

Researchers led all the queries that have been verified and the integrity of the questionnaires were analyzed statistically using a computer to calculate the statistical computer program packages. The procedure is as follows.

1. The data were analyzed with descriptive statistics (Descriptive Statistics) statistics, frequency (Frequency) and percentage (Percentage) to describe the demographic characteristics of students. The analysis of the selected studies used the mean (Mean) and standard deviation (Standard Deviation).
2. Analysis of inferential statistics to test the assumptions that:
 - 2.1 Comparative Analysis The decision of the International Program for elementary school students at the end of high school by sex, by analyzing the difference between the average of the samples, two groups by t-test (independent t-test) is a test of two groups where. a sampling of each sample group is independent. The first step is to test the difference between the 2 groups, the variability of the sample.
 - 2.2 Comparative Analysis The decision of the International Program for elementary school students, high school students by grade level and family income per month. The analysis, ANOVA (One Way Analysis of Variance) to test the difference between the average of the sample. If the difference was statistically significant the pair will be tested by LSD (Least Significant Difference).

RESULTS

The research study habits of students on higher education courses High School in Salaya. The results were as follows: The results of the individual sample results from the study found the high school students in Salaya sub-district, Phutthamonthon district Nakhon Pathom province. The sample in this research a total of 200 people, mostly female, aged 16 years old and studying science lesson section. The study data about the marketing mix factor in deciding to study higher education courses, international study showed that the marketing mix in deciding to study higher education courses, including international level. Considering it was found that a high level in all aspects of personnel averaged the highest, followed by the academic facilities and services the fees and the building were the lowest average respectively.

The hypotheses were tested: demographic factors have the results as follows: The sample of male and female were deciding to study higher education courses, overall no difference (Sig. = 0.543) and considering it was found that the sample of male and female. Opinion to decide to study higher education courses in different academic (Sig. = 0.029) were not statistically significant at the .05 level. Samples of different ages Opinion to decide to study higher education courses overall difference (Sig. = 0.000) and considering it was found that the samples of different ages. Opinion to decide to study higher education courses are different in all aspects of academic (Sig. = 0.001) personnel (Sig. = 0.000) and fees (Sig. = 0.001) on the premises (Sig. = 0.001), and the facilities and services (Sig. = 0.003), a significant statistical level. 05.

The group plans to present it. Opinion to decide to study higher education courses, overall no difference (Sig. = 0.770) and considering it was found that the group has no plans to present it. Opinions to decide to study higher education courses are different in all aspects. Do not have a statistically significant level. 05.

SUGGESTIONS

To promote the development of education or the environment, as well as create incentives for institutions to operate effectively. Be adopted to improve the quality of higher education institutions to standards in education and other areas continued. Researchers have suggested below:

1. Academic Intervention Program is appropriate. Compliance with conditions In today's society Course curriculum The opportunity for students to participate in the teaching learning process encourages. Seek more knowledge and extra-curricular activities that correspond to their field of study even more.
2. Personnel should be recruited personnel who act as teachers must have the ability to explain and teach ethics instructor. Personality fit is a teacher and lecturer, and is objectively measured and evaluated as well. The course covers
3. Fees There should be a fee for admission to the appropriate instruction, equipment and facilities received curriculum and learning
4. The location should have examined the adequacy of the course. The performance of teaching or media / documentation teaching there clear and simple
5. The facilities and services should the service environment. (Libraries and laboratories The service of staff The recommendations of the Advisory Council) should be supported in its adequacy the modernization of the equipment and the services of laboratory. The focus on providing technical / conferences / seminars / training programs for the benefit and learners and providing advice / attention of advisors, including control of food quality. The price is right Support of Students Security institutions within the One Stop Service provider to care for and maintain the infrastructure institutional Area and the results of the overall service of the institution.

Suggestions for the next research

1. Carefully study reached the decision to study higher education courses, particularly internationally.
2. The independent variables that can be correlated with the decision of the Higher Education students.
3. Research should combines methods (Mixed Methodology) by research in the hybrid approach by merging algorithms and methods, qualitative and quantitative composition. Observation activities and activity in the area Data were collected periodically. The right education samples directly and more education.

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Study Van Routes and Create a form of Transportation: A Case Study Nakorn Phathom Education Center, Suansunandha Rajabhat University

Chattrarat Hotrawaisaya
Rajabhat University, Thailand
chattrarat.ho@gmail.com

Abstract. This objective of this research is to analyze the cost of transportation for delivering students from the Salaya district to the Suansunandha Rajabhat University (Nakornpathom Education Center). The sample group is a student who studies in the College of Logistics and Supply Chain Management and the International College of 400 people. The research uses simple random sampling and Tara Yamane at 90% confidence level. The data are collected by questionnaire. It is related to travel from Salaya district to the Suansunandha Rajabhat University (Nakornpathom Education Center). The questionnaire is assessed by Index of Item-Objective Congruence between 0.80-1.00. The results of this research, it showed that obstacles and the effects of transportation management for students from Salaya district and Suansunandha Rajabhat University (Nakornpathom Education Center). 1) The service provider picks up students late at pick-up and drop-off areas. 2) The service providers (drivers) wait students until the space is full, then they are departing. These data analyses can solve by defining more stop points and assign an exactly time travel. The study of transportation management for students with low costs found that the routes can be divided into 2 routes. The route from the Central Department Store (Salaya) to Nakornpathom Education Center should have 3 pick-up and drop-off areas; the central department store (Salaya District), Makro (Salaya District) and a dormitory that is opposite the Makro. The route from the Mahidol University (the fourth door) to Nakornpathom Education Center should have 2 pick-up and drop-off areas; the Mahidol University (the fourth door) and the Salaya Market. These pick-up and drop-off areas also are located on both routes. Therefore, the service providers can pick up students who live in dormitories around the university. It can reduce low passengers and waiting time.

Keywords— Transportation, Low cost, Service provider, Suansunandha Rajabhat University

INTRODUCTION

Suan Sunandha Rajabhat University (Nakhon Pathom Education Center) is the newest campus where is located in Klongyong, Puththamonthon district. It is 246 Rai (1 acre = 2.5 Rai). It is opened the academic for learning and teaching since 2015. It has 2 colleges in the first period. They are College of Logistics and Supply Chain and International College. At present, they are 3,382 students in both colleges. Travel trips of students to university are difficult because no bus service. Students have to live around the university and Salaya district. The university solves this problem with using logistics service providers. They should suitable for students and low cost. Generally, they have 2 services, 8 buses and 30 vans. However, students still have long waiting time. So they cannot study on time. The causes of waiting time are no enough vehicles and fluctuated timetables.

From these issues, researcher have already recognized the importance of transportation planning students with low cost. It focus on route from Salaya district to Suan Sunandha Rajabhat University (Nakornpathom Education Center). The process is related to logistics service provider and the students' demand.

OBJECTIVE OF THIS RESEARCH

To plan transportation with low cost from Salaya district to Sun Sunandha Rajabhat University (Nakornpathom Education Center)

LITERATURE REVIEW

2.1 Transportation Mode

2.1.1 The definition of transportation

Transportation refers to the movement of persons or things from one place to another. If it is to move a person, it called the passenger transport.

2.1.2 Decision factor of Logistics service providers

Factors that affect the decisions of the transport is investment decisions and policy set up. Transport operators will need to consider the following costs when they are investing in various asset. In case of the policy is related to the pricing and operational policy. Executives familiar with the transportation administration will find that the work to decide on a heavy transport. In addition, certain types of business in transportation costs would be the costs accounted for as much as the cost of production. Therefore, the transport management is a very complex one. (Aprirachayakul, 2010).

2.1.3 Transportation Cost

Transportation cost includes fixed cost and variable cost. The fixed cost is an expenditure that is not related to distance. They are rent, depreciation and salary. The variable cost is labor cost, fuel cost and transportation cost.

2.2 Failure Mode and Effect Analysis (FMEA)

Analysis of fault characteristics and effects (Failure Mode and Effect Analysis-FMEA) as a result of the analysis of defects and shortcomings mentioned by FMEA. It will focus on the characteristics of damage or causes that can lead to a damage that might occur (Potential Failure Mode). Due to the design, production or service, then analyses the impact of the damage is expected to occur (Effect Analysis), and finally to contribute to finding a way to prevent the damage which is expected to occur.

2.2.1 Types of FMEA

An analysis of the characteristics and effect of defects in design (Design FMEA) or the DFMEA is to improve designs by British FMEA analysis. The product design, production, commercial production following will accentuate the flaws due to the failure of the design.

An analysis of the characteristics and effect of defects in the manufacturing process (Process FMEA) or the PFMEA, production is improved by the FMEA method. Analysis of production and Assembly processes. By will accentuate the flaws due to the failure of the process of production and Assembly. An analysis of the characteristics and effect of defects in services (Service FMEA) or SFMEA is an update to the service by the FMEA method. Used in analysis to PTC service prior to delivery to the customer. By highlights shortcomings, errors or discrepancies due to failure of the system process.

THE LIMITATION OF THIS RESEARCH

3.1 Population and sample group

The population of this research is students who are studying at College of logistics and supply chain and International college, Suan Sunandha Rajabhat University (Nakhon Pathom Education Center) in 2016 about 3,382 people. The sample group is 400 people that are selected by taro Yamane techniques at 90% confidence level (Kripredaskul, 2003). It is called random sampling.

3.2 The variable of this research

This research is a qualitative research that study the guidelines of the transport plan of students with low cost. The variables include routes, FMEA and low-cost transport.

METHODOLOGY

4.1 Data Collection

This research collects data and summarized into 2 parts:

4.1.1 Secondary data are study information about transportation, transportation model, transportation management and failure mode and effect analysis.

4.1.2 Primary data are obtained from research tools for example questionnaire and interview.

4.2 Research period

4.2.1 Secondary data are collected from June – September 2016.

4.2.2 Primary data are collected from November to December 2016.

4.3 Data Analysis

4.3.1 Failure mode and effect analysis by RPN.

4.3.2 Sample group analysis with stat analysis with mean, standard deviation and percentage.

4.3.3 The route is analyzed by stat analysis with mean, standard deviation and percentage.

RESULTS

The result of this research concludes 4 topics. All data is collected and analyzed by FMA with RPN.

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Human Development Index and its Factors: The Effect On Global Competitiveness Index in ASEAN

Edy Suandi Hamid

Universitas Islam, Indonesia

edysuandi@yahoo.com

Abstract. This research aims to identify and analyze the influence of the main factors forming the Human Development Index (HDI) toward the Global Competitiveness Index (GCI). The research was conducted for ten ASEAN countries. The dependent variable that used in the research is the global competitiveness index (GCI). Independent variable that used in the research is The life expectancy at birth, expected years of schooling, mean years of schooling, GNI per capita (2011 ppp \$) .Data obtained from UNDP, UNESCO, and World Bank. The method of analysis that used is panel granger causality and regression data panel. Analysis panel clustering non-hierarchical also used to divide the country into two clusters. The data collected from 2010 to 2015. The tools used are eviews 9 and spss 22.0. Analysis provide a summary that: (1)The high clusters includes Brunei Darrussalam, Malaysia, Singapore, Thailand, and the rest are in middle-low clusters.(2) All independent variables affect the dependent variable partially (with alpha 5%).

Keywords— Human Development Index, Global Competitiveness Index, ASEAN

INTRODUCTION

1.1 Background

The issue of globalization is very important issue today. Development of open economic look so quickly causes competition easy to happen. Basically, every country need to continue to grow and to surpass other countries. Access for utilization of very high capital needed for a country to compete. Developing countries tending to cornered of sovereignty needs as guidelines independence. For example Indonesia becomes one of the ASEAN, independence be attached to the concept of *Berdikari* (independent). Other ASEAN countries for example, Thailand, Phillipina, and Myanmar also tend to based on the same thing. In the context of globalization, purport is no more appropriate. If in terms of the economic aspect, not efficient if a nation should be producing all needs own. Independence must be considered at least as : (1) our ability to produce goods / services in potential can be processed own, it is because of raw materials, technology mastery, or as ownership of skill so that we can produced efficiently and powerless competitiveness (2) the ability to force bargain (bargaining position) in economic relations with other countries.

Major aspects that must be considered in analysis and examine independence nation is competitiveness a nation (Sabadie & Johansen, 2010). Even though there are multiple benchmark, but an index that in general used to measure competitiveness is global competitiveness index (GCI) released by world economic forum (WEF).Shows at Table 1.1, Singapore occupy the position of two globally .This is an achievement a state in ASEAN .However, some countries such as laos and cambodia apparently need innovating to catch up other neighboring countries .Indonesia and Thailand are a country with tiers of medium competitiveness. This is a challenge to improve independence in the context of globalization.

In developing countries, human resources has an important role in the construction of a country (Dao, 2011). Strengthening efforts competitiveness a nation especially in economy is in stir by the quality and quantity of human resources. On the other hand, developing countries tend to experienced problems in increasing capacity and skill human resources. Human Development Index is authorized of human development that is most commonly used (Anand & Sen, 2000). Nevertheless, it is possible there are many other indicators were also able to show the state of development of human resources as well.

Tabel 1.1 GCI Rank of ASEAN Countries

| Rank | Score | country |
|------|-------|-------------------|
| 2 | 5,72 | Singapore |
| 18 | 5,16 | Malaysia |
| 28 | 4,53 | Brunei Darussalam |
| 32 | 4,64 | Thailand |
| 37 | 4,52 | Indonesia |
| 47 | 4,36 | Phillipines |
| 56 | 4,31 | Vietnam |
| 83 | 3,93 | Lao |
| 90 | 3,98 | Chambodia |

Source : The Global Competitiveness report WEF 2016-2017

In resolving these contradictions, indirectly, the State would increase humanitarian indicators. such as the Human Development Index (HDI), which has been standardized by the UNDP. Developing countries almost ascertained occupy class medium of human development index, even low. The main problems of human resources in developing countries is concentration to absorb employment in traditional and informal sector .Traditional sector and informal very easily affected by nature symptom and displacement of preference the community.

The condition of the countries in ASEAN almost entirely the developing countries with low rank HDI (table 1.2). According to the UNDP report in 2015, Phillipines, Indonesia and Vietnam are at medium class human development. Malaysia and Thailand are in the class of the high human development .While only Singapore and Brunei Darussalam which are at very high class human development. If looking at the trend, human development index of all member ASEAN growing positively. This shows an increase of consistent in these countries. The development is a sign of improvement in sectors or pillars forming the Human Development Index.

Any value of human development index representing the factors of its framer, the vital concept need to understand (Labutkova, Bednarova, & Valentova, 2016). Human development index has three basic dimensions, which is longevity and healthy, knowledge, and standards of the decent life. That dimensions can be authorized with a variable life expectancy at birth, Expected Years of Schooling, Mean Years of Schooling, and GNI per capita (2011 PPP\$)

Tabel 1.2 Rank and Value HDI of ASEAN Countries

| HDI Ranks | | HDI Value | | | | | | | | |
|-----------|-------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2014 | | 1990 | 1995 | 2000 | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 |
| 11 | Singapore | 0.756 | n.a. | 0.826 | 0.852 | 0.892 | 0.894 | 0.895 | 0.901 | 0.912 |
| 31 | Brunei Darussalam | 0.773 | 0.787 | 0.792 | 0.801 | 0.805 | 0.854 | 0.855 | 0.852 | 0.856 |
| 62 | Malaysia | 0.616 | 0.659 | 0.691 | 0.726 | 0.744 | 0.766 | 0.769 | 0.773 | 0.779 |
| 93 | Thailand | 0.546 | 0.581 | 0.600 | 0.631 | 0.654 | 0.686 | 0.690 | 0.722 | 0.726 |
| 115 | Philippines | 0.552 | 0.569 | 0.597 | 0.619 | 0.649 | 0.651 | 0.654 | 0.660 | 0.668 |
| 110 | Indonesia | 0.479 | 0.508 | 0.540 | 0.575 | 0.620 | 0.624 | 0.629 | 0.684 | 0.684 |
| 116 | Viet Nam | 0.439 | 0.457 | 0.534 | 0.573 | 0.611 | 0.614 | 0.617 | 0.638 | 0.666 |

Source : UNDP Human Development Report (2014, 2015) and World Bank (2013)

There have been some research before made HDI as the main topic in research, is HDI really can maximize human development? [5]. If Based on from early discussion about the competition of nation and the concept that human resources are capital in competition. Appear in mind if HDI or its factor can affect competitiveness a nation?. The progress of human development being discussed substantial in relation to developing countries that are plenty in ASEAN. Hence, this study tries to looking at competitiveness of ASEAN relating to HDI.

1.2 The Purpouse

After looking at the discussion before it can be formulated the purpose of research are :

1. Analyzes relations main variable in the form of human development index with the global competitiveness index.
2. Analyzes main variable influence in the form of human development index against global competitiveness index.

LITERATURE REVIEW

Human development index is a unit to measure how well human development in a state (Martinez, 2012). According toUNDP, human development index has pillars built that like the one on picture 2.1.



Gambar 2.1 Schematic Elements of Human Development

Source : Human Development Report , UNDP , 2015.

Research on the level of global competitiveness is not widely done. Most of the literature is a form of review for phase to global competitiveness, such as research by E – Governance Development (2010). However, several studies have found a relationship between the human development index with global competitiveness. Research by Anand & Sen (2000), Cahill

(2002), Khodabakhshi (2011), shows how the influence of the real sector of the human development index by including global competitiveness. Nevertheless, through the literature collected no one really has put the competitiveness becomes a variable

The theory that develops and plausible is the theory of human development that which human development will also affect competitiveness. This can occur because humans are the main resources in global competitiveness. The transmission will clearly show that the quality of human will generate positive economic growth, even significant. Thus the global competitiveness will be easier to grow. Thus it can be arranged hypothesis that the variable Life Expectancy at Birth, Expected Years of Schooling, Mean Years of Schooling, and GNI per Capita (2011 PPP \$), as the determining factors will affect positively HDI also to GCI.

METHODS OF RESEARCH

The data used in this research is secondary data collected from various sources. The sources of the data used are: UNDP report, the World Bank, UNESCO, and the World Economic Forum. Data collected from various sources and then tabulated and processed. The intention to make the processing of data in the same degree. The next step is to perform clustering of the data into a class with a method of clustering non - hierarchical.

3.1 Methods of Data Analysis

Data were analyzed using two types of processing. The first data processing clustering to get a cluster corresponding to the ten ASEAN countries. The second perform analysis using Granger causality test. The third test panel for each cluster of data that has been compiled.

3.1.1 Panel Clustering

Clustering is basically divided into two kinds of mining data, first clustering is hierarchical model, the second model non-hierarchical (Labutkova, Bednarova, & Valentova, 2016). Clustering definitions used in this study is a grouping of data with a certain set of similarities. If you look at the data characteristics and diversity of data, as well as the purpose of research, the technique of clustering can use non-hierarchical clustering much simpler. Countries are individually classified into several clusters according to the standard distance of Squared Eucladian (Labutkova, Bednarova, & Valentova, 2016) :

$$D_N(i, i') = \sqrt{\sum_{j=1}^p d_j^2(i; i') / S^2(X_j)}$$

In which :

$d_j(i; i')$ is distance between i and i'

$i \neq i' = 1, 2, \dots, n$, it also shows that $d_j(i; i') = x_{ij} - x_{i'j}$, $j = 1, 2, \dots, p$, and $S^2(X_j)$ is the sample of variable j .

Testing this cluster was done using recent data in 2014. Testing cluster is not possible to across time and across dimensions (panel).

Panel Granger Causality

Causality test is a test of two variables that have indicated a relationship of mutual influence. Testing causality is defined in this study is the determination of the direction of causation in the context of econometrics. The most common test of causality is causality proposed by Engel and Granger. In Outline it can be said the purpose of this test was to see if a variable Y precedes X. Another goal is to see if the variable X precedes Y. The ultimate goal is to see if the variables X and Y interplay (two-way). Mathematically can be written in the equation :

$$Y_t = \sum_{i=1}^m \alpha_i Y_{t-i} + \sum_{j=1}^m \beta_j X_{t-j} + U_{1t}$$

dimana :

- Y = Variable Y (Dependent Indication)
- X = Variable X (Independent Indication)
- Ut = error term
- m = Total lag

Testing in this research involved a variety of variables tested one by one using Granger causality. Further formed a tabulation table for each test variable.

Panel Data Analysis

Recent analysis using panel data analysis for each cluster that has been compiled. A quantitative approach was conducted to see the effect of Life Expectancy at Birth, Expected Years of Schooling, Mean Years of Schooling, GNI per Capita (2011 PPP \$) on the Global Competitiveness Index in both the short and long term in ASEAN. Approach with panel data provide some alternative models are common, fixed and random effects. Before the approach used to determine the model needs to be some significance test passed significance test models such as fixed effect (Chow Test), and a random effect significance test (Hausman test).

In the Chow Test decision reject H0 if F count > F table, so that the selected is the fixed effect model (Gujarati, 2003). The decision to reject H0 in Hausman test is when the value of chi-square test > of chi-square tables. Functional equation constructed assuming ceteris paribus. Based on the discussion of paragraph one of the panel data, hypotheses, and previous research, it can be established the following functional equation:

$$GCI = f(LEB, EYS, MYS, GNIC)$$

From the functional equation can lowered into the econometric equation as follows:

$$\ln GCI_{it} = \beta_0 + \beta_1 \ln(LEB)_{it} + \beta_2 \ln(EYS)_{it} + \beta_3 \ln(MYS)_{it} + \beta_4 \ln(GNIC)_{it} + e_{it}$$

dimana :

- GCI = Global Competitiveness Index
- LEB = Life Expectancy at Birth
- EYS = Expected Years of Schooling
- MYS = Mean Years of Schooling
- GNIC = GNI per Capita (2011 PPP \$)
- β_0 = Constanta
- $\beta_1, \beta_2, \beta_3, \beta_4$ = The regression coefficient / estimator
- e_{it} = error term
- i = Country
- t = Time

Furthermore, after these tests, conducted tests of significance t-test. If > Alpha then accepted. That is, at the level of Alpha, no individually significant influence of independent variables on the dependent variable. In addition except T-test, also tested the F-test to see how communally. when the probability value of F count < alpha (5%), H0 is rejected. In other words, with the same independent variables affect the dependent variable. Last testing is the coefficient of determination (R2) which describes the measurement of how much variation is able to change the dependent variable explained by the independent variables in the model. The coefficient of determination shown by percentage. The formulation can be written as follows (Gujarati, 2003) :

$$R^2 = \frac{ESS}{TSS} = 1 - \frac{RSS}{TSS} = 1 - \frac{\sum \hat{\mu}t^2}{\sum (Y - \hat{Y})^2}$$

Dimana :

- R^2 = determinant coefficient
- ESS = Explained Sum of Squares
- TSS = Total Sum of Squares
- RSS = Residual Sum of Squares
- $\hat{\mu}t^2$ = the estimated residual value over

Hasil dan Pembahasan

In this section will explain the findings of the study. As discussed in chapter 3, the observed data is from 2010-2015. The research object is the population of the State which are in the ASEAN region. The country consists of Brunei Darrussalam, Chambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

Panel Clustering Analysis

The first process of data processing is the clustering . The used data is the most recent data also the most complete. Thus it will generate n number of 10. Based on the clustering process using SPSS 22.0, it was found that the minimum distance between cluster centers obtained from the iteration process is 7.4. At this stage of the cluster in the form of ANOVA, it was found that the whole significance of the show is smaller than alpha. It shows that there are differences in the variables in clusters formed. In other words, the clustering process to distinguish the value of each variable and the distinction valid. At this stage of the formation of clusters showing ten countries tested if divided into two clusters will be obtained: cluster one has four members, and the cluster two have six members.

Clearly divisions of clusters can be seen in Table 4.1. The division of the cluster literally can be said to clusters of high and low cluster. The first cluster is a cluster with high scores. The second cluster is a cluster of low value. At a high cluster of countries are Brunei Darussalam, Malaysia, Singapore, and Thailand. Lower cluster have a member of Cambodia, Indonesia, Laos, Myanmar, the Philippines, and Vietnam.

Tabel 4.1 Final Results of Clustering

| Cluster 1 | Cluster 2 |
|--------------------|-----------|
| Brunei Darrussalam | Kamboja |
| Malaysia | Indonesia |
| Singapura | Laos |
| Thailand | Myanmar |
| | Philipina |
| | Vietnam |

Source : Lampiran

From the clustering process obtained the division of clusters which generally correspond to the characteristics of the country. Due to the division into two parts cluster only the analysis of the characteristics can't be divided into classes more varied. This is in addition to simplify the discussion, also because the purpose of strengthening the character to maintain the availability of the number of cross-country.

Panel Granger Causality Analysis

Granger causality analysis based on the previous clustering process. Thus causality resulting panel into two. The results of the first causality is for the first cluster, and the results of the second causality is for the second cluster. Lag testing based cointegration between variables indicate the maximum lag at second lag, so, The best lag used is the lag of less than two. Causality test results can be seen in Table 4.2. The table is a summary of the test results are more fully shown in the attachment. When examined, the first cluster has more tendency variables affect other variables in the first lag. It means showing an increase on one side will directly affect the other side in the same year. In the first cluster, it was found that the life expectancy of birth has a two-way relationship with a Gross National Income per Capita.

It shows that in developing countries that are at the stage of taking off to become a developed country, life expectancy greatly affect GNI, and vice versa, GNI affect life expectancy. Another interesting invention at first lag is the effect at level average education. That variables are proven to influence the three variables at once, namely life expectancy, national income, and competitiveness. In the country towards developed countries, can not be denied educational factors influence the development of the competitiveness of a nation. In the second clusters found a two-way relationship that are in the lag time at lag one. The two-way relationship between the human development index and the average length of school. The other two-way relationship is between the average length of schooling and life expectancy.

Tabel 4.2 Summary of Granger Causality Test

| Cluster 1 lag 1 | | |
|-----------------|-------|-------|
| Var 1 | Hasil | Var 2 |
| GNIC | > | HDI |
| MYS | > | LEB |
| GNIC | <> | LEB |
| MYS | > | GNIC |
| MYS | > | GCI |
| GCI | > | GNIC |
| Cluster 1 lag 2 | | |
| Var 1 | Hasil | Var 2 |
| HDI | <> | GNIC |
| GCI | > | GNIC |
| Cluster 2 lag 1 | | |
| Var 1 | Hasil | Var 2 |
| HDI | > | LEB |
| HDI | <> | MYS |
| MYS | <> | LEB |
| GNIC | > | LEB |
| GCI | > | LEB |
| EYS | > | GCI |
| MYS | > | GCI |
| Cluster 2 lag 2 | | |
| Var 1 | Hasil | Var 2 |
| HDI | > | MYS |
| HDI | > | GNIC |
| EYS | > | GNIC |
| EYS | > | GCI |
| GNIC | > | GCI |

information : > there is a one-way relationship from var 1 to var 2 <> there is a two-way relationship

In the cluster two, there is a two-way relationship when lag time in lag one. The two-way relationship between the human development index and the average length of school. The other two-way relationship is between the average length of schooling and life expectancy. In cluster two discovered identical things where the education factor, the average level of school and school expectations affect the competitiveness of nations. The findings are good on the first lag, meaning that the effect in the same year, and the lag two, meaning that influential in the year thereafter.

In ASEAN countries proved that maximally education can improve the competitiveness of the nation. Other factors such as the Gross National Income per capita is only capable of affecting the competitiveness of the second lag, it shows a degree of influence can not be perceived in the same year.

Panel Data Regression Analysis

EGLS panel method makes it possible to eliminate the error specifications such as heteroskedasticity and autocorrelation (Gujarati, 2003). This section presents the analysis of panel data. Analysis using techniques of multiple linear regression data processing with panel data EGLS. As discussed earlier that the data can be estimated with three different models, namely the first model is common effect, second model is fixed effect, the third model is random effect. Selection of an appropriate model requires testing that can be justified. The results of test will give the conclusion that the model is far from being false or refraction. Data used after clustering indicates that the data processing for the first cluster panel is not possible to use random effect because the number of cross section less than the number of variables.

For cluster one, the significance test models indicate that the model of panel is more suitable is fixed effect. For a cluster of two no significance test consistency common model so that the model can be used.

Table 4.3 Summary of Panel Data Regression

| Cluster 1 | | | | |
|------------|---------|-----------------|----------------|--------|
| Var Ind. | Par. | Prob t Stat | Prob F- stat | R2 |
| C | -9,3937 | 0,0000 | 0,0000 | 0,9976 |
| LOG (LEB) | 3,0232 | 0,0000 | | |
| LOG (EYS) | 0,2588 | 0,0011 | | |
| LOG (MYS) | -0,9278 | 0,0001 | | |
| LOG (GNIC) | -0,0723 | 0,0313 | | |
| Cluster 2 | | | | |
| Var Ind. | Par. | Prob (t – Stat) | Prob (F- stat) | R2 |
| C | -2,1299 | 0,0150 | 0,0000 | 0,9183 |
| LOG (LEB) | 0,3186 | 0,0797 | | |
| LOG (EYS) | 0,7425 | 0,0000 | | |
| LOG (MYS) | -0,0746 | 0,0771 | | |
| LOG (GNIC) | 0,0578 | 0,0661 | | |

Source : Lampiran

In accordance with the model which was built in the chapter on research methods, the panel data processing results can be seen in Table 4.3.

Having obtained the results then conducted formation of analysis . In the first cluster was found that all the independent variables positive effect on the global competitiveness index, except GNI. In the two clusters was found that all the independent variables individually affect the global competitiveness index. The hypothesis is not fulfilled occur at variable MYS and GNI for the first cluster. Although influential, but the opposite effect is negative. Such circumstances indicate that the addition of GNI no longer positive effect on the GCI. On the other hand, the lack of data for some countries be an indication of the cause of anomaly that occurs in cluster one.

Furthermore, these anomalies is very possible there growth of variable value in absolute terms that have been stable. Stable conditions experienced in the cluster state gives its own emphasis. The focus of development has been diverted to the development of other humanity . Variable EYS give positive impact on GCI with the elasticity of 0.25%. Countries in one cluster to increase their competitiveness by improving the quality of research towards the development of human capabilities. The economy is more advanced provide other conservation regarding increasing capacity for learning and research so that the assumption of rational expectations to the length of school.

Variable LEB gives positive effect on GCI. The competitiveness at first cluster the most favorably affected by this variable. In the first cluster that can be said is a group of developed countries began to shift human development. Health side emphasized that the state is able to provide expectations of the public about the good quality of life. Accelerate the transformation better exceeded through human health development side with the elasticity of 3.02%. Improvement of human quality in the countries at first cluster provides an overview contribute most to global competitiveness.

Clusters two which are occupied by countries with mid-low class presents a different image. Variable LEB positive effect on GCI with the elasticity of 0.31%. Increasing healthy life is very difficult to do in a short time in a developing country. For a country, it took a several years to improve public health. People who are in the country of two clusters tend to have low life expectancy at birth. Some countries even experienced a decrease in the number of these expectations for some time. In addition to the factors of government, another very important factor is the awareness of their own community. People who are in the two clusters country tend to have incomes that have not qualified to improve the lives of their health. Budget of personal income is not deliberately earmarked for health care funds.

Variabel EYS memiliki pengaruh positif terhadap GCI dengan elastisitas 0,74 %. Pengaruh ekspektasi lama bersekolah ini sangat besar dirasakan oleh negara sedang berkembang. Kecenderungan keinginan bersekolah anak – anak sangat besar. Untuk itu beberapa negara di klaster dua mengeluarkan dana yang cukup besar untuk meningkatkan kualitas pendidikannya.

Terlebih beberapa negara mengeluarkan kebijakan sekolah gratis selama sembilan tahun. Dengan langkah langkah kebijakan tersebut terindikasi mampu meningkatkan daya saing global negara di klaster dua.

Variable MYS negatively affect of GCI. Improper influence indicated appear from the transformation of the change direction of schooling. Even Some countries have average length of schooling with negative growth for several years. With this decline indicates fewer and fewer people are able to attend school up to higher education. This situation has a negative impact on the increasing global competitiveness. These negative relationships need to be improved by further emphasize the importance of school for public dissemination. Not just support spending money on education, encouragement and improving literacy is more required. Culture attached in the nation be a good means to encourage emotional morality of the people in order to attend school.

GNIC has the least elasticity for cluster two. In developing countries such as those in clusters of two, percapita GNI growth is so small . insignificant growth is not yet able to significantly also encourage global competitiveness. Thus it can be said that the improvement of competitiveness through improving GNI per capita requires quite a long time.

CONCLUSION AND SUGGESTIONS

Conclusion

From the analysis obtained it can be concluded:

1. Through causality test showed that there is a two-way relationship between HDI and MYS. MYS and EYS dominant have one-way relationship to the GCI and HDI. It shows human development and global competitiveness of ASEAN countries dominant Influenced by the education.
2. Through panel data estimation EGLS found that every independent variables affect the dependent variable.
 - a. In the cluster one, LEB and EYS positively effect on GNIC. Variable MYS and GNIC negatively affect on GNIC.
 - b. In the cluster two, variable LEB, EYS, and GNIC positively affect on GCI. Variable MYS negatively affect on GCI.

Suggestions

Through the conclusion can be defined suggestions as follows:

1. The educational dimension affect HDI and GCI with the velocity in same year. For countries in ASEAN would be better off adding a portion for the development of quality education to accelerate the process of rising global competitiveness. Even so, that does not mean to underestimate the other pillars.
2. Increasing competitiveness through improving the HDI is a major aspect that needs to be supported. Determinant variables of HDI proved able to influence the GCI. For the countries in ASEAN need to improve quality of HDI variable so it will increase HDI , followed by an increasing GCI.
3. This research still has certain limitations, such as the data source. For further development is recommended to use other estimates as well as extending the observations.

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The Influence Factors of Freight Forwarders Selection Criteria among Shipper in Thailand

Salisa Hemmapan

Rajabhat University , Thailand

salisa.hemmapan@gmail.com

Abstract. The purposes of this research are identified influence factors of freight forwarder quality's services and studied how affect to shipper's selection of freight forwarder providing services. According this research divided to seven objectives. First, study freight forwarders selection criteria related to six dimensions of SERVQUAL evaluation. Second, study customers satisfaction overall in price and service evaluated for freight forwarders selection criteria. Third, explore important level on six dimensions of SERVQUAL which are analysis of services decision making. Fourth, survey the level of important on overall customer's satisfaction and fifth identify relationship between perceived service under key services quality attributes of shippers and 7Ps evidence in marketing affect customer satisfaction. Sixth, identify the relationship between expected service factors (7Ps) and W.O.M. affect 6 dimensions of SERVQUAL. Last, Study different of demographic of shipper perspectives. This research is developed conceptual framework from SERVQUAL, Marketing Mix for finding the results of selection Criteria International Freight Forwarders and relational performance on customer satisfaction and loyalty in Business to Business (B2B). The rapid increase amount of importing and exporting quantities in Thailand made freight forwarders firms grow up in 3PLs logistics market. This research focus on how to develop marketing strategies in competitive market.

Keywords— Freight Forwarders, Selection Criteria, Decision Making, Customer Satisfaction, 3PLs.

INTRODUCTION

This paper aims to Thai International (TIFFA) indicates the rapid expansion of Thailand's economic going to a large part exporting countries sectors Logistics activities especially Third Party Logistics (3PLs) are considered important role for supporting export and import activities. Consequently freight forwarding industry in Thailand is the way high competition in the market. The 3PLs managements are not only ways to cost saving but also enhance competitive advantage provided variety of service's functions.

Thus, this research examines to identify selection criteria and evaluation finally decision making which is related to customer satisfaction among Shipper's in Thailand. The strong freight forwarding industry is imperative if the country is to capitalize on emerging opportunities as well as enhancing the efficiency of vulnerable industries. The increasing complexity of global trade practices comprising multi-modal transportation, cargo consolidation at regional hubs, distribution at destinations and multiple documentation have increased the importance of intermediaries providing logistics solution (International Asset Management Company, 2007).

In additions, Freight forwarders assist exporters in preparing price quotations by advising on freight costs, port charges, consular fees, costs of special documentation, insurance costs, and their handling fees. Recommend the packing methods reserve the necessary space on a vessel, aircraft, train, or truck. The cost for their services is a legitimate export cost that should be included in the price charged to the customer (Vishwash, 2007).

Table 1: Number of International trade Value (Import and Export value) 2010-2015.

| Year | Export (Million Baht) | Import (Million Baht) |
|------|-----------------------|-----------------------|
| 2011 | 6,707,988.27 | 6,982,719.15 |
| 2012 | 7,078,420.21 | 7,786,132.18 |
| 2013 | 6,909,741.17 | 7,657,345.59 |
| 2014 | 7,313,066.40 | 7,403,898.06 |
| 2015 | 7,227,160.85 | 6,906,078.41 |

Source: Thai Customs Department, 2016

Thai Customs Department, 2011-2015 has shown the record that Thailand has been increase a number of import and export products quantity and also shippers and consignees firms into international traders in the market, nowadays. International Trading process has many logistics activities and supply chain, so it is not surprise if Thailand has been going to be a large number of IFFs firms in 3PLs market.

STATEMENT OF PROBLEMS

As above introduction refers to transportation or 3PLs business has been increasing and enhancing competitive advantage. Therefore decision making of their customer is very important to make more understanding because it can refer

to measurement customer's satisfaction (Pizam, Neumann and Reichel 1978). In addition, among international trade company which means customer decision making to select Freight Forwarder Company is very important because import-export processing has complicate of process and need connective performance (J. & Wong, V., 2001). The problem can be occurs at all time, so they need to have any firm who can provide high quality service and perform as a working professional. Thus, this problem is how classified the best of Freight Forwarder Selection Criteria measure customer satisfaction and customer expectation among shippers perspective. The results, if international freight forwarders fully understand the needs of shippers or customer satisfaction they would be in better position market share and right position to satisfy the increasingly competitive market (TIFFA, 2010).

LITERATURE REVIEW

In this part will include 6 sections and states with internal trade business and the factors as International Freight forwarding industries, Selection Criteria, SERVQUAL 6 dimensions, Customer Satisfaction, Expected Service and Perceived Service. Introduce the basic concept of logistics collaboration and definitions of measurement relevant to orchids supply chain in Thailand. The logistics collaboration includes demand forecasting, inventory management, warehouse and storage, order processing and transportation management there are several activities that stake holders can collaborate and develop in business from upstream to downstream. (ChattraratHotrawaisaya, 2014). Vishwash, 2007 indicated about the role of freight forwarder in the execution of export that a freight forwarder is a third party logistics provider. As a third party provider a forwarder dispatches shipments via asset-based carriers and books or otherwise arranges space for those shipments.

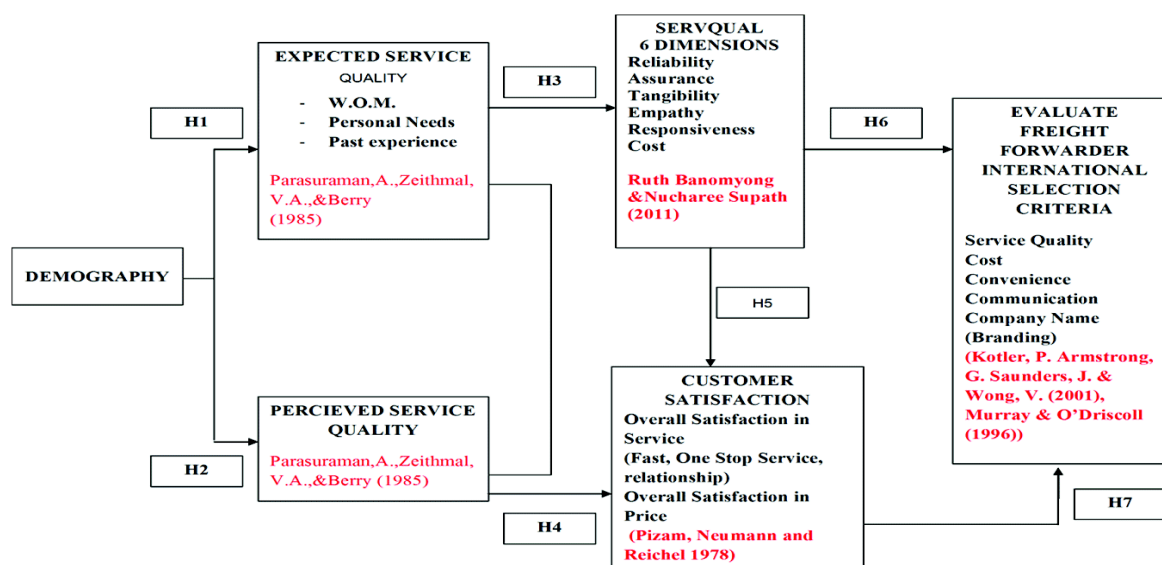
Carrier types include waterborne vessels, airplanes, trucks or railroads. Freight forwarders typically arrange cargo movement to an international destination. Also referred to IFFs, they have the expertise that allows them to prepare and process the documentation and perform related activities pertaining to international shipments. Some of the typical information reviewed by a freight forwarder is the commercial invoice, shipper's export declaration, bill of landing and other documents required by the carrier or country of export, import or transshipment. V. Kannan, S.K. Bose and N.G. Kannan, 2011 studied about an evaluation of ocean container carrier selection criteria; case of an Indian shipper's perspective and indicated that there were several criteria modes such as freight charges, transit time, SERVQUAL and customer satisfaction. SERVQUAL (Parasuraman et al., 1988) is the most popular service quality measurement. Basically carrier selection studies shall be classified into three categories viz., shipper-only studies, carrier versus shipper studies and carrier versus export & import shipper studies. Shipper-only studies are uni-dimensional studies which study the perceived importance of selection criteria only from shippers' perspective.

Carrier versus shipper studies are bi-dimensional studies which study the perceptual difference of various criteria between carriers and shippers. Nyeck, Morales, Ladhari and Pons, 2002 stated the SERVQUAL is a measuring tool "remains the most completes attempt to conceptualize and measure service quality" and also defined "main benefit to the SERVQUAL measuring tool is the ability of researchers to examine numerous services industries such as healthcare, banking, financial services, and education". Focusing on transportation industry, SERVQUAL is measurement service quality is the result of the discrepancy between customer's expectations on services and their perceptions actually received (K. Yousapronpaiboon, 2002). The theoretical foundations, in early 1980s to 1990s had several studied disaffirmation paradigm related to discrepancies between prior expectation and actual perceptions of performance service quality future more (Parasuraman, Zeithaml and Berry, 1994 and 1998).

METHODOLOGY

The methodology of this paper can be separated into 2 parts, first part is develop conceptual framework on the Figure 1 in order to determine which international freight forwarders services attributes. The conceptual framework of this study is to identify how we can measure in order to understand customers' requirement and expectation of service quality and related firms can implement and develop to CRM and build loyalty of customer base on customer satisfaction in term of quality and price available. Moreover, 3PLs business can create the competitive advantage strategy by using the information from this research as the benefit.

Figure 1 : Conceptual Framework



Hypotheses are based on the theories discussion in related on this research articles.

- (H1): Expected Service Quality is dependent on firm demographic.
- (H2): Perceived Service Quality is dependent on firm demographic.
- (H3): There is significant relationship between Expected Service Quality and SERVQUAL 6 dimensions.
- (H4): There is significant relationship between Perceived Service Quality and Customer Satisfaction.
- (H5): There is significant relationship between Customer Satisfaction and SERVQUAL 6 dimensions.
- (H6): There is significant relationship between Evaluate Freight Forwarder International Selection Criteria and SERVQUAL 6 dimensions.
- (H7): There is significant relationship between Evaluate Freight Forwarder International Selection Criteria and Customer Satisfaction.

The second part of methodology is collection tools conducted survey by questionnaire was developed base on relevant to the objectives and conceptual framework of this study by separating to 6 divided parts. The results of analysis from primary research by using questionnaires to be a tool of the data collection method. The total sample size in this study consisted of 400 international trade companies in Thailand including importer and exporter firms, addition the questionnaires were designed appropriate with respondents who has decision making power or authority to select 3PL provider services. The data analysis is presented in five sections as follows: Demographic of the respondents, respondents on level of important and level of satisfaction, the results of statistical analysis for Expected Service Quality and Perceived Service are dependent on demographic, regression analysis, the result of statistical analysis for Expected Service Quality are dependent on SERVQUAL included between Perceived Service Quality and Customer Satisfaction and regression analysis, the results of statistical analysis for evaluation freight forwarder international selection criteria are dependent on SERVQUAL and Customer Satisfaction.

CONCLUSION AND RECOMMENDATIONS

This study had demonstrates level of important and level of satisfaction to the respondents. The results of statistic for expected service quality and perceived service and firm demographic. The analysis the relationship between expected service quality and SERVQUAL. Also analysis relationship between perceived service quality and overall customer satisfaction. Firm Demographic: This study found that all firm demographic which are department of international trading, position level, number of employees in company, number of countries are international trading and types of manufacturing are related to expected service quality. While only two characteristics which are department of international trading, and number of countries are international trading that are related to perceived service quality.

Expected Service Quality: This study found that expected service quality which are service, price, place, promotion, process, people, physical evidence and word or mouth had the relationship with all factors in SERVQUAL which are reliability, assurance, tangibility, empathy, responsiveness and cost. **Perceived Service Quality:** The study found that perceived service quality which are service, price, place, promotion, process, people and physical evidence has no significant relationship with customer satisfaction.

SERVQUAL 6 dimensions and Customer Satisfaction: This study explored that SERVQUAL 6 dimensions that reliability, assurance, tangibility, empathy, responsiveness and cost had the relationship with customer satisfaction. **Evaluate Freight Forwarder International Selection Criteria:** This study found that evaluate freight forwarder international selection criteria which were service quality, cost, convenience, communication and company name / loyalty had the relationship with SERVQUAL 6 dimensions which are reliability, assurance, tangibility, empathy, responsiveness and cost. While only 2 factors which are convenience and communication had the relationship with customer satisfaction which are overall customer satisfaction in service and overall customer satisfaction in price.

Recommendation to International Freight Forwarders Company: International Freight Forwarder Company should provide the best service (over standard in SERVQUAL) and should provide the quickly response or set up KPI in any matter related matter and solves all customers' problems also attempt to build customer loyalty among shippers or build good relationships with customer and International Freight Forwarders should enhance distribute channel for customer convenience purpose.

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Factors Influencing the Enhancement of Restaurant Business for Halal Culture Tourists in Bangkok.

Wiriya Boonmalert

81 Soi Pattanakarn 20 Suanluang Bangkok, Thailand

wiriya.bo@ssru.ac.th

Abstract. This research project is a survey by objective 1) To study the causal factors, factors that influence the business potential for restaurants to accommodate tourism halal culture on logistics route, thinks in the same sector, ASEAN. Contains the environment factors in the external environment factors. Factors, the availability of resources. A factor of cooperation in halal food production industry chain. To create a trust factor. And competitive advantage in factor 2) To study the causal relationship to increase its restaurant business to accommodate tourism halal culture on logistics route in the ASEAN region 3) In order to check the conformity of the model with empirical data to increase business potential restaurant to accommodate leisure. Halal culture on logistics route in the ASEAN region. By population in this study is. Muslim restaurant in Bangkok. The results of the analysis of the data found that Muslim food establishments, most of which are Muslims then. In addition, users would need to know the main Cook of halal is a Muslim, then. Raw materials must be in accordance with the methodologies of halal with as well. Business owners must be responsible if things that are need to be clean and properly according to Islamic principles. Because the main properties associated with religion. If done wrong, you'll feel the sin which is sensitive. And that is to build trust with our customers is Muslim, so as to meet the required standards of halal food is the subject of cooperation and mutual benefit is Department of Muslim consumers. Entrepreneurs and the nation.

Keywords— Enhancement of Restaurant Business, Halal Culture, Tourist, Bangkok,

INTRODUCTION

Based on the research. Crescentrating Halal tourism experts in Singapore, together with DinarStandard Companies in the US who follow the Muslim lifestyle market find that 2011 Muslim tourists around the world are a niche market with a market value of \$ 126,100 million. The demand is expected to grow by 4.8 percent per year until 2020, compared with a global average of 3 percent, and the number of Muslims worldwide will increase from the current 1,600 million to 2,200 million in the year. 2573 accounted for 26.4 percent of the world population. Halal is a word derived from Arabic meaning that any production, service or distribution that does not contravene the laws of religion can therefore be said to be "halal food". Through the process of mixing, processing, or transforming the doctrine. Is guaranteed Muslims generally can consume food. We can observe the product as a "Halal" or "halal" seal on the side of the packaging.

Halal food is of great interest to Thai society. It is not only Thai Muslims who need to consume halal food. All countries around the world accept quality Thai food. If added to the production halal correct. It will expand the market. Service sector, especially restaurant, restaurant, Halal kitchen in hotels. Must adapt to Halal standards. To accommodate this group of tourists will have increased. The Muslim market has a high potential. There are also Muslim tourists who want to visit Thailand. But there are problems with finding reliable halal food. Hard to find And most of the open service is often not meet the needs of the customer needs. Consumption is a major obstacle to the growth of Muslim tourists. Entrepreneurs who want to scramble these markets.

There should be four areas: personnel, food and management, including religious knowledge. (Halal Food) It is a matter of great interest from Thai society. It is not only Thai Muslims who need to consume halal food. All countries around the world accept quality Thai food. If added to the production halal correct. It will expand the market. Service sector, especially restaurant, restaurant, Halal kitchen in hotels. Must adapt to Halal standards. To accommodate this group of tourists will have increased. The Muslim market has a high potential. There are also Muslim tourists who want to visit Thailand. But there are problems with finding reliable halal food. Hard to find And most of the open service is often not meet the needs of the customer needs. Consumption is a major obstacle to the growth of Muslim tourists. Entrepreneurs who want to scramble these markets.

Thailand is one of the gateways to ASEAN. So to prepare the entrepreneur. In support of the entry into the ASEAN Economic Community And the publicity is widely known. It is a development based on the potential of the area and the quality of life of the people in accordance with the plan to develop the production and economic infrastructure in line with the potential of the area and the needs of the people. Halal food is also an important element in promoting Muslim tourism. Brunei Darussalam, Indonesia and Malaysia. It has become Thailand's main market for food exports. Halal and products Thailand's strengths in agriculture with high quality standards. Halal food industry in Thailand has advantages over other countries in ASEAN. In the 11th National Economic and Social Development Plan (2012-2016), the direction of halal development is set in "Strengthening the agricultural strategy.

Food security and energy ", which sets out ways to increase agricultural productivity throughout the chain of production that supports community production and services in creating value added for agricultural, food and energy based

knowledge creation. Identity products such as food and halal products. It also supports the upgrading of agricultural and food standards to international standards. From the background and importance. The researcher is interested in studying the opportunities of Halal tourism business in the form of trade strategies, investment to empower entrepreneurs, and the readiness of restaurant operators to support Halal culture tourists. In the ASEAN logistics route To be ready for economic change. Trade, investment And future travel To be able to develop Thailand's competitiveness for stability and sustainability.

RESEARCH OBJECTIVES

- 1) To investigate causal factors influencing the enhancement of restaurant business in Halal culture in Bangkok. External environment factors Resource availability factor Cooperation factors in the Halal food industry chain Factors to build credibility. And the competitive advantage.
- 2) To investigate the causal relationship model that leads to the enhancement of restaurant business in Halal culture in Bangkok.
- 3) To check the consistency of the model with empirical data to improve the business potential of Halal restaurant in Bangkok.

LITERARY REVIEW

Nowadays, communication, communication and modern communication are more likely to promote cultural spread. The tendency for cultural diffusion to other fast-paced cultures, a process of exchange of cultural change from outside. When new things happen, they tend to spread to other cultures. Cultural and social change is interrelated because social change is a cultural change that leads to change. And cultural change requires a person. This is the act of being, leading to change as well. Sometimes, the change is slow, it does not affect the way of living of members in society. But in some cases, it quickly changed. Inconsistent and extensive areas that severely affect the way members live in society. Tourism is a path leading to cultural change. If talking about tourism. Or travel means traveling through or planning a trip from one place to another using a vehicle. Be nearby or go to a foreign location. Including all kinds of movements, regardless of purpose. Tourism has many and many meanings.

Tourism must consist of At least three factors are travel, camping and eating out. It determines what the tour is. It must be done from the point of view of all three factors, ie, travel means travel, which travel is counted as travel must have at least three conditions, namely, must be temporary, must be voluntary. Travel And not for occupation. restaurants and beverages It is one of the factors in the spending of tourists. When traveling Catering to tourists Must have national food of tourists and local food. Because both types of food is what tourists want. At present, the restaurant business has expanded rapidly. To meet the needs of tourists and the local people. Halal food, which is the only food of the Muslims, is an unbanded food. In particular, the meat must be halal meat. And do not add Haram or banned foods like liquor or pork fat, etc. Halal meat or animal products. It happens only when the animal is properly slaughtered according to Islamic guidelines. Halal food is a commodity that deals with religious rules. Halal awareness, quality of food, Islamic brand and product mix that affect the willingness to buy non-Halal food packaging in Muslim consumers in Bangkok.

HOW TO CONDUCT RESEARCH

- 1) Population and sample The population interested in this study. Can be divided into 2 groups.

- 1.1 The group of Muslim restaurant operators in Bangkok metropolitan area has 44 population (shops).
- 1.2 Government agency is the Islamic Administration Board.

For the group of Muslim restaurant operators. Krejcie and Morgan [8] and the use of stratified random sampling and multi-stage random sampling were used. This is a sampling of the population that is clearly different [9]. And cover the population as much as possible.

For data collection from July to August 2016.

- 2) Sampling

This study uses the Accidental Sampling method to conduct the survey using questionnaire. And using a specific sample selection for conducting interviews using interviews.

- 3) Tool and Tool Quality

The questionnaire was prepared by a panel of questionnaires to study the readiness of entrepreneurs in the operation of Muslim restaurants.

Interviews are tools used to study the management of enterprises in various fields. That corresponds to the style of the Muslim restaurant.

- 4) Data collection

The research project will collect primary data by exploratory interviews from those who are involved. And was used in the design of data collection tools. Primary data collection method is divided into 3 parts.

4.1 Depth interview (Depth Interview) and the method of recording and transcribing interviews. To get the full information.

4.2 Questionnaire collection using Face to Face Survey

4.3 Focus grouping with restaurant operators.

- 5) data analysis

The procedures and methods of data analysis are divided into two types.

5.1 Quantitative data analysis Use statistical processing. By statistical analysis, to find the relationship of the variables from the research.

5.2 Qualitative data analysis. It will be analyzed and synthesized using Content Analysis techniques. After that, both quantitative and qualitative data will be analyzed and integrated into the study.

RESEARCH RESULT

According to the survey, Muslim tourists have different needs than other tourists. Both clothing, food, lodging, travel and shopping. That would be wrong or contrary to religious principles. Most Muslim entrepreneurs are very aware of this. Basic facilities for Muslims are hotels with the Gibbat sign. (Sign of Makkah direction) Signpost to Prayer Room Halal Prayer Halal Toilet with sprinkler for body wash And travel with time for daily prayer. Most establishments lack the preparation of these things. In some of the establishments provided, it is not enough for the amount of people to access. Because the establishment has limited space. Making the place for prayer is not appropriate. In addition to the place for doing business, then. The Muslim food establishments, mostly emulators, Besides, the cook must know Halal or the Muslims. Raw materials must also be processed by Halal. The food is clean and properly cooked according to Islamic principles. What Muslim entrepreneurs do to their customers is what they eat. Because of religious principles. Build confidence in using halal restaurant service as a Muslim entrepreneur.

The symbol of a Halal establishment is to assure the customer of the size, clarity and location of the symbol. Use of technology to identify the location of the establishment. By customers who know the establishment, due to suggestions from the Muslims together. Or acquaintance or acquaintance with the owner of the establishment. Important to develop a medium-sized restaurant in Bangkok. Must get Halal It demonstrates the process of producing fresh and clean food according to the criteria that the religion certifies and passes the criteria. This enhances the credibility of entrepreneurs and the development of the Halal potential. In order for Muslims to consume Islamic halal food correctly. It is safe, safe, and safe from Islamic (Harem) prohibited substances and contaminants. Entrepreneurs gain business benefits of recognizing the correct halal production of Islamic and The country benefits from economic development by the government to support the development of the halal industry as a whole in terms of raw materials development. Marketing Entrepreneurial Manufacturing Facts and Improvements Halal food standards of Islamic organizations To export halal food in the global market.

RECOMMENDATION

- 1) There should be a continuous and concrete leadership in the implementation of Halal. Link integration The work of the relevant departments to drive the halal business.
- 2) The government lacks the main responsibility and links the development of halal. All sectors have consistently performed effectively. There is also a lack of storage systems. And halal services of the country Lack of Halal Law And the halal consumer protection of the country, therefore, affect confidence. Both the global and domestic markets.
- 4) Knowledge creation Understanding and Marketing Raise awareness of the importance of halal business.

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The Participation of Ecotourism Management in Samui District, Suratthani Province

Preecha Wararatchai

Rajabhat University, Bangkok, Thailand

preecha.wa@ssru.ac.th

Abstract. The objectives of this research were to study an Ecotourism management, to study the participation in tourism and to compare the participation in ecotourism within Samui District, Suratthani Province. The data were collected from Samui residences, totally 400 respondents. The instrument used to gather data were questionnaires with the reliability used at 0.89. The basic statically used to analyze the data were frequency, percentage, mean, standard deviation, t-test and One-Way ANOVA. The result of the study was found that the people had the strongly agreed toward the participation in ecotourism within Samui District, Suratthani Province. To consider into each aspects were found that there was one aspect which had the highest - level of agreement; it was the community organization aspect and there are 3 of high - level agreement; after ascending order from top to bottom were found as follows; Management Aspect, Learning Aspect and Natural Environment and Cultural Aspect. The factor of the participation in ecotourism which affected toward the conception of the people, the overall were found that the people had totally agreed with that. In addition, to consider into each aspect by sort out from top to bottom were found as follows; the participation on evaluation, the participation of planning, the participation on problem solving and issues and decision making on the operation policy. The conclusion on comparing of conception toward the participation in ecotourism management were classified by personal aspect were found as follows; Gender, Age, Monthly Income and length of living in Koh Samui had a significant different at .05 and the result of the comparison the conception of the people toward ecotourism management were classified by the personal factor, the overall were found that; Gender and Monthly Income had a significant different at 0.05 and in regards of Income had different in Community organization aspect, management aspect and learning aspect had a significant different at .05

Keywords— Ecotourism, Natural Environment, Participation, Evaluation

BACKGROUND AND SIGNIFICANCE OF THE PROBLEM

The changing world travel patterns affect the direction of travel. In many countries, Thailand also promotes natural, cultural, and cultural heritage attractions. Ruins and traditional lifestyles make a lot of income into the country. Governments in each government are trying to push Thailand to respond to current tourism flows. Trying to bring things to life in a beautiful natural state. The beauty and interest of the cultures and traditions of many areas in the country will become a selling point to generate more revenue from tourism. The tourism industry is Thailand's major income. And the government has a policy to push for more tourism. But the result is not only positive. Prevent the degradation of natural resources from tourism. Tourism must grow to a certain extent under the capacity of the area. This led to the development of a new type of tourism to protect the environment. Ecotourism, tourism focused on economic development and conservation. And in order to make ecotourism a success, one of the key elements of ecotourism is tourists, because tourists are close to tourist attractions. And tourism behavior of tourists will affect tourism. And if traveling by knowing how to do it, it will have minimal impact on the Koh Samui is one of the major tourist attractions of Surat Thani and southern Thailand.

It is the largest island in the south of the Gulf of Thailand. (Thailand Institute of Scientific and Technological Research 2006) mentioned Koh Samui. Koh Samui is about 80 kilometers east of Surat Thani. The district consists of 26 small islands, covering an area of 314 square kilometers. Only Koh Samui has an area of about 218 square kilometers. Koh Samui is a beautiful island in the south. Especially in the marine natural resources are the beaches, islands, coral reefs and many beautiful ecosystems around the island. These natural resources are ideal for relaxation and study. In addition, Koh Samui also has other attractions such as waterfalls, forests and cultural attractions. As well as other marine attractions surrounding it. From the beauty of the island. Koh Samui is very popular and popular among both Thais and foreigners. The expansion of facilities and services, tourist accommodation, restaurants, souvenir shops. Including governmental operations in public utilities and services such as electricity, water supply, roads, ports, garbage disposal. Security, etc.

These things are necessary to meet the needs of tourists and local people if these basic services are not enough, in addition to the bad effects on tourism development, It also has a negative effect on the development of the tourism industry. From this situation, Koh Samui stepped into a full-fledged tourist destination. And must accommodate the impact that most tourist cities are inevitable. Be it natural or social, and more importantly, a degraded natural ecosystem. And it also affects the economic condition of the people in the community that has changed from being supportive to being more business-like. If there is no cooperation from the people in the community. And those involved The impact of environmental problems is difficult to reconstruct. Therefore, all these issues must be co-ordinated by all parties to make serious changes so that natural resources and environmental resources continue to exist.

RESEARCH OBJECTIVES

Objectives of this research

1. To study ecotourism management. In the district of Samui Surat Thani.
2. To study the level of participation in eco-tourism. In the district of Samui Surat Thani.
3. To compare the participation in the surfing.

METHODOLOGY

In research on participatory ecotourism management. In the district of Samui Surat Thani The researcher conducted the following steps:

1. Population and sample
2. Tools used in research.
3. Quality Assurance Tool
4. Data collection
5. Data Analysis

Population and sample

This study divides the population as follows: The population used in the study is those who have domicile. In Samui, there are 61,318 residents in Samui. (Registration from the local registry of the municipality of Koh Samui. 2555)

Data collection

This study relies on data from primary data sources and data.

Secondary (Secondary Data) as follows:

Primary Data Find out the questionnaire. Study conducted data collection. Using a questionnaire for the cooperation of the population in the district. Koh Samui, Surat Thani Province responded to the questionnaire. The researcher explained and explained the details of the objectives of the questionnaire. And how to collect information for individual respondents.

Secondary Data is derived from the related documents from the registration of the municipality of Samui, textbooks and indicators. Ecotourism attractions and related research

Data analysis

In this research, the researcher analyzes the data by verifying the completeness of the data. Grade markers are then assigned to statistical processing. In the following order:

1. General personal information Statistical processing Percentage Mean (Mean)
2. Information in Section 2, Information on Ecotourism Management and Part 3, Information on Participation in Ecotourism Management. The data obtained from the questionnaire evaluates the rating scale. The analysis is performed in the form of frequency, mean, and standard deviation. Compare the level of integration and level. Ecotourism management Classified by personal factors. With One-way ANOVA and

RESEARCH RESULT

Research results on Participatory Study in Ecotourism Management. In the district of Samui Surat Thani Province:

1. General information of the respondents found that the majority of respondents were male. Aged between 41 and 50 years old. Bachelor or higher education. Head of household and average monthly income of 20,001-30,000 Baht living in Koh Samui over 30 years.
2. The public opinion on ecotourism management was found to be at a high level. When considering each aspect, it was found that the highest level was 1 level and 3 level was the highest level. Management Learning and natural resources and culture respectively.
3. Factors related to participation in ecotourism management. The effect on public opinion as a whole was found to be at a high level. When considered on a case-by-case basis, it was found that at every level. Sorting from descending to mutual evaluation. Joint planning Finding problems and issues together and making policy decisions.
4. Summarize the comparison of public opinion on participation in ecotourism management. Classified by personal factors as a whole, it was found that gender, age, monthly income and Duration is in the Samui area. The difference was statistically significant at the 0.05 level.
5. Conclusions on public opinion on ecotourism management. In terms of overall personal factors, sex and income per month were statistically significantly different at the 0.05 level. The differences were found only in organizational, community, management and learning.

SUGGESTION

Based on the results of the study on participation in ecotourism management. In the district of Samui Surat Thani Province has been found to be involved in ecotourism management. Aall the factors of the research applied to the planning and formulation of the strategy to benefit and potential, focusing on the process of participation to the community. Researchers have suggested the following for use:

Natural resources and culture

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1. Should support the development of natural areas and cultural traditions related to ecological conservation zone.
2. There should be rules and regulations governing the scope of the nature of the community.

Community organization

1. Accept all people to participate and enjoy the economic benefits of ecotourism.
2. Organize a tourism system based on the lifestyle of local people and communities in the area.

Management

1. It should be planned to improve regulations between public and private operators, as well as the public. By giving equal opportunity to action.
2. Sustainable management of the environment and the conservation of resources. Pollution prevention Control and develop sustainable tourism.

Learning side

1. Create activities that provide opportunities for tourists to get close to nature and benefit directly from nature and lifestyle.
2. Provide knowledge about sustainable ecotourism management. To keep up with new knowledge always up to date.

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Factor of Religious Tourism for Asian Tourist who Speak English, A Case Study of the Grand Palace Bangkok, Thailand

Thipjutha Deedom

College of logistics and supply chain/ Suan Sunandha Rajabhat University, Thailand

thipjuta_d@yahoo.com

Abstract. The objectives of study of Factor of religious tourism for Asian tourist who spoke English, a case study the Grand Palace Bangkok, Thailand were : 1) to study the behavior of Asian tourists who made religious travelling on the case of the Grand Palace Bangkok, Thailand ; 2) to study the factor level of religious tourism for Asian tourists who speak English on the case study of the Grand Palace Bangkok, Thailand, and 3) to compare the differences between the factor level of religious tourism for Asian tourists who spoke English on the case study of the Grand Palace Bangkok, Thailand based on personal characteristic, using Questionnaires as a tool to collect data from a sample group, which were 385 Asian tourists who spoke English and traveled to worship the Grand Palace Bangkok, Thailand. The statistics used in the descriptive analysis were frequency, percentage, mean and standard deviation. The statistics used in testing the hypothesis were, t-test and F test. If any difference was found, the LSD pairwise comparison method was implemented.

Keywords— Cultural tourism, religion tourism, the Grand palace, Emerald Buddha

INTRODUCTION

The hospitality business is one of the important factors to enlarge the economy of country. It is most often believed that tourism can help generate supplementary income to the local. From the industrial service business, which can encourage great amount of money from the tourists spending during visit a country and can links to the whole service industry business such as the hotel industry, airline, support global trade, labor, restaurant, local community, souvenir business, and travel agencies. 40 years ago, Thailand had started focus on how important of hospitality business, then started to create the marketing strategies plan by focusing how to increase the quantity of tourist later than the quality of the tourist. Then the result its affect to the country. After that the trend had been changed Thai government were supported to discover the natural tourist attraction where can promote or advertise to Thai travelers and over tourists for special interesting visit purpose. This project open new view points on the hospitality trade. The modification changed from Modern Tourism which focus only on quantity to Post-Modern tourism that emphasized particularly purpose of visiting for example religion tourism or cultural tourism and local community tourism.

Another definition is changing from regular tourism to sustainable tourism which encourages people to preserve environment or natural. It called Community Based Tourism, local people organized or managed by self. Nowadays, the trend adapted from traveling in big group to smaller group or solo-traveler instead. The modern tourism activities need harmoniously create to the purpose of travelers for memorable experiences. Thus, it is important that all business that related to hospitality filed will be understand the concept and work hand in hand with the community organizations. This will lead to a situation wherein tourists can gain an understanding of the interrelationship between the environment and the local people and their culture.

In additional, the travelers will become repeating tourists later. Main reason for changing is the tourists prefer tailor-made. Defining strategic research agenda of national tourism during 2012 – 2016 by The National Research Council of Thailand focuses on researching which set as one of the strategic research agenda to promote the national tourism. Current, the religious and cultural tourism is one that receives special attention for Buddhist and other religions. The highest belief of Buddhist is respecting to Buddha and a famous temple place in Bangkok is The Grand Palace including Wat Phra Kaew (Temple of the Emerald Buddha) , affects the nearby business to earn good profits and area to be well-kno wn.As it is importance, researcher realized that there are many people come to visit and pay respect to the Emerald Buddha at this place. The researcher initiated made a research about the factors that affect the travel behavior of English Speaking Asian Religious Tourists.

LITERATURE REVIEW

World Tourism Organization (WTO) defined as Tourism comprises the activities of the person traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purpose not for the sake of occupation or staying permanently. Tourism is a leisure activity involving the movement of people to destinations away from their usual residence. It is often international in character. According to the definition of the Association of International Scientific Experts in Tourism (AISET), tourism is travel to a country outside of the one's

residential country. World tourism Organization (UNWTO) classified tourism into three categories which are natural based tourism, cultural and religious based tourism and special interest tourism with the objectives of recreation, business or other within less than one year (Rowe, Smith, Borein,2002).

Tourism Authority of Thailand (2548) said promoting on cultural tourism is a specifically lifestyle option of the people who interested in religion's culture, the historical of those people, their art, architecture or leisure fellowship purpose. They concerned that religion tourism had become an important parts of tourism product to support the economy in the future and can be good representative for new product of Tourism industry. Religion tourism is subset of the conception cultural based tourism; religion tourism has the main leisure purpose same as another tourism classification but also emphasized about seeking peaceful, belief and hopefully to fulfillment of dream including faithful and belief for miracle of religion. (Wongwipak, Chanan,2012)

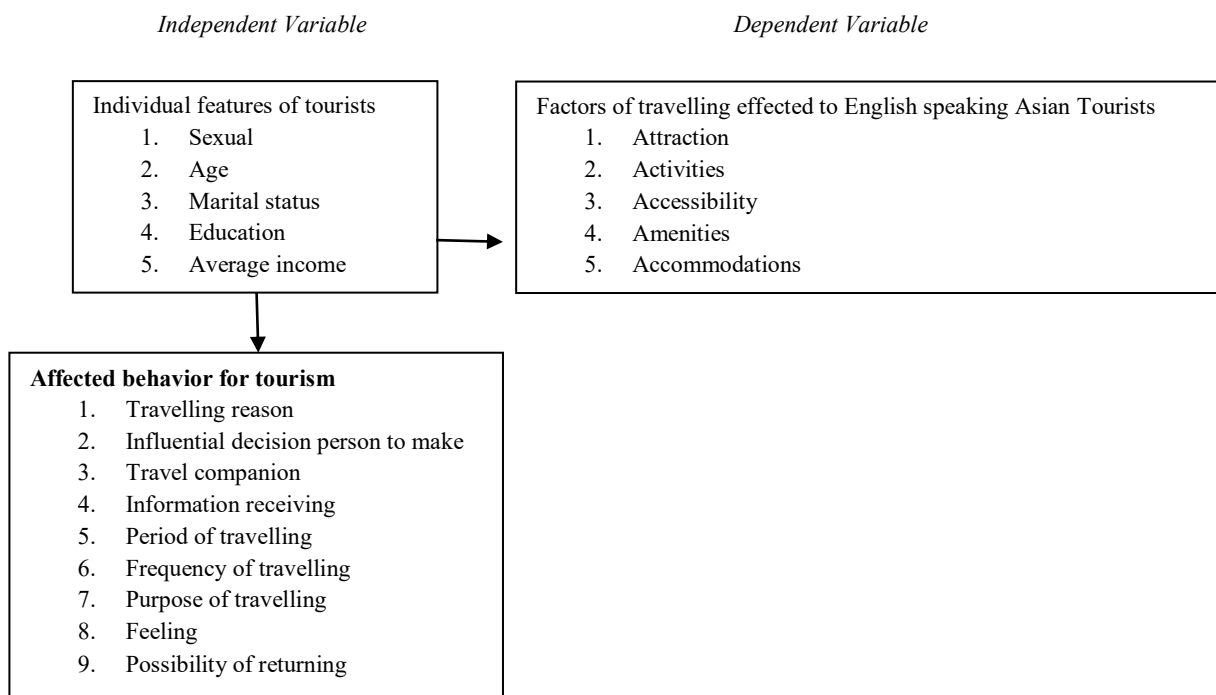
The assessment of destination potential was related to the five major components of destination or 5A consist of attraction, accessibility, amenities, accommodation, and activities. (Dickman, 1996) said the attraction and purpose are an important factor for tourist to choose travel destination as natural attraction, built attraction cultural attraction and social attraction. Mc Coll et al (1994, p116) defined consumer behavior as the actions a person take towards purchasing and using products and services, including decision making process that precedes and determines those actions that can show how to understand the tourist behavior and become successful manager in the tourism industry by understand consumer needs and wants and subsequently market programs.

Factors impact to Tourist behavior (Taechataweewan Sureerat, 2002) to understanding the tourist behavior, there are many factors that impact to behavior of the tourist as following economic factor, demographic factor, geographic factor, political factor, media factor, factor of timing, situation and healthy, technology factor. Needs/Interest toward Destination Kotler(1999) states that buyer decision process is composed of five stages: firstly need recognition, information search, evaluation of alternatives, purchase decision and post purchase behavior

HISTORY OF THE GRAND PALACE AND EMERALD BUDDHA

The Grand palace is a complex and impressive building at the heart of Bangkok, Thailand which consists of several buildings including very famous and greatly revered Emerald Buddha. The Grand palace and the temple of the Emerald Buddha were built after the King Rama I. There is a different style of architecture between Thai Temple of the Emerald Buddha and the more European inspired design of the Grand Palace. Wat Phra Kaew is renowned as the most beautiful and important Buddhist Temple in Thailand. It houses Phra Kaew Morakot (Emeral Buddha) carved from a single block of fine jade. The robes on the Buddha are changed with the seasons by The King of Thailand and forms an important ritual in the Buddhist calendar. This place the kings stopped living in the palace around the turn of the twentieth century, but the palace is still used to mark for all kinds of other ceremonial and special auspicious occasion. Wat Phra Kaew(Emerald Buddha). On inside walls of the temple's compound there are extensive mural painting, the famous one call "Ramayana". It is longest wall painting in the world as well as one of the Unseen Bangkok. A distinctive characteristic of this temple is that there are no monks living in like other temples.

RESEARCH FRAMEWORK



RESEARCH HYPOTHESIS

Different of sexual, age, marital status, education and average income are important to factors of making decision on religious tourism for English Asian Tourists.

Tools

Section 1 Individual features of tourists such as sexual, ages, occupation, residence location and income. The questionnaire is check list.

Section 2 Behaviors of religious tourism for the English Speaking Asian Tourists reason for travelling, influential person to make decision, travel companion, information receiving, frequency of travelling, purpose of travelling, feeling about tourist attractions, possibility of returning. The questionnaire is check list.

Section 3 The Factor of hospitality (5A) such as attractions, religion activities, accessibility or transportation, amenity such as information, banner, and restrooms and last on accommodation. The questionnaire is Likert Scale. Base on the overall respondent's opinion (strongly agree, agree, neither agree or disagree, disagree, and strongly disagree)

METHODOLOGY

This research used quantitative methodology. The survey was answered by 385 Asian tourists who speak English, and travelled to visit the Grand Palace and Emerald Buddha Bangkok. Non-probability sampling technique of judgmental and convenience sampling are employed in this research. This research used quantitative methodology. The sample sizes for this research were 385 Asian tourists who spoke English and traveled to visit The Grand palace and worship the Emerald Buddha. The statistics used in testing the hypothesis were, t-test and F test. If any difference was found, the LSD pairwise comparison method was implemented.

Respondent Profile

The result showed that the majority of 203 foreigner tourists who traveled to visit the Grand Palace and worship the Emerald Buddha were female (52.73%), aged below 30 years old (57.66%), single (69.35%), with bachelor degree (34.55%). Most of them had monthly income between 50,000-60,000 Baht (36.88%).

RESULT

Based on the behavior of Asian tourist who came as religious travelling on the case of the Grand Palace Bangkok, it was found that most tourist had their reason of visit to worship for their wishes (37.14%). Member in the family were persons who influenced the decision making (47.01%)., traveled with friends (44.68%), received the information from friends (45.55%)., visited during 9:01-11:30 pm., visited for the first time, intentionally visited to worship the Emerald Buddha in particular, was very impressed with the visited place and would come back again because of having admiration and faith in the Emerald Buddha. The purpose of making worship is being success in the business (37.14%), health concerned (18.44%), personal relationship (11.43%), and study (3.64%).

The overview on the factor level of religious tourism of the Asian tourist who spoke, English, a case study on the Grand Palace was at the high level having an average of 4.02. In consideration of individual aspect, it was found that the tourism attraction aspect had the highest average level followed by, transportation aspect, followed by accommodation aspect, the communication aspect, religious tourism and facilitating aspect respectively. The overview for the attractions was at the high level having an average of 4.08. In consideration of individual by the beauty of sculpture of the Grand Palace and Emerald Buddha, following by beliefs about motivation of prayers to reinforce in commercial business, health and education aspect, scenery in tourist attraction of the Grand Palace aspect, the worthy statue of worshipfulness and respectability lastly about history and reputation of the Grand palace and Emerald Buddha.

Factor about the activities was at the high level having an average of 4.01. In consideration of individual by make a merit and worship aspect, sight-seeing aspect, vow or fulfill the vow aspect and lastly to purchase scared object aspect respectively. Factor about facilities consideration of individual by the reasonable price for flower, joss sticks and offerings vendor's aspect, safety for tourist's property aspect, good environment management for cleaning and arrangement aspect, cleared signage and banner aspect, staff provided good information aspect respectively. The factor of transportations consideration of individual by safety for travelling to visit aspect, easy to find a public transportation aspect, outstanding location aspect, reasonable fare of transportation aspect and lastly enough transportation lines available for travelling to visit aspect respectively. Factor about accommodation was at the high level having an average of 4.30. In consideration of individual by famous place located nearby aspect, well-known hotels located nearby aspect, good location aspect, the hotel promoted religious activities aspect respectively.

Tourist of different gender, age, educational level, and average monthly income had factor level of religious tourism for Asian tourist who spoke English, a case study of the Grand Palace Bangkok differently at the significance level of 0.05 while the status was not very much different.

CONCLUSION AND FUTURE WORK

The survey showed that the behavior of Asian religious tourists mostly for worship. Mostly of tourist their visit because their family member influenced about decision making and their visited with family during 9:01-11:30 and 13:00-15:30.

Visited for the first time intentionally visited to worship the Emerald Buddha was very impressed with the visited place and would come back again because of having admiration and faith in the Emerald Buddha. For all above shown that the behavior of tourist are related to the concept of 5 steps making decision Kotler(1999) states that buyer decision process is composed of five stages: firstly need recognition, information search, evaluation of alternatives, purchase decision and post purchase behavior.

Firstly the tourism promotion by offering tourist information to potential tourists on public channels or concerned organizations, needs by when the potential tourist received the information it will cause internal demand in their mind, motivation step by there are 2 factor for push factor which caused demand for travelling and pull factor which is attraction to the destination, step 2 information search is encouraged to create tourist image of local destination to decide whether to travel anywhere. Step 3 evaluations of alternatives by comparing all the information and then purchasing decision step. Lastly post purchase behavior. So, related to tourism organizations and the hotel should develop and promote the destination nearby the areas which influence tourist future travelling intention by: Firstly to increase publicize on history and reputation about the Grand Palace and Emerald Buddha by provide more historical information, to announce the nearby hotels for promoting about religious tourism lastly for the knowledgeable more staffs are required to give details of the background of the places in order to satisfy tourists' interest in religious tourism activities.

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Goods Delivering Service Quality of Goods Industrial Manufacturer

Bundit Phrapratanporn

Suan Sunandha Rajabhat University, Thailand

bundit.ph@ssru.ac.th

Abstract. Product delivery in the manufacturing sector considered important role in business growth. While business is more competitive all the time. Businesses must find ways to support the race to find a way to survive and grow. Therefore, this research aims to study the product delivery quality service to customers in the industrial business that influence the corporate image and customer loyalty in the industry. The study was conducted by the row material purchasing officers of industrial products manufacturers company in Nakhon Pathom province and used data analysis by structural equation model. The research found that product delivery service quality has a direct influence on the company image and manufacturing customer loyalty and it also has indirect influence the manufacturing customer loyalty through corporate image. Research results can be used in the industry for competitive advantage of all business.

Keywords— Product Delivery Service Quality, Company Image, Customer Loyalty, Structural Equation Model

INTRODUCTION

The competitive situation is more violent. Because a new commercial competition occurs all the time. Along with the development of competitors in the same industry, there is a greater market share in every industry. With the development of products, prices, distribution channels. And marketing communications. This will create the highest customer satisfaction. To keep customers from buying products of the organization as long as possible. To engage in trades, if the entrepreneur can retain customers for a long time. It will result in the entrepreneur is successful in running a business as well. Because being loyal to your customers is important. It will make entrepreneurs profit and gain competitive advantage (Auka, 2012).

Industrial shipments are a process of the logistics process, which is a process that promotes value for the product and the organization. By moving, transporting raw materials from one value-added process. Go to the process of adding one to your values. It is a part of business success because it makes the production process of each industry have good flow. By the past research found that. Delivery of standard products on time, quantity, meet the requirements. Clean staff And cargo handling with caution. An important part of marketing strategies that affect corporate image and customer loyalty. (Phrapratanporn and Wangkananon, 2015)

More and more intense business competition in the present and future, entrepreneurs must find a way to keep the organization alive. Creating good service quality plays an important part in creating a competitive advantage. Because of the quality of service and Customer satisfaction is the basis of business success. As a result, organizations have more market share because Customers have come back to repurchase. Brand loyalty And recommend This will affect the profitability of the organization (Angelova and Zekiri, 2011). It should be an important choice to build customer loyalty for your organization. So researchers are interested in studying. Quality of service delivery of industrial goods manufacturers. It has not been found in the research before. The researcher studied the concept of quality of service. Corporate image And customer loyalty The research results can be applied to all industries that produce industrial goods.

RESEARCH OBJECTIVES

This research aims to study goods delivery service quality of industrial goods manufacturers. Influencing to corporate image and customer loyalty.

RESEARCH FRAMEWORK

This conceptual framework developed from the concept of service quality of Zeithaml, Parasuraman and Berry (1990). Found that, service quality consists of trust, reliability, assurance, tangibles, empathy, and customer responsiveness. The concept of a business image (Jefkins, 1982) consists of corporate image and product image. Oliver's customer loyalty concept (1997) found that the measure of customer loyalty from attitude loyalty and behaviors as shown in Figure 1
Figure 1 Conceptual framework of service quality, delivery of industrial products

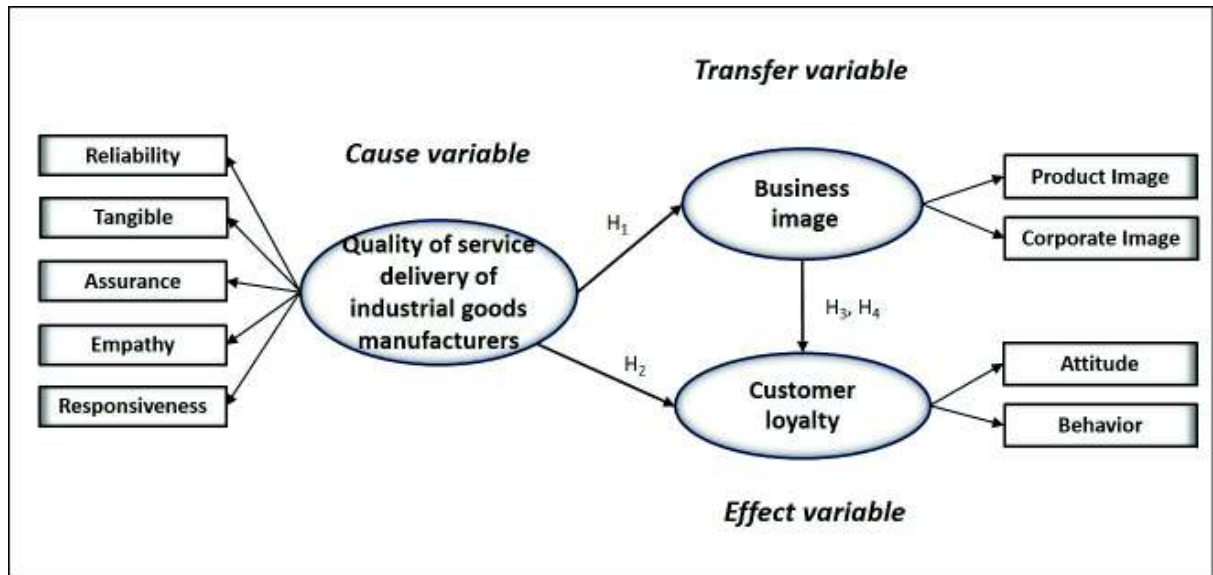


Figure 1 Conceptual framework of service quality, delivery of industrial products

HYPOTHESIS OF RESEARCH

From the above conceptual framework. The research hypothesis can be summarized from the study of the past research as follows.

Assumption H1 : Service quality delivery industry has direct influence to business image

Assumption H2 : Service quality delivery Industry direct influence to customer loyalty.

Assumption H3 : Service quality delivery Industry has indirectly Influence to customer loyalty by passing on the business image.

Assumption H4 : Business image has direct influence to customer loyalty.

LITERATURE REVIEW

Service quality

Service quality is recognition of customer service. Parasuraman, Berry, and Zeithaml (1985) have evaluated the customer satisfaction with the services provided by Parasuraman, Berry, and Zeithaml (1985). Tangible (tangibles), trust, trust Reliability, timely response to customer service. Responsiveness (empathy) (Parasuraman, Zeithaml & Berry, 1998). Based on past research by Liao (2012), research in B2B business found that quality Service is an important part of customer satisfaction, focusing on empathy and empathy, customer service and prompt response. (Responsiveness) is important. Prakash (2011). Quality of service within organization, organization and quality of service outside It will make the production is good quality. This will make the customer more satisfied and loyal to the organization. Rangilar and Visitnithikija (2016) found that quality of service was correlated with satisfaction of land transportation services.

Business image

Business image is the feeling that occurs in one's mind about one thing It may be person, organization, product that is living and lifeless. By the recognition of the impressive. It may be derived from direct and indirect experience. Help build awareness, remember and remember products or services, brands, organizations and institutions. And believe in the corporate stakeholders. It also creates loyalty to the product and service. (Pimolsin, 2013) The type of image that is a component of a business image consists of: Corporate Image Product / Service Image In the past, Cheng (2011) found that corporate image influenced customer loyalty, attitudes and behaviors. By acting on the advice, tell Richard and Zhang (2012) that corporate image has indirect influence on customer loyalty. Influence passes through satisfaction and confidence. This research explores the corporate image of corporate image and product image.

Customer loyalty

Loyalty factors of industrial product manufacturers The factors influenced by the quality of the service delivery industry. And the business image Hutt & Speh (2013) gives the definition of business loyalty. Satisfaction with the company's customers. To keep customers from buying products for a long time. This will bring the value of the organization up. Angelova and Zekiri (2011) found that customer satisfaction is the foundation of business success. As a result, organizations have more market share because Customers have come back to repurchase. Brand loyalty And recommend This will affect the profitability of the organization. Oliver's (1997) Customer Loyalty Concept can be used as a measure of customer loyalty at two levels: loyalty, attitude, and loyalty.

RESEARCH METHODOLOGY

This research is a survey research. By using the questionnaire, which was studied from the theory and research as a research tool in the past. The questionnaire was reviewed by experts with experience in business administration. To assess

the consistency of each question with the purpose of the research (IOC), the researcher selected questions with an IOC value equal to or greater than 0.60, which is consistent with the research objectives. Ready to solve problematic questions. After that, the questionnaire was tested. The reliability of the sample was 30 items with the Cronbach's alpha coefficient and the alpha coefficient of 0.918 showed that the questionnaire was highly reliable. (Vanichbuncha, 2010). The sample population was the procurement manager of the industrial manufacturers in Nakhon Pathom province. It was found that 3,309 companies from 24 districts (Information Technology Center, Department of Industrial Works Thailand, 2017). The researcher then sampled stratified sampling by proportion to size.

Step 1: Bring the whole population into smaller groups. By choosing industrial manufacturers in 3 districts namely Nakornchaisri, Bang Len and Phutthamonthon. A total of 1111 companies.

Step 2: Select each group according to the population of each district. The sample population of 240 samples is calculated from 20 times of all variables from the conceptual framework (Angsuchoti, Wijiwanana & Pinyopanuwat, 2011). However, to simplify and effectively use the statistical program The researcher selected 300 additional population.

Step 3: uses simple random sampling from the population of each group to complete 300 samples.

RESEARCH RESULT

1. A sample of 300 samples was found to be the procurement manager of the industrial manufacturer in Nakhon Pathom province. Mostly female, aged from 31 to 40 years old. Most of them have worked in the industry for 1 to 5 years. And most of them are head of raw material procurement for production.

2. When considering the influence shown in Figure 2, it was found that the quality of the delivery service of the industrial manufacturer directly influenced the customer loyalty the most. The direct weight was 0.90 and the weight of the standard elements was descending. Customer Satisfaction (0.83), Customer Satisfaction (0.77), Customer Satisfaction (0.72), Service Specificity (0.70), and Trust (0.68). Direct negative influence on business image. Direct weight loss is -0.05. Business image has a direct positive influence on customer loyalty. The direct weight value is 0.62. Finally, the quality of delivery service has a negative indirect influence on customer loyalty. The indirect weight factor is -0.03. It accepts hypothesis testing results in H1b and H2 only and does not accept H1a and H1c as low and negative influences. This is confirmed by the results of the causal model correlation test of factors that affect customer loyalty. Based on the empirical hypothesis, it was found that the models were consistent with empirical data (Chi square = 15.48, df = 18, P-value = 0.62897, RMSEA = 0.000, SRMR = 0.026, CFI = 1.00, GFI = 0.99, AGFI = 0.97).

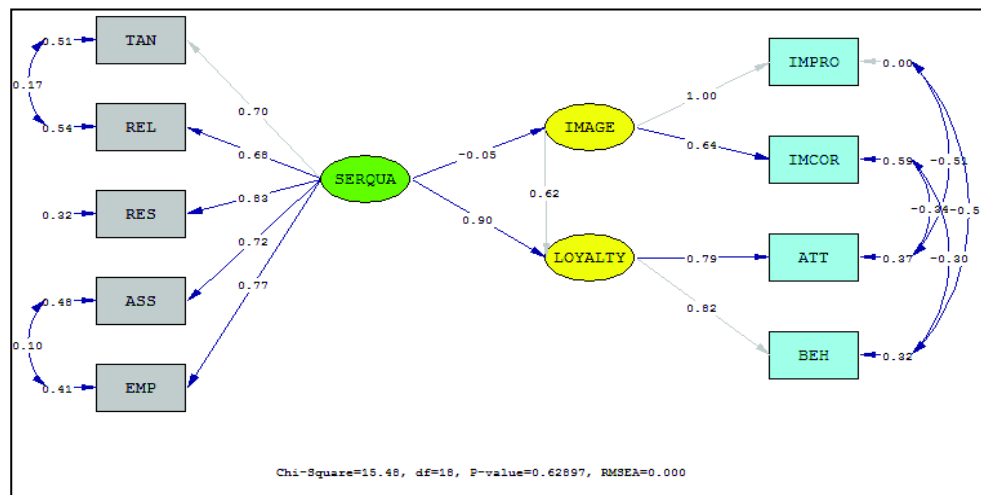


Figure 2

The results of the analysis of the structural equation, quality, delivery services of industrial manufacturers.

DISCUSSIONS OF RESEARCH

The purpose of this research was to investigate the influence of the quality of delivery services of the industrial manufacturers. The influence on customer loyalty. The results of the research will be a guideline to create a competitive advantage in business. The competition is high in many businesses. Along with supporting the growth of the business that is expected to expand in the future. The research found that Quality of delivery service is most important. 1) Customer service is timely, such as delivery at the time of appointment. Troubleshooting for immediate delivery of shipping problems. 2) Caring for your shipment, such as shipment, must be in perfect condition, without defect. Pay attention to the cleanliness of the shipment. 3) Ensure delivery to the customer, such as damage to delayed delivery. Shipping damage insurance. 4) Concrete services such as delivery staff can communicate clearly. Courteous delivery staff 5) Confidence, trust, such as the delivery staff, have been trained to the standard of service. The system can check the quality of delivery. In line with past research, such as Phrapratanporn and Wangkananon (2015), it is found that shipment influences customer loyalty. Rangrit

and Visitnithikija (2016) have long held customer loyalty to the organization. Confidence in the customer. And the understanding of perceived needs of service recipients correlated with the satisfaction of land transportation services.



Figure 3: Weight, composition, and influence size affect customer loyalty.

FUTURE RESEARCH

1. Industry operators can apply this research. To develop an organization to support socio-economic and environmental change. This is to satisfy customers. This will lead to more customer loyalty, and the result is more successful organizations in the enterprise.

2. The government sector regulates the industry. Or industry Bring information about the quality of service. To use as a guide to strategy. To develop the next industrial operators.

SUGGESTIONS FOR FUTURE RESEARCH

Business models with different business sizes should be studied, because the cost of operation is likely to affect the operation is very high. It should analyze the suitability of various strategies. To suit the business organization.

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The Transportation Development with Lean Management; A Case of Van Transportation

Kanikar Sripanomwan^{*1}, Supamit Srisawat², Chattrarat Hotrawaisaya³

College of Logistics and supply chain, Suansunandha Rajabhat University, Thailand

yuiandor@hotmail.com, Chattrarat.ho@ssru.ac.th

Abstract. This research study wastes in activities in transportation. The objective of this research includes 1) study wastes of transportation in university 2) study knowledge of lean manufacturing and lean tools in transportation 3) develop lean tools to reduce the lead time and improve efficiency of transportation. In this research focus on public transportation in Suansunandha Rajabhat University. The methodology of this research is definition problems, research design, population selection, data collection and results. The population of this research is 27 drivers whom have contacts with the university. Group sampling is 25 drivers that is . The research tools are questionnaire and in depth interview. They are interviewed about the process and wastes in transportation. They are 8 wastes: overproduction, waiting, transporting, processing, inventory, movement, defects and talent that are not adding value for transportation. After that, the researcher study lean manufacturing and tools that are flexible resource, pull system, JIT and quick set up. The results of this research show that the wastes in van transportation are 1) overproduction at 50% 2) waiting at 32% and processing at 15% and another at 3%. Most of drivers do not have talent about communication, information technology and scheduling management at (42%, 21% and 5%) as respectively.

Keyword-- Lean, Wastes, Transportation

INTRODUCTION

Business in Thailand has been developed and improved performance for high competition. Most businesses have to improve product quality and reduce cost and lead time (Rajan, 2001). In the past, forecast method was used for production, but the inventory was high level and costs. The lean management system is used for solving these problems, especially Just in time (Holloway and Hall, 1997). It becomes a new strategy to reduce costs, lead time and increase profit and performance. Lean purpose is waste elimination. Fawaz (2003) suggested that lean is a continuous flow without wastes and non value added.

The objectives of this research concludes;

- 1) To study wastes in public transportation
- 2) To improve efficiency of public transportation via the lean management system

The problems of this research

- 1) The poor communications between university and public transportation is the class schedule, number of students and the number of available vehicles.
- 2) The routes of public transportation are not related to the dormitories and service apartments.

The limitation of this research is focused on students who are studying in the Nakornpatom Education Center in 2016-2017.

LITERATURE REVIEW

Lean Management has been set up in 1980 by Toyota Production System that was a part of research of Massachusetts Institute of Technology, USA. The research found that Toyota supplied cars around the world with high quality. Toyota had efficient design, production, market and service so they were the factor of reduce wastes in the company. All suppliers collaborated and created the value chain to improve cars. Allen (2001), Feld (2001), Bradley (2002), and Jared (2002) shows the characteristics of lean management;

Lean is the holistic and sustainable approach. The company uses resource with high performance and serve all customer satisfaction.

Lean becomes the strategy of many companies as follows;

- 1) Lean is proven. Lean is used in small, medium and large companies. It shows Lean can apply to every sector of business.
- 2) Lean makes sense. Although Lean has been applied since 1980, it is modern and improve efficiency of production and human resource.
- 3) Lean is accessible. Every employee can study and support in tasks easily because it is not expensive, difficult and complex.
- 4) Lean is inclusive. The Lean management is the tools and support TQM, Six Sigma and BPM.
- 5) Lean is for everyone.

The principles of lean management

- 1) Value must know what customers want and make production, according to customer's requirement. If we produce what customers don't want it, it is the wastes (Waste-Free). The process is carried out correctly by the required time and effort to get rid of the waste out of the primary process. Therefore, the process of creating value, so it is important that the client will be the last value defined. For this reason, the one of the wastes (muda) is the process that a customer does not want. The company uses the lean management system to determine the accuracy of product and determine the value of an item in the exchange offer to customers or other companies. Companies that have lean manufacturing, improve quality of goods, organization, employees and production plan.
- 2) The Value Stream Mapping is a diagram of the process of writing to illustrate the flow of materials and information on the production process. It makes the removal process without causing and increase added value. Process diagram can be done by creating the Value Stream Mapping (VSM). The VSM is all the activity or task that causes both added value and no value for the customer.
- 3) The product flow should be flowing through the process continuously and consistently. It should not have waiting time, which will lead to levels of Inventory. A continuous flow will cause the production. There is a short lead time that supports plan from the Make-to-order to the Make-to-Stock. Moreover, it can control production volumes to the demand of customer requirement. To prevent wastes from continuous flow production without the wait, it leads to material inventory at zero level. It may use cellular layout to remove the wastes in production line.
- 4) The pull system is the part of the lean concept. The production process based on the quantity the customer needs to provide a range of time that is required to eliminate inventory. In the lean management system, inventory will be considered to be the waste in production. Therefore, manufacturers should produce with the accurate demand from customers. This principle is based on an adequate amount in the moment. The objective of producing timely fit (Allen, 2001). It creates a balance and relations of production with the demand to eliminate excessive waste. Normally, Takt time is used in this process. This will reduce the materials inventory.
- 5) The Waste form Perception is to add value to the most by the continuous improvement. It has 3 elements. The first is to achieve product design and manufacturing process. Its features and processes add value to products and customer. The second, the structured system for continuous flow systems should be zero waste. The last one is perfection or Kaizen. It is an assessment tool to improve performance. Therefore, services and operations should consider the continuous improvement by Benchmarking and performance measurement for example balanced scorecard.

METHODOLOGY

This research study wastes and apply lean management into the public transportation at the Suansuandha Rajabhat University. It can reduce cost and waiting time of students. The methodology of this research is concluded:

1) Primary data and secondary data collection

Literature reviews are analyzed in term of transportation, cost and lean management system. The researcher also interview 5 drivers that are costs, route, communication and wastes in transportation. The population of this research is 27 drivers. Group sampling is 25 drivers with level significance at 0.5. The questionnaire is a tool in this research. The detail are personal data, 8 wastes and lean management system in transportation.

2) Problem analysis

This part illustrates problems that collect data from primary and secondary data. The purpose of this part is to find out the guideline to solve the problem.

3) Lean application in public transportation

The researcher analyses all data and select the principles of lean that can solve problems in van transportation at the University.

4) Summary and suggestion

The final part of this research shows the wastes and lean apply to reduce the wastes and costs of transportation.

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Study, Transportation Management Of Dye Products: Case Study of ABC Co., Ltd.

Anchalee Hiranphaet

Suan Sunandha Rajabhat University, Thailand

anchalee_hi@hotmail.com

Abstract. The transportation management of dye production: A case study of ABC Co., Ltd. The purpose of this research was study as follow as 1. For study a process and management of translation in the part of packing and beyond paperwork, role and reimbursement. 2. For study a problem of statement and some work barrier. The result was found that a process of transportation had a productivity problems including an in –external environment of an organization as follow as The IT system (ERP) , a handbook , the Safy form of legalization service was too slowly in addition to unskilled worker problems, the unsafe translation including the process of communication was so incomplete and instability. This research was based on the true knowledge, the theories and concept by academician. In addition to the suggestions for increase efficiency of process transportation and job standardizations in order to reduce error in communication according the purpose of this research.

Keywords— Transportation Planning, Transportation Cost reduction

INTRODUCTION

Transportation is activities logistics procedure what is in a business operating and value added economics with providing expedient time and place. The operation influences to develop standard transportation management capabilities to ensure there are enough products to meet the distribution needs at right place and the right time. This is foundation of potential requirement in advantage competitive in each company to achieve in transportation management. ABC Company is a manufacturer and distributor dye products which refers to hazardous products impact to external environment. There are divided 2 types of products are 1. Power dye and 2. Liquid dye.

ABC company has most institution shareholder are overseas that the reasons ABC company is seriously act accordingly law and transportation regular including the products are dangerous goods affect to external environment. So they required highly potential controlling and special appropriately transportation mode in each operation that logistics services providers and chemical manufacturer must have knowledge and understanding well security staff who work with directly chemical, also relevant person who have to work with them.

This research purpose to study transportation management of color production in case of ABC Company for delivering color products to their customers was made logistics processing, moving, storing, collecting and distributing. These processes started from ABC Company packed products and truck to port of loading including loaded products on board and delivered to destination place. These made occurs multimodal transportation but the products of ABC company are dangerous goods impact to external environment, there are dangerous goods are required legalization and under the rules, shipping documentation, packaging and freight charges are different from normal goods. This study researcher interested in studying full transportation of dye products of ABC Company including transportation, packaging, legal and rules also study problems and obstacles in transportation processing.

However this research transportation management is necessary firm understanding accord rules of ABC Company in dangerous goods impact on external environment. The transportation management need understand of legal and rules of dangerous goods are required chemical and transportation chemical goods entrepreneurs. The development of reduce cost strategy in transportation and improve staff's skills at ABC company that made they will be competitive advantage condition ready to international trade for AEC.

OBJECTIVES

1. For study a process and management of translation in the part of packing and beyond paperwork, role and reimbursement
2. For study a problem of statement and some work barrier.

LIMITATIONS OF THIS RESEARCH

Limits of this research are studying transportation management of dye products of ABC Company, the contents of these study cover in transportation management, sampling of coordination department staff, specialist in documentation in dangerous goods of ABC Company and third party services provider. This research and study start from November 2015 to February 2016 total is 4 months.

METHODOLOGY OF THIS RESEARCH

Information is gathered from many ways in this research got alliance from ABC company's owner. The study of transportation management color products by collecting data 2 types as below

1. Information of organization consists of history of company, value organization, vision, mission marketing, organization's structure and type of business. This information received from gathering documentation, conversation, questionnaire and company's website.

2. Interviewing information, after received organization's information, then gathered information kind of unstructured interview of staff in coordination dangerous goods documentation, third party services provider. This interview divided by 3 sections as below.

Section 1 is unstructured interview of staff coordinated transportation department.

Interviewees are 2 staffs in coordination transportation department from 15 January 2015 to 15 January 2016 spent time to interview 1-2 hours per person.

Section 2 is unstructured interview of staff in coordinated dangerous goods documentation of ABC Company. Interviewee is a specialist in dangerous good documentation from 17 January 2015 to 17 January 2016 spent time to interview 1-2 hours per person.

Third section is unstructured interview of third part service provider. Interview is s staff coordination from 19 January 2015 to 19 January 2016 spent time to interview 1-2 hours per person.

THE RESULTS OF RESEARCH

The transportation is main activity in business of ABC company tend to important processing in production of ABC company. Thus this research studied transportation management of ABC Company for finding any mistakes to solution and develop in strengthen point of transportation processing of ABC Company

TRANSPORTATION MANAGEMENT

1. Sales staff gets order from customers on specific date, collect and arrange information to ERP system and transfer to other departments.
2. Transportation coordinator staff gathers data from ERP and confirm order to sale staff.
3. Shipping & Transportation Coordination department arrange Invoice, Packing list for booking online to freight Forwarder. Shipping & Transportation Coordination department inform description of goods and document required to coordination HSEQ by email 1
4. Shipping & Transportation Coordination department arrange Invoice, Packing list and provide security certificate to Shipping agent or Customs Broker.
5. W/H: Warehouse department prepares trucking from factory to loading place according freight forwarder's informing.
6. Shipping & Transportation Coordination department cooperate with Shipping agent & Customs Broker for declaration
7. Shipping & Transportation Coordination department follow up shipment status until delivering to destination.

PROBLEMS AND OBSTACLES

According the researcher followed up ABC company performance since 20 November 2015 to 20 February 2016, that found problems and obstacles in transport management as below

1. Working procedure
 - Ordering from customers
 - Received and collected ordering data in to ERP system, ERP of company has problem in routine using as error system not available working made delays ordering.
 - Shipping Document requirement
 - From of Invoice, Packing List and SDS certificate are not standard.
 - Chemical safety certificate document delay.
 - Incomplete sticker and lack of standard
 - Lack of manual book in working process.
 - Cooperation with external organization.
 - Communicated disordering with Freight Forwarder
 - Shipping agent & Customs Broker process is complicated
2. Human resources
 - Staff has often disorders min cooperation, lack of intention to work and recheck order before operation that occurs in effective and waste time.

- Inefficient in communication and cooperation between departments.
 - Staff lack of knowledge and skills in working.
 - Staff lack of motivation in working.
3. Internal and external environment
- Internal environment
 - Packaging of products. Products of ABC company are kind of dangerous goods effect to external environment so this obstacles packaging of products. This problem of ABC Company is under security rules and standard required the certification and approval for using with label. The results of this solution made increase production costs.
 - Limitation of transportation, because of ABC Company's products is dangerous goods effect to transportation processing and need operate according the law.
 - External environment
 - Oil price problem, all transportation need fuel to using but when oil price increase will be affect to all transportation cost and influence in supply chain doing business activities. ABC Company outsource third party service provider so the cost is difficult to manage and turn into transportation's obstacles.
 - Law, regulation and rules are control dangerous good transportation need carefulness and more safety according the standard. This problem increase complicated in documentation and influence to transportation cost.
 - Traffic and accident problems especially in Bangkok and district faced a lot of traffic jam and big truck size are limited time to delivery also have often accident on road.

CONCLUSION & REVIEW

conclusion

Conclusion of ABC Company's transportation that can said transportation coordinator department is main operation in transport activities and other department related as sales department, warehousing department and coordination HSEQ, Shipping agent and Customs Broker. They used ERP system in operating, ordering, collecting order, order confirmation and send information by email to manufactory warehousing to prepare products to delivery. Then they will support shipping documentation, request for SDS , arrange Invoice and Packing list for booking with freight forwarder to declaration and after that transportation coordinator department follow up cargo status until delivery to destination.

Discussion of this study

- The research study to transportation management of Dye products of ABC company, found that the problem as follows
1. Working procedure problems and inefficient, reason this problem the working are not systematically of department, staff received and collected ordering data in to ERP system and delays ordering of Invoice , Packing List and also SDS certificate are not standard.
 2. Human resources problems Staff has often disorders in cooperation, lack of intention to work and inefficient in communication and cooperation between departments. Staff lack of knowledge and motivation skills in working also high turnover rate.
 3. Internal and external environment problem can described as internal environment problem dangerous goods need under security rules and standard required the certification and approval for using with label. The results of this solution made increase production costs.

In addition, external environment problem refer to cannot control and limit problem from outside organization. That found high oil price problem affect to all transportation cost and influence in supply chain doing business activities. ABC Company outsource third party service provider so the cost is difficult to manage and turn into transportation's obstacles including traffic and accident problems.

SUGGESTION

Working Procedure

1. Ordering by ERP system should be updated and added more warning system to work is better.
2. Reforming of documentation to be same standard by thriving data from law and rules of declaration to be convenient, complete and destroy mistakes in documentation.
3. ABC Company should employ more staff that responsible for issue security certificated documentation and arrange and data to quick issues.
4. Provide manual in working process.
5. Training staff for develops skills and knowledge to workers.
6. Staff should be trained about dangerous goods and chemical packaging.
7. Arrange manual working and seminar to practice staff related law, regulation and rules in transportation.
8. ABC Company should do agreement with third party service provider for controlling transportation cost and select vehicle use other fuel such as NGV vehicle in some case.

Benefits from this study

1. To know transportation management in case of ABC company
2. To know the problems and obstacles in transportation management including solution to improve potential performance of their company.
3. To offer solution of development staff.
4. To guide for who are interested in transportation to more study and research involve transportation whether organization or individual.

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Study for Applying Active Learning Theory for Master Degree in Logistics Technology

Tommanee Sooksai

Suan Sunandha Rajabhat University, Thailand

boowll@hotmail.com

Abstract. Instruction of learning is critical as a communication channel to educate the teachers were conveyed to the student to meet learning objective and current teaching model there are many forms for models with the most popular. Researcher realized the importance of learning and teaching development a comparative study for applying in the class room for Master Degree in Private University. The study objective 1) To the satisfaction of the students on the course lectures active learning. 2) For the achievement of students with some form of teaching active learning. 3) The comparative study for satisfaction and achievement of a form of active learning. Reporting in which in which it was evaluated by a panel of experts in education technology at a “good” level. The contents were evaluated by a panel of experts in logistics at a “very good”. Data were analyzed by using, mean, standard deviation, and a t-test statistic. The results indicated that efficiency of the achievement scores of the post-test were higher than that pre-test at the significant level of .01. The student’s satisfactions were rated at a “very much” level. However, there was no significant difference between student’s satisfactions and learning achievement at the level of .05.

Keywords— Active Learning, Learning Instruction

INTRODUCTION

Universities in Thailand attempt to applied learning method in their universities according developing technology and learning innovation that affects to improve potential individual, expedient to study and easy to understanding including enhance learning which is learners build own their knowledge by themselves for example thinking of pictures or symbols instead of things or situations. They will manage information or data from their old experiences and new experiences or new stimulations. Human capable to create thinking systems such as active learning is motivate interaction when learners meet conflict or any problems they will attempt to find and solve its by themselves (Sakda C., 2005). This learning method is contrast generally lecture class which is traditional learning methods that most class spend more time with lecturer as teacher - center and students will watch and listen in class. The lecturer can not aware that their students able to understand or not, students passively receive information from lecturer without thinking system that occurs miss success learning objectives. (Wichan K., 2015).

TOOLS AND METHODOLOGY

2.1 Objectives

1. To study learner’s satisfaction in active learning among graduate students Majoring technology Logistics of a privacy University.
2. To find the results of active learning among graduate students Majoring technology Logistics of a privacy University.

2.2 Limitation

1. Population of graduate students Majoring technology Logistics of a privacy University
2. Sample group is 12 graduate students Majoring technology Logistics of a privacy University specifics by sampling and purposive sampling
3. One semester academic study time

LITERATURE REVIEW

Learning method means status or kind of learning is along theories, principles, concepts, or belief procedure by teaching and guiding to encourage learning achievement which is proven to acceptable that efficiency, that the method able to apply in each different objectives as defined cognitive domain learning, affective domain learning, psychomotor domain learning, process skills or integration. These methods refer to learners are most important. (Tisana Khammani, 2008).

Concepts of Active Learning

Concepts of Active Learning mean instructional activities for teaching learners and build their own understanding (Sakda C., 2005). Instructors attempt to make them role in the class and advise them to develop knowledge and understand able to adapt, create and improve their potential learning. Teacher will arrange and suggest special activities to motivate learners to writing, discussing and analysis that required in higher order thinking tend to analyzing and evaluating skills. These methods learners can develop their skills and create own (Learning How to Learn) including selecting receives information skills.

Generally active learning method had often coped with Cooperative Learning, Problem-based Learning, Case Study and Simulations. The elements can provide activities experience in studying. As follow Picture 1 show Level of learning and remembering chart of learners as defined learning by remember reading, they can receive only 10% of learning. Second level show learning by lecturer without chance to attend activities, they can receive 20% of learning but third level show as if learner have chance to attend activities, they will receive 30% of learning. Fourth level, learner have chance to listen like audiovisual such as see movie, display activity, demonstration or they can receive 50% of learning. Fifth level show if learners have chance to practice doing and interact learning, they will receive 70% of learning and last level is biggest defined as learners get chance to conference in academic and ate in real situation that affect to receive 90% of learning.

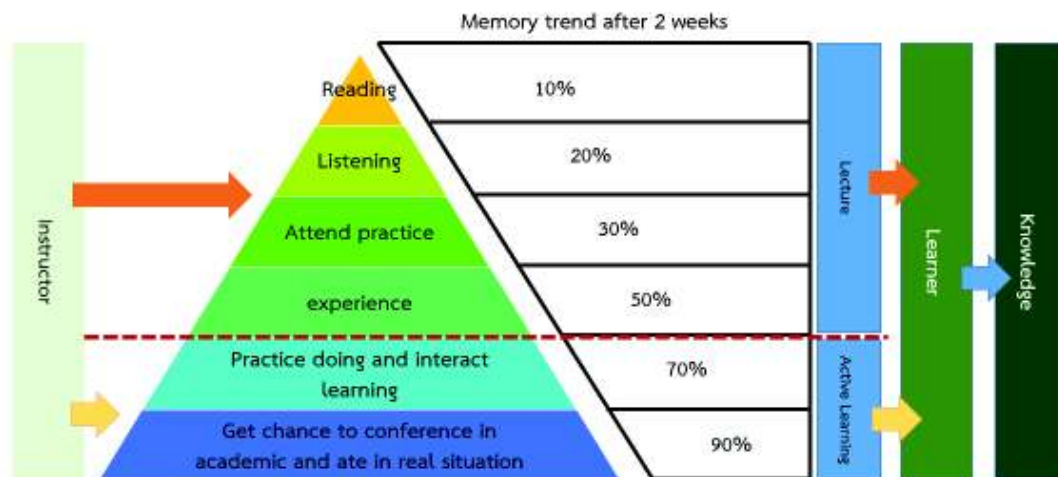
Systems Thinking

System means set of things that perform collaborate and relation as natural in the order or in academic reason. Barry Richmond, 1987 gave definition of thinking system that is operates and sciences of creditable reference related with developed foundation concept working. The core of thinking of human is ability of brain system that separated by 2 sides refer to left brain side is Systems Thinking and right brain side is Memory. The systems thinking divided by 5 types as below. (Wikorn R., 2007)

1. Principles thinking refer to restraint thinking or competency thinking is core overall thinking separated by nature, general and specific academic.
2. Rational thinking refers to relationship thinking in results separated by 3 kinds are Cause and effect, Logical Reasoning and Strategic Reasoning.
3. Mental Model refer to things created by human for cognitive and life experience, we have vision our attitude. Therefore that is principle of systematic thinking of human.
4. Frame thinking is thinking in framework if without framing cause lack of clarity all elements will be confused.
5. Objective thinking is system always having purposes may be understood or not even in animations still have living purpose system, because if lack of objectives, human not able to line or objectives are changed, system also will be changed.

METHODOLOGY

This study modified in active learning among graduate students Majoring technology Logistics of a privacy University. Researcher studied analyzed documents and data including literature review others researches related active learning by determined conceptual framework methodology which concerns instructor to learner. That create knowledge management and systematic in active learning then measure achievement of learning and satisfaction for comparing level of knowledge before and after study as Picture 1 Conceptual framework



Picture 1 Conceptual framework, show Level of learning and remembering chart

Researcher instructed active learning in first semester academic by doing activities and learner participated to analyzed procedure they was change role of receiver to co-creator at same environment when instructed as lecturer method. Then researcher investigated to satisfaction of learners and the results of this study in Active learning class by comparing between pre-test and post-test score. Testing analyzed of study by using Index of (IOC) to find mean in each question and not lower than 0.5 of IOC means able to ask that question but less than 0.5 means that question need to revise or ignore then of this testing formula KR-20 (Kuder-Richardson). Finding Reliability of questionnaire in learner satisfaction of active learning, by using Coefficient of variable (Cranach Alpha Coefficient) have to more than 0.7.

RESULTS

This study modified in active learning among graduate students Majoring technology Logistics of a privacy University by post-test and pre-test as Table 1

Table 1 Achievement test of post-test and pre-test of learner in active learning among graduate students Majoring technology Logistics of a privacy University

| Sampling | Pre test | | Post test | |
|----------|----------|------|-----------|------|
| | M | S.D. | M | S.D. |
| Student | 22.27 | 2.55 | 26.37 | 2.04 |

Table 2 evaluation of learner satisfaction in Active learning

| No. | Description | S.D. | M | level |
|-----|---|------|------|---------|
| 1. | Satisfaction of learning method | | | |
| | 1.1 Learning Activities | 0.50 | 4.57 | highest |
| | 1.2 Interaction among learners | 0.50 | 4.60 | highest |
| | 1.3 Interaction between instructor and learner | 0.53 | 4.70 | highest |
| | 1.4 Media instruction | 0.41 | 4.80 | highest |
| | 1.5 Appropriately Media instruction | 0.68 | 4.47 | highest |
| | Mean | 0.53 | 4.63 | highest |
| 2. | Satisfaction of environment in class | | | |
| | 2.1 Quantity of learner are suitable with learning method | 0.45 | 4.73 | highest |
| | 2.2 Atmosphere suitable with learning method | 0.43 | 4.77 | highest |
| | 2.3 suitable learning time | 0.41 | 4.80 | highest |
| | Mean | 0.43 | 4.77 | highest |
| 3. | Beneficial satisfaction in learning | | | |
| | 3.1 encourage to learning easy to understand | 0.62 | 4.60 | highest |
| | 3.2 encourage to get experience in class | 0.61 | 4.63 | highest |
| | 3.3 encourage to get new learning method | 0.31 | 4.90 | highest |
| | 3.4 encourage to achieve objective learning | 0.38 | 4.83 | highest |
| | mean | 0.48 | 4.74 | highest |
| | Total mean | 0.25 | 4.70 | highest |

From Table 3 the results of learner satisfaction evaluating on Active learning Method are shown highest level in every factors with mean equal 4.70. However, factors are considered found that the results study modified in active learning among graduate students Majoring technology Logistics of a privacy University get mean as below

1. Satisfaction of learning method get highest level Mean equal 4.63
2. Satisfaction of environment in class get highest level Mean equal 4.77
3. Beneficial satisfaction in learning get highest level Mean equal 4.74

CONCLUSION AND INSTRUCTION

The results of this researcher show active learning impact to higher order analysis because learner engaged activity that motive reading procedure and discussing for exchange knowledge and they will get experience if they mistake in learning. Therefore made them remember, understand and learning skill better than lecturer method, lecturer Method which is only one side of knowledge transfer from instructor. Even learner has chance to ask questions but most of them will feel bored while they are listener. So it is no stimulus to Attend and participate to study, that (Natte R., 2011)said, instruction theory and concept of active learning to apply in creation and development of instruction Media will motivated , learning and reduce study's limitations.

Active learning is defined as instructional method that engages learners to do meaning full learning activities and think about what they are doing until teacher aware students who understand or not . Also lecturer gave opportunities to solve the problem from to the beginning to the finish with test. That related to Sudarath P. (2016) who is researcher in case study the reasons midway resignation of students in non-degree academic : in case study of : College of Business Administration Viboon ramindra in Bang Khen, Bangkok. The research found factor of learning is most important affect to halfway resignation cause of in appropriate learning method. Besides, less no of students understand in difficult cognitive enable to build own new knowledge from lecturer.

On the order hand most of learner will able to study better when they do learning activities by themselves. Such as thinking discussing or debating with classmate and instructor. This learning method motivate then to active in their study. However instructor or teacher have to spend more time and dedicate for instruction and required supporting from their institute such as university faculty.

Graduated students in Private University in mention are only sampling group relied on Active learning theory which if instructor or teacher are conscious in developing learning Method and apply to the class learners will relied more on institution understand and success in their learning objectives.

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Development of Logistics Systems for Tourism in Phutthamonthon District, NakhonPathom Province, Thailand.

Varaporn Saninmool

Suan Sunandha Rajabhat University, Thailand

varaporn.sa@ssru.ac.th

Abstract. This research aimed to evaluate the logistics tourism performances system, Nakhonpathom Province. The researcher asks for information from a sample of 4 groups, comprised the tourist, community, entrepreneurs, and community leaders in Klongyong, Phutthamonthon, Nakhonpathom Province. Total 400 samples, the statistics used to analyze data such as frequencies, average percentage. The research finds that the tourist has medium satisfactions to the logistics tourism current overall. When researcher analyzes the relationship between the logistics tourism and satisfaction tourists that bring them to travel repeat. The researcher finds that the satisfaction has almost all effect. The community finds that the tourism has made many aspects of community development and has medium satisfactions to the logistics tourist management. The entrepreneurs have most satisfactions. The community leaders has ready in medium level. There are many comments from groups that aim one direction is make the tourist comes in the tourist area as ease, convenient, fast, and safety. The integrated of the individual or entity for make acting and rolling models. The meeting of the European logistics community both inside and outside has a team to responds directly, and promote a new tourist area attraction to well known for increasing the tourist.

Keywords— Tourism, Logistics System

INTRODUCTION

At the present, the travel management in Nakhonpathom province is popularity and interests from local people. That makes enthusiasm to participate the travel management. Nakhonpathom province has a survey the tourist areas to take in charge for availability to support the tourist. The local community has participated for travel management to develop the tourist areas in Nakhonpathom province that able to define the tourist areas from consideration of the local community. It's useful for accessible to the tourist areas. The tourist will get knowledge from travels and environmental conservations. Hopefully the tourist will get convenient to travel in Nakhonpathom province. The benefit after that will be distribution of income to local community and encourage the natural resources does not let it deteriorate. The government will take in charge this responsibility is Tourism and Sports Office in Nakhonpathom Province. The tour entrepreneur in Nakhonpathom Province, Tourism Business Association of Nakhonpathom Province, Community attractions, and Sub-district Administration Organization that related, able to bring the research of Guidelines for potential development of logistics systems for tourism in Nakhonpathom province to use for the next step.

Diversity in tourism resources, it has led to the idea of developing logistics systems for tourism follow the concept of Logistic and Supply Chain. That is the main format management, collaboration between activities in supply chain of business in meaning of tourism from upstream to downstream. That creates the value added in servicing. Therefore the tourism development emphasize on the importance of tourism that must be developed together. This causes problems, the impact of tourism on the natural, social and cultural environment. The Rapid growth and expansion of tourism industrial without the best management control including the number of tourists increased that impact on tourist attractions. The best management should consideration the area support capacity and should know the potential of the logistics system in each tourist. That can be used as a guide to promote sustainable tourism development. The researchers are interested to study and guidelines for potential development of logistics systems for tourism in Nakhonpathom province.

RESEARCH METHODOLOGY.

This time the population studied tourists and local communities. The researchers define the sample group and area by using the Taro Yamane table from defining area. The sample group will use the random exercises method that has error level $\pm 5\%$ and confidence level 95% as equation 400 units as follow the formula below.

$$n = \frac{N}{1 + Ne^2}$$

When n: The size of the sample group

N: Total population

e: Discrepancies of sample selection at significance level 0.05

This research is the quantitative research that researchers have defined tools to use with sampling is sample questionnaires were randomly selected. When researchers have distributed the questionnaires, will have the interactive to

exchange the question and answer to cross check and get facts from questionnaires. The data analysis in this time use basic statistics from percentage, average, and standard deviation. To perform data analysis by computer program SPSS.

The researchers uses average threshold that define the distance from highest score at 5 and lowest score at 1. Therefore, find out the distance of score as follow.

$$\text{Width of each level} = \frac{\text{Highest score} - \text{Lowest score}}{\text{Number of levels}}$$

$$\text{Width of each level} = \frac{5 - 1}{5} = 0.8$$

RESEARCH RESULT

This time, study on potential development of tourism logistics system in Nakhonpathom province. To study logistics situation for current tourism and guideline to improve the tourism logistics for ability leverage and support the tourists to the best. The researchers perform to gathering all data for study from the tourists as follow.

3.1 The tourist satisfaction that effect to the composition of the logistics of tourism as a big picture.

3.2 The comments related the development of tourism logistics management in Nakhonpathom province

Table 3.1 The tourist satisfaction that effect to the composition of the logistics of tourism as a big picture.

| Travel logistics components | | Mean | Translation level |
|-----------------------------|---|------|-------------------|
| 1 | Value gained from physical logistics management. | 2.50 | Little |
| 2 | Value gained from logistics management in the field of information. | 2.83 | Moderate |
| 3 | Service | 3.59 | Much |
| 4 | Place | 3.01 | Moderate |
| 5 | Promotion | 2.21 | Little |
| 6 | Human Resources | 3.08 | Moderate |
| 7 | Service Procedure | 2.25 | Little |
| 8 | Travel Repeat / share experiences | 3.55 | Much |
| 9 | Expenses | 2.43 | Little |
| Overview | | 2.83 | Moderate |

Source: From calculated

From the table found that the sample group of tourists that answers from questionnaires. There are satisfactions to the composition of the logistics of tourism as a big picture, is in the "moderate". When considerate from average that sort descending as follow the service has average 3.59, travel repeat / share experiences has average 3.55, place has average 3.01, promotion has average 2.21 respectively. The consideration that estimated, should improve in the promotion such as marketing advertisement to the public much more than previously.

Table 3.2 The comments related the development of tourism logistics management in Nakhonpathom province.

| Development or Improvement of tourism logistics management. | | Quantity | Percent |
|---|--|----------|---------|
| 1 | There are more route such as the bike. | 63 | 15.75 |
| 2 | There are more roads. | 78 | 19.5 |
| 3 | Better road conditions. | 221 | 55.25 |
| 4 | Increase the road light. | 110 | 27.5 |
| 5 | Less dust on the road. | 105 | 26.25 |
| 6 | Improved drainage of access routes. | 46 | 11.5 |
| 7 | Travel more convenient. | 109 | 27.25 |
| 8 | There are more places to visit. | 96 | 24 |
| 9 | There are the public buses on time. | 38 | 9.5 |
| 10 | There are more public buses. | 107 | 26.75 |
| 11 | There are more signposts. | 105 | 26.25 |
| 12 | There are signposts clearly. | 135 | 33.75 |

| | | | |
|----|---|-----|-------|
| 13 | There are signposts to visit. | 89 | 22.25 |
| 14 | There is a fair rental car. | 77 | 19.25 |
| 15 | There are enough parking lots. | 28 | 7 |
| 16 | Local guide training. | 92 | 23 |
| 17 | Educate local people for advice. | 89 | 22.25 |
| 18 | There are advices the attractions nearby. | 98 | 24.5 |
| 19 | Increase garbage disposal. | 109 | 27.25 |
| 20 | Increase water treatment. | 65 | 16.25 |
| 21 | There are clean toilets. | 83 | 20.75 |
| 22 | There are enough food and drink outlets. | 88 | 22 |
| 23 | Increase the souvenir business on the way. | 60 | 15 |
| 24 | There is service information on the road. | 112 | 28 |
| 25 | There is an Internet promotion. | 98 | 24.5 |
| 26 | Increase the brochure. | 65 | 16.25 |
| 27 | Increase the activities. | 117 | 29.25 |
| 28 | There are tourist attractions. | 63 | 15.75 |
| 29 | Attractions are not far from the local community. | 71 | 17.75 |
| 30 | Clean attractions. | 66 | 16.5 |
| 31 | First aid services. | 54 | 13.5 |
| 32 | Moving people hurt services. | 34 | 8.5 |
| 33 | Safe attractions. | 67 | 16.75 |
| 34 | There are the mobile signal services. | 156 | 39 |
| 35 | Promoting tourism cooperation. | 83 | 20.75 |
| 36 | Other | 11 | 2.75 |

Source: From calculated

From the table found that the sample group of tourists that answers from 400 questionnaires relates the comments for development for improvement of tourism logistics management in Nakhonphthom province (answer more than 1 choice). The most average 55.25 have a comment that the development or improvement of tourism logistics management in Nakhonphthom province should improve the road to the best, there are signposts clearly, there are mobile signal services averages 33.75, and increase the activities average 29.25 respectively.

SUMMARY AND SUGGESTIONS

4.1 Provide tourists access to the tourist attractions easily, quickly and safely. To develop the tourist attraction routes. Provide information to the tourist completely. To create a map, a signpost as clear and ease of understanding, website to find some information, tourism information center, and mass transit system to support the tourists.

4.2 There is a grouping of individuals or entities for performing various roles in the development of tourism logistics such as the group is a tourist information center to provide information. There is a youth guide group in the navigation area, travel route management group, develops and organizes signpost group, tourism safety development group. The collaborative security cooperation between sub-district administration organization, village health volunteers, hospital, police, and other organizations. To support from government agencies that respond directly. To give the knowledge, training, advice on travel plans, traffic, safety, Support facilities.

4.3 Organize community meetings both on and off the community by internal community meeting and between communities every month. To create learning process, workshop, and vision setting to development of tourism logistics in Nakhonpathom province as short term and long term.

4.4 There are traveling activities all the time, both inside and outside the travel festival for reducing congestion of the tourists in travel festival

4.5 To public relations a new tourist attraction through various media. To create the map linking tourist routes from old source for ease of understanding (Thakerngsak Chaicharn, 2012).

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The Development of the Law Relating to Registration of the Machinery in ASEAN Community

Hathaipun Soonthornpipit

College of Innovation & Management, Suansunandha Rajabhat University, Thailand

kam51@hotmail.com

Abstract. As ASEAN community has the free trade agreement, many investors have to study policy and agreement to invest products in these countries. The researcher cooperates between university and government to find out the laws and legal in ASEAN countries. They are support how to invest and loan in each country. The objective of this research concludes 1) to study the international laws in ASEAN countries, 2) to study machinery laws that are related asset investment in ASEAN countries. The methodology of this research has 7 parts; 1) set up limitation and process with government 2) study act of machinery registration and related laws 3) study laws that control machinery asset 4) analyses and compare the acts of machinery registration on ASEAN countries 5) draft policy of act of machinery registration 6) set up a seminar in Bangkok, Thailand and 7) conclude data and present for Thai business. The population of this research is the officers of the financial institution, law firm, members of the department of industrial works about 350 people. The benefits of this research are supporting government to draft a new act of machinery registration and decision in ASEAN countries for business.

Keyword-- ASEAN, Machinery Registration, Act, Thailand

INTRODUCTION

Association of South East Nations (ASEAN) is a collaboration in ASEAN. There are purposes; free trade area, framework agreement on services and investment. These support raw material, machine, labor and investment to ASEAN under the ASEAN charter. Thailand is a country that study and understand the rules and laws each country. Central Office of Machinery Registration (2015) studied Thai GDP and the machinery registration. It found that Thai companies registered 800,000 machinery, or approximately THB 4.3 billion in 2558. The GDP was \$7,130 per person. Singapore, Brunai and Malaysia were the top three of GPD in ASEAN. It shows that they move the investment to countries as the international laws support business expand. Therefore, the machinery registration and control are changed to asset, the government should studied the laws and acts that are related to ASEAN countries.

THE OBJECTIVE OF THIS RESEARCH

1. To study the international laws in ASEAN countries
2. To study machinery laws that are related asset investment in ASEAN countries.

THE REVIEW OF MACHINERY INSURANCE

According to the primary research shows the act of Thai civil laws that is an asset guarantee for financial loans. Assets are not only real estate but they includes machine, equipment, inventory and instrument. These is maximize profit for new business. The machinery is registered for control and information share in many industries. The machine is an insurance. In the machinery registration act in 1971 showed that the machine was an insurance in the civil law, articles 703 (4). However, the machine has to registered and checked by the central office for machinery registration (Department of Industrail Work, 2017). Types of collateral for the payment of debts by stock exchange includes;

1. Civil Law System

The debt payment has 2 types; pledge and mortgage (Becker).

- 1) Pledge has 3 categories. There are pledge on movable, pledges in Immovable and pledge on right.
- 2) Mortgage concludes real estate and moveable property.

2. The Common Law System

This system is in England that use the court of chancery. It has 2 types. The creditor has insurance and unsecured insurance. They can use fixed security and floating security (Wood, 1995). Insurances are as follows;

- 1) Lien
- 2) Equitable Right to Set-Off
- 3) Equitable Right to Trace
- 4) Procedural Security

In the USA, assets can be insurance as they are in the different laws. The real property uses the common law on real estate mortgage. The personal property uses the common law system.

The problems of the machinery registration for financial loan and depts. The researcher summarized into 5 issues.

- 1) The definition of the machinery.
- 2) The collateral provider is not the owner of the machine in this time.
- 3) The process of the transfer ownership.
- 4) The repayment period.

- 5) The different of laws in each country.

THE METHODOLOGY

The methodology of this research can summarized in figure 1. It has 4 parts;
Literature review

This research is studied about acts of machinery registration, international laws in ASEAN countries and AEC conditions.

Population selection

Population of this research is 350 person who are the officers of the financial institution, law firm and members of the department of industrial. They register in the department of industrial (2016).

Research tools

Questionnaire and in-depth interview are tools in this research. Questionnaire has 3 parts; personal data/ company profile, machinery investment and laws knowledge. In-depth interview are group seminar.

Data analysis and suggestion

Both data are analyzed and synthesized in the final part of this research.

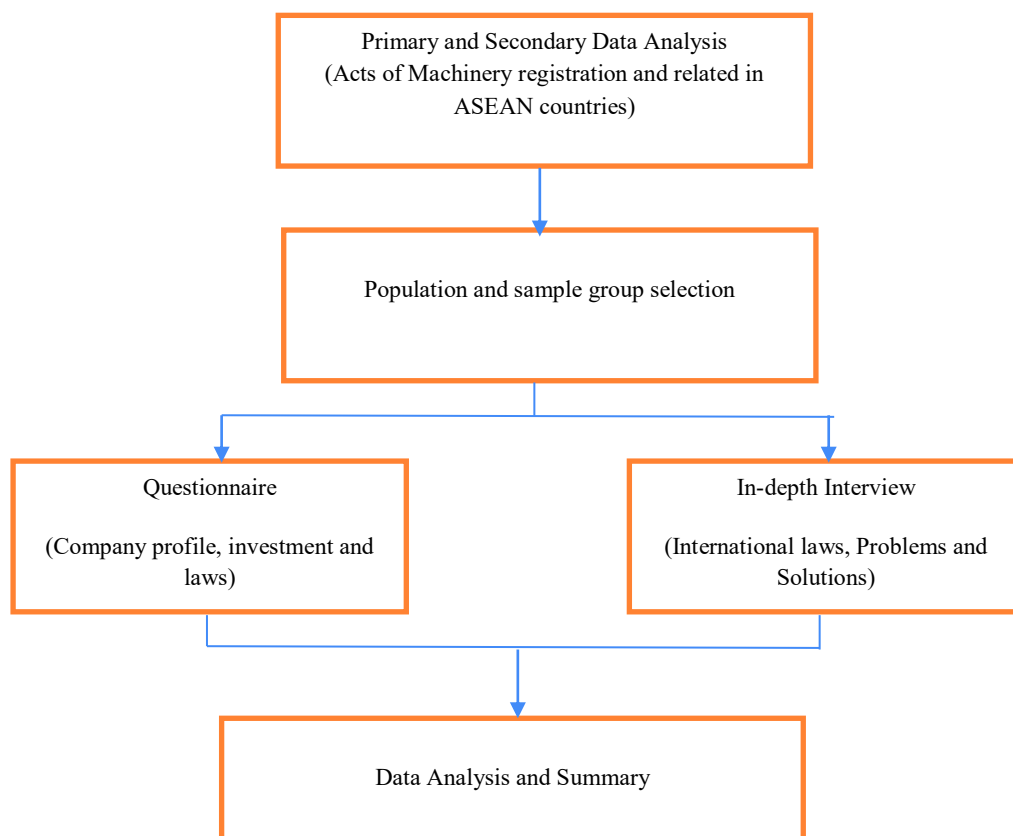


Figure 1: *The methodology of this research*

The detail of the machinery registration in Thailand.

The company has the machinery in the business. It has to register to the central office for machinery registration. The registration form can summarized in the table 1.

Table 1:

| No | Detail in the registration form | Description |
|----|--|---|
| 1 | Machinery layout and number of machinery | Number of the machine that is the same number of the machinery lay out |
| 2 | The location and place | The name of location that install the machine |
| 3 | The machinery number | Do not fill in |
| 4 | The engine | Number of machinery that is related to No. 1 |
| 5 | The name of machinery | The name of machinery in Thai and English with the brand of machine For example: Offset printing machine: HEIDELBERG |
| 6 | Type | Type of machine that is in the name plate only |
| 7 | Model | Model or series that is in the name plate |
| 8 | Serial number | Machine number or serial number that is in the name plate |

| | | |
|----|-------------------|--|
| 9 | Machine size | Overall machine dimension in meter Height * length For example 2.55 m*3.00 m |
| 10 | The energy used | Do not fill in |
| 11 | Capacity | Capacity of machine For example: print paper at 24 inches * 36 inches |
| 12 | Manufacture | Identify the country of manufacture |
| 13 | Machine component | All machine components should identified 1. Motor driver 2. Hydraulic pump 3. Operation control panel |

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Product Development of Karanda Fruit (*Carissa carandas* Linn.): Sorbets and Yogurt Ice-cream

Kamolbhibhat Chanasith*¹, Prachya Paemongkol

Rajamangala University of Technology Phra Nakhon Bangkok, Thailand

Kamolbhibhat.c@rmutp.ac.th

Abstract. Product Development of Karanda Sorbets and Yogurt Ice-cream. The objectives of this study are: 1) to determine the appropriate amount of Karanda fruits for making sorbets and yogurt ice-cream; 2) to examine the quality of Karanda sorbets and yogurt ice-cream; and 3) to study about the consumers' behaviors towards Karanda sorbets and yogurt ice-cream. The results are as stated below. In terms of Karanda sorbet preparation, the most appropriate quantity of Karanda fruit juice is 30%. The physical properties of Karanda sorbets contain the brightness level at L*34.32, red color level at a*41.26, and yellow color level at b*21.18. The soluble solids contain: 30 Brix, overrun statistics at 25.72, melting rate at 47.32, and pH balance at 2.40. Upon studying the chemical qualities of Karanda sorbet, it is evident that in every 100 gram, there are 91.8 kilocalories of energy, 77.1 grams of humidity, 0.15 gram of fat, <0.20 gram of protein, 22.6 grams of carbohydrates, 0.11 gram of fiber, and 0.12 gram of ash. Alternatively, in the aspect of Karanda yogurt ice-cream, the most appropriate quantity of Karanda fruit added to the ingredients is 10%. The physical properties of Karanda yoghurt ice-cream are as follow: brightness level at L*52.32; red color level at a*32.26; yellow color level at b*21.18; viscosity level at 364.798 cps; overrun statistics at 75.85; melting rate at 89.90; and pH balance at 5.67. In terms of the chemical qualities of Karanda yogurt ice-cream, each 100 gram provides 214 kilocalories of energy, 64.0 grams of humidity, 14.6 grams of fat, 3.14 grams of protein, 17.5 grams of carbohydrates, 0.76 gram of fiber, and 0.74 gram of ash. Consumer satisfaction towards Karanda sorbets and yogurt ice-cream is at 100%.

Key Words-- Karanda fruit, sorbet, yogurt ice-cream

INTRODUCTION

The community of Bang Nok Kwaek Sub-district, Bang Kon Tee District, Samut Songkhram Province, is located in the central region of Thailand and is abundant with natural resources. Unfortunately, in the economic aspect, the region is experiencing a sluggish growth. In terms of agricultural industry, fishery provides the highest income to the community, followed by farming and simple agricultural processing (<http://th.wikipedia.org/wiki/samutsongkhram>). In addition, Samut Songkhram is also a site for agricultural tourism, which has becoming increasingly popular amongst both domestic and international tourists. The region provides an authentic experience for visitors through the traditional food and lifestyles of the community along MaeKlong River. Upon conducting a field research and survey, it is apparent that Bang Nok Kwaek Sub-district is well-known for Karanda plantation, which is primarily sold as a seedling for home decoration. Meanwhile, its fruits are sold to tourists who love to eat sour fruits.

Karanda trees typically provide the highest yield during May-July (Patumkaew, 2015). In addition, Karanda fruits have significant antioxidant properties, comprising of anthocyanin, phenolic compounds, and vitamin C. Karanda is believed to provide an array of health benefits, such as treating scurvy, sore throat, fever, mouth ulcers, and stomach ulcers. Based on the research conducted by Wilaiporn (2009) regarding the antioxidant properties of purple-hued indigenous plants, it was found that Karanda has 93.01% of the antioxidants.

Accordingly, the researcher has an idea of processing Karanda fruits in Bang Nok Kwaek Sub-district, which would consequently add value to the fruits, increase the variety of products, and develop local products in a sustainable way in accordance with the community's wisdom. Moreover, such development would further lead to the development of human resources, resulting in the production of high quality products that correspond to the market demand. Indeed, these elements serve as one of the mechanisms for promoting local products to be recognized and spread across the country, as well as abroad. Ultimately, the community would have a solid foundation and stand on their own feet. As such, this research has the objectives to:

- (1) Determine the appropriate quantity of Karanda for the preparation of sorbets and yogurt ice-cream
- (2) Examine the quality of Karanda sorbets and yogurt ice-cream
- (3) Study about consumers' behaviors towards Karanda sorbets and yogurt ice-cream

LITERATURE REVIEW

Karanda has a scientific name called *Carissa carandas* L., which belongs to Apocynaceae family. Other names less commonly used include karaunda, karanda, or karamda. It is considered as a scandent shrub or a perennial plant, which can grow up to 5 meters in height. Its resin is white in color, with only one embryonic leaf, or as referred to as cotyledon. The leaf shape is either oblong or ovate, with 1.5-4 centimeters in width and 3-7 centimeters in length. The leaf apex can be either obtuse or retuse. Meanwhile, the flowers are of the inflorescence type, with a length of between 3.5 and 5.5 centimeters. The petals are white or pink in color, with an interconnected hollow at a length of between 16 and 21.5 millimeters; the flower shape is of a hypocateriform. Its fruits are oval shape, with 12-17 millimeters in width, 15-23 millimeters in length, and red or pink in color, as illustrated in Figure 1 (The Botanical Garden Organization, 2012). Karanda produces multiple fruits in a cluster. Young fruits generally have a light pink color that slowly darken and turn into

the red color. Once fully ripen, the fruits will become purple and have many antioxidant properties, including anthocyanin, phenolic compounds, and vitamin C (Vichmanee and colleagues, 2013).



Figure 1 Characteristics of Karanda

Source: The Botanical Garden Organization, 2012

Medical Department of the National Cancer Institute of Thailand had published an article on the topic of “Vegetables-Fruits for Cancer Treatment”, which concluded that the pigments in three types of plants (chlorophyll – green color, carotenoid – orange, yellow, and red color, and anthocyanin – bluish purple and red color), including orange-lemon, shallot-garlic, and herbs, have the properties for treating various types of cancer. For instance, orange-lemon is not only abundant in vitamin C, but it also contains other antioxidant properties that can treat inflammation and cancer, as well as prevent coagulation. Its antioxidants prevent free radicals (free radical is a molecule with a single unpaired electron that is highly reactive; if presence in a human body, free radicals can damage other molecules and DNA) and inhibit the growth of cancerous cells and tumor. In addition, it promotes detoxification, reduces cholesterol, and stimulates enzyme inhibitors (Paiboon, 2012).

Chakri Kaewchundee, Rakkiad Saenprasert, and Tinn Phromchoti (2013) conducted a study on the effect of harvesting period on the quality of Karanda fruits (*Carissa carandas* L.) by examining 9 physical and chemical characteristics. The results indicated that the harvesting period has an effect on the quality of fruits in terms of: weight, size, color, brightness level of the shell, total soluble solids (TSS), total acidity (TA), the ratio of TSS:TA, and the amount of vitamin C. The most appropriate harvesting period of Karanda is 65 days after the flowering stage, which provides the highest quality of fruits in terms of both physical and chemical properties.

Pewlong et al. (2013) investigated the activities of antioxidants by examining the total amount of anthocyanin and phenolic compounds in Karanda. The results indicated that Karanda fruits contain: 4.67 milligrams of phenolic compounds, which is equivalent to Gallic acid per gram; 54.80 milligrams of anthocyanin per liter; 2.42 milligrams of DPPH antioxidants, which is equivalent to Ascorbic acid per gram; and 37.81 micromoles of antioxidants, which is equivalent to Phosphorous Sulfate per gram.

Upon consideration of the above information, the researcher is interested in processing Karanda fruits into sorbets and yogurt ice-cream. Regarding its various health benefits, as well as its colorful characteristics and sour taste, Karanda is ideal for processing into ice-cream products, which can be consumed by people of all ages and genders.

METHODOLOGY

The study on appropriate quantity of Karanda fruits for making sorbets and yogurt ice-cream

1.1 Preparation and production process of Karanda sorbets

- Preparation of Karanda fruit juice: Rinse Karanda fruit with clean water for two times. Then, cut the fruit in half and remove the seeds. The 600 grams of Karanda flesh are extracted using an electric juicer for two times, obtaining 300 grams of Karanda juice at a pH level of 2.40.

- Production process of Karanda sorbets: Weigh the ingredients and the quantity of Karanda juice. Set the stove on a medium heat for five minutes, while mixing the ingredients with water, Karanda juice, and sugar until the sugar is melted. Cool the Karanda syrup in a refrigerator for one hour. After that, add lemon juice into the syrup and mix them together. Pour the mixture into an ice-cream blender for 15 minutes until the mixture is solidified. Refrigerate the solid mixture in a temperature of -18 degree Celsius for 30 minutes.

- The study on the appropriate quantity of Karanda juice was conducted using three different levels of quantities: 20%, 30%, and 40% of the total ingredients.

1.2 Preparation and production process of Karanda yogurt ice-cream

- Preparation of Karanda flesh: Defrost the frozen Karanda at a room temperature for 30 minutes. Cut the Karanda in half, remove the seeds, and then blend the fruit.

- Production process of Karanda yogurt ice-cream: Weigh the ingredients necessary for making yogurt ice-cream by separating the ingredients into two parts: Part 1 (300 grams) and Part 2 (150 grams). Mix fresh milk with glucose syrup in a stove, set the heat level at 5 for 5 minutes. Once the ingredients begin to melt, add stabilizer powder into the mixture and rest for 30 minutes. Whip the whipping cream at a medium speed of 3 for 3 minutes. Once it becomes fluffy, add water and yogurt from Part 1 (300 grams). Continue to whip the mixture for 2 minutes. Whip the cream cheese at a low speed of 2 for 2 minutes. Once the mixture becomes smooth, add yogurt from Part 2 (150 grams). Continue to whip the mixture for 1 minute. Then, mix all the ingredients together, including the blended Karanda flesh. Refrigerate the mixture at a temperature of 4 degree Celsius for 24 hours. Pour the mixture into an ice-cream blender for 10 minutes. Fill 100 grams of the mixture into each cup and close the lid. Refrigerate at the temperature of -18 degree Celsius for 2 hours before serving.

- The study on the appropriate quantity of Karanda for making ice-cream yogurt was conducted using three different levels of quantities: 10%, 20%, and 30% of the total ingredients.

The quality of Karanda products was assessed in terms of senses, with a randomized complete block design (RCBD) (Saichol, 2003). The sample group of 70 people, comprising of professors and students from Rajamangala University of Technology Phra Nakhon, were asked to provide a score for their level of satisfaction, based on the 9-Hedonic

scale (Penkhwan, 2006). The participants assessed the product quality in terms of color, smell, flavor, texture (smoothness), and overall satisfaction.

The obtained data were analyzed using a statistical analysis of variance (ANOVA) and the averages were compared using Duncan’s Multiple Range Test (DMRT) at a confidence level of 95%.

The study on the quality of Karanda sorbets and yogurt ice-cream

Assessment of the physical properties of Karanda sorbets and yogurt ice-cream

Viscosity Measurement. The viscosity of Karanda ice-cream, which had been incubated at a temperature of between 4 and 8 degree Celsius in a 600-milliliter beaker, was assessed using Brookfield Viscometer, with #3 spindle at a speed of 100 rpm. The values were recorded after a 30-minute spin.

Overrun Measurement. The ice-cream overrun was determined by weighing the mixed ice-cream contained in a plastic cup. Once the ice-cream was blended until solidified, it was poured into a plastic cup until full. The obtained ice-cream was used in an overrun calculation.

Color Measurement. Color was measured using Spectre Magic NX.

Melt-down Rate Measurement. The melt-down rate of the ice-cream was measured at a controlled temperature (25 degree Celsius). Prior to the analysis, the ice-cream must be incubated at a temperature of -20 degree Celsius for 24 hours.

Level of pH Measurement. The level of pH was evaluated using a pH meter –Satorius AQ, PB-10 model.

Refractive Index Measurement. The refractive index was measured using a hand refractometer, Ni (0-32°Brix), MNL 1125 model.

Evaluation of chemical properties of Karanda sorbets and yogurt ice-cream

- 1) Moisture Level (%) – measured according to AOAC technique (2005)
- 2) Ash Level (%) – measured according to AOAC technique (2005)
- 3) Fat Level (%) – measured using Roese-Gottlieb method, based on AOAC technique (2005)
- 4) Protein Level (%) – measured using formal titration, based on AOAC technique (2005)
- 5) Fiber Level (%) – measured according to AOAC technique (2005)
- 6) Total Carbohydrate (%) – measured according to AOAC technique (2005)
- 7) Energy – measured using the method of Analysis for Nutrition Labeling (2002)

The study on consumers’ behaviors towards Karanda sorbets and yogurt ice-cream

The study was conducted on a total of 150 consumers, comprising of individuals in Dusit Disctrict, Bangkok. The sample group was selected on a random basis and the questionnaire was standardized according to a rating scale, based on a 5-point Likert Scale. The participants were provided with questions relating to the senses that include: color, smell, taste, texture (smoothness), and overall satisfaction.

RESULTS AND DISCUSSION

Table 1 Results of the quality of senses for each concentration of Karanda juice

| Karanda Juice (%) | Properties | | | | |
|-------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | Color | Smell | Taste | Texture | Overall Satisfaction |
| 20 | 7.33 ^b ±1.11 | 6.80 ^b ±1.04 | 7.01 ^b ±1.01 | 6.84 ^b ±0.93 | 7.12 ^b ±0.98 |
| 30 | 7.41 ^a ±0.96 | 7.19 ^a ±0.99 | 7.20 ^a ±1.02 | 7.20 ^a ±1.15 | 7.39 ^a ±1.01 |
| 40 | 7.27 ^b ±0.90 | 6.91 ^b ±1.00 | 6.89 ^b ±1.00 | 6.81 ^b ±0.97 | 7.03 ^b ±1.04 |

Remark: ^{a, b, c} superscripts refer to the variables that are significantly different at a confidence level of 95%

From Table 1, it is evident that the participants were satisfied with Karanda sorbets at 30% concentration, in terms of the color, smell, taste, texture, and overall satisfaction –all at a moderate level, with the averages of 7.41, 7.19, 7.20, and 7.39 respectively. Upon evaluation, the results were significantly different at a confidence level of 95% due to the dark red color, sweet and sour fragrance, sour taste, and smooth texture of the product. Meanwhile, for Karanda sorbets at 20% and 40% concentration, the color, smell, taste, texture, and overall satisfaction were rated in a low to moderate level. The primary reasons are that Karanda sorbets at 20% concentration have a weak sour taste, while Karanda sorbets at 40% concentration have bitter and sour tastes due to the high concentration of anthocyanin.

Table 2 Physical properties of Karanda sorbets at 3 different levels

| Karanda Juice (%) | Color Index | | | Refractive Index | Overrun Value | Melt-down Rate | Level of pH |
|-------------------|-------------|-------|-------|------------------|---------------|----------------|-------------|
| | L* | a* | b* | °Brix | % | % | pH |
| 20 | 40.46 | 38.68 | 22.72 | 30 | 26.32 | 45.62 | 2.37 |
| 30 | 34.32 | 41.26 | 21.18 | 30 | 25.72 | 47.32 | 2.40 |
| 40 | 31.56 | 44.94 | 20.48 | 30 | 24.75 | 49.28 | 2.42 |

Remark: L^* refers to the brightness level, a^* refers to the redness level, b^* refers to the yellowness value

From Table 2, it indicated that the majority of participants preferred Karanda sorbets at 30% concentration, with the results as follow: brightness level is $L^*34.32$; redness level is $a^*41.26$; yellowness level is $b^*21.18$; refractive index is at 30°Brix; overrun value is 25.72%; melt-down rate is 47.32%, under a room temperature for the duration of 30 minutes; the level of pH is 2.40. Therefore, the product appears as red, with the sweet fragrance from sugar, and sour taste from the lemon juice. In addition, it also has a smooth and fine texture. Meanwhile, the physical properties of Karanda sorbets at 20% and 40% concentration are slightly different due to the difference in Karanda juice concentration. A high concentration of Karanda juice increases the brightness (L^*) and redness (a^*) levels, while the yellowness level (b^*) remains unchanged. Nonetheless, the overrun value depends on the viscosity. A high viscosity will hinder the movement of the rotating blade in the blending process, which results in less air being blended into the sorbet. The melt-down rate at 30 minutes, in a room temperature, increases the melting resistance; while the pH value remains unchanged.

Table 3 Results of quality of senses for Karanda yogurt ice-cream at 3 different levels

| Karanda Juice (%) | Properties | | | | |
|-------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | Color | Smell | Taste | Texture | Overall Satisfaction |
| 10 | 7.41 ^a ±1.27 | 7.24 ^a ±1.22 | 7.77 ^a ±1.16 | 7.17 ^a ±1.21 | 7.67 ^a ±1.11 |
| 20 | 7.54 ^a ±1.08 | 6.97 ^b ±1.41 | 7.24 ^b ±1.50 | 7.01 ^a ±1.51 | 7.42 ^a ±1.23 |
| 30 | 6.72 ^b ±1.50 | 6.51 ^b ±1.45 | 6.48 ^c ±1.40 | 6.17 ^b ±1.38 | 6.48 ^b ±1.33 |

Remark: ^{a, b, c} superscripts refer to the variables that are significantly different at a confidence level of 95%

From Table 3, it can be inferred that the majority of participants preferred Karanda yogurt ice-cream at 10% concentration, in terms of the color, smell, taste, texture, and overall satisfaction –all at a moderate level, with averages of 7.24, 7.77, 7.17, and 7.67 respectively. Meanwhile, for Karanda yogurt ice-cream at 20% concentration, the participants are most satisfied with the color, at a moderate level and average of 7.54. Upon the analysis of variance and statistical difference, it is apparent that the color, smell, taste, texture, and overall satisfaction have a significant difference at a confidence level of 95%. The main reasons for such differences are that the Karanda yogurt ice-cream at 10% concentration have a smooth texture of the ice-cream and the chewiness of Karanda flesh in the ice-cream. On the contrary, Karanda yogurt ice-cream at 20% and 30% concentration have a smooth texture, yet both have too much of the Karanda flesh blended in the ice-cream, resulting in excessive stickiness.

Table 4 Physical properties of Karanda yogurt ice-cream at 3 different levels

| Karanda Juice (%) | Color Index | | | Viscosity Index | Refractive Index | Overrun Value | Melt-down Rate | Level of pH |
|-------------------|-------------|-------|-------|-----------------|------------------|---------------|----------------|-------------|
| | L^* | a^* | b^* | Cps. | °Brix | % | % | pH |
| 10 | 52.32 | 32.26 | 21.18 | 364.798 | 26 | 75.85 | 89.90 | 5.67 |
| 20 | 51.32 | 35.68 | 23.72 | 369.524 | 26 | 77.72 | 91.32 | 5.40 |
| 30 | 50.56 | 39.57 | 25.48 | 373.015 | 26 | 79.89 | 93.12 | 5.32 |

Remark: L^* refers to the brightness level, a^* refers to the redness level, b^* refers to the yellowness value

From Table 4, it is apparent that Karanda yogurt ice-cream at 10% concentration is most accepted amongst the participants, with the results as follow: brightness level is $L^*52.32$; redness level is $a^*32.26$; yellowness level is $b^*21.18$; viscosity index is 364.798 cps; refractive index is 26°Brix; overrun value is 75.85%; melt-down rate in 30 minutes at room temperature is 89.90%; and pH value is at 5.67. Upon blending the Karanda flesh into the ice-cream, the viscosity level increases due to the water content in the flesh.

Moreover, adding Karanda flesh into the yogurt ice-cream increases the color index, due to the red color of the flesh. Therefore, with the addition of Karanda flesh, the resulting ice-cream becomes light pink with high level of moisture. The melt-down rate of the ice-cream ranges from 89.90% to 92.53%. Regardless, the melt-down rate depends on the transfer of heat from the environment into the ice-cream, which causes the ice crystals to be melted. The melt-down rate will be initially low and will exponentially increase overtime (Muse and Hartel, 2004).

Table 5 illustrates the nutritional value of Karanda sorbets and yogurt ice-cream, based on the quantity of 100 grams

| hemical Composition | Amount Per Serving: 100 grams | |
|-----------------------|-------------------------------|--------------------------|
| | Karanda Sorbets | Karanda Yogurt Ice-cream |
| Energy (kilocalories) | 91.8 | 214 |
| Carbohydrates (gram) | 22.6 | 17.5 |
| Protein (gram) | <0.20 | 3.14 |
| Fats (gram) | 0.15 | 14.6 |
| Moisture (gram) | 77.1 | 64.0 |
| Fiber (gram) | 0.11 | 0.76 |
| Ash (gram) | 0.12 | 0.74 |
| Vitamin C (gram) | Non Detected | Non Detected |
| Level of pH (pH) | 2.40 | 5.67 |

From Table 5, it can be concluded that a 100 gram of Karanda sorbets provides: 91.8 kilocalories; 22.6 grams of carbohydrates; less than 0.20 grams of protein; 0.15 grams of fats; 77.1% of moisture content; 0.11 grams of fiber; 0.12 grams of ash; and pH level of 2.40. Meanwhile, a 100 gram of Karanda yogurt ice-cream provides: 229 kilocalories of energy; 17.0 grams of carbohydrates; 3.24 grams of protein; 16.4 grams of fats; 64.0% of moisture content; 0.76 grams of fiber; 0.74 grams of ash; and pH level of 5.67. Both types of Karanda products do not contain any vitamin C. This may be due to the fact that vitamin C are used in respiration and the molecules are attached to carbon dioxide in the chemical synthesis of new compounds during the ripening process (Sungkom, 1993). Additionally, Karanda is abundant in anthocyanin, which consists of purple-red pigments that act as an antioxidant. Its antioxidant property is a thousand times more effective than that of vitamin C. Likewise, it provides various health benefits, including reducing the blood sugar level, preventing heart diseases and cancer, promoting immune system, healing wounds, and enhance activities of red blood cells.

Table 6 Results of consumer's acceptance towards Karanda sorbets and yogurt ice-cream

| Details | Number of Participants | % |
|--|------------------------|------------|
| 1. Do you accept Karanda sorbets and yogurt ice-cream? | | |
| Yes | 150 | 100 |
| No | 0 | 0 |
| Total | 150 | 100 |

According to Table 6, it can be observed that all of the 150 participants (100%) accepted Karanda sorbets and yogurt ice-cream due to the sweet and sour taste, as well as the attractive fragrance. The majority of participants accepted the products due to the perfect combination of the sweet and sour taste.

CONCLUSION AND SUGGESTIONS

Conclusion

The appropriate quantity of Karanda juice for making sorbets is 30% and the appropriate quantity of Karanda flesh in the yogurt ice-cream is 10%. In terms of the chemical properties of the two products, it is found that a 100 gram of Karanda sorbets provide 91.8 kilocalories of energy, 22.6 grams of carbohydrates, less than 0.20 grams of protein, 0.15 grams of fats, 77.1% of moisture content, 0.11 grams of fiber, 0.12 grams of ash, and pH value of 2.40. Alternatively, a 100 gram of Karanda yogurt ice-cream provide 229 kilocalories of energy, 17.0 grams of carbohydrates, 3.24 grams of protein, 16.4 grams of fats, 64.0% of moisture content, 0.76 grams of fiber, 0.74 grams of ash, and pH level of 5.67. In terms of consumers' acceptance towards the products, 100% of the participants accepted Karanda sorbets and yogurt ice-cream.

Suggestions

1. There should be a study on the shelf life of Karanda sorbets and yogurt ice-cream.
2. There should be more studies on the development of Karanda products in food and beverages, in order to create new products and choices for consumer. In addition, this would also serve as a pathway for government agencies to promote the agriculture economy.

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The Analysis of Procurement and Inventory Policy: Steel Tank Firm

Kraiwit Sinthukhammoon

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

kraiwit.si@ssru.ac.th

Abstract. The purpose of this study is to provide recommendation; how the targeted firm should manage their procurement and inventory. Currently, the firm has not been used any theoretical approach for determine the right amount to stock and to procure. This problem, eventually, leads to overstocking of 200-liter Steel Tank and, therefore, increasing in total cost of inventory. Hence, this study use Continuous Review System policy (s, Q*) in order to compare the cost to that from the current situation. By integrating data from 2013-2015 of both types of tank quality, the variation coefficients are tested. Then, the demand of the product for 12 months period will be forecasted. At last, procurement economic order quantity, inventory level and new procurement equilibrium will be defined. Result indicates that total cost of the recommended policy, from January to December 2016, is 68,775.32 Baht lower than the previous or 39.44 in percentage.

Keywords--- Inventory Management, Continuous Review System Policy, Demand Forecast

INTRODUCTION

Nowadays, in the most industries business are critical competitive that made them create strategies to be advantage competitive to get larger market share. The important strategy is using in many firms are focus on maintain quality of products and services, price, reduce cost, meet customers need and satisfy customers. Thus reduce cost processing in organization is one procedure to support capacities in market competition. Many organization concentrate on build to reduce cost strategy in management which is best process to reduce cost in inventory and purchasing operations

This research studied a company is purchasing firm and distribution steel Tank 200 liters. This company is purchase used products from seller and re-cycles it for selling according customer's needs with highest profit margin. In addition the company has stock products in inventory for satisfying customer requirements. Now this company has main raw material is 200 steel tank produce for selling 2 types are good quality and fair quality of products. Their policy concerns inventory found this company lack of controlling stock inventory, order point and order quantities.

So they often faced over stock of raw material problem and reorder in many times that affect to cost of raw materials inventory and cost of order is higher. This research aims to find policy for controlling appropriate quantity of raw material by using theory inventory management to support reducing cost in purchasing including total cost.

Thus this study, researcher learnt more research of (Panwipa Puthipad and Pornthipa Ongkunaruk, 2011) for studying to adjust purchasing policy and find appropriately management by gathering data and group type of product accord ABC Analysis. After that, select 2 items of raw materials which are highest valve annually and highest valve in inventory. There are 2 items selected divided 2 types are raw material normal distribution and raw material other distribution.

Then calculate the data in each policy to compare costs. The results found normal distribution method should use in continuous policy such as determine highest and lowest inventory policy, reused raw material should calculate with simulation method. The purpose of this research is study materials control inventory policy in company in case of products requirement, purchasing quantity of raw material inventory, ordering cost and holding cost for developing inventory strategy.

METHODOLOGY

The research used information about demand products of company both good and fair quality in year 2013-2015 while gathered information from sales department to use in process and find policy reorder materials and determine level of store raw material inventory by forecasting demand and adjusting to use in January to June 2016, then compare expenditure each policy including order expenses and analysis expense in control inventory policy as below.

2.1 Examine Coefficient of Variation of products demanding

Examine coefficient of Variation of demand 200 liters steel tank in year 2013-2015 by measuring coefficient of Variation to calculate demanding

$$\text{Coefficient of Variation} = \frac{SD}{\bar{X}}$$

Ref. SD = Standard Deviation

\bar{X} = Mean

Measurement as below

1. If CV is less than 0.25 means demand 200 liters steel bucket is stable, so it can be used EOQ to calculate ordering quantity.
2. If CV is more than or equal 0.25 means demand 200 liters steel tank is variance , so it can be used other methods to calculate such as Silver-Meal or forecasting demand to calculate ordering quantity

2.2 Study expense of ordering cost and holding cost in case of the company

Study expense of ordering cost and holding cost in case of the company 200 liters steel tank products both qualities are good and fair quality from supplier separated by expenses as below.

2.2.1 Fixed cost in ordering per time

Fixed cost will be included issuing purchase order documents until received material inventory.

2.2.2 Holding cost in inventory

Estimate material holding cost depends on kinds of materials and owner consideration.

2.3 Forecasting Demand of each material quality in year 2016

Used forecasting demand with materials need and selected forecasting method is flexible to adjust Simple Exponential Smoothing

2.4 Determine reorder policy used replenishment system.

Reorder policy used replenishment system which is determine material inventory reorder point and quantity of order stability in each time at 99%.

2.4.1 Calculate to economic order quantity (EOQ)

$$Q^* = \sqrt{\frac{2kD}{h}}$$

- as Q^* = Quantity order per time (Q^*)
 D = Demand per year (unit)
 k = ordering cost per year (Baht)
 h = Holding cost per year (Baht)

2.4.2 Calculate to Safety stock

$$SS = \sigma_D \times k \times \sqrt{L}$$

as SS = Quantity of safety stock
 σ_D = Standard deviation
 L = Lead time
 k = Standard variable under curve

2.4.3 Calculate to Reorder point

$$ROP = (\mu_D \times L) + SS$$

as ROP = Re order point (Unit)
 μ_D = Used rates (Unit per month)
 L = Lead time
 SS = safety stock

2.5 Comparing between new and old policy inventory cost

Bring total cost of new and old policy to calculate for finding lowest cost

RESULTS OF RESEARCH

3.1 Examine coefficient of Variation of demand 200 liters steel tank

Examine coefficient of Variation of demand 200 liters steel tank in year 2013-2015 by measuring coefficient of Variation to calculate demanding as table 1

Table 1 coefficient of Variation of demand 200 liters steel tank both quality

| item | Mean per month | S.D. | C.V. |
|---------------------------------------|----------------|----------|------|
| Good quality of 200 liters steel tank | 6,197.58 | 1,597.05 | 0.26 |
| Fair quality of 200 liters steel tank | 4,118.81 | 1,192.12 | 0.29 |

The results from Table 1 that coefficient of Variation of demand 200 liters steel tank in good quality equal 0.26 and fair quality 0.29

3.2 ordering cost and holding cost in case of the company

3.2.1 Fixed cost in ordering per time

Total fixed cost in ordering per time total is 153 baht per time

3.2.2 Holding cost in inventory

Holding cost in inventory be calculated from opportunity cost investment 8% per year when calculated formula $h = ic$ price of demand 200 liters steel tank in good quality equal 300 Baht per piece and fair quality equal 200 Baht per piece and Holding cost in inventory for good quality is 24 baht /piece / year and fair quality is 16 baht /piece / year

3.3 Forecasting demand in next 6 months in year 2016

Forecasting demand in next 6 months January to June in year 2016 by using Simple Exponential Smoothing determined $\alpha = 0.1$ for good quality and $\alpha = 0.1$ for fair quality refers to demanding of good quality products equal 5,761 pieces per month and fair quality products equal 4,475 pieces per month.

The results of error of measurement in forecasting by using Simple Exponential Smoothing determined σ is standard variable as Table 2

Table 2 Show error of measurement

| item | α | MAD | MAPE | TS | σ |
|---------------------------------------|----------|----------|-------|-------------|----------|
| Good quality of 200 liters steel tank | 0.1 | 1,316.04 | 22.74 | (-6.0, 4.1) | 1,645.05 |
| Fair quality of 200 liters steel tank | 0.1 | 892.29 | 21.59 | (-3.9, 5.6) | 1,115.36 |

3.4 new policy in order and holding inventory

Ordering in new policy use Continuous Inventory System Perceptual (s, Q*) and quantity control inventory in level 99% can calculate as below

3.4.1 Economic order quantity (EOQ)

Economic order quantity able to bring all value calculated before instead of formula and the results are found economic order quantity both of quality 200 liters steel tank

- EOQ of Good quality 200 liters steel tank is 939 pieces per time
- EOQ of Fair quality 200 liters steel tank is 1,014 pieces per time

3.4.2 Calculate to Safety stock

Ordering quantity both of quality 200 liters steel tank have lead time 1 week and S.D. as table 4 and determined services 99%. Then use Z, z =99% refer to k = 2.33 the results of Safety stock both of quality 200 liters steel tank

- Safety stock of Good quality 200 liters steel tank is 1,848 pieces
- Safety stock of fair quality 200 liters steel tank is 1,253 pieces

3.4.3 Calculate to Reorder point

Calculating of Reorder point able to bring all value calculated before instead of formula and the results are found Reorder point as below

- Reorder point Good quality 200 liters steel tank is 3,178 pieces
- Reorder point of fair quality 200 liters steel tank is 2,286 pieces

3.5 Comparing between new and old policy inventory cost

Bring the results of EOQ, ROP above instead of formula Continuous Inventory System Perceptual (s, Q*) by modified to compare total costs is refer to forecasting demand of products since January 2016 to June 2016 as table 3 show comparing between old and new policy. The old and new policy summarize from ordering cost and holding cost included all cost occurred in first 6 months in year 2016.

Table 3 Total costs

| Raw materials | Total Costs | |
|---------------------------------------|-------------|------------|
| | Old policy | (s, Q*) |
| Good quality of 200 liters steel tank | 78,128.22 | 66,238.02 |
| Fair quality of 200 liters steel tank | 96,228.51 | 39,343.39 |
| total | 174,356.73 | 105,581.41 |

Total costs both old and new policy of company as above can be compared new policy will higher cost is 68,775.32 Baht or 39.44 %

CONCLUSION AND SUGGESTION

This study was found both qualities are good and fair quality get coefficient of Variation of demand higher than 0.25 that made need to analysis Forecasting Demand of each material quality in year 2013-2015 for calculating new policy in inventory and comparing between costs of new and old policy. Then applied both of policies use in January to June 2016 that refer to new policy able to reduce cost in January to June 2016 is 68,775.32 Baht or 39.44% and no lack of raw materials. So the reason why both of costs are very difficult because old policy lack of planning in ordering and controlling high costs problem. Thus if company has plan in ordering and holding will encourage to reduce inventory costs that related to research of (Varathorn Punyangarm, 2008) studied demanding raw materials in production to forecast demand of products aims to find economic order quantity EOQ, reorder point, Safety stock quantity and total costs. The results that can be reduce costs in production and decrease quantity of safety stock. In this case of steel tank firm should to manage new policy which is Continuous Inventory System Perceptual (s, Q*) instead of old policy because new policy can reduce total costs and no lack of inventory.

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The Human Resource Development in the Learning Organization for the Organization Development

Sudarat Pimonratanakan^{*1}, Santidhorn Pooripakdee

College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, Thailand, Silpakorn University, Thailand

sudarat.pi@ssru.ac.th^{*1}, santidhorn@gmail.com

Abstract. The objective of this research is 1.To study about human resource development in education area of Klongsamwa District Bangkok Province by using the private vocational college 2.To study the pattern of the human resource development in the learning organization for the organization development of private vocational college in Klongsamwa District Bangkok Province by doing the Qualitative Research and In-Depth Interview.The main of data providers are 15 person in personnel academic term in private vocational college under office of the Vocational Education Commission in Klongsamwa District Bangkok Province by using Purpose Selection ,considered from properties which matched the objective research and analyzed data by theory comparing and conclusion. From the research found that the pattern of human resource development in the learning organization for the organization development was presented by Model Pattern consist of 3 main element 1) personnel 2) organization 3) Information Technology The result can provide us to know about system pattern which effective to success of human resource development in the learning organization following with self manage capacity to be a learning organization, developing the human resource development's process according adjusting human resource development principal to be ready to support the new organization in organization development for new strategy changing. In addition it can be an orientation for executives to adjust the role of job operation, guideline the established policy for organization to be the most effective in organization development.

Keywords--- Human Resource Development , Learning Organization , Organization Development.

INTRODUCTION

Nowadays the Human Resource Development emphasize the leadership vision to staffs to gain the knowledge, proficiency, expertise and making effective decision and problem solving skill in organization. Developing the human resource with the new generation is currently important to inspire in job operation within Shared Leadership in organization. Because the current organization is not allow the only one executive person to make important decision or lead the organization to the goal. Therefore the human resource in organization must have leadership skill to lead the group in each situation alternately.(Bass&Bass,2008) Also presently of human resource development have a necessary thing.Because it is the most important valuable resource which high valuable investment. The kind of good human resource development consist of knowledgeable, skill expertise, ability to worth to investing for.

Significant developing is each person's development including worker development according to organization need. This process is gain good effect by getting new ideas for administration and quality job tasks to the organization. (Wichian Wittayaudom,2014)With advantage is sustainable competition and high performance, that's why the organization need to set the guideline of human resource management which is the significant resource to compete with others and be organization's capacity in effective way.(Suramongkol Nimjit and Threerawit Junteuk,2016)

Learning Organization is the concept and practical guidelines to emphasize organization, human resource development through strategy and learning procedure in continuing team throughout organization by using knowledge management concept and kinds of supporting factors in order to support equipment to create valuable body of knowledge and innovation to bring competent and quality to organization (Marquardt, MJ, 1996:28) When the organization develops to learning organization, according to researches and academics are confirmed that knowledge management is the main factor of Learning Organization Development especially in human resource's mind . (Benet,D.) and Benet,A, 2008:72-94)

Organization Development's Objective is to support the organization including members for many points. First emphasizing the organization to set the high goal of operation and achieve it .Second to create highest efficiency in job operation. Third organization development can persuade members in organization to face the problem and to solve the disagreement in creative way, supporting for harmony attitude for solving organization's problem. To coordinate personal target including the organization's target, increasing the relationship between job unit , every relationship between commander to subordinate's level(Sunantha Lauhanan,2007:57)The organization development is the one of developed academic method to support each organization in order to succeed in currently fluctuated environment and be useful for being successful organization within challenging change situation.(Nathapan Khejaranan2008:109)

From the explained reason above the researcher would like to study about human resource development factors which can be effect to organization development according to the human resource development factors studying objective and study about human resource development in personnel academic term in private vocational college under office of the Vocational Education Commission at Klongsamwa District Bangkok Province. And for the receive result can be used for planning human resource management's guideline to bring more efficiency and organization's succeed.

RESEARCH'S OBJECTIVE

- To study about Human Resource Development in private vocational college Klongsamwa District Bangkok Province
- To study the pattern of Human Resource Development in the term of Learning Organization for Organization Development of private vocational college

IDEA CONCEPT AND RELATED THEORY

The researcher researched about theory following with documents collection and related research as

Human Resource Development

Gilly and Eggland(1993) said to develop the organization's human resource always consist of increasing knowledge level , expertise skill, working ability, vocation development in the component of human resource development. By improving the action that is associated with the job task, knowledge development, skill and improve job's efficiency and vocational development. By focusing on improving the operation of working skill , related to tasks those will be assigned in the future.

Prochaska, J.,&Diclemente (1983)had presented the theory of Behavior Changing procedure, in the procedure and the belief is about the situation of changing must change by step by step not like a general situation also depends on different kind of Behavior's step. In addition each person of each level have to used activity's strategy in various way for processing to help the person can pass each step. Each changing step was called Behavior Changing Procedure (Chutima Katonyoo,2004:31) Behavior Changing like exercise, organization change, stress control, main structure of behavior changing procedure theory (Velicer et al.,1997)consists of Stage of Change, Process of Change and for the result assessment such as Decision Balance ,Temptation Scales. Furthermore behavior changing procedure is consisted experiential processes, behaviorial processes to support behavior changing. Swansbury(1968)said Human Resource Development is the study of the person who want be self improvement in vocational and technical terms to enhance abilities for academics advancement promptly to fulfill and satisfy each personal curious.

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personnel in academic term are the main part of human resource development and learning organization in the organization.

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1. Personnel Part

Is the human resource development of organization to be job's knowledgeable person and related know-how of operate job effective. And in personnel part is consist of 4 components as

1.1 Education

To provide the importance of the human resource development in the learning organization for the organization development, from the research found that giving important in human resource development for education part by establish the learning activity to prepare for job operation promptly in knowledge changing part. Which help each person can be enhance or succeed in human resource development to be learning organization as the main data provider said" In a part of personnel academic term of private vocational college by giving significant to improve the personnel academic's education such as teaching profession learning along with continuing education".

1.2 Personal Development

To make the human resource development in the learning organization for the organization development significantly in order to personnel's need to support for changing in the future to be learning organization for organization development .From the research found that having an importance into human resource development, in personnel development having a various kind of method according to the organization's establishment namely job training by real operation practice and using experienced person to teach and might be for upgrade the promotion or might be prepare for organization's job rotation.

This process doing by organization for let the staff emphasize to analyze, make them feel confident and help them to create the new notion through learning process. To enhance each person grow up and let the worker have more efficiency as the one person of main data provider said" the personnel in academic term at private vocational college give the vital to the seminar for create knowledge and understanding among personnel in the operation skill in a part of vocation and harmony in organization. Moreover the seminar might be setting as operational seminar to let the staff can be practiced by themselves, solving problems with discussion .Additionally might add the activity names walk rally to make staffs learn about teamwork and create the leadership vision to seminar participants".

1.3 Career Development

To giving the importance of the human resource development in the learning organization for the organization development. From the research found that the career development is the system process provided by organization to let the staff gain more confident as the person who fulfilled with properties and experience can work as organization's need promptly. The statement of one person in main data provider said" the personnel in academic term at private vocational college have giving crucial career development by 2main parts namely. First part as career planning by let staffs target the goal of the career and have ability to analyze the procedure to reach the goal. Second part as career management which is various kinds of opportunity and activities of organization to help increase the confident that organization can have man power more than necessary and need to use in the future.

1.4 Training

To provide the importance of the human resource development in the learning organization for the organization development, from the research found that training is the activity that can create learning, improving the currently job and can improve knowledge skill for job operation as the statement of main data provider as "In a part of personnel academic term of private vocational college have giving an importance for training which can increase the confident and developing the learning. The critical of training is to let each staff can work for presently job, Initially training is each person learning such as basic skill training for staff's effective job operation, orientation to let the new staffs know about organization objective and general policy. The training emphasized the personnel development to attempt skills and qualified job operation following the organization's need namely the training to meet the specifications of job, Training the spirit of teaching, Training the teaching techniques, Training of writing a teaching plan".

2. Organization Part

Is the organizing the system of organization to be ready to support the human resource development in the learning organization with efficiency. And in the organization part have 5 elements namely

2.1 Policy establishment

To put the vital into the human resource development in the learning organization for the organization development, from the research found that policy establishment is the method of systemic thinking pattern which be tranferred to be a policy establishment from highest unit of education, it can satisfy the country's advancement and can be performed in education place continuingly with recentness and having the follow up and assessment as the one of the main data provider said "The education policy in the part of education evolution must be depend on responsibility system building to improve education quality in order to 21 century skill concept idea by let the academy have the responsible role more directly to parents and students and be the main role to develop the education quality. Also freely to manage the administration about curriculum setting, teaching method and assessment in order to 21 century skill concept idea to conform with vision and policy of academy."

2.2 Participation of the community

To giving the vital of the human resource development in the learning organization for the organization development, from the research found that in the participation of the community part is a good create interaction to lead the related community to participate in management and improve the academy in system pattern and durable. As the one of main data provider said "The academy provide the significant to participate of the community and accept that is the main factor to increase the organization improvement. If we are not acceptable for parents so they do not allow students to study in the organization, those moment can be impact to the organization in critical way therefore, have to protect this point to keep the organization stability."

2.3 Systemic Working

Is to giving an importance to the human resource development in the learning organization for the organization development, from the research found that the systematic working is the working with reasonable thinking with science principle by use the information to analyze, find the solution, perform and processing, appraise and conclude the result plus improvement for better way by using feedback information to the process of problem solving in systematic way until finish the problem solution as the one of main data provider said "the academy caring about systematic quality improvement procedure and continuingly by using feedback information procedure to bring into the problem solution procedure to improve into the better way. For this procedure performs by using students opinion feedback information to reflect about organization performance and solving the problem which student mention on for the next step until it is better."

2.4 Working as a Team

Is to giving an importance to the human resource development in the learning organization for the organization development, from the research found that working as a team is cooperation between colleagues to reach the goal of academy. And caring about team's opinion in decision making, meeting and work collaboration along with delightful in shared achievement as the one of main data provider said "The academy caring in teamwork because we have the work system as a team and clarified mastery in order to academy's administration planning system. Furthermore, in the meeting time is using brainstorm method to find job operation opinion to help increasing successful operation, because this method can support about considered planning, dealing with problem and following the result as a teamwork."

3. Information Technology

Is to giving an importance to the human resource development in the learning organization for the organization development, from the research found that information technology is being used in human resource development in the learning organization in systematic way by using knowledge management system, define data, information, news, researches, teaching contents and materials with a right assessment and suitable to the learning person. As the one of main data provider said "the academy having the knowledge management process to make it effective with 3 parts of information systematization as

The first part is for information technology management for instance, defined the personnel academic in various kind of category, transcript information, teaching plan making, studying equipment, schedules etc.

The second part is for the basic technology of learning namely the learning of new knowledge computers processing system, practicing new skills and abilities, making the information technology to be an information communicate through e-mail and internet, Wi-Fi system toward the academy area.

The third part operation electronic supporting generally having the knowledge management system for learning organization such a situation as if the operation plan, project is well done. It must follow with project conclusion report and be useful for the project conclusion report also making the knowledge management system, gathering the data and process the data result to be distributed the data correctly and fast.

The conclusion from the finding and analyzed data above, researchers would like to conclude the researcher's result about the human resource development in the learning organization for the organization development of personnel in academic term at private vocational college in Klongsamwa District Bangkok Province into the human resource development in the learning organization by main component as 3 points as Personnel, Organization, Information Technology as the shown of figure No.1

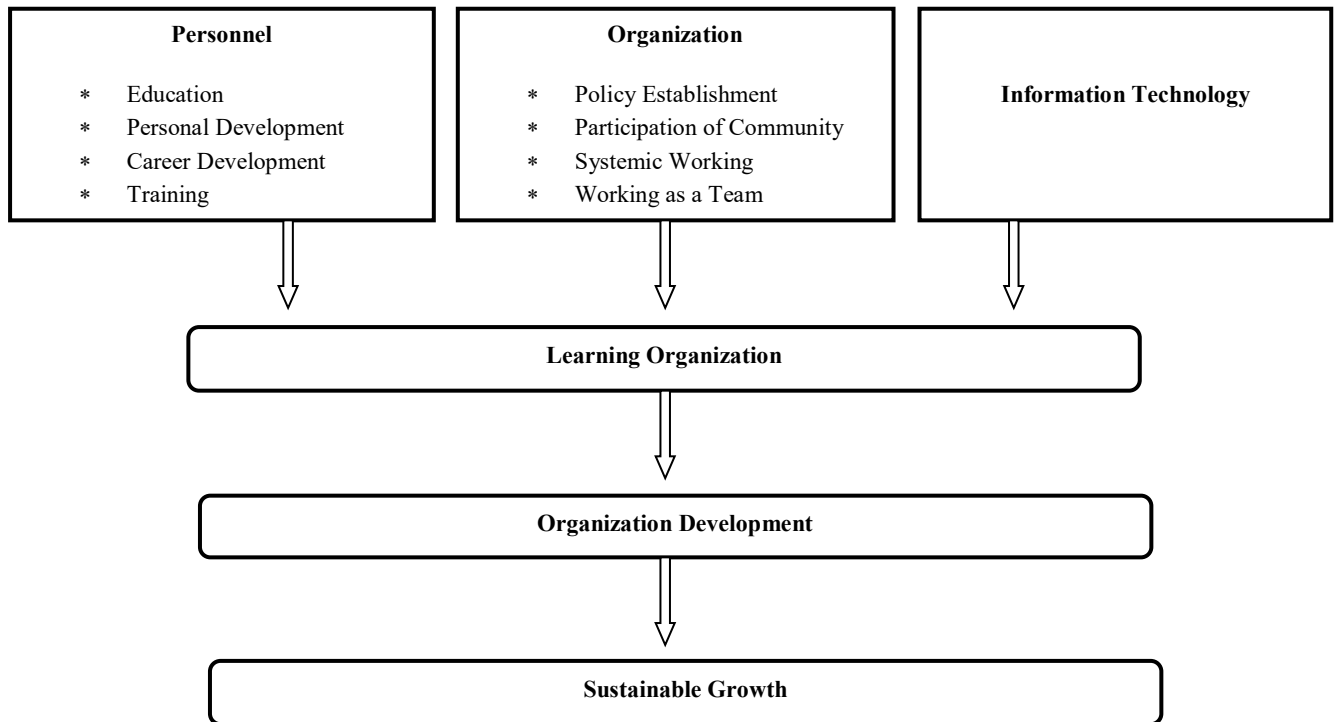


Figure No.1

The pattern of the human resource development in the learning organization for the organization development. From the figure No.1 shown that the human resource development in the learning organization for the organization development that create from the research is suitable for the organization's size which supporting the human resource development pattern in the learning organization, problem solving and gathering resources. Therefore, the significant method to lead the academy to be a successful and can be improve the potential continually. The context of human resource development in the learning organization for the organization development was divided as 3 parts as:

1. Personnel to develop human resource of organization to let the staff have knowledge in job also related skill to make the job operation effectively. In addition for the personnel division is consisting with 4 components such as education, personal development, career development and training.
2. Organization to systematize the organization to be ready to support the human resource development in the learning organization effectively. Besides the organization division is consisting with 5 components as policy establishment, participation of the community, systematic working, working as a team.
3. Information Technology is to give an importance to the human resource development in the learning organization for the organization development by defined the information system in 3 parts as
 1. Information Technology management
 2. Basic Technology of learning
 3. Operation Electronic supporting

These patterns can be improved in human resource development according to adjusting the guideline of human development process to support the strategy changing of new organization in the organization development such as General quality administration, Reengineering by creating the new plan pattern in order to what the organization need for support the attitude adjustment or stimulate the awareness of changing to predict factors clearly to be a learning organization. By being an intergrated learning of personnel, team, and organization together. Besides the changing of job procedure by using the human resource development process to training about job operation ,training to be ready for a recently technology and study about the organization's personnel's behavior and skill working together effectively.

On the other hand, for the thing that researchers would like to present is about emphasizing the development guideline which can be real practical in general way and need to improve in a concrete way. Because of human resource development's importance to be the learning organization is truly bringing the knowledge to use in a practical ways and learning from things those will be happen also improving for the next step to be a most effective development. And able to start to conduct in the academy with readiness to improve or at any school which ready in any factor in the same time according to the organization's goal.

DISCUSSION OF RESULT

From the research's result names the human resource development in the learning organization for the organization development can be explained as the point of human resource development in the learning organization for the organization development as From the research found that the human resource development in the learning organization for the organization development have the importance as might because of human resource development in the learning organization in the part of shared goal which is the sharing of participate to set the vision or organization development direction's activity, to emphasize the management for more flexibility to support the changing which can be happen all the time. Then the job operation in the organization happens in teamwork more than the past, for this reason can give more learning process to be developed the organization into the learning organization which conforms with Senge(1990)'s studied research idea concept that be explained as the importance role of the leader in learning organization is to planning to responsible with job achievement which require the learning and responsibility to the organization structure, strategic policy, and operation by the role of leader, instructor and be practice person with others members for the reason of currently social is the social of changing for learning.

The human resource development in the learning organization for the organization development have emphasizing point at cooperation and participate of organization members to improve the personnel in organization as a teamwork for job operation including can be achieve the goal by put the right man to the right job. Especially in harmony way which the same as Kaneungnit Anuroj(2551:113)'s research which explained that in human resource development need to improve systematically along with behavior mind and wisdom (virtue, concentration, wisdom development)also main point of human resource development is those development must be sustainable development. The human resource development in the learning organization for the organization development is important to organization development in the part of learning organization into the organization development by operating in substantial and develop organization to be learning organization in high level by let the organization executive to observe and study from others highest learning organizations to exchange knowledge and apply the direction for improving the organization to be learning organization.

From this process the result can contrive members in the organization to work effectively. Which according to concept idea (Drucker,2007) that explained as to manage the organization to be a high quality organization must have the right learning system to support member's learning in every level all time and continuingly. From the part of providing learning system to staffs in organization, after the staff can learn from the organization learning system they can apply the gain knowledge in correct and suitable for a situation include tackle problem, making the right decision for an organization.

RESEARCH BENEFIT

Benefit in management way

From studying about the influence of the human resource development through the learning organization that affect the organization development, the result found that the human resource development can cause the learning organization to the organization development.

For human resource development, executives should plan to use human resource to increase more efficiency by supporting the vocational development activity for personal way more than before. Because this factor is the highest positive influence to organization development by probably provide the chance that members can set the self improvement activity according to their needs to find the gab of self improvement. Comparing with organization's expectation to support the change that will happen in the future.

In the part of Organization Development, should have guidelines to improve especially realize for supporting for change from the leader, in this point executives should add more communication ways between leaders and followers about organization development. Giving awards and inspire attraction when members can achieve the plan that help organization can be developed. And organization should establish policy of development from bottom to top level to help members can acknowledge and to participate to improve the organization.

Benefit in theory way

This research can be useful in theory way namely, integration of idea and human resource development theory from Gilley and Egglan (1993) to set the idea in a research about learning organization from Senge(1990), and apply by considering learning organization as idea for a research, found that the result which is organization development and studied

in Qualitative Research to study about the human resource development in the learning organization for the organization development plus emphasized the learning organization. In the order hand this research was studied context in personnel academic term. From the past it rarely had researches that emphasize learning organization to the organization, because of the mostly researches were studied about human resource development and learning organization as Quantitative Research. All in all according to the result found that the human resource development in the learning organization is significant to organization development, this conclusion can make it more cumulative in academic term to study in the research.

SUGGESTION FOR FUTURE PLAN

1. Should study by bring the theory idea concept to research in organization which have Different role in order to improvement.
2. Should study in Quasi Experimental Research about bringing the information technology to Improve an academy to be a learning organization and do the study case and divide by academy's size to be a guideline of forming the administration and be the learning organization for other step.
3. For the human resource development in the organization, should research to find the suitable pattern form for the organization's situation or condition. Because the forming of development must be different according to each organization's problem and what is the factor that each member need to improve.

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Desirable Characteristics of Low-Cost Carriers Flight Attendants: The Case of Lion Air

Jiho LEE

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

chitpong.ay@ssru.ac.th

Abstract. The objective of this research is 1.To study about human resource development in education area of Klongsamwa District Bangkok Province by using the private vocational college 2.To study the pattern of the human resource development in the learning organization for the organization development of private vocational college in Klongsamwa District Bangkok Province by doing the Qualitative Research and In-Depth Interview.The main of data providers are 15 person in personnel academic term in private vocational college under office of the Vocational Education Commission in Klongsamwa District Bangkok Province by using Purpose Selection ,considered from properties which matched the objective research and analyzed data by theory comparing and conclusion. From the research found that the pattern of human resource development in the learning organization for the organization development was presented by Model Pattern consist of 3 main element 1) personnel 2) organization 3) Information Technology The result can provide us to know about system pattern which effective to success of human resource development in the learning organization following with self management capacity to be a learning organization, developing the human resource development's process according adjusting human resource development principal to be ready to support the new organization in organization development for new strategy changing. In addition it can be an orientation for executives to adjust the role of job operation, guideline the established policy for organization to be the most effective in organization development.

Keywords--- Human Resource Development , Learning Organization , Organization Development.

INTRODUCTION

Nowadays the Human Resource Development emphasize the leadership vision to staffs to gain the knowledge, proficiency, expertise and making effective decision and problem solving skill in organization. Developing the human resource with the new generation is currently important to inspire in job operation within Shared Leadership in organization. Because the current organization is not allow the only one executive person to make important decision or lead the organization to the goal. Therefore the human resource in organization must have leadership skill to lead the group in each situation alternately.(Bass&Bass,2008) Also presently of human resource development have a necessary thing.Because it is the most important valuable resource which high valuable investment. The kind of good human resource development consist of knowledgeable, skill expertise, ability to worth to investing for.

Significant developing is each person's development including worker development according to organization need. This process is gain good effect by getting new ideas for administration and quality job tasks to the organization. (Wichian Wittayaudom,2014)With advantage is sustainable competition and high performance, that's why the organization need to set the guideline of human resource management which is the significant resource to compete with others and be organization's capacity in effective way.(Suramongkol Nimjit and Threerawit Junteuk,2016)

Learning Organization is the concept and practical guidelines to emphasize organization, human resource development through strategy and learning procedure in continuing team throughout organization by using knowledge management concept and kinds of supporting factors in order to support equipment to create valuable body of knowledge and innovation to bring competent and quality to organization (Marquardt, MJ, 1996:28) When the organization develops to learning organization, according to researches and academics are confirmed that knowledge management is the main factor of Learning Organization Development especially in human resource's mind . (Benet,D.,) and Benet,A, 2008:72-94)

Organization Development's Objective is to support the organization including members for many points. First emphasizing the organization to set the high goal of operation and achieve it .Second to create highest efficiency in job operation. Third organization development can persuade members in organization to face the problem and to solve the disagreement in creative way, supporting for harmony attitude for solving organization's problem. To coordinate personal target including the organization's target, increasing the relationship between job unit , every relationship between commander to subordinate's level(Sunantha Lauhanan,2007:57)The organization development is the one of developed academic method to support each organization in order to succeed in currently fluctuated environment and be useful for being successful organization within challenging change situation.(Nathapan Khejaranan2008:109)

From the explained reason above the researcher would like to study about human resource development factors which can be effect to organization development according to the human resource development factors studying objective and study about human resource development in personnel academic term in private vocational college under office of the Vocational Education Commission at Klongsamwa District Bangkok Province. And for the receive result can be used for planning human resource management's guideline to bring more efficiency and organization's succeed.

RESEARCH'S OBJECTIVE

- To study about Human Resource Development in private vocational college Klongsamwa District Bangkok Province
- To study the pattern of Human Resource Development in the term of Learning Organization for Organization Development of private vocational college

IDEA CONCEPT AND RELATED THEORY

The researcher researched about theory following with documents collection and related research as

Human Resource Development

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1.2 Personal Development

To make the human resource development in the learning organization for the organization development significantly in order to personnel's need to support for changing in the future to be learning organization for organization development .From the research found that having an importance into human resource development, in personnel development having a various kind of method according to the organization's establishment namely job training by real operation practice and using experienced person to teach and might be for upgrade the promotion or might be prepare for organization's job rotation.

This process doing by organization for let the staff emphasize to analyze, make them feel confident and help them to create the new notion through learning process. To enhance each person grow up and let the worker have more efficiency as the one person of main data provider said" the personnel in academic term at private vocational college give the vital to the seminar for create knowledge and understanding among personnel in the operation skill in a part of vocation and harmony in organization. Moreover the seminar might be setting as operational seminar to let the staff can be practiced by themselves, solving problems with discussion .Additionally might add the activity names walk rally to make staffs learn about teamwork and create the leadership vision to seminar participants".

1.3 Career Development

To giving the importance of the human resource development in the learning organization for the organization development. From the research found that the career development is the system process provided by organization to let the staff gain more confident as the person who fulfilled with properties and experience can work as organization's need promptly. The statement of one person in main data provider said" the personnel in academic term at private vocational college have giving crucial career development by 2main parts namely. First part as career planning by let staffs target the goal of the career and have ability to analyze the procedure to reach the goal. Second part as career management which is various kinds of opportunity and activities of organization to help increase the confident that organization can have man power more than necessary and need to use in the future.

1.4 Training

To provide the importance of the human resource development in the learning organization for the organization development, from the research found that training is the activity that can create learning, improving the currently job and can improve knowledge skill for job operation as the statement of main data provider as “In a part of personnel academic term of private vocational college have giving an importance for training which can increase the confident and developing the learning. The critical of training is to let each staff can work for presently job, Initially training is each person learning such as basic skill training for staff’s effective job operation, orientation to let the new staffs know about organization objective and general policy. The training emphasized the personnel development to attempt skills and qualified job operation following the organization’s need namely the training to meet the specifications of job, Training the spirit of teaching, Training the teaching techniques, Training of writing a teaching plan”.

2. Organization Part

Is the organizing the system of organization to be ready to support the human resource development in the learning organization with efficiency. And in the organization part have 5 elements namely

2.1 Policy establishment

To put the vital into the human resource development in the learning organization for the organization development, from the research found that policy establishment is the method of systemic thinking pattern which be tranferred to be a policy establishment from highest unit of education, it can satisfy the country’s advancement and can be performed in education place continually with recentness and having the follow up and assessment as the one of the main data provider said “The education policy in the part of education evolution must be depend on responsibility system building to improve education quality in order to 21 century skill concept idea by let the academy have the responsible role more directly to parents and students and be the main role to develop the education quality. Also freely to manage the administration about curriculum setting, teaching method and assessment in order to 21 century skill concept idea to conform with vision and policy of academy.”

2.2 Participation of the community

To giving the vital of the human resource development in the learning organization for the organization development, from the research found that in the participation of the community part is a good create interaction to lead the related community to participate in management and improve the academy in system pattern and durable. As the one of main data provider said “The academy provide the significant to participate of the community and accept that is the main factor to increase the organization improvement. If we are not acceptable for parents so they do not allow students to study in the organization, those moment can be impact to the organization in critical way therefore, have to protect this point to keep the organization stability.”

2.3 Systemic Working

Is to giving an importance to the human resource development in the learning organization for the organization development, from the research found that the systematic working is the working with reasonable thinking with science principle by use the information to analyze, find the solution, perform and processing, appraise and conclude the result plus improvement for better way by using feedback information to the process of problem solving in systematic way until finish the problem solution as the one of main data provider said “ the academy caring about systematic quality improvement procedure and continually by using feedback information procedure to bring into the problem solution procedure to improve into the better way. For this procedure performs by using students opinion feedback information to reflect about organization performance and solving the problem which student mention on for the next step until it is better.”

2.4 Working as a Team

Is to giving an importance to the human resource development in the learning organization for the organization development, from the research found that working as a team is cooperation between colleagues to reach the goal of academy. And caring about team’s opinion in decision making, meeting and work collaboration along with delightful in shared achievement as the one of main data provider said “The academy caring in teamwork because we have the work system as a team and clarified mastery in order to academy’s administration planning system. Furthermore, in the meeting time is using brainstorm method to find job operation opinion to help increasing successful operation, because this method can support about considered planning, dealing with problem and following the result as a teamwork.

3. Information Technology

Is to giving an importance to the human resource development in the learning organization for the organization development, from the research found that information technology is being used in human resource development in the learning organization in systematic way by using knowledge management system, define data, information, news, researches, teaching contents and materials with a right assessment and suitable to the learning person. As the one of main data provider said “the academy having the knowledge management process to make it effective with 3 parts of information systematization as

The first part is for information technology management for instance, defined the personnel academic in various kind of category, transcript information, teaching plan making, studying equipment, schedules etc.

The second part is for the basic technology of learning namely the learning of new knowledge computers processing system, practicing new skills and abilities, making the information technology to be an information communicate through e-mail and internet, Wi-Fi system toward the academy area.

The third part operation electronic supporting generally having the knowledge management system for learning organization such a situation as if the operation plan, project is well done. It must follow with project conclusion report and be useful for the project conclusion report also making the knowledge management system, gathering the data and process the data result to be distributed the data correctly and fast.

The conclusion from the finding and analyzed data above, researchers would like to conclude the researcher's result about the human resource development in the learning organization for the organization development of personnel in academic term at private vocational college in Klongsamwa District Bangkok Province into the human resource development in the learning organization by main component as 3 points as Personnel, Organization, Information Technology as the shown of figure No.1

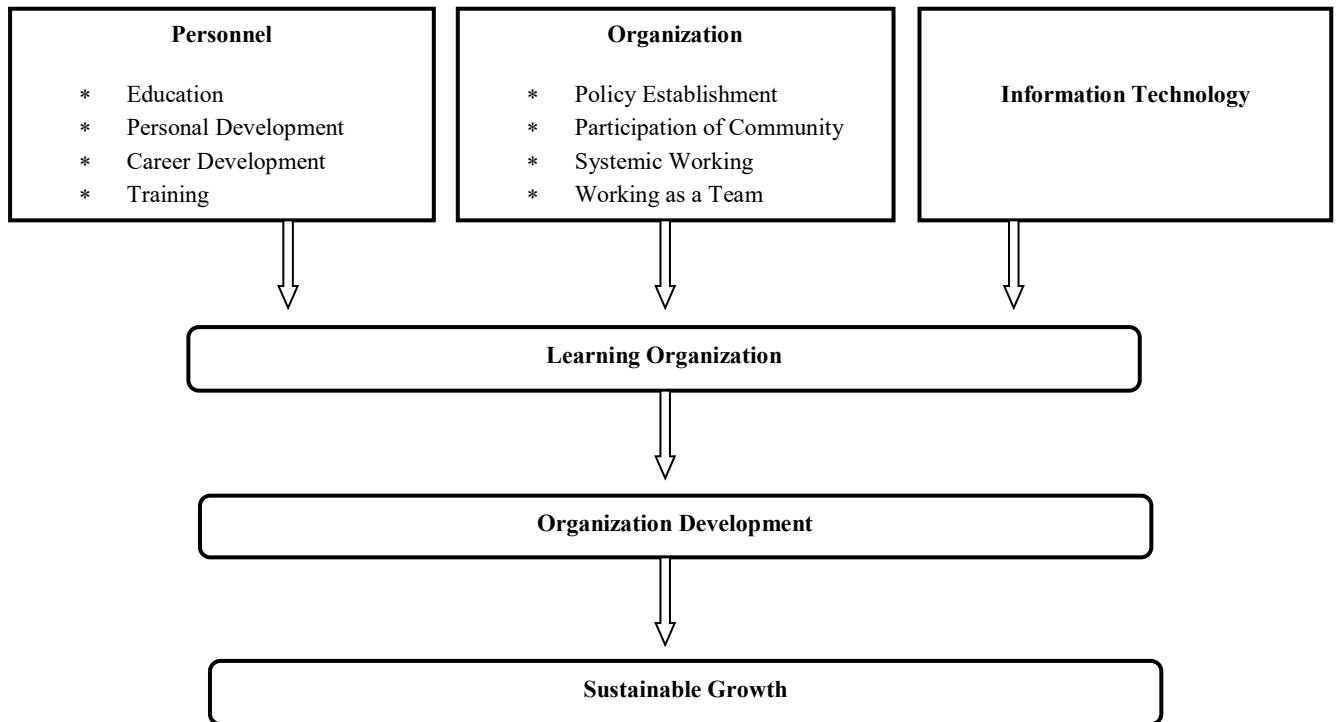


Figure No.1

The pattern of the human resource development in the learning organization for the organization development. From the figure No.1 shown that the human resource development in the learning organization for the organization development that create from the research is suitable for the organization's size which supporting the human resource development pattern in the learning organization, problem solving and gathering resources. Therefore, the significant method to lead the academy to be a successful and can be improve the potential continually. The context of human resource development in the learning organization for the organization development was divided as 3 parts as:

1. Personnel to develop human resource of organization to let the staff have knowledge in job also related skill to make the job operation effectively. In addition for the personnel division is consisting with 4 components such as education, personal development, career development and training.
2. Organization to systematize the organization to be ready to support the human resource development in the learning organization effectively. Besides the organization division is consisting with 5 components as policy establishment, participation of the community, systematic working, working as a team.
3. Information Technology is to give an importance to the human resource development in the learning organization for the organization development by defined the information system in 3 parts as
 1. Information Technology management
 2. Basic Technology of learning
 3. Operation Electronic supporting

These patterns can be improved in human resource development according to adjusting the guideline of human development process to support the strategy changing of new organization in the organization development such as General quality administration, Reengineering by creating the new plan pattern in order to what the organization need for support the attitude adjustment or stimulate the awareness of changing to predict factors clearly to be a learning organization. By being an intergrated learning of personnel, team, and organization together. Besides the changing of job procedure by using the human resource development process to training about job operation ,training to be ready for a recently technology and study about the organization's personnel's behavior and skill working together effectively.

On the other hand, for the thing that researchers would like to present is about emphasizing the development guideline which can be real practical in general way and need to improve in a concrete way. Because of human resource development's importance to be the learning organization is truly bringing the knowledge to use in a practical ways and learning from things those will be happen also improving for the next step to be a most effective development. And able to start to conduct in the academy with readiness to improve or at any school which ready in any factor in the same time according to the organization's goal.

DISCUSSION OF RESULT

From the research's result names the human resource development in the learning organization for the organization development can be explained as the point of human resource development in the learning organization for the organization development as From the research found that the human resource development in the learning organization for the organization development have the importance as might because of human resource development in the learning organization in the part of shared goal which is the sharing of participate to set the vision or organization development direction's activity, to emphasize the management for more flexibility to support the changing which can be happen all the time. Then the job operation in the organization happens in teamwork more than the past, for this reason can give more learning process to be developed the organization into the learning organization which conforms with Senge(1990)'s studied research idea concept that be explained as the importance role of the leader in learning organization is to planning to responsible with job achievement which require the learning and responsibility to the organization structure, strategic policy, and operation by the role of leader, instructor and be practice person with others members for the reason of currently social is the social of changing for learning.

The human resource development in the learning organization for the organization development have emphasizing point at cooperation and participate of organization members to improve the personnel in organization as a teamwork for job operation including can be achieve the goal by put the right man to the right job. Especially in harmony way which the same as Kaneungnit Anuroj(2551:113)'s research which explained that in human resource development need to improve systematically along with behavior mind and wisdom (virtue, concentration, wisdom development)also main point of human resource development is those development must be sustainable development. The human resource development in the learning organization for the organization development is important to organization development in the part of learning organization into the organization development by operating in substantial and develop organization to be learning organization in high level by let the organization executive to observe and study from others highest learning organizations to exchange knowledge and apply the direction for improving the organization to be learning organization.

From this process the result can contrive members in the organization to work effectively. Which according to concept idea (Drucker,2007) that explained as to manage the organization to be a high quality organization must have the right learning system to support member's learning in every level all time and continuingly. From the part of providing learning system to staffs in organization, after the staff can learn from the organization learning system they can apply the gain knowledge in correct and suitable for a situation include tackle problem, making the right decision for an organization.

RESEARCH BENEFIT

Benefit in management way

From studying about the influence of the human resource development through the learning organization that affect the organization development, the result found that the human resource development can cause the learning organization to the organization development.

For human resource development, executives should plan to use human resource to increase more efficiency by supporting the vocational development activity for personal way more than before. Because this factor is the highest positive influence to organization development by probably provide the chance that members can set the self improvement activity according to their needs to find the gab of self improvement. Comparing with organization's expectation to support the change that will happen in the future.

In the part of Organization Development, should have guidelines to improve especially realize for supporting for change from the leader, in this point executives should add more communication ways between leaders and followers about organization development. Giving awards and inspire attraction when members can achieve the plan that help organization can be developed. And organization should establish policy of development from bottom to top level to help members can acknowledge and to participate to improve the organization.

Benefit in theory way

This research can be useful in theory way namely, integration of idea and human resource development theory from Gilley and Egglan (1993) to set the idea in a research about learning organization from Senge(1990), and apply by considering learning organization as idea for a research, found that the result which is organization development and studied

in Qualitative Research to study about the human resource development in the learning organization for the organization development plus emphasized the learning organization. In the order hand this research was studied context in personnel academic term. From the past it rarely had researches that emphasize learning organization to the organization, because of the mostly researches were studied about human resource development and learning organization as Quantitative Research. All in all according to the result found that the human resource development in the learning organization is significant to organization development, this conclusion can make it more cumulative in academic term to study in the research.

SUGGESTION FOR FUTURE PLAN

1. Should study by bring the theory idea concept to research in organization which have Different role in order to improvement.
2. Should study in Quasi Experimental Research about bringing the information technology to Improve an academy to be a learning organization and do the study case and divide by academy's size to be a guideline of forming the administration and be the learning organization for other step.
3. For the human resource development in the organization, should research to find the suitable pattern form for the organization's situation or condition. Because the forming of development must be different according to each organization's problem and what is the factor that each member need to improve.

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