

International Conference on
Evolving Trends in Academic and
Practical Research
(ETAPR)



Taipei, Taiwan

*BOOK OF FULL
PAPER
PROCEEDINGS*

Full Paper Proceeding Book
International Conference on Evolving
Trends in Academic and Practical Research
(ETAPR)

Taipei, Taiwan
November 04-05, 2017
ISBN: 978-602-6427-04-5

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Proceedings of the International Conference on Evolving Trends in Academic and Practical Research (ETAPR)

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*International Conference on
Evolving Trends in Academic
and Practical Research
(ETAPR)*

Venue: The Howard Plaza Hotel Taipei, No 160
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Theme: Facilitating interdisciplinary collaboration
between Academic and Practical Research

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Table of Contents

Scientific Committee.....	6
Organizing Committee.....	8
Conference Tracks.....	9
Conference Chair Message.....	13
The Quality Management about Process of Electronic Parts Manufacturing: The case study of XYZ Co., Ltd.....	14
The management of the warehouse system of rubber sheets and rubber scraps from Office of the Rubber Replanting Aid Fund at Ranong.....	21
The Perception Organizational climate through Job Satisfaction influence Job Performance.....	26
The Application of forecasting techniques for inventory management.....	32
Employee Satisfaction with Organization CPF Trading Co., Ltd.....	40
Forming Tourism Logistics Service Quality of the State Railway of Thailand: A Case Study of the Special Train Tour Death Railway Route.....	45
Logistics Management Affecting Fresh Flower Shop Operators in Nakhon Ratchasima.....	52
A Optimal Use of Alternative Energy to Reduce Costs.....	58
The Decision to Invest in Thai Massage.....	63

Retail Marketing Strategies of Tha Nam Sam Sen Community, Dusit District, Bangkok.....	68
Strategies to Promote Medical Tourism in Ranong.....	73
The Key Factors that Influence Customer Behaviour of Luxury Goods in Thai Male Generation Y Case Study: Watch.....	79
The Study of Warehouse Staff Opinions on Training and Development of Human Resources Department: Case Study of Steel Tank Firm.....	83
The Performance Measurement in Logistics for Warehouse Management System (WMS).....	88
The Study to Optimize the Truck and Monitor Shipping.....	93
Study of Import-Export (Shipping) Personnel’s Capacities:A Case Study on International Trading Companies, Thailand..	97
Awareness to Importance of Logistics and Supply Chain Management of Electrical industry in Central Region, Thailand.....	101
A Review on Used Shoes Supply Chain.....	107
The Model of Marketing Strategy Affecting Customer Loyalty of Organic Products Store in Thailand.....	114
An Analysis of the Financial Return on Investment of Rural Road.....	125
Study, Logistics and Supply Chain Management of the Organic Community Enterprise Baan Klong Kong in Nakhon Pathom Province.....	131

Factors Influencing of Inland Waterway Transportation Business: The Case of Service Provider Selection in Thailand.....	138
Marketing Mix Factors Affecting the Loyalty of Customers Fitness Club in Bangkok Metropolitan.....	145

CONFERENCE CHAIR MESSAGE

Dr. Vincent

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. Vincent

Conference Chair

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The Quality Management about Process of Electronic Parts Manufacturing: The case study of XYZ Co., Ltd.

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Abstract From the study of this research had following objectives, (1) In order to study the process of electronic parts manufacturing. (2) In order to study the method to improve quality of electronic parts by use PDCA and 5 s Activity. XYZ Co., Ltd. was the company manufacturing of electronic parts. The researcher had used the form qualitative research was applied in conducting the research. The population to be used in the study were the head of the manufacturing department and related staffs. This had done the study to gather the information from documents, related researches, websites and doing the interview in order to bring the information to use in analyzing of the process of electronic parts manufacturing in order to adjust to have more efficiency. Main process of electronic parts manufacturing were as follows; 1) Issue of electronic parts materials from the store 2) Drilling, Determining the working position of work pieces 3) Bonding of work electronic pieces 4) Baking of work pieces with the glue tightly and had no dust 5) Washing, this had to wash work pieces and this mightn't let work pieces to attach with the dust or the glue 6) Magnetize to press the magnetic field in work pieces 7) Assembling work pieces 8) Packaging, before this had done the packaging, this might have to inspect the product condition not to be defected or damaged 9) Finished work pieces, prepared to delivery. It was result from the research of XYZ Co., Ltd. that the company had rapid the process of electronic parts manufacturing that would help the manufacturing department to have the time in manufacturing products more. And study the Quality Management about process of electronic parts manufacturing by PDCA cover since the receiving of orders from customers, the disbursement of manufacturing equipment, the working systematization including delivering of products to customers. And the company had the controlling of the manufacturing process of electronic parts by focusing on quality and rapidly. And XYZ Co., Ltd use 5s activities to clean the equipment after operation finish to reducing of the dust problem that had an effect on work pieces.

Keywords: Quality Management, Efficiency, The Manufacturing Process , Electronic Parts

INTRODUCTION

The electronics industry was held as the industry that had the importance for the economic sector of the country and had the important role in developing continuously. The development of the modern industry was due from equipment components, tools, machines that the human was the person who had invented the new technology in order to create the competitive advantage for the own business. The increasing of the efficiency in the working process in the production to have the correctness, the accuracy, the rapidity and had reduced the time and had increased the most productivity. This would be one way that would help to contribute the administration to let the business to be able to move forward. The electronics industry was held to create the convenience, the comfort for the human more. This would reduce the procedure, the working time and could control the working automatically and efficiently that was the thing that everyone were familiar with and had become the one part of living of peoples in the current situation inseparably. By many electrical products and electronic products had been used widely. No matter would be electrical machines in the house (such as, the television, the mobile phone, the refrigerator, the washing machine and the computer etc.). This would make the electrical machines and electronics industry was the industry that had the importance for Thai economy system very much.

The electronics industry had used consumer goods more due to the higher population rate. Hence, the production process that had used human labors in controlling in the past couldn't increase the production rate more as required. This had to use machineries to help in the production process to reduce the using of human labors. This would make products that were produced to have low prices, high quality and the regular production process. And the electronics industry were held as the industry that had expanded in the economy quite high due to electronic equipments were composed of various products that had the continuity in the production process and was the industry that had the connection with producing of other many products. The industrial production index in March, 2015 had increased by 2.5 % but when this had compared to the last year. This had reduced by 1.8 % from the export industry as the main issue that had the lower production such as, the hard disk drive, the television and the electrical machine due to the world economy problem had recovered slowly than the expectation (Office of Industrial Economics, March, 2015) The Thai electronics industry had the limitation and the risk for both the export structure and the production that most of it were in the computer and equipment group. This had lacked the connection of the industry, the more competition in the world market and the risk in the moving of investments of foreign investors. Thailand would hurry to adjust. In order that, in order to face with the challenge of Thai electronics industry, in the future, Thailand would need to develop the capacity in the growing of the industry and increase the capacity in the competition. No matter would be the adjustment of products, the innovation and the technology, the expansion of product bases including the creation of the connection of the industry by the public sector might have the way to contribute and support (Kasikorn Research Center, September, 2013, Thai electronics structure with the changing trend and the adjustment direction in the future).

In the case of XYZ Co., Ltd., this had kept the quality of the production process of electronic equipment components by using PDCA and 5S activities in controlling the production that had 5 components that were (cost), (quality), (quantity) and (method) by covering since the production process of electronic equipment components by using PDCA as follows; The planning before working (Plan) since the disbursement process of equipments and planning to prepare to design products, the readiness of staffs, equipments, machines, materials in order to reduce all mistakes that would create the lateness and this had performed (Do) of all production processes. The company had controlled the production process of electronic equipment components by focusing on producing of quality products, producing according to customer requirements. The checking (Check) would have QC staffs to check work pieces before the packaging every time and the adjustment to solve (Action) for damaged products. The researcher had procedures in studying of the research that were the study of the working operation in the production process of electronic equipment components, the keeping of the quality with PDCA and 5S activities. This research result could use to be the way in adjusting in order to increase the efficiency in working of the company and developing the organization to create the highest benefit for the business continuously.

OBJECTIVES

In order to study the process of electronic parts manufacturing. In order to study the method to improve quality of electronic parts by use PDCA and 5 s Activity.

LITERATURE & THEORY

The researcher had prepared the qualitative research by gathering of the information by requesting of the cooperation in interviewing to ask the information from staffs in the organization of XYZ Co., Ltd. XYZ Co., Ltd. was the company that had operated the business type of manufacturing of other electronics components that had manufactured following component parts such as, Yoke Down, Yoke Up, Magnet, Sub Assy, Plate etc. that those equipment were components of the refrigerator, the computer, the hard disk drive and the telephone. The population to be used in the study were the head of the manufacturing department and related staffs.



PDCA (plan-do-check-act, sometimes seen as plan-do-check-adjust) is a repetitive four-stage model for continuous improvement (CI) in business process management. And 5S is a simple tool for organizing your workplace in a clean, efficient and safe manner to enhance your productivity, visual management and to ensure the introduction of standardized working. 5S is a team run process and should be conducted by the people who work within the area in which the principles of 5S are being applied, it is not a tool that can be applied by an outsider onto an area without the knowledge and cooperation of the people within it.

RELATED WORKS

Phatrawat (B.E. 2544) had studied the quality management plan in the factory of accessories. This was found that the factory example had many mistakes such as, the quality target wasn't clear, the form of the organizational structure wasn't clear and there was no preparing of the detail to determine the function. This had lacked the clearness in preparing to be the document of the working method standard and this had lacked the information technology in the quality. Those other mistakes had effects to create other problems such as, the problem in management, the problem of the creation of the waste and the problem in the delivery not in time according to the determination etc. The researcher would propose the guideline to adjust mistakes of the plan in 3 sides as follows; this had proposed the layout of the organizational structure for managing of the quality and preparing to do the detail of the job description in other positions clearly and had more efficiency. There was preparing of the quality plan for the production process, accessories, the working procedure manual and the manual of other working operation methods in the form of the document clearly and preparing the storing system of the information of the waste that would help the executive to have the information in evaluating, analyzing, adjusting and controlling the quality that would make to create the solving of the problem systematically and performing continuously according to the cycle of P-D-C-A. From the case study, this could reduce the percentage of the waste in the foundry from 5.49% to be remained only 3.06%.

Thanawan (B.E. 2535) had proposed the guideline in increasing the productivity in the factory producing toys that had used the driving and iron furnitures by adjusting the working method and planning the production plan. This was found that the preparation of the standard time, the setting of the layout of the factory had created the convenience to reduce the time and the damage from moving, the setting of the quality control system, the arrangement of the job in order to make the machine to create the least leisure time, the planning of using of materials and the placement of the document system to be used in that factory that would help to make the production system more rapid.

PrakaneKeereewan (B.E. 2554) had studied about the increasing of the efficiency in the process of transporting and storing canned fruits by using the study technique of the movement and the time by reducing the time and the labor cost in the department closing the can cover and the storing department. This was found that before the adjustment, in the department closing the can cover and the storing department had low efficiency, high labor costs and product codes mixing together. This had done the analysis of the problem condition with 7 qualitative tools. This had used the study principle of the time and the movement. This had adjusted by using the increasing of equipments to work instead of working of staffs. After this had adjusted, This was found that the department closing the can cover had the transportation of canned longans in the area of the head and the tail of the disinfection rail, No. 3 that had the time period in the production per kilogram to be reduced by 7.49% and 8.07%. The productivity had been increased by 15.40% and 15.37% respectively. All labor costs were reduced by 50.16% in the storing department. The storing of canned longans in the point No.1,2,3 and 4 had the time period in the production per kilogram to be reduced by 9.56%, 9.99%,13.33% and 13.33% respectively. The productivity was increased by 10.59%, 11.08%, 15.42% and 15.39% respectively. Labor costs were reduced by 25%.

METHODS

In the study of the research about *The Quality Management about Process of Electronic Parts Manufacturing* . The researcher had prepared the qualitative research by gathering of the information by interviewing to ask the information from staffs in the organization of XYZ Co., Ltd. and had studied of the content, searched for the information from other documents, books, theses and related researches with the increasing of the efficiency of the manufacturing process of electronics equipments. The population that were used in this research, were the head of the manufacturing department and staffs that had worked in the manufacturing process of electronic parts for 15 persons.

The study of *The Quality Management about Process of Electronic Parts Manufacturing* by having following procedures; Studied the information from the real place that was gathering of the information from interviewing and observing from working staffs and taking notes to record the information. Studied the manufacturing process of electronic parts since the disbursement to receive equipments until to delivering of completed equipments to the store. Analyzed to find the cause that was the happened main problem that hadn't increase the value inside the manufacturing process of electronics equipments.

RESULTS

Before XYZ Co., Ltd. improve new process of electronic parts , they use old process of electronic parts that increase the time in the procedure of receiving raw materials from suppliers because they can't control supplier to deliver electronic parts. The new process of electronic parts manufacturing would make the manufacturing department to be able to produce products easily and when had finished manufacturing products, this would bring the finish goods to send to the store directly. Main process of electronic parts manufacturing were as follows;

- 1) Issue of electronic parts materials from the store by writing about other required equipment that according to purchase orders of customers that what electronic parts did they want?, How much of those amount?, by writing in the form in order to be ready to bring into the manufacturing process.
- 2) Drilling, Determining the working position of work pieces this would perform to determine the drilling position, the position of the walking blade, the position of assembling of electronic parts, drilling of electronic parts such as, Yoke Down, Yoke Up, Magnet Down, Magnet Up, Plate.
- 3) Bonding of work electronic pieces this would bring work pieces that were drilled to do the Auto bonding. The process that had used the machine as the assembly. This would do by bringing the plate with the magnet to bond together by using the machine as the automatic assembly.
- 4) Baking of work pieces with the glue tightly, work pieces were attached with the glue tightly and had no dust.
- 5) Washing, this had to wash work pieces and this mightn't let work pieces to attach with the dust or the glue.
- 6) Magnetize to press the magnetic field in work pieces , when this had finished cleaning it, This would bring work pieces to magnetize to press the magnetic field in work pieces by bringing the plate to press the magnetic field with the magnet. This would come out to be the Sub Assy.
- 7) Assembling work pieces , the process of assembling components with the plate and the magnet, and the Cash stop inner would assemble with Stud cash stop. From the study, this was found that most of the waste would be happened from the assembling process. Due to this might inspect work pieces that had standard sizes, not defected. When this had assembled together, this won't have the problem of work pieces didn't fit to the lock, didn't be able to assemble together.
- 8) Packaging, before this had done the packaging, this might have to inspect the product condition not to be defected or damaged.
- 9) Finished work pieces, prepared to delivery.

In the case of XYZ Co., Ltd., this had kept the quality of the production process of electronic equipment components by using PDCA and 5S activities in controlling the manufacturing. The quality management (PDCA) were as follows;

1. The planning (Plan) before working would make to create the readiness in working really. The production department would receive purchase orders of customers from the sales department. When the production department had received the information that, How much work pieces did customers want?, What types? and the production department would produce according to the schedule. Later, the production department would contact to the warehouse (Store) that the purchasing department had prepared all materials there in order to disburse of equipments and plan to prepare to design products, the readiness of staffs, equipments, machines, materials in order to reduce all mistakes that could create the lateness. The sales department would forecast customer requirements (demand forecasting) in advance annually that in each year, How much jobs did customer want? and then the sales department would breakdown the detail monthly. Later, the sales department would send the information of the production amount for the production department to produce products to keep in advance for 7 days (Make to Stock) in order to support customer requirements. In the case of some days that customers would like to have more or less work pieces and How much work pieces did customers want?, customers would plan for the factory that What date?, What model? and How much work pieces did they want?
2. The performing (Do) to produce work pieces according to the determined process that was Jigging that had done the function to determine the drilling position, the position of blading, the position of composing components of Yoke down, Yoke up, Magnet down, Magnet up, Plate. Later, this would bring work pieces to have the auto bonding and when this had finished bonding, this would magnetize and bring all work pieces to compose components with bases of work pieces and the magnetic disk that was the plate with the magnet. When this had finished composing together, this would check work pieces not to be damaged. If work pieces were damaged, this might bring to solve again and when work pieces were completed, this would bring it to pack in packages in order to deliver to customers. When this had performed according to the determined process, this would create the smoothness. This wouldn't make the job to be obstructed.
3. The checking (Check) before the production would disburse electronic equipment components. This would have to check the component of each model. This had to receive components to the production department in order to be ready to produce and after this had finished producing work pieces. This would have QC staffs to check work pieces before packaging every time. If work pieces couldn't pass the standard, it had to be sent back to solve and produce again.
4. The adjustment to solve (Action) in the case that working results weren't as the target. This would have to check that what procedure that would create the mistake such as, the machine system was defected, this would make work pieces have the mistake. The production department would have engineers to check the machine and solve it immediately in order not to create the lateness in working.

After this had finished produced work pieces, the factory would have 5S activities for every staffs to participate to help to keep clean. By 5S activities were as follows;

1. Sort This had to clear up, every staffs would have to check other things in the factory especially in the responsibility area and might distinguish needed things and unneeded things separately. Every staffs had to get rid of unneeded things or things that had too much for the need.

2. **Set In Order** This had to be convenient, this should place needed things to be easily for bringing to use by storing neatly to be convenient to pick that was needed very much to have to study the method to place things by considering of the quality, the efficiency, the safety. Every point of the factory might have the clear notice board. This had to determine to place clearly. This had to separate the zone to place things by drawing the line to see clearly. This had to put the label to show the place to place that things and the area of the footpaths mightn't have garbage's or barriers to block footpaths to make to walk inconveniently. And when this had brought things to use. This should focus to bring to store in the same place. Things that were used daily should be placed near the body.
3. **Sanitation** This had to keep clean, that was keeping clean of the place, equipment, things, tools to be looking good all the time. Points that should be interested in keeping clean, were the wall floor, the corner area of the room, footpaths might be kept clean, the area of machines and equipment and the body of machines. This might have to wash to keep clean every time by having not allow to create the dust such as, Keeping clean of clean room garments.
4. **Standardize** This might have the hygiene, that was the clean condition, the neatness by keeping of the first of 3S to preserve or make it better as always. The good hygiene would be happened when we had done the first of 3S continuously and try to adjust better in order to check that this had done the first of 3S continuously or not. The factor would let the head of the department to check the area often and the obtaining benefit from doing to have the good hygiene was the good health of staffs both the body and the mind, the working place that was neat, clean, pleasant to work, had the safety in working.
5. **Sustain** This had to create the good habit, the correct performing and doing as the good habit of 5th S was the important point of 5S activities because this activity would be good or not, this would depend on the person to bring activities to use. The factory would foster staffs to have the good attitude to adjust the job better as always by the head of the department would have to be the good pattern for staffs to see as the example.

CONCLUSION

The dust was the main problem that was happened in the manufacturing process of electronic parts. If the dust had entered to contaminate in the board and the hard disk drive. This would make the board and the hard disk drive to have the electric shock and couldn't be used. This would make customers to refuse to receive products and reduce purchasing orders because products had no quality and this still had an effect on the company in the job quality that was reduced. The productivity was lower. There was no reliability and the company had no net profit. The company would need to have to discard or have to bring to do it again. This would make to waste the time and lose the expense in bringing to solve it again. If that work pieces were too much damaged and it couldn't solve it, this would have to destroy that work pieces. This would have to call the head in each related department that were the engineering department, the manufacturing department and the finance department together to take the responsibility. Because the destruction of one delivering work piece, this would have an effect on the expense and the investment fund in purchasing of things to do work pieces of the company. The company would give the importance in the caution of the dust that had the very small particle. This would create the clean room to control the cleanness and the moistness.

In order to get rid of the dust not to pass into the clean room, the company would set the rule to let staffs might pass the air shower before passing to the clean room and staffs had to wear dresses to cover all bodies such as, shoes, the mask, glasses, the hat to protect the contamination and this might have to check up bodies to be clean as always including materials and other parts might be cleaned before passing to the clean room. QC staffs would have to check every staff before entering into the clean room by there was the prohibition to apply the powder, make up. This was allowed to apply some creams that each room would be different such as, the Auto Bonding, this would have the dust only 1,000 microns. In each room would have staffs to inspect the dust in order not to over the standard and QC staffs would have to evaluate cosmetics of staffs that had determined according to the rule.

From gathering of the information in this time, this would make to know that the company had the happened problem in the manufacturing department that was the dust had given an effect on work pieces to create the damage. This would make customers to refuse to receive products. This would make the company to have the solving method by creating the clean room to protect the dust and there were QC staffs to perform to examine every staffs to clean their bodies and wear dresses to protect the dust such as, the hat, glasses, shoes, the suit and had the cosmetics audit by prohibiting to apply the powder, make up and could apply some creams before entering to the clean room. If staffs didn't follow this rule, staffs would be punished. The first time would be the warning. Later, This had to have the job suspension. Because for the way that the dust had attached to work pieces, this would make work pieces to have the electric shock and be damaged. Customers didn't receive products. This would make to pay the expense and waste the time in solving work pieces again.

The company had adjusted the manufacturing process in the new form by reducing working procedures to create the working rapidly by comparing with the old manufacturing process and the new manufacturing process. The new manufacturing process could help the manufacturing department to be able to reduce the time in the procedure of receiving raw materials from suppliers and inspecting raw materials including cleaning of raw materials that the department had used the time from that part to increase the production capacity to be able to manufacture products in time in order to know the requirement clearly. The company had forecasted customer requirements in advance annually in order to know the amount of products to be produced to be able to respond customers immediately. When the sales department had the certain information, the sales department would send the information about the amount to be produced to the manufacturing department to keep the stock in advance for 7 days in order to respond to each customer requirement that wanted different amount of products. And customer would like to get how much of the job.

The sales department would plan the job for the manufacturing department that what day customers would like to get the job. What was the kind of the model?, and How much of the amount of products?, and the manufacturing department would coordinate with the engineering department to perform to take care of the machine, inspect other equipments to be ready to be used all the time before starting of the manufacturing every time in order to reduce the lead time in waiting to repair the machine and create the discontinuity in working.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.LuedechGirdwichai, The Chancellor of SuanSunandhaRajabhat University, Bangkok, Thailand.

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The Management of the Warehouse System of Rubber Sheets and Rubber Scraps from Office of the Rubber Replanting Aid Fund at Ranong

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Abstract. From this research had the objective as follows; (1) In order to study the happened problem and obstacle by using the principle of SWOT (2) the way in developing, adjusting, increasing the efficiency in operating of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund at Ranong by using the system of the warehouse management and 5S activities. Office of the Rubber Replanting Aid Fund at Ranong is the group that purchase rubber sheets and rubber scraps. The researcher had used the form of the qualitative study. The population that were used in the study, were executives and staffs of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund at Ranong to do the study by gathering the information from the observation method and the interview, entering to work in the area of the warehouse of rubber sheets and rubber scraps including studying of documents, books, articles, additional news in order to bring the information to use in analyzing of the problem and find the way in solving the problem in order to adjust to have more efficiency. It was found from the research result of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund at Ranong that the main problem of the warehouse that had stored rubber sheets and rubber scraps, would have the problem in zoning of products, separating categories of products, checking product stocks and the problem in the security system. The researcher would propose the way to solve the problem by letting the organization to set 5S activities in order to have the neatness within the warehouse. This had used the system to store products as the activity-based costing (ABC) system by setting to have the fixed zoning of the area of products. The counting of product stocks would have set to record additionally on the computer in order to protect the information not to be lost. And at last, this had purchased insurance policies for products and had installed the security equipment system within the warehouse.

Keywords— The Warehouse System, Rubber Sheets and Rubber Scraps, SWOT, 5S Activities

INTERODUCTION

Currently, most of worldwide companies both companies that had manufactured or had traded products, would always have warehouses that would store products or materials for manufacturing or were intermediaries in discharging of products except companies that had manufactured according to purchase orders of customers. Besides, the warehouse was the place to keep in reserve of products for distributing or store materials for manufacturing in order to protect the changing of the demand and the supply in the short period of time, the warehouse could still add the value for products. The warehouse would be the access point in the strategy between the manufacturer and the consumer. The efficient warehouse management would be the important factor that could increase the opportunity in competing in the future.

The researcher would be interested in studying about, “The management of the warehouse of rubber sheets and rubber scraps of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong” It was found from the study of the warehouse of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong that some products were stored outside of the warehouse building due to the storing area within the warehouse wasn’t enough and wasn’t suitable with the storing within the warehouse including placing of products in the outside area of the building wasn’t safe enough. Products might be lost. For the area within the warehouse building, it was found from the study that products were placed unneatly. There was no classification and separating categories of products clearly. There was bringing of equipments, products and other appliances to store in the warehouse. This would lose the area in placing of products. Moreover, within the warehouse hadn’t the light enough for seeing and this had still the problem in lacking of labors within the warehouse including the problem from counting of stocks and weights of products that weren’t matched or were lost.

LITEREEATURE REVIEW

Tanit Sorat (B.E. 2552, Page 3) had said that the warehouse, the place that had been used to store the inventory to be in the good condition and had the qualification that was ready to deliver to the customer, the person, the organization or the related unit in the supply chain or outside the supply chain by the warehouse would do the function to be the place to rest products for a while and store products or materials or other things until this would move, deliver to the person who had the requirement.

Inchan Herbal (B.E. 2556) had explained that the inventory meant product or the resource that the organization had stored for responding to the requirement of the internal customer or the external customer. For the inventory management was the management related with the quantity, the information, the movement, the provision, the storage, the distribution of the inventory that had the general objective in order to store the inventory to be enough with the requirement of the cost that was suitable with the determination of the quantity of the inventory that might be stored that would be related with the estimation in purchasing for each time for, How much?, When?, for the producing organization. Objectives of having the inventory were as follows;

1. In order to produce continuously and constantly (Production smoothing).
2. In order to support the market requirement.
3. In order to protect the problem in the safety, the occupational health and the environment.

Channa Sanguanrungwong (B.E. 2549, Page 116) had said that 5S was the guideline in operating related to the realization and the 5S responsibility. The staff had the realization and the knowledge and the understanding in the criteria in the 5S hygiene and the standard of the unit constantly until this had become to be the action that was happened naturally. The 5S standard was the clearing up, the convenience, the cleanness, the hygiene, the creation of the good habit.

Patcharee Nuch (B.E. 2555) had explained that SWOT was the name of one theory in the marketing that was used for analyzing the general condition of the organization. No matter would be in strengths, weaknesses for planning of other operations efficiency in the future. With this tool, this would help you to acknowledge strengths that you had, weaknesses that you should solve to improve, opportunities that had good effects on your work or business and threats that would obstruct your business.

RELATED WORKS

Kobkij Isaracheevawat (B.E. 2546) had studied about, “The management of inventory materials in the rubber wood industry”, the case study of CMD Wooden Products Co., Ltd. by the study had the objective in order to study the placement of inventory materials since the storing system, the operation, the controlling of inventory materials and the document system in the warehouse of materials in order to set the layout in storing materials suitably in order to reduce the damage of materials from storing unsuitably. By the research result was found that the company had the problem in the storing system of materials, the working operation, the counting, the lack of the document system in recording the operating result in the warehouse, the setting of the layout to store.

Achira Metharatchatakul (B.E. 2557) had studied about, “The increasing of the efficiency of the warehouse management”. The case study of the company producing auto parts by the study had the objective in order to increase the efficiency, the accuracy of the information of the inventory, the storing in the warehouse and the method to adjust the operating procedure to have the efficiency by it was found from the research result that the information of the inventory in the system wasn’t matched with the real counting amount. The use of the long time period in picking products by this had adjusted the working procedure and had performed according the guideline to solve in order to conform with the working principle that could help the executive of the warehouse to be able to increase the efficiency in the warehouse management and increase the satisfactory of customers.

METHODS

In the study of *The Management of the Warehouse System of Rubber Sheets and Rubber Scraps from Office of the Rubber Replanting Aid Fund at Ranong* by using the system of the warehouse management and 5S activities. This study of the information had used the qualitative research by gathering of the information, were using of the observation method and the interview, entering to work in the area of the warehouse of rubber sheets and rubber scraps including studying of documents, books, articles, additional news.. For this study of the information, the group of the population were executives and staffs of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong. Since from November 3, 2015 to April 3, 2016, total time period of 155 days.

RESULTS

The studied result from the 1st Objective: In order to study about the happened problem and obstacle by using the principle of SWOT. The analysis of the competition condition and the main competitor of the organization (SWOT Analysis).

The environment of the organization

Strengths (S)

1. The warehouse was located far away from the community that could protect the smell for the community well.
2. There were trucks to render services to carry products in the nearby area.
3. The price in purchasing of products was higher than the price of middlemen.
4. This could help farmers well in the product price.

Weaknesses (W)

1. The system of the management within the organization had no efficiency.
2. The practice skill in working of personnels had still lacked of some knowledge.
3. In the rubber season that had very much rubber sheets. The organization had still lacked of the capacity in rendering services to customers in the area and this had still lacked of labors to lift products to store and deliver in the rubber season.
4. Equipments, tools, technologies weren’t modern enough

Opportunities (O)

1. The agricultural product in the category of rubbers were main products of Thailand in exporting and transforming into other product categories such as, rubber pillows, rubber gloves. This would be the opportunity to be able to develop further quite far.
2. Due to Ranong province, Kra Buri District was attached with the coast of Myanmar. This would increase the opportunity to expand customer groups.

Threats (T)

1. The gasoline rate in transporting of products, the loan interest, the electricity expense were held as variable factors that had the importance for costs in managing of the organization.
2. There was the price competition of competitors within the same industry.

The studied result from the 2nd Objective: the way in developing, adjusting, Increasing the efficiency in operating of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong. in the future by using the system of the warehouse management, setting of 5S activities. It was found from the study of the warehouse system and the working experience in the part of all areas of the warehouse of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong. that the important happened problem in the organization is;

1. The problem in zoning of products, the way in developing, adjusting, increasing the efficiency in the operation.: There was the classification of products unsystematically. The placing of the layout in the part of products wasn't clear by each category of the product hadn't been separated. There was placing of mixing products in each area. Products were piled together. There was using of the area in the part of the warehouse to place of other product categories.

1.1. The way in developing to solve the problem in zoning of products in the future; There was zoning of each category of the product clearly by separating categories to be classification A, B and C by drawing the line to separate the zone of products according to sizes of products that had been traded by referring to the information from trading accounts or recording books of trading according to the proportion. There were labels of categories of products in the zone that had been classified. This was storing of products in the same classification, there was setting of 5S activities in the part of the warehouse in order to let the working condition to create the suitability, the safe and the neatness more. This would help for the working system in the warehouse to create the highest efficiency.

2. The problem in separating of product categories: This was found from the study of the information and working in the real area that in the warehouse of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong., there was bringing of the product from each category to be piled together, storing in any position in the warehouse and the scattering of the product in each category would sometime make it difficult for inspecting of the category of the product, counting of product stocks. This would make to lose the time in selecting products to be delivered.

2.1 The way in developing to solve the problem in classifying products in the future: This had to plan to place the new layout in order to conform with the real area. This had to spare the corridor for counting of products and placing of new products that customers had come to sell in order to have the neatness in placing systematically. This had assigned for staffs of the warehouse to take the responsibility in drawing the line to separate categories of products in order to have the classification, define the form in storing to maintain the same position. The product from every category would have the position to store fixedly. Putting of the label to separate the category of the product zone clearly in order to be easily to inspect, move, transport and store products.

3. The problem in checking product stocks: It was found from the study that counting of stocks of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong. had set the system to count products daily by looking at the amount in the daily book recording purchasing of products and had record weights, types of products in account books in order to gather the daily trading amount only. Sometime, the inside problem was staffs of the department purchasing of products had forgotten to record about weights and products or papers that had recorded of the information that were pasted on products, were lost. This would make the counting wasn't matched with the available database or in the case that products that were sold, weren't matched with the purchasing amount. This would make to waste the time in weighing in order to find the amount of weights and categories of products that were lost. This would create the lost in checking of product stocks to find the amount of products that were lost and waste the energy in lifting products to weigh again.

3.1 The way in developing to solve the problem in checking product stocks in the future: The researcher would like to propose the way by setting the system of recording of the information on the computer in order to protect the product information not to be lost by recording the daily information in order to be easily for counting and checking products stocks. The recording of the information on the computer could help to be easily for checking categories of products, the trading amount of products in each period and this would make the prediction of sales to be more easily. This would have no problem about the lost of the information. This hadn't wasted the time in opening to find the information in the book recording products and accounts.

4.The problem in the security system: The researcher had studied the information and had inspected the real place. This was found that the security system of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong, had the problem in inspecting of the condition of other electrical equipments. The lack of equipments to protect the fire system within the warehouse and purchasing of insurance policies to protect the value of products that might be damaged due to other accidents. Moreover, in the part of the outdoor warehouse, this would have the risk from stealing to carry products easily due to this was the open area. Although there was the CCTV camera in every point and had guards to look out for the lost of products. But this might create the space in stealing easily. Moreover, Bright lights in the night weren't enough for the precarious point of products. If this had turned on bright lights too much, this would create high costs to escalate the budget of the group.

4.1The way in developing to solve the problem in the security system in the future: This had always to operate 5S in order to set the neatness and reduce the quantity of things that might be the fuel such as, the paper, the foam, the plastic. This had to inspect to report other electrical equipments that might be causes to create the fire or the short circuit. The installation of fire extinguishers on the area of the entrance door, the installation of equipments to inspect the smoke and the heat, the installation the system to spread the automatic fire hose, purchasing of insurance policies for products, preparing the cage to protect products lost in the area of the outdoor warehouse, bringing of the system to save the electrical energy by using the solar energy to help to increase the brightness in the night and help in other activities within the warehouse.

CONCLUSION

1.The development to solve the problem in zoning of products in the future: This had set to have the zone of the produce in each category clearly by separating categories in the classification A, B and C by drawing the line to separate the zone of products according to sizes of products that were traded by referring from the information from the base of trading accounts or books recording trading of products according to the proportion. This was putting the label for categories of products in the zone that had classified, stored in the same category, set of 5S activities in the part of the warehouse.

2.The way in developing to solve the problem in separating categories of products in the future: This had planned to place the new layout in order to conform with the real area. This had to omit the corridor for counting of products and placing new products that customers had come to sell. This had assigned staffs of the warehouse to take the responsibility in drawing the line to separate categories of products in order to have the classification, determine the form of storing fixedly of every category of products. This would have the position to determine fixedly. The putting of the label had separated categories of the product zone clearly in order to be easily to inspect, move, transport and store products.

3.The way in developing to solve the problem in checking product stocks in the future: Due to Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong, had checked product stocks by recording on books recording products only. The researcher would propose the way by setting the recording system of the information on the computer in order to protect the information not to be lost. The recording of the information on the computer could help to be easily to inspect categories of products, the purchasing amount of products, the backward selling of products more easily. This wouldn't waste the time in opening to find the information in books recording products and accounts.

4.The way in developing to solve the problem in the security system in the future: This had always to operate 5S, inspect, repair other electrical equipments that might be the cause to create the fire or the short circuit, the installation of fire extinguishers in the area of the entrance door, the installation of equipments to inspect the smoke and the heat, the installation of the system to spread the automatic fire hose, purchasing of insurance policies of products, setting of the cage to protect products not to be lost in the area of the outdoor warehouse, bringing of the system to save the electrical energy by using the solar energy to help to increase the brightness in the night.

ACKNOWLEDGEMENTS

Assoc.Prof.Dr. Piyachat Jarutirasarn, Ramkhamhaeng University, Bangkok, Thailand. and Office of the Rubber Replanting Aid Fund at Ranong, Thailand.

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The Perception Organizational climate through Job Satisfaction influence Job Performance

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Abstract. This research aims 1) to study organizational climate awareness. Job satisfaction 2) to study the influence of organizational climate perceptions on job satisfaction; 3) to study the influence of job satisfaction on job performance. The research sample was the personnel of the 400 of autonomous university in Bangkok., the questionnaire was used as a research tool. The Statistics used in data analysis were percentage, mean, standard deviation. Correlation coefficient and to test hypotheses by using regression analysis statistics. The research results showed that the perception of organizational climate, job satisfaction, and job performance overall level. Hypothesis testing. Perceived organizational climate have positive influence on job satisfaction. Job satisfaction have positive influence on the role performance perceived organizational climate have positive influence on the job performance. The results from this research to know. The relationship of perceived organizational climate on job satisfaction, truly Job satisfaction and influencing job performance It is also a guide to the management in planning policy for the development of the perception of organizational atmosphere. The job satisfaction, which will result in the performance on the role of personnel work effectively and effective organization.

Keywords--- Perception Organizational climate, Job Satisfaction , Performance

INTRODUCTION

The organization climate is the present situation of the organization happens and affects to the staffs' behavior. Furthermore, it links between organization, staffs and operating result. On the other side the salary, the staffs hope to work in an open climate and use their fully ability and the chief supporting could make all the staffs happier (ThongnuchChomruethai, 2013:2). However, the working climate is important to the effective operation, not just only the climate but the colleague relationship and high technology are required. On the other side, if the climate is not suitable for working, the efficiency and the effect will decrease. So, the climate is affect to all level of the people in the organization (ChotiratApiphing, 2014:1) For working with satisfactory, committing with the organization make all the staffs percept and have good attitude could affect to individual working and organization. (KittimanonHathaikom, 2014:5) The effective operating result, everyone should understand their duty, responsibility and job description to be the operating standard with accuracy and effective (KhongkraphanMuthita, 2011:3)

All above reasons, the researcher was interested in studying the perception organizational climate through job satisfaction influence job performance to study the relation and the factor affect to the operation to be the guideline of personal management planning.

RESEARCH'S OBJECTIVE

- 1) To study the organizational climate, the satisfaction and job performance.
- 2) To study the influence of the perception organizational climate to job satisfaction.
- 3) To study the influence of job satisfaction to job performance.

LITERATURE REVIEWS

Job Satisfaction

Schnake (1983) has defined the word job satisfaction that is the emotional status, job assessment feeling and job and attitude feeling consists of extrinsic satisfaction, intrinsic satisfaction, social satisfaction. The extrinsic satisfaction means the satisfaction to the colleague relationship, working freedom and learning new thing chance. The intrinsic satisfaction means the satisfaction of getting the respecting from the colleague and the income received. The social satisfaction means the satisfaction that other response to us and job stability. And Locke (1976) has defined that the positive emotion, divided in 3 parts are recognition, working conditions and company and management. From above can conclude that job satisfaction means positive feeling and attitude to the job are climate, income, stability, colleague relationship and job progressive that affect to the success in working with effective.

In-Role Performance

Campbell (1990) has indicated working behavior into 8 parts 1) Job-specific task proficiency 2) Non-job-specific task proficiency 3) Written and oral communication 4) Demonstrating effort 5) Maintaining personal discipline 6) Facilitating team and peer performance 7) Supervision and 8) Management and administration. Campbell (1990); Sonnentag & Frese (2002) said that the organization needs the high proficient person to reach the organization 'goal. Borman & Motowidlo (1993) said that low proficiency in work because of the dissatisfaction and the failure of the person. From the review can conclude

in the conceptual framework below about the perception organizational climate through job satisfaction influence job performance

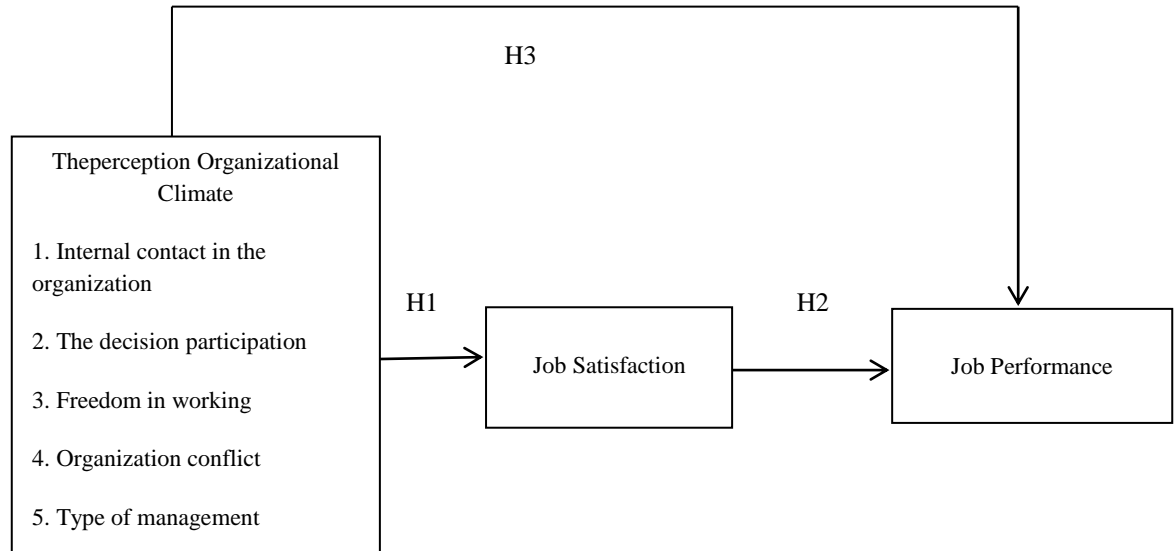


Figure 1: Conceptual Framework

HYPOTHESES

1. The first, the perception organizational climate influences positively to job satisfaction.
2. The second, the job satisfaction influences positively to job performance
3. The third, the perception organizational climate influences positively to job performance

RESEARCH METHODOLOGY

Population and Sample

The population were the academic staff and supporting in the government university 53,740 people (Office of Higher Education Permission, 2016). The sample were sampling with Taro Yamane (1976) 400 people then using quota sampling.

Data Collection

Using the questionnaires divided into 4 parts: general detail, the perception organizational climate, job satisfaction, job performance with Likert rating scale.

The Quality of the Instruments

- 1) Content validity using Index of Item –Objective Congruence should be over than 0.50 but the testing IOC was 0.85.
- 2) Reliability testing with 50 samples with Cronbach’s Alpha should be over than 0.7 and the result was 0.90.
- 3) Data analysis using descriptive statistics consists of frequency, percentage, mean, standard deviation and Pearson’s Product Moment Correlation Coefficient then using multiple regression analysis.

RESEARCH RESULTS

- 1) The sample mostly were female between 36-45 years in master degree, working period between 11-20 years, the salary about 25,000-30,000 baht and most of the sample work in academic field
- 2) The perception organizational climate was high ($\bar{x} = 4.11$, S.D.= 0.62)
- 3) Job satisfaction was high ($\bar{x} = 4.12$, S.D.= 0.56)
- 4) Job performance was high ($\bar{x} = 4.17$, S.D.= 0.53)

5) The hypotheses testing there were 2 parts:

Table 1 The Standard Deviation and the correlation analysis of the perception organizational climate through job satisfaction influence job performance:

Variables	POC					JS	JP	VIF
	P1	P2	P3	P4	P5			
Mean	4.20	4.09	4.03	4.09	4.16	4.12	4.17	
S.D.	0.59	0.69	0.58	0.65	0.60	0.56	0.53	
Perception organizational climate(POC)								
Internal communication (P1)								2.49
The decision participation (P2)	0.53**							3.86
Freedom in working (P3)	0.50**	0.60**						3.39
Organization conflict (P4)	0.66**	0.71**	0.66**					3.25
Type of Management (P5)	0.60**	0.70**	0.53**	0.70**				2.75
Job satisfaction (JS)	0.59**	0.69**	0.52**	0.71**	0.57**			
Job performance (JP)	0.58**	0.66**	0.54**	0.70**	0.63**	0.72**		

*p < 0.05, **p < 0.01, *** p < 0.001

From table 1 found that the perception organizational related with job satisfaction significantly at 0.01 and the job satisfaction related with job performance significantly at 0.01.

The Variance Inflation Factors at 2.49-3.86 lower than 10 the independent variables not conflict together in table 2

Table 2 Multiple regression analysis

Independent Variables	Dependent Variables		
	H1 (JS)	H2 (JP)	H3 (JP)
Perception organizational climate(POC)			
Internal communication	0.573*** (0.050)		0.562*** (0.054)
The decision participation	0.685*** (0.048)		0.661*** (0.052)
Freedom in working	0.569*** (0.046)		0.559*** (0.049)
Organization conflict	0.719*** (0.043)		0.670*** (0.049)
Type of Management	0.580*** (0.046)		0.639*** (0.042)
Job Satisfaction (JS)		0.739*** (0.031)	
Adjusted R ²	0.371	0.550	0.546

*p < 0.05, **p < 0.01, *** p < 0.001

From table 2 The perception organizational climate analysis and job satisfaction influence job performance by using regression analysis.

The first, the perception organizational climate influences positively to job satisfaction significantly at 0.001. So, this hypothesis is accepted could be explain that 1) The internal communication influences positively to job satisfaction significantly at 0.001 ($\beta = 0.573$, $P < 0.001$) followed in the hypothesis 2) The decision participation influences positively to job satisfaction significantly at 0.001 ($\beta = 0.685$, $P < 0.001$) followed in the hypothesis 3) Freedom in working influences positively to job satisfactionsignificantly at 0.001 ($\beta = 0.569$, $P < 0.001$) followed in the hypothesis4) Organization conflict influences positively to job satisfactionsignificantly at 0.001 ($\beta = 0.719$, $P < 0.001$) followed in the hypothesis 5) Type of management influences positively to job satisfactionsignificantly at 0.001 ($\beta = 0.580$, $P < 0.001$) followed in the hypothesis The second, the job satisfaction influences positively to job performancesignificantly at 0.001 ($\beta = 0.739$, $P < 0.001$) So, this hypothesis is accepted.

The third, the perception organizational climate influences positively to job performance significantly at 0.001. So, this hypothesis is accepted could be explain that 1) The internal communication influences positively to job satisfaction significantly at 0.001 ($\beta = 0.562$, $P < 0.001$) followed in the hypothesis 2) The decision participation influences positively to job satisfaction significantly at 0.001 ($\beta = 0.661$, $P < 0.001$) followed in the hypothesis 3) Freedom in working influences positively to job satisfactionsignificantly at 0.001 ($\beta = 0.559$, $P < 0.001$) followed in the hypothesis 4) Organization conflict influences positively to job satisfactionsignificantly at 0.001 ($\beta = 0.670$, $P < 0.001$) followed in the hypothesis 5) Type of management influences positively to job satisfactionsignificantly at 0.001 ($\beta = 0.639$, $P < 0.001$) followed in the hypothesis

DISCUSSIONS

The perception organizational climate was high. The high mean was internal communication, next, type of management because the perception organizational climate focusing on communication with good climate which could make the high level of job satisfaction.

The job satisfaction was high. The high mean was satisfy with the assignment with ability, next, the doing job is valuable because the staff satisfy and be happy with working and be proud of using their potential to do the job then the self-esteem and social acceptable revealed affected to the job satisfaction.

The job performance was high. The high mean was the doing job is related to the organization need, next, the creating job applied in working because the staffs operate by focusing on quantity and quality accurately which makes the job was success.

RESEARCH BENEFITS

- 1) Bring the policy to operate by creating climate for the staffs with job participation to reach the goal and indicate the clear job description and assignment focusing on working amount, working ability with high potential of using knowledge and skill this would help to decrease the staffs' stress and increase job satisfaction and the stable of the staffs.
- 2) The administrator can apply to use in working climate with ability and the important things is staff motivation.
- 3) The administrator can use the data for clear communication that link to operation and income which assessment would reflect to income, progression and the life stability
- 4) The administrator can use the data for indicating staff creation to be good of knowledge, proficiency and various skill in the future.

RECOMMENDATIONS

- 1) Should study the conceptual framework in various situation for creating the next perception organizational climate.
- 2) Should apply another theories in variable creation to be suitable in each situation of target group by using learning theory for variable creation.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and encouragement of Associate Professor Dr. Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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The Application of Forecasting Techniques for Inventory Management

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Abstract. The realization of logistics significant perspective also means the guideline which create understanding about job operation's detail. Many business also emphasize the expansion to make the long term profits. In this case study was tested by using forecasting techniques of moving average method compared with exponential method to reduce the finished good error of door type bp2 70x180, bp2 70x200 and doors type bs2 70x180 to be used in Navigation Products which is used in the component of company's PVC doors product. From the company original forecasting which indicated of door products bp2 70x180 predicted by end of August 2017 which have the planning production at 2100 units. But when doing the forecasting experiment with exponential method, the weighted value is 0.5 as 1724 units by forecasting number on September as 1615 units also can be reduced tolerances as 23.09%. For the door products bp2 70x200 which predicted by end of August 2017 according to planning production as 2300 units. However when using the forecasting experiment with exponential method, the weighted value 0.5 found as 1872 units by September's forecasting value equal as 1775 units. Which reduced the tolerance 22.82% and the door product bs2 70x180 which predicted by end of August 2017 according to planning production as 1700 units. Following with doing the forecasting experiment with exponential method the weighted value 0.5 is 1075 units by September Production value as 1057 units and reduced the error as 37.82%. Finally the company found the information of forecasting the tolerance reduce as 27.91% by averaging. Meanwhile the company can bring methods and this analyzing to advance the knowledge to establish the guideline to reduce costs of internal and external organization logistics through reducing the damage which might happen from mistake in administrative management.

Keywords - Forecasting, Moving Average, Exponential, Error Reducing

INTRODUCTION

In current situation, the business must emphasizing of the point of long term profit belongs with suitable and effective administrative which admit as the guideline to create understanding on job operation detail, problem's cause accurately analyzing to clear problem which important to using others theory to be applied by depend on what kind of problem in each organization. Nowadays the case study of company have sale forecasting by using experience but still have a lot of tolerances. Some part of product selling was from prediction and from salesman's experience was the main point also because of the company manufactured from customer's order with forecasting it followed with a lot of stock amount of raw material which cause the high cost of product parts purchasing and stocking. If we use the forecasting techniques it will help a lot of benefit in planning and making the decision in job operation in short and long term. And the forecasting is the one of equipment which can be received the information in the future to making the component of effective job operation planning.

RELATED THEORY

The researcher studied about notion and many kinds of theory and review the knowledge organization to be the basement and guideline for studying as.

1. Forecasting techniques, Moving average method is forecasting techniques which using the past information to forecast the future like predict the demand of product using to plan in the future purchasing in the future from the amount of using product in the past by Chawaree(2556) said, (Simple Moving Average :SMA) this method will balance the weight of all calculated values to be equally significant by using the time established information and make the average. The moving average is the averaging method when have no trend or have a little. The method is very useful when we can assume that the marketing demand is stable all the time and use equation as

$$\text{Moving Average} = \text{Demand in previous } n \text{ periods } n$$

The n is the period amount in moving average like 3,4,5 months continueingly

2. Exponential Method is the averaging of weight balance and the value of calculated forecast which calculated from the forecast value before and plus the difference percent between forecast value and real value of serie at that point which is the next period

$$\text{forecast value} = \text{The forecast value before} + \alpha (\text{real value} - \text{the forecast value of the period before})$$

by (The real forecast value -The forecast value of the period before) Instead of the mistake in the forecast and α is the percentage of forecast's mistake thus

$$\text{Exponential} = Ft = Ft-1 + \alpha (At-1 - Ft-1)$$

by Ft = forecast value for t period

$Ft-1$ = forecast value for t-1 period

α = Smoothing constant

$At-1$ =demand of the real sales volume for t-1 period

3. Forecasting Correctness Analyze : the accuracy in forecasting is the important thing and have a significance in two kinds to be considered which is the tolerance of forecasting which happened in the past, The ability of forecasting result which can be respond with changing to analyze. The measuring method the error of forecasting the past information which to be used generally and it has 2 methods thus mean absolute deviations: MAD and mean squared

error :MSE The error finding that use for comparing with forecasting value by MAD(Mean Absolute Deviation)method From formula

$$MAD = \frac{(\sum |real\ value - forecast\ value|)}{N}$$

The finding method of mean squared error value to use for comparing with forecasting value by using MSE method(Mean Squared Error) From formula

$$MSE = \frac{(\sum Ireal\ value - forecast\ value)^2}{N}$$

The error finding that means how many percent of error that can happen in forecasting to use in the conclusion to prove that prediction have the correctness enough.

4. Having inventory to supply suitable amount of product can be reducing the risk from demand and supply variation by PimmisaDechkarnchanasil said the inventory is products that we manufactured or bought for distribute. The inventory management is the important thing to service customers to have the product that they want to buy all the time they need. On the other hand it can lead the high cost in an operation thus many organizations realized this kind of problems and find the solving problem method to reduce the inventory cost in supply chain system, the effectiveness of inventory can balance the product level with customer's satisfy such as order fill rates. However the risk that happen from inventory management might be the overload of product stocking and the stocked product is not the one that customers need.Nukrak(2551) researched in the thesis about the suitable amount of purchasing to reduce the expense of dynamic flow line company limited inventory management. It is the Cast Steel Value import business which found that it had too much stock that cost the budget of purchasing and expenseof inventory more than necessary also without purchasing amount calculation method.Nukrak's research had the objective to find the suitable amount of purchasing to reduce the expense from product collection and decrease the product stock amount.
5. Purchasing means the operating activity to bring in products or service ,raw material along with machine, equipment to achieve the business's objective. Normally in business can divide the purchasing into two category by purchasing to sell and purchasing to use or transform this protocol is very important especially in the generation which every environment change so rapidly ,the competition to reduce product's cost and operation cost, Staff and purchasing responsible unit have to realize how to develop job task and job protocol to connect with another unit in an organization and to connect with business supply chain in effective way and can be response with needs in the right way and right time.

OBJECTIVES

1. To study inventory forecasting form.
2. To improve forecasting method and product demand forecasting model.
3. To plan and reduce the risk of raw material according with needs.

HYPOTHESIS

To get the forecast value nearly with the real manufactured value more than company's originally forecast method.

CONCEPTUAL FRAMEWORK

The idea about reduce the forecast deviation guideline establishment by researcher did the experiment of using moving average method compared with exponential method to test the forecast value as figure 1. Conceptual framework for experimental forecast

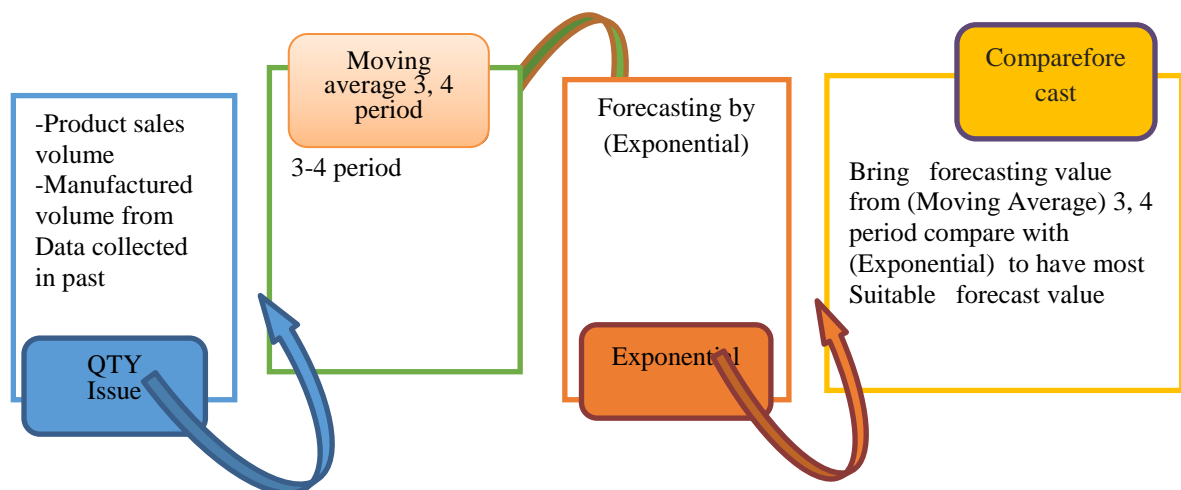


Figure 1. Conceptual framework for experimental forecast

ADVANTAGE POINT

1. To reduce the forecast deviation.
2. To set the guideline of forecast system improvement to plan the guideline of developing current job operation.
3. To increase efficiency of planning the company manufacturing in the future.

THE RESEARCH PROCESSING

Westarted the research by collect the company's information for case study which consist of main business namely manufacturing and distribute the finished pvc products such as pvc doors, window ,doorframe,synce pane door and pvc wall as shown as figure 2-3



Figure 2. Sample of pvc doors, synce pane pvc and pvc wall



Figure 3. Sample of pvc doors manufacturing parts

This research use the secondary data ,the researcher collected information of doors bp2 70x180,bp2 70x200 and doors bs2 70x180 namely the real amount of production, including raw material using in the past which was calculated by company forecasting ,Inventory, Inventory holding volume,Forecasting information, pattern of purchasing and stocking in current. The related information collecting to compare between forecasting value and the real value of manufacturing order from the collected product list by doing monthly and used information backward for 1 year and 8 months to do forecasting .To analyze about forecasting process of company as shown as figure 4



Figure 4. Sharing analyzation and data collecting

From standard data collecting of doors group by backward 1year and 8 months found that the amount of door bp2 70x180, bp2 70x 200 and door ds2 70x180 have too much. And the case study’s company provided the data as shown as the table no.1 to compare with forecasting and the real use value. The result let us know for the main reason was the high value of inventory, the forecasting was not accurate thus we chose the navigable raw material in 3 items to test the forecasting techniques. Using moving average 3periods and 4 periods to compare with exponential method subject to the 3 items door bp2 70x180, bp2 70x200 and door bs2 70x180 to analyze for predict the purchase order according with real need to decrease the order inventoryholding. This three items was ordered in domestic and had high frequency ordering. Because of the company want to decrease the over raw material inventory which cause many error forecasting like the raw material purchasing was not enough for need . Therefore research chose to use door bp2 70x180 , bp2 70x200 and door bs2 70x180 to be a navigation products of forecasting in table 1.

Table 1: Data about manufactured volume conclusion door bp2 70x180, bp2 70x200andbs2 70x180

navigation products	2016												2017								
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
bp2	70x180	1,304	1,351	1,703	1,202	1,599	2,311	1,037	1,724	1,981	1,273	1,846	1,561	1,866	2,677	2,526	1,318	2,423	2,825	968	1,506
	70x200	1,292	1,568	1,914	990	1,149	2,300	1,323	1,425	2,067	1,547	2,054	1,949	1,517	2,289	2,633	1,357	2,045	2,830	1,359	1,678
bs2	70x180	1,359	1,223	1,951	848	1,479	1,441	855	1,079	1,225	727	1,495	905	1,262	1,119	1,389	997	1,078	1,408	894	1,038

Note: Data between 2016-2017

POPULATION AND EXAMPLE

This case study chose to use the data of raw material need in group door bp2 70x180, bp2 70x200 and door bs2 70x180 previously one year and eight months to be predicted as navigable product for forecasting by assume selling volume in the future from manufactured volume in the past ,Forecasting data and collected related data to make comparison of historical data.

EQUIPMENT

Use forecasting techniques (Moving Average) 3 periods and 4 periods compare with (Exponential) which using past information forecasting techniques.

Use balanced score card to analyze an organization or current unit to find something that cause problems in job operation.

Use Microsoft Excel 2013 to make mathematic model shown about forecasting data as shown as figure 5.

bp2	70x180						Exponential	
	เดือน	At	FT mov 2	FT mov 3	FT mov 4	0.1	0.5	
2016	Jan	1,304				1,500	1,500	
	Feb	1,351	1,328			1,480	1,402	
	Mar	1,703	1,328	1,453		1,467	1,377	
	Apr	1,202	1,527	1,419	1,390	1,491	1,540	
	May	1,599	1,453	1,501	1,464	1,462	1,371	
	Jun	2,311	1,401	1,704	1,704	1,476	1,485	
	Jul	1,037	1,955	1,649	1,537	1,559	1,898	
	Aug	1,724	1,674	1,691	1,668	1,507	1,467	
	Sep	1,981	1,381	1,581	1,763	1,529	1,596	
	Oct	1,273	1,853	1,659	1,504	1,574	1,788	
	Nov	1,846	1,627	1,700	1,706	1,544	1,531	
	Dec	1,561	1,560	1,560	1,665	1,574	1,688	
2017	Jan	1,866	1,704	1,758	1,637	1,573	1,625	
	Feb	2,677	1,714	2,035	1,988	1,602	1,745	
	Mar	2,526	2,272	2,356	2,158	1,710	2,211	
	Apr	1,318	2,602	2,174	2,097	1,791	2,369	
	May	2,423	1,922	2,089	2,236	1,744	1,843	
	Jun	2,825	1,871	2,189	2,273	1,812	2,133	
	Jul	968	2,624	2,072	1,884	1,913	2,479	
	Aug	1,506	1,897	1,766	1,931	1,819	1,724	

Figure 5. The example of using Microsoft Excel to calculate

DATA ANALYZATION

To establish a guideline of reduce errors of forecasting from doors manufactured information type door bp2 and door bs2 (navigable product) by using forecasting techniques moving average 3periods and 4 periods compare with exponential method to reduce forecasting error. The monthly of product demand prediction previously in a year and 8months of year 2559 until August 2560 to previously compare between real manufactured value of moving average 3periods and 4 periods compare with Exponential method as shown as figure 6-8.

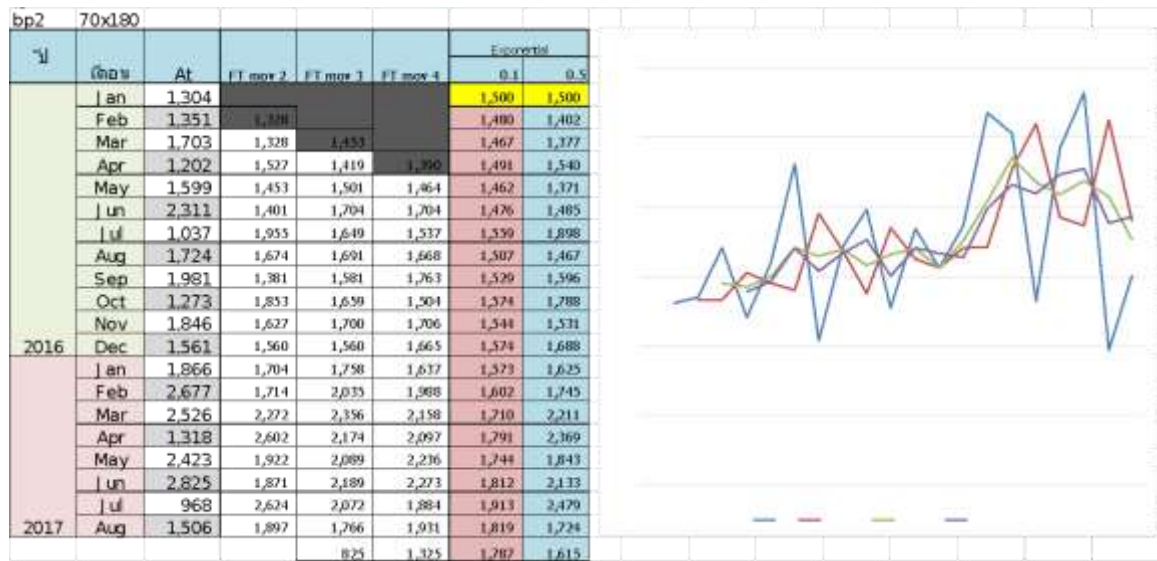


Figure 6. Forecasting bp2 70x180 compare with moving average 3periods and 4 periods compare with exponential

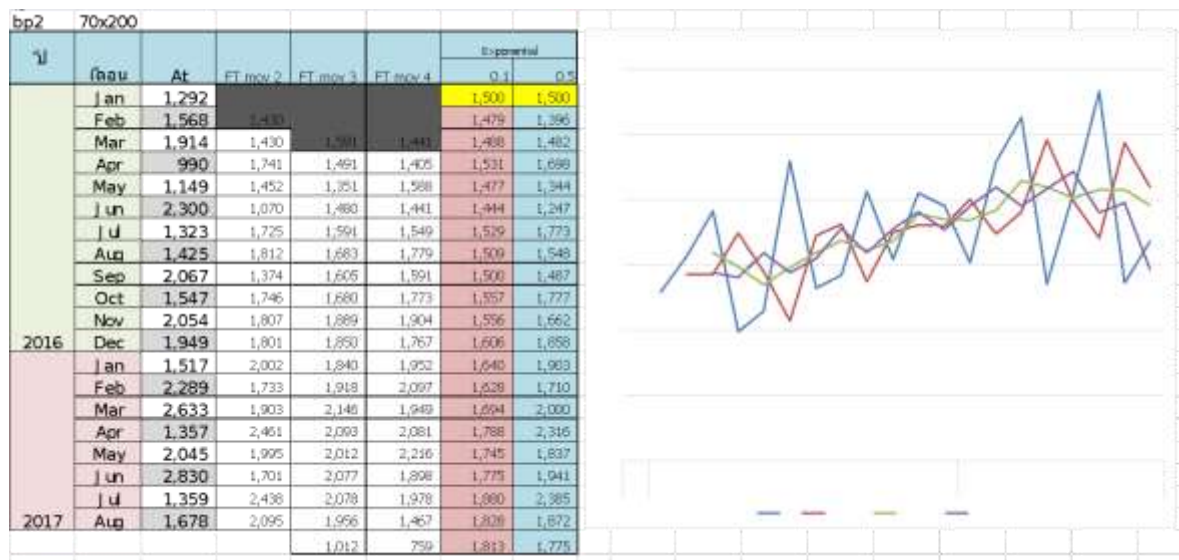


Figure 7. Forecasting bp2 70x200 compare with moving average 3periods and 4 periods compare with exponential

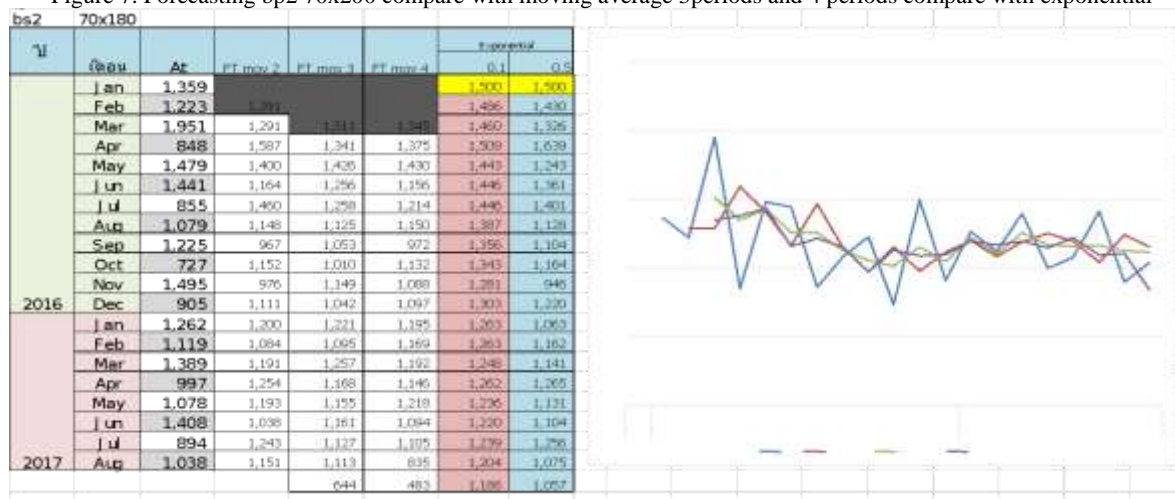


Figure 8. Forecasting bs2 70x180 compare with moving average 3periods and 4 periods compare with exponential

Thanakorn (2012) said normally in prediction , the forecast doing person always create model more than one model in each topic .For choose the model which assume that it had the lowest error. Thus for model choosing might choose to calculate of each error forecasting value model and bring the value to compare by use the lowest error model which using the most important factor with others(Accuracy) so it can get the lowest of forecasting value. All in all of real value for error and forecasted value by using various kind of coefficient or many data, researcher considered from error finding of forecast value comparing with testing by

MAD (Mean Absolute Deviation)
 From formula $MAD = \frac{\sum |Ireal\ value - forecast\ value|}{N}$

And MSE (mean squared error)
 From formula $MSE = \frac{\sum (Ireal\ value - forecast\ value)^2}{N}$

The real value which nearest of forecast value or causing the lowest error is the suitable value of accurately result of forecasting as shown as figure 9.

bp2		70x180		Exponential					
ปี	เดือน	At	0.1	0.5	amd 0.1	amd 0.5	mse0.1	mse0.5	
			2016	Jan	1,304	1,500	1,500	196.00	196.00
	Feb	1,351	1,480	1,402	129.40	51.00	12056.04	4984.36	
	Mar	1,703	1,467	1,377	235.54	326.50	69780.51	95876.93	
	Apr	1,202	1,491	1,540	289.01	337.75	83909.87	99361.13	
	May	1,599	1,462	1,371	136.89	228.13	27311.66	43210.10	
	Jun	2,311	1,476	1,485	835.20	826.06	712690.39	700104.11	
	Jul	1,037	1,559	1,898	522.32	860.97	358360.35	595932.52	
	Aug	1,724	1,507	1,467	216.91	256.52	43303.26	50095.40	
	Sep	1,981	1,529	1,596	452.22	385.26	179331.48	153109.43	
	Oct	1,273	1,574	1,788	301.00	515.37	136323.13	223941.71	
	Nov	1,846	1,544	1,531	302.10	315.31	77075.26	83558.64	
	Dec	1,561	1,574	1,688	13.11	127.34	3956.48	12445.84	
2017	Jan	1,866	1,573	1,625	293.20	241.33	64861.68	56674.20	
	Feb	2,677	1,602	1,745	1074.88	931.66	1029704.67	909807.06	amd 0.1 461.8724
	Mar	2,526	1,710	2,211	816.39	314.83	436649.92	177496.08	
	Apr	1,318	1,791	2,369	473.25	1050.58	461535.54	912441.99	amd 0.5 498.2394
	May	2,423	1,744	1,843	679.08	579.71	315292.07	282884.66	
	Jun	2,825	1,812	2,133	1013.17	691.85	724553.35	520016.09	mse0.1 316021.9
	Jul	968	1,913	2,479	945.15	1511.07	1383056.92	2028707.84	
	Aug	1,506	1,819	1,724	312.63	217.54	162270.01	100233.21	mse0.5 354464.9
			1,787	1,615	9237.45	9964.79	6320438.56	7089297.30	

Figure 9. Error finding to compare with forecast value

RESEARCH RESULT

The result of forecasting improvement found that we have to use many techniques to support executive team in making decision ,The suitable technique must harmoniously with each objective cost accurately.The forecast value which received from math model shown for forecast value is nearly to the real use value. From this experiment researcher found that Forecasting method by exponential for weight balance value at 0.5 have the result of calculation better than moving average method by notice from MAD value is lower by the equation of exponential weight balance value at 0.5 can bring power of forecast better because it close with real value which have withdraw for navigable product. When compare with original method of forecasting on sample factory the result is door bp2 70x180 forecast for end of August 2560 which have production plan as 2100 units but when used the exponential weight balance value at 0.5 and the result is 1724 units by September forecasting value as1615 units so it can reduce of error as 23.09 % For the part of door bp2 70x200 forecast for end of August 2560 which have production plan as 2300 units but when used the exponential weight balance value at 0.5 and the result is 1872 units by September forecasting value as1775 units so it can reduce of error as 22.82% .And the product door bs2 70x180 forecast for end of August 2560 which have production plan as 1700 units but when used the exponential weight balance value at 0.5 and the result is 1075 units by September forecasting value as1057 units so it can reduce of error as 37.82% as shown as table 2.

Table 2: Present the result of error forecasting value by exponential and weight balance at 0.5

Amount Indicator Navigable product	August 2017			Forecasting Value 2017
	planned	real used	forecast	
Door bp2 70x180	2,100	1,506	1,724	FG= 1,615 reduced error as 23.09%
Door bp2 70x200	2,300	1,678	1,872	FG= 1,775 reduced error as 22.82%
Door bs2 70x180	1,700	1,038	1,075	FG= 1,057 reduced error as 37.82%
				The holding inventory amount reduced As 27.91% by average

If we use the pattern as explain before, It can help a company to decrease of forecasting error as 27.91% by average. And the number of value which receive from math model shown that the using amount is nearly with the real use amount and can be used for considered data, planning the navigable product and planning for suitable job of company as study case.

CONCLUSION AND RECOMMENDATIONS

From the research of forecasting moving average 3 periods and 4 periods compare with exponential it provide the result that moving average in 3 periods is the most close with real used value more than originally forecasting method of company .Therefore the moving average 3 periods can be applied in planning of raw material purchasing to be correct with demand, however for the method's effective is depend on others factors such as economics politic, competitor etc.

For the point of knowledge advance for using or do research by before using the moving average 3 periods and 4 periods compare with exponential it should be tested with each company testing group one more time to approve of suitable error value and can be applied for highest efficiency. From the forecasting found that have to use many kinds of technique to help executive team in making suitable decision and must realize about following cost objective with correctness.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and encouragement of Associate Professor Dr. LuedechGirdwichai, The Chancellor of SuanSunandhaRajabhat University, Bangkok, Thailand.

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Employee Satisfaction with Organization CPF Trading Co., Ltd.

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Abstract. This research aims to study the employee satisfaction on the organization of CPF Trading Co., Ltd., The purpose is to study employees' satisfaction with the organization. And to compare employee satisfaction with the organization. Classified by different demographic features, including gender, age, education, income, and working age. This research is descriptive. The questionnaire was used as a tool to collect data from a sample of the population. CPF Trading Co., Ltd. employs 160 Taro Yamane users using a questionnaire as a tool to collect data. Statistics used in data analysis were percentage, mean, standard deviation. The hypothesis test is t-test. The study found that. Most males are between 30-35 years old. Average monthly income is in range. 10,001-20,000 have a working life of 1-5 years. Employee Satisfaction with Organization The overall picture is very high. Is the opportunity and progress in the job. Participation in the administration of attitudes and feelings. The credibility and reputation of the organization. The hypothesis test showed that employees of different sex, age, education, monthly income, and different age had different attitudes toward selection.

Keywords - Employee Satisfaction, Organization CPF, Trading

INTRODUCTION

Personnel in the organization is very important because it is the foundation for corporate management. Whether or not the organization is efficient and successful depends on qualified personnel. Personnel in the organization is a valuable resource. It is also a resource that organizations need to maintain and invest more consistently. To develop valuable human resources and potential employees in the organization. The morale of the work is consistent, the organization must pay attention and care for the development of human resources, along with improving management to keep up with the changing world situation. The emphasis should be on the organizational commitment of personnel. Because what makes the staff have confidence. Accept the goals of corporate values. They are also willing to work for the organization in full force. The importance of this will result in the organization's success in job satisfaction. It is the collective feeling of the person to work happily in the person who is born of the work. And get the response is. The result is a satisfaction that gives the person a keen knowledge. Is intended to work have morale. These affect the efficiency and effectiveness of the work. Including the success and the meaning of this organization, the factors that make sense are part of the organization. To lead to loyalty to the organization now and in the future is a factor of satisfaction because "job satisfaction is the total feeling of a person in a positive way. Performance and reward are the result of a person's satisfaction, enthusiasm. Is committed to work Have morale These will affect the efficiency and effectiveness of the work, as well as the success of the organization and the goals of the organization. (Priyaporn Wongsanit, 2005: 132).

Operating Will reduce interest in the job. Create regression in work The quality of the work is reduced, so the organization should keep in mind. Motivation and promotion of personnel commitment to the organization. Adopt corporate goals and fully utilize the capabilities of organizations. This causes the organization to reduce unnecessary losses. Without reason for lack of personnel for this reason, the researcher is interested to study the satisfaction of employees with the organization of CPF Trading Co., Ltd. to know the satisfaction of employees on. Organization This research can be used as a guideline for organizational development. And to create good satisfaction for employees to keep their organization and potential. CPF Trading Co., Ltd. is a subsidiary of Charoen Pokphand Group. Serves and manages branches. Recently the company signed a contract with the company. Shell of Thailand Co., Ltd. Shell Management Shell To expand the CP Food Market branch in the Shell suburban petrol station. Because consumers have to use the service and high car. Based on CP's policy of focusing on downstream businesses. Especially the retail business. This is a downstream business group. Through the past, CPF has launched a marketing campaign to increase the sales channels for as many affiliates as possible. This is evidenced by the expansion of the existing CP Fresh Mart stores, which currently have 600 stores nationwide, are expected to take around two years to reach conclusions. Meanwhile, the overall retail market is worth Bt750bn, growing 12% and continuing to grow. (<http://www.icons.co.th/newsdetail.asp?lang=EN&page=newsdetail&newsno=33912>)

OBJECTIVES

- 2.1. To study employees' satisfaction with the organization.
- 2.2. To compare employees' satisfaction with the organization. Classified by different demographic features.

LITERATURE REVIEW

Chitpong Ayasanond (2015) studied the service management that affect the supply chain performance of freight and mail management of Thai Airways International Public Company Limited and to determine the appropriate operation model. The sample group of 20 executives or individuals who are in management positions, role in the policy management of freight and mail commercial department. The service management that strives for excellence according to the organization's quality policy by giving priority to customer satisfaction, developing human resources management will create awareness about the quality of service with quickly efficiency, accurate, safety and appropriate use of modern technology to manage service quality of freight and mail management. Thai Airways International Public Company Limited warehouse as a service provider provides the labor for the packing container frame roof without providing multimodal transport model that can not

serve on the management of the logistics supply chain system in fully integrated. Implementation of Thai Airways International Public Company Limited focus on fast and accurate will expand a strong and sustainable growth with a focus on personal development, learning and growth. To reduce costing process and enhance competitiveness of firm's performance the management structure should concentrate in updated information technology and timely support to the management decisions.

Bell - Roundtree, Carolyn V. (2004) studied was to determine the validity of the Kouzes and Posner leadership framework with increased levels of knowledge worker job satisfaction and organizational commitment in the federal government (Department of Army) sector. Kanat Satayarom and Tanawan Sriwararom (2015) studied the has the following objectives: 1) On transformational leadership and the benefits that affect organizational commitment of the staff in the psychiatric hospital group, (2) the personnel factors of transformational leadership and commitment of staff in the psychiatric hospital and (3) the factors of transformational leadership and the benefits that affect organizational commitment of personnel in Psychiatric Hospital.

Poinpapus Ratvinan and Kittiparn Kongsawatkead (2013) studied the motivation factor for staff resignation for group of Chemical Trading Company's in Bangkok and Metropolitan Area. The objectives are (1) to study the differences in demographic factors that affect the motivation of the employee's resignation for Chemical Trading Company (2) to study the relationship between the internal factors and the motivation of the employee's resignation for Chemical Trading Company (3) to study the relationship between the external factors and the motivation of the employee's resignation for Chemical Trading Company.

Lertchai Suthammanon and Kesaya Osathanugrah (2015) studied the conducted in qualitative approach, collecting data by in-depth interview and performance observation on the targeted samples of 19 staffs and executives from various business units. The results showed that the organization's engagement model of the bill payment service business is mainly comprised of 3 factors; engagement drivers, expression of engagement and business results. Engagement drivers are composed of 1) job characteristics 2) people and social 3) organization practice and 4) organization climate, expression of engagement is composed of 1) feeling engaged and 2) behavior engaged and business results are performance achievement in individual level, team level and Organization level. The similar organizations are able to apply this engagement model to evaluate engagement and to obtain its significant engagement drivers to enhance employee engagement level ultimately.

Wanvisa Thumrongsakunvong (2014) studied the purposes of research about influential factors on possibility of employee resignation in the leather tannery industry: Case Study of Interhides Public Company Limited is to (1) Investigate influential factors on possibility of employee resignation in Interhides Public Company Limited (2) Establish employee maintenance procedure for Interhides Public Company Limited. The data obtained for this survey is from Questionnaire created from reviewing relevant literatures and research about employee maintenance for collecting information from 183 employees in both operational and managerial fields. Information obtained from the questionnaire has been analyzed by Statistical program to calculate frequency, percentage, average value and standard deviation for each relevant factor in this study. After that, Pearson Correlation has been utilized to test the hypothesis, analyze and explain the relationship between dependent (Employee Resignation) and independent variables (Influential Factors). The results show that 56.8% of employees taken the questionnaire are Female, 48.1% are less than 30 years old of age, 61.2% are single, 50.8% graduated Bachelor's degree, 48.1% are supervisor or manager and 31.7% are working in the company for 1-5 years. The hypothesis testing of significance factors with 5%.

The results show that 56.8% of employees taken the questionnaire are Female, 48.1% are less than 30 years old of age, 61.2% are single, 50.8% graduated Bachelor's degree, 48.1% are supervisor or manager and 31.7% are working in the company for 1-5 years. The hypothesis testing of significance factors with 5% significance level demonstrated that (1) Management Policy, (2) Supervisor (3) Colleague, (4) Job Duty, (5) Working Environment, (6) Compensation, (7) Possibility of career advancement, (8) Fairness in workplace and (9) Possibility of career development, are all statistical significant and hence, influence the outcome of Employment Resignation in the organization. Additionally, the research indicates that the three most important factors that management team must pay great attention to are (1) Compensation, (2) Working Environment and (3) Possibility of career advancement.

Surapong Nimkoetphol (2012). studied the The objectives of the study entitled "Relationship between Happiness and Job Performance of Employees of Companies Listed in the Market for Alternative Investment (MAI)" were 1) to study the Relationship between Human Resource Management Practices, Transformation Leadership, Happiness and Job Performance of Employees. 2) to compare the relationship model between manufacturing and service businesses. The questionnaire was utilized as a research instrument for 402 employees who were used to be the sample of the study. Structural Equation Model (SEM) by AMOS 16 was used to analyze the data. It was found from the study that: 1. Human Resource Management Practices had direct influence on Happiness of employees. 2. Transformation Leadership had direct influence on Happiness of employees. 3. Human Resource Management Practices had an indirect influence on Job performance of employees. 4. Transformation Leadership had an indirect influence on Job performance of employees. And 5. The happiness of employees had direct influence on Job performance of employees.

EDUCATIONAL ASSUMPTIONS

Personal factors of employees in CPF Trading Co., Ltd., These include gender, age, education level, income, working age, rejection of hypothesis On the employee satisfaction with the organization of CPF Trading Co., Ltd.

SCOPE OF EDUCATION

The scope of the study area is CPF Trading Co., Ltd. Scope of population The population in this study. The employees of CPF Trading Co., Ltd. In this study. Study and collect data from July 2017 to August 2017.

RESEARCH METHODOLOGY

The tools used in this study were Questionnaires, which were developed and applied from document processing. The research was based on research related to satisfaction. To be guided divided into two parts.

Part 1: The questionnaire related to the general characteristics of the respondents, such as sex, age, education, average income per month, working life, 5 items

Part 2: Analytical questionnaire Employee Satisfaction with CPF Trading Company Limited by Average And standard deviation By the question in Part 2, it is a late type question. Open answer By using the Scale Rating Scale, Likert Scale sets the level of opinion as 5 levels, the highest, the lowest, the least, the least, so that the respondents can choose to respond to the behavior and satisfaction. Their most The rating scale of this questionnaire is divided into 5 levels.

Level of satisfaction	
Minimum rating	1
Less	2
Medium	3
Very	4
Most	5

The scores obtained were analyzed for arithmetic mean. The results of the study by Suvimol Tiaranan. (2013)

RESULTS

The study indicated that Most of the samples were male, 67.3% were between 30-35 years old and 30.0% were male. 68.0% of the average monthly income in the range. 10,001-20,000 baht, or 30.1%. They have been working in the 1-5 years, accounting for 34.0%. Employees' satisfaction towards the organization. Employee Satisfaction with Organization The overall picture is very high. When considering each side Opportunities and advancement in the job. Participation in administration Aspects of attitude and feelings And the reliability and reputation of the organization is very high. Summary of hypothesis testing results. Personal factors of employees in CPF Trading Co., Ltd., ie sex, age, education level, income, working age, rejection of hypothesis

DISCUSSION AND CONCLUSIONS

Based on the employee satisfaction survey conducted by CPF Trading Company employees, the Company can discuss the following issues:

1. To compare employee satisfaction by personal factors, the results of the study showed that

1.1 Employees of different sexes have employee satisfaction with the organization as a whole, and revenue is on the opportunities and advances in the job. Participation in administration Aspects of attitude and feelings and the credibility and reputation of the organization. Not different this may be due to whether male or female have the freedom to work. Want to give feedback and suggestions to supervisors. Want opportunities and advancement in the job. And the need for corporate trust is the same, so there is satisfaction with the organization. Not different this is in line with the results of Supakit Kittprasertkul (2010) that sex is not a factor affecting employee satisfaction. And in accordance with the results of Supanee Jindaluang (2007) study on job satisfaction of personnel in Tambon administrative organization, Ban Chang District, Lamphun Province. There were no differences in job performance between male and female. There was no difference in job satisfaction.

1.2 Employees of different ages have employee satisfaction with the organization as a whole, and revenue is the opportunity and progress in the job. Participation in administration Aspects of attitude and feelings and the credibility and reputation of the organization. Not consistent with the study of Monroe Kritkriangkrai (2004) on behavioral behaviors that affect the overall satisfaction of personnel. Electrochemicals Technology Co., Ltd. found that age is a factor. Make a commitment to stay with the organization. No matter the age want opportunities and advancement in the job. And stability is the same. To make the organization happy. Not different and consistent with the results of Charan Satat (2560) Age of employees of Bangpree Industrial Estate. Samutprakarn province is different. There was no significant difference in job satisfaction in overall job opportunities and job advancement. Participation in administration Aspects of attitude and feelings and the credibility and reputation of the organization. Not different It is a pleasure to work willingly so that the attitude towards the organization is no different.

1.3 Employees with different educational levels have employee satisfaction with the organization as a whole and include the opportunity and progress in the job. Participation in administration Aspects of attitude and feelings and the credibility and reputation of the organization. not different According to the results of Sarawut Wattanawilakul (2012), the job satisfaction of employees of Ban Meng Subdistrict Administrative Organization In Amphoe Nongreua District, Khon Kaen Province, it was found that they were assigned to work in line with the subjects they had studied. It will be a pleasure to work willingly. Therefore, the attitude towards the organization is not different.

1.4 Employees with different average monthly income satisfied employees with respect to the organization in terms of opportunities and progress in the job. Participation in administration and the credibility and reputation of the organization. not different However, the difference in attitudes and feelings is different. Average monthly income difference. Does not directly affect organizational satisfaction. Income may be part of organizational satisfaction, but overall, the average monthly income difference is not dissimilar.

1.5 Employees with different working ages have satisfied employees with respect to the organization as a whole and in the case of opportunities and advances in the job. Participation in administration Aspects of attitude and feelings and the credibility and reputation of the organization. not different In accordance with the results of Sarawut Srisan (2011) study on job satisfaction of personnel in subordinate Huai Muang Subdistrict Administrative Organization in Phaman District, Khon Kaen Province And consistent with the results of the study by Valas Sesame Sri (2010). Dr. Chitpong Aiyanon study on The Service Management that Affect Supply Chain Performance of Freight and Mail Management of Thai Airways International Public Company Limited.

There is no difference in the satisfaction of personnel with different working ages.

SUGGESTION

Suggestions from the findings of the research on employee satisfaction towards employees' organizations. Overall and individual aspects are at a high level. Because employees are satisfied in the organization. So management should be there. More support in every aspect of career opportunities and advancement. The organization should create better feelings for employees. The pride of being an employee of an organization involved in the administration. The organization should take into account the feeling of stability. The well being of the employees. Employee care this will result in a good working morale. And the results of the work with the attitude and sense. The organization should create good feelings for the employees by organizing activities together to make merit. Organize sports activities within the organization. Organize activities for nature conservation activities. Offsite seminar to create harmony Create a unified organization. In order to make the organization feel more committed to the organization, the reliability and reputation of the organization. The organization should create better feelings for employees. Proud to be an employee of the organization.

ACKNOWLEDGEMENTS

This article has been supported and assisted by Assoc. Dr. Ruedej Kerdichai, President of Suan Sunandha Rajabhat University, Bangkok. Thank you to CPF Trading Co., Ltd. Please help us to complete this research proposal. Thank you to Dr. Chitpong Ayasanond who has provided research consultancy throughout this research guideline. Thank you staff of Research and Development Institute. I have provided various assistance. Throughout the guidelines and format for the preparation of research reports. Thanks to the article owners. In this research report, useful information was provided which contributed to the successful completion of the research report. Finally, I would like to thank the parents for their support. It is always encouraging to the author to conduct this research.

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Forming Tourism Logistics Service Quality of the State Railway of Thailand: A Case Study of the Special Train Tour Death Railway Route

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Abstract: This Quantitative research aimed to (1) evaluate the Forming Tourism Logistics Service Quality of the State Railway of Thailand: A Case Study of The Special Train Tour Death Railway Route and (2) study the expectation and perception of the Forming Tourism Logistics Service Quality of the State Railway of Thailand, in the forming of tourism logistics service quality, location, staff, timing and security. The tool was a questionnaire with the sampling group of 400 people who used the state railway service, by using the table of Taro Yamane. The statistics which used to compile the data were frequency, percentage, average and standard deviation, T-Test and One-way ANOVA. The research found that overall scores of the train location station, staff service and security service were moderate. Each section had a different opinion except the staff serving with a good personality dress modestly and security service in the cabin topics. For the station comfortable was consistent to the hypothesis no1. Except the train location, heading of cleanliness and the period of service were inconsistent with the hypothesis no 3. For personal factors in age, average income per month and the average cost per month found that there had a different aspects opinions on the tourism logistics service model of the State Railway of Thailand that consistent to the hypothesis no 2, 5 and 6 with the statistically significant at the 0.05 level.

Keywords: Service Quality, Tourism Logistics, the State Railway of Thailand

INTRODUCTION

Thailand is renowned for its diverse attractions, the tourism industry of Thailand has created and distributed to the public in the enormous economy. Thailand's tourism sector has been supported by various organizations, especially from the public sectors. The Ministry of Tourism and Sports has prepared a reform strategies tour of Thailand (2015-2017) connected to the National Tourism Development Plan No. 2 (2017-2021). At present, the State Railway of Thailand has launched a special train tour into two forms: a morning trip and overnight stay, but has not shown the results of the study on the management model tourism logistics service for rail travel which is substantial. That could lose the chance to compete for business and implementation of the rehabilitation plan, the State Railway of Thailand (2015-2024), the strategic actions are required to improve service quality (Parasuraman et al., 1985, 1988, 1991, 1991a, 1994) and increase the number of passengers. Forming tourism logistics service (Sun, Yoo and Yang, 2015, 2016) quality for rail travel is required to attract tourists, to satisfy the need, to make an impression and come over next time. Process management, tourism logistics activities have to provide continuous service by focusing on the management of the value chain (Porter 1985; Sultan & Saurabh 2013 and Kumar & Rajeev P. V. 2016) and service supply chain management (Sakhuja & Jain 2012). However the State Railway of Thailand's main task is the field of rail transport services with a public service of the country, which is operating at a party, offer to other parties. Sometimes the process can be bound to a given product but it is the invisible, intangible and could not be owned. It is the economic activities that create value and provide benefits to customers in time and location specific. Which has many related in logistics service activities, the main goal is to deliver the transport service from one source to another (physical distribution) to meet the needs and satisfaction of tourists under the effective supply chain management. This study was aware of the tourism logistics service quality (Sun, Yoo and Yang, 2015, 2016) management, to understand the situation for rail tourism, user opinions and logistics problems in the tourism logistics industry to enhance management standards and acceptable to both Thai and foreign tourists. Moreover, the results of the study will be the guide line for forming tourism logistics service quality model development. Which will create a competitive edge, service quality improvement and increasing the number of passengers to maximize the State Railway of Thailand revenue.

RESEARCH OBJECTIVE

1. To study the opinions of service users that affect to the tourism logistics service quality: A Case Study of The Special Train Tour Death Railway Route.
2. To study the expectations and perceptions of service users that affect to the tourism logistics service quality: A Case Study of The Special Train Tour Death Railway Route.

HYPOTHESIS OF RESEARCH

Based on the research problems and framework above therefore the hypothesis of this research are as follows:

Assumption H1: Different service users personal factors has direct influence to forming tourism logistics service quality management

Assumption H2: Different forming tourism logistics service has direct influence to forming tourism logistics service quality management

RESEARCH FRAMEWORK

Research framework of this research is shown in figure 1.

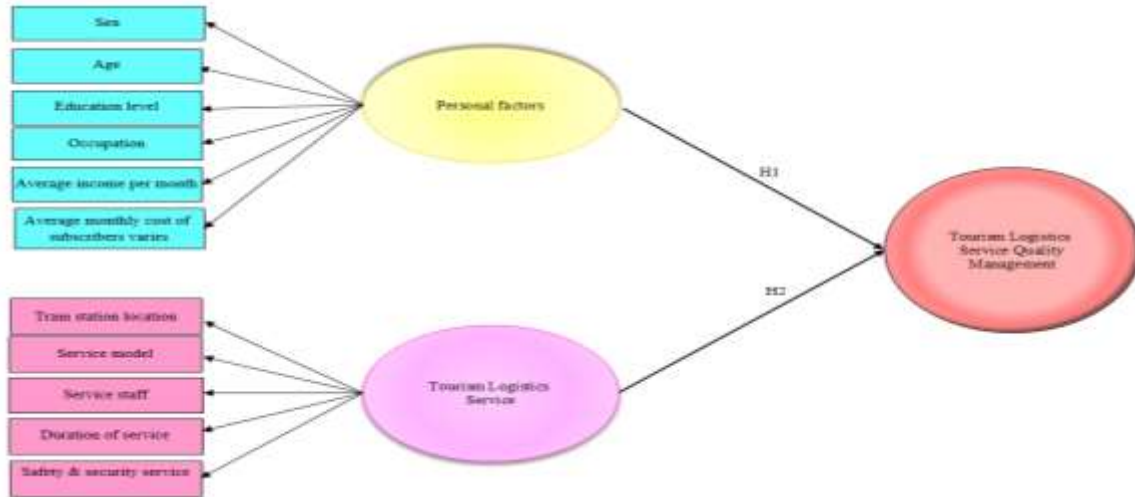


Figure 1. Research framework

LITERATURE REVIEW

Crompton and Mackay (1989) defined service quality as the quality of service attributes and investigations on the importance of those attributes based on types of service categories, which included: high staff intensives with high facility intensives, high staff intensives with low facility intensives, low staff intensives and high facility intensives and low staff intensives and low facility intensives. Results from the study also showed that capabilities to perform stated and promised service reliably and precisely are important. The service quality model, SERVQUAL by Parasuraman et al. (1985, 1988) is widely applicable and can be generalised to various service contexts (Bigne et al. , 2003) provided evidences on the applicability of SERVQUAL in travel agencies.

Narayan, Rajendran and L. PrakashSai (2008) studied the Scales to measure and benchmark service quality in tourism industry. Found that the hospitality, food, logistics, security, and value for money have significant impact on satisfaction, while amenities, core-tourism experience, hygiene, fairness of price, information centers, culture, distractions, personal information, and pubs did not have a significant impact.

Daniel and Berinyuy (2010), service quality and customer satisfaction were very important concepts that companies must understand in order to remain competitive in business and hence grow. It was very important for companies to know how to measure these constructs from the consumers' perspective in order to better understand their needs and hence satisfy them. Service quality was considered very important because it led to higher customer satisfaction, profitability, reduced cost, customer loyalty and retention.

Geetika and ShefaliNandan. (2010) studied the Determinants of Customer Satisfaction on Service Quality: A Study of Railway Platforms in India. The study was exploratory in nature and uses factor analysis to identify the most important factors of customer satisfaction with service quality. The research methodology was empirical, and a survey of passengers (customers) was conducted. The findings reveal that five factors were considered important for determining satisfaction with railway platforms, the most important of which were refreshments and behavioral factors. Managerial and theoretical implications are drawn and discussed in the paper, and a model was proposed.

Irfan, Kee and Shahbaz. (2012) studied the Service Quality and Rail Transport in Pakistan: A Passenger Perspective. Customer satisfaction and retention was one of the key determinants to measure the quality of products or services and hence the organizational performance. Due to the growing importance of quality in our life, customers desire to enjoy a relatively better quality of products or availing superior quality services had been increased. Pakistan was the sixth highly populated country of the world and its rapid population growth also contributes to an increase of people's traveling demands. In Pakistan, train was the cheapest and comfortable mode of traveling especially for long distances. This paper aimed to investigate the passengers' perceptions about the service quality of rail transport system in Pakistan while traveling between the major cities especially from Lahore to Karachi, Multan, Peshawar and Rawalpindi. A modified SERVQUAL instrument including eight service quality constructs: empathy, assurance, tangibles, timeliness, responsiveness, information system, food and safety and security were employed to measure the passengers' perceptions about the service quality of railways. Out of 700 respondents, only 493 were selected and these respondents were frequent railway traveler on these routes. Results indicate that passengers perceived that quality of services delivered to them is not satisfactory

MukhlesAl-Ababneh (2013) studied the Service Quality and its Impact on Tourist Satisfaction. This study aimed to assess tourists' perceptions towards quality tourism services provided at Petra historical site, and to measure tourist satisfaction by examining the impact of quality tourism product on overall tourist satisfaction. In this study, four hypotheses were developed are proposed a study model. The empirical data were collected from tourists via a survey that yielded 180 usable questionnaires, these data were analysed using a series of multiple regressions to determine the relationship between service quality and tourist satisfaction. The findings confirmed that service quality directly impacted tourist satisfaction throughout destination facilities, destination accessibility and destination attraction. As a result, this study argued that there was a significant impact of the service quality on tourist satisfaction, and therefore service quality plays an important role in tourism by increasing the level of tourist satisfaction. The results in this study supported the evidence that there were positive impacts of components of tourism product on

tourist satisfaction. This study provided some theoretical and managerial implications based on the findings to academicians and tourism sector.

Sheeba. A. A and K. Kumuthadevi (2013) studied the Service Quality of South Indian Railway Determinants of Passenger Satisfaction in Trains found that the most important factors determining satisfaction of passengers in train were serially comes as basic facilities, hygiene, safety & security (Panichayakorn, 2017), catering, health care service, punctuality, behavior towards passengers.

Sabir, Javed, Ahmad, Noor and Munir (2014) studied the Assessing Customer Satisfaction Level of Transport Services Using Servqual: A Case OF Daewoo Express, Pakistan. The aim of this study was twofold; first, to find out the impact of SERVQUAL model dimensions on customer satisfaction, and secondly, to measure the satisfaction level of customers using transport services in Pakistan. Responses were accumulated from two hundred subjects by a mean of questionnaire. The study used descriptive statistics, regression and correlation analyses. Findings of the study depict that all the dimensions of the SERVQUAL were positively correlated with customer satisfaction. "Empathy" was most strongly correlated with customer satisfaction as compared to other dimensions. As far as regression analysis was concerned; adjusted R² showed that 66.2% customer satisfaction was affected due to independent variables. Descriptive analysis highlighted the overall satisfaction of customers with Daewoo bus service with a mean value of 3.008 which reveals that customers were satisfied with Daewoo service, yet, not pleased. There was a need to improve Daewoo's fare strategies, and, to further improve its services to make their customers feel valued. This study was important for Daewoo Express to work out on the dimension that was most preferred by the customers.

Latiff and SiewImm (2015) studied The Impact of Tourism Service Quality on Satisfaction to examine the relationship between tourism service quality with overall satisfaction, intention to revisit and willingness to recommend to relatives and friends. There were three notable findings; first, there was a significant relationship between accommodation service quality, hospitality, entertainment, transportation, taxi service quality and overall satisfaction. Second, there was a significant relationship between overall satisfaction and intention to revisit Kuala Lumpur. Third, there was a significant relationship between overall satisfaction and willingness to recommend Kuala Lumpur to friends and relatives.

Riduan, Suharyono, Achmad, Fauzi and Darminto (2015) studied The Effect of Tourism Service Quality, Tourist Destination Image and Experience of Tourist towards Tourists Satisfaction, Tourism Word of Mouth, Tourist Destination Preferences, and Tourist Destination Loyalty (A Study on Foreign Tourists in Tourist Destinations Area in Indonesia). This study aimed to examine the concept of Tourism marketing in the perspective of foreign tourists in three Tourist Destination Area in Indonesia, namely Kepulauan Riau, North Sumatra, and East Nusa Tenggara. The study also sought to develop concepts and models of Tourism Word of Mouth. The results of this study showed that there were Tourism marketing strategies in the context of improving Tourism service quality, formation of travel destinations image, creation and fulfillment of tourist experience and satisfaction; all of those were antecedent forming word of mouth which finally will directly or indirectly affect tourist behavior related to destination preference and decision to show loyalty to tourist destinations in Indonesia.

Yahyazadeh and Omrani (2015) studied the Evaluating Supply Chain Management and its Impact on Service Quality Management in Tourism Industry. The results of analysis of research questions/hypothesis showed that different dimensions of supply chain management (communication, cooperation, commitment, dependency, coordination and trust) had meaningful effect over quality of rendered services by the Organization.

Sun, Yoo and Yang (2016) studied The Empirical Study of Logistics Service Quality Factors influencing Service Satisfaction on Supplying the Industrial Goods in the Tourism and Leisure Industry: Focusing on the Moderating Effects of Job Type to find out which logistic service factors affect the field and administrative staff's perception of service quality satisfaction. It also tried to find out if there was a difference in perception due to job-type. As the result of analysis, the following implications can be gained. First, independent sample t-test results showed that based on the job types, there is an average difference on economic feasibility, stability, and service satisfaction. Second, the results showed that service quality factors all have a positive influence on service satisfaction. Third, although there was difference in view between field staff and administrative staff on each variables, there was no moderating effect between service quality including each subordinate factors and service satisfaction.

RESEARCH METHODOLOGY

This research was a quantitative research and data collection by questionnaires. Sample used in this research determine the sample regardless of probability (nonprobability sampling) with 400 simple sampling is from train service users. Using Taro Yamane's prepared table according to the recipe with the likelihood of error tolerance 0.05. Researcher had defined the characteristics of the tools used to collect data and construct the tools used in this research. Questionnaires had been developed based on objectives and conceptual frameworks of research on tourism logistics service model management. The questionnaire was divided into 3 parts.

Part 1: the service user's personal factors on sex, age, education level, occupation, average income per month and the average monthly cost of subscribers varies.

Part 2: Information on the management of tourism logistics service of the State Railway of Thailand: A Case Study of The Special Train Tour Death Railway Route. It covered the train station location, service model, service staff, duration of service and safety & security service.

Part 3: Problems and Suggestions.

Researcher had created tools to collect data. The steps were as follows

- Study concepts and theories from academic papers, textbooks, websites, and related research of similar nature to bring information from various sources as a guideline to create a questionnaire.
- Analyze the objectives, content and structure of the research to determine the guidelines and scope of the questionnaire.
- Create a draft questionnaire, by defining the scope and scope of the question in accordance with the objectives of the research.
- Bring the draft questionnaire to the advisor for review, consideration and correction, and provide the experts with knowledge and experience in tourism transportation service. By statistics research and consider the questionnaire for 3

persons to review and make further recommendations. As well as content validity. Understanding and using the language to evaluate the results of the decision to find the Index of Item Objective Congruence (IOC).

- Complete a complete questionnaire for use in the research sample.

The researcher selected the questions with the IOC value of over 0.6 as a question. As well as improving the questionnaire was clear and comprehensive for the purpose of this research. The researcher used a questionnaire that was subjected to expert review and tried out the sample with the similarity to the sample with the similar characteristics.

The data analysis was a statistical computer analysis program. Compare the difference between the personal data of the sample, the mean and standard deviation of the opinions on the management of the tourism logistics service model, using T-Test and One Way Anova statistics to test hypotheses that the users of sex, age, education level, occupation, average income per month and the average monthly cost of subscribers varies.

RESEARCH RESULT

The research found that most of the users were male age between 21-40 years old with a bachelor's degree, occupation as a private employee. The average monthly income was 10,001-20,000 baht and the average monthly cost of subscribers varies was 5,001-10,000 baht. The results of the analysis of opinions about tourism logistics service management

Table 1: Train station location

Train station location	Mean	S.D	Tourism Logistics Service Level management
Convenience of the station	2.87	0.43	Moderate
Cleanliness of the terminal	2.92	0.33	Moderate
Cleanliness of the bathroom	3.01	0.18	Moderate
Cleanliness of train seats	2.97	0.25	Moderate
Cleanliness of the toilet	3.01	0.11	Moderate
Average	2.96	0.26	Moderate

Table 2: Service model

Service model	Mean	S.D	Tourism Logistics Service Level management
Labeling, publishing, fast information	3.00	0.00	Moderate
Facilitating passengers to easily follow the news	4.43	0.49	Highest
There are no complicated payment procedures	4.31	0.46	Highest
Average	3.91	0.32	Most

Table 3: Service staff

Service staff	Mean	S.D	Tourism Logistics Service Level management
Attentive to service willingly	2.99	0.30	Moderate
Knowledge and ability to service	3.28	0.57	Moderate
Personality and dress appropriately	4.37	0.57	Highest
Average	3.55	0.48	Most

Table 4: Duration of service

Duration of service	Mean	S.D	Tourism Logistics Service Level management
Appropriate to maintain the train	2.93	0.24	Moderate
The suitability of the service period	3.01	0.13	Moderate
Appropriate to train schedule	3.47	0.49	Most
Average	3.14	0.29	Moderate

Table 5: Safety & security service

Safety & security service	Mean	S.D	Tourism Logistics Service Level management
Security in the station area	3.35	0.47	Moderate
Cabin safety	3.05	0.34	Moderate
There are measures to prevent theft of property	2.92	0.34	Moderate
Average	3.11	0.39	Moderate

Comparison of expectations and perceptions of individuals with different personal factors toward the tourism logistics service management of the State Railway of Thailand, classified by train station location, service model, service staff, duration of service and safety & security services. There was a difference in opinions about tourism logistics service quality management if the sex, age, education level, occupation, average income per month and the average monthly cost of subscribers varies.

DISCUSSION

This research found that the service users had opinions about the tourism logistics service quality management, classified according to the train station location, service model, service staff, duration of service and safety & security service safety at the average score in the moderate level. As a result, the view of the State Railway of Thailand service users had not been able to meet the needs of the users in managing the tourism logistics service as much as possible.

Based on the study of expectations and perceptions of service users, by comparing personal factors and opinions about the tourism logistics service quality management of the State Railway of Thailand. In terms of the train station location, service model, service staff, duration of service and safety & security service safety, when considering each side, it was found that service users with different sex had different opinions in all topics. Except for the service staff had a good personality, dress appropriately and security service in the cabin topics. Therefore, it was advisable to compare the personal factors with the opinions on tourism logistics service quality management there had also a gap between expectations and perceived service (Cavana and Corbett, 2007; Chowdhury, Alam and Ahmed, 2015).

It can be said that the forming tourism logistics service management model was essential for the tourism business organization to develop the tourism business to meet the needs of all service users in accordance with vision and mission of the organization. The coordination between activities, systematically, covers planning, transporting tourists, and luggage from destination to destination. Providing and receiving information and getting paid which can be used as a guideline to improve the development of the tourism logistics service quality management system (Eraqi, 2006; Sun, Yoo and Yang, 2015, 2016) of the State Railway of Thailand.

CONCLUSION AND RECOMMENDATIONS

For the policy recommendations; it should be established or assigned to the authorities of the State Railway of Thailand to supervise, manage the tourism logistics service and supply chain as well as the strategic planning which can monitor and assess the situation in all areas. It should cooperate with government and private sectors by implementing tourism logistical service management concepts regarding joint forecasting and fulfillment (CPFR: Collaborative Planning Forecasting and Replenishment) in supply chain planning. The needs of those involved in the supply chain enable all organizations to collaborate and exchange information to meet their common goals. It will make sales of goods and service, reduce the amount of inventory and increase the level of customer satisfaction. They can also increase the level of mutual trust that enables them to exchange information more effectively including the development of a tourism logistics service model. This will reduce the logistics costs and increase the long-term revenue of the State Railway of Thailand.

For the practical suggestions; based on the study of expectations and perceptions of service users with sex different education levels and occupations. The State Railway of Thailand have to create a gap model to measure tourism logistics service quality, to realize the real gap between expectations and perception of service (GAP 5).

Suggestions for the next research

1. Research should be conducted on the establishment of a travel business network to improve tourism logistics service management efficiency for rail travel. And should study the gap between expectations and perceptions of tourists. To improve the management of tourism logistics service model for the State Railway of Thailand to cover all aspects and impress tourists.
2. There should be comparative research on the management of tourism logistics services for the State Railway of Thailand on other routes. With other service business competitors such as low cost carriers, the bus company, vans run on various routes, etc., to evaluate the tourism logistics service strategies appropriate to the service business to meet the needs of tourists and create a competitive advantage in a professional way.
3. Research should be conducted on service behavior of employees, talent worker to find out the performance of the person. Explicit knowledge is provided to the staff at the station and on the train to use them as a guide for self-development and build a good image in the service of the State Railway of Thailand.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr. Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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Logistics Management Affecting Fresh Flower Shop Operators In Nakhon Ratchasima

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Abstract. The purpose of this research was 1) to study the relationship between logistics management affecting fresh flower entrepreneurs. The money and not the money of the flower operator. 2) to study the effect of logistics management on the monetary and non-cash businesses of the flower shop. 3) To study the logistics management system in flower business. The examples used in the study came from the populace who are entrepreneurs, fresh flower bouquets and flower shops located in Nakhon Ratchasima. The researcher identified a number of samples using the Taro Yamane formula (1970) at a confidence level of 95%. Multi-Stage Sampling is a two-step sampling technique that is purposive sampling. ROA is 10.1-15%. ROE is 15.1-20%. Sales growth rate is 10.1-20%. Net profit margin is 20.1- 30% market share is 0-10%. The hypothesis test results show that the logistics management that affects the monetary operators is profit, sales growth rate, ROA, ROE, market share significantly at 0.05.

Keywords— Logistics Management, Entrepreneurs, Fresh Flowers Shop

INTERODUCTION

The situation of flower shop business is a business that is spread very many today. Because consumers have used flowers as part of their daily lives. Both occasions To congratulate the greeting Goodbye or edified. The flowers will feel happy. Recipients were heartened We believe that the flower color. Refreshing to humans Flowers used in the work place and ceremonies. Or even the possibility given on various occasions. The social status Since it is a non profit entity, thus allowing the operator to have more flowers and cause a higher competition. The number of flower shops in Bangkok in the year 2550 a total of 430 cases in 2551, with 423 cases the rate of decline of 1.63% in 2552 with a total of 432 revenue growth rate of 2.13% in 2553 with a total of 429 daily rate. down 0.69%, and in 2554 a total of 430 revenue growth rate of 0. 23% (Department of Commerce. Ministry of Commerce, 2554)

Although the business affairs building flower to get. What with the operator did. The higher competition. And with that, the flowers have a period of freshness and durability, so operators can recognize. To have a good transport and storage to keep fresh flowers still state To create the advantage on competition must be planning, transport transport. If the flowers are damaged will affect the industry cost greatly. Which is connected to the profits of the business of flowers.

Logistics management, thus helping to promote the florist business in distributing flowers to flower shop entrepreneurs in Nakhon Ratchasima. Increase the speed and performance with a florist and logistics development is the costs which means that increases the profits of the florist business. Benefits of logistics Affairs of flowers that will help increase their profits. If we are the owners of the company, there are many branches of wholesalers with logistics and intelligence, good, know the needs of customers in each branch distribution planning can reduce storage space down. To reduce the amount of fresh flowers will help to reduce spoilage of the flowers helps lower costs and reduce the amount of transportation that does not. A flower distribution according to the customer's order for logistics will help transport according to the date and time according to the schedule that customers order directly and accurately. Because the allocation system of bringing logistics to help reduce the damage caused by a timing issue. Help reduce costs and generate profits and customer satisfaction. All these caused the plan to transport goods from the distribution center. effective logistics, not normal transport. Logistics engineer who will analyze your plan to reach that mark with the lowest costs (Federation of engineers, 2553)

So, do your research to see Leng studies that managing logistics affecting operators flower shop. In my Ratchasima Which contributes to the efficient operation of the business in the future. And to create maximum benefit to operators related to the conduct that is the subject of the logistics involved further.

RESEACRH OBJECTIVES

This study has the following objectives is:

1. To study patterns and management of logistics that affect entrepreneurs fresh flowers. In Nakhon Ratchasima
2. To study problems affecting the transport of fresh flowers to the operator. In Nakhon Ratchasima
3. To study the system of management, logistics operators to store fresh flowers. In Nakhon Ratchasima

SCOPE OF THE RESEARCH

Researchers used quantitative research for this study. The survey instruments were created and defined the scope of the research is as follows.

The population-based study of entrepreneurship, business, fresh flowers and / or flower. Is a registered trade entity in the form of a flower shop operators, registered entities in the total of 350 patients (Department of Trade Affairs. Ministry of Commerce, Lahore, 2554).

Samples were selected from the study population. The sampling, multi-stage (Multi-Stage Sampling), in descending order of two phases: sampling specific (Purposive Sampling) and sampling by convenience (Convenience Sampling) and the 207 series, which this amount. using the formula Taro Yamane (1970).

BENEFITS OF THE RESEARCH

1. Fresh flower shop operator can lead to the effect of logistics management that affect the planning of logistics management, maximum efficiency and effectiveness by providing a transport planning so that reduce costs and meet customer needs, in Nakhon Ratchasima province.

2. Entrepreneurial businesses, fresh flowers can be a study to help reduce costs for business and improve management of the logistics of fresh flowers in Nakhon Ratchasima.

3. Fresh flowers can study management, logistics masks, comprising customer service. Freight Inventory Management And the flow of information, including order management process to industrial use fresh flowers to manage logistics efficiency.

RESEACRH INSTRUMENT

The researcher used a questionnaire as a tool to collect data from the sample. The details of creating a questionnaire are as follows.

1. Study how to create a questionnaire based on research papers and related theories.
2. Create a questionnaire to ask questions on three issues: 1) general information about the business 2) About the logistics management of fresh flowers. In Nakhon Ratchasima 3) about earnings Inventory management and flow of information in the fresh flower industry in Nakhon Ratchasima province.
3. The questionnaire has been made to the experts. The modify the To.
4. Corrections in Make And Present To The Experts To Verify The Accuracy Of 350 again Are For The Distribution Questionnaires.

ASSESSMENT OF RESEARCH TOOLS

Content Monitoring Tools The research was presented questionnaire was created from a panel of experts had checked the completeness and consistency of content that matches the query in the study. Monitoring confidence Researchers determined by the coefficient of Kronstadt back-alpha (Cronbach's Alpha Corfficient) in which the coefficients Kronstadt back-alpha and confidence.

DATA ANALYSIS

1. The researcher explained the details of the content within the questionnaire and how to answer the questionnaire and how to respond to the team.
2. The researcher, or agent, and the beauty team go to the desired locations as outlined above.
3. The researcher distributed the questionnaire to the target group and waited until the question was fully answered. In the meantime, if the respondent has questions about the question. The researcher or team will answer that question.

STATISTICS USED IN ANALYSIS

The researchers analyzed the statistics for the data.

1. Descriptive statistics such as mean, standard deviation. Use descriptive information about the property and the business. 23abaaa
2. Is the business model consists of customer service. Freight Inventory Management And the flow of information, including order management process to industrial use fresh flowers to manage logistics efficiency.
2. According to statistics The correlation and impact analysis of data related to the variables studied.

LITERATURE REVIEW

1. Concepts and theories about variable management logistics. The concept of managed logistics
2. Theories about the variable operating results.

Concept of managing logistics.

The definition of managed logistics Stock and Lambert (2001) has meant that. Managing logistics means. The movement of goods and services in both the manufacturing and services sectors in the services sector, including the public sector hospitals, banks, wholesalers and retailers also need to consider the final elimination of processing the world. logistics, scope of responsibility, which was not involved in the production process, but logistics activities related to the massacres. Event management, logistics management refers to the flow of goods, services or materials. From the beginning (Points of Origin) to the point where the use of products or materials of any meaning. Above it can be concluded that managing logistics. Refers to the process of planning, operation and control of movement. And storage efficiency and effectiveness. Including services and related information from point of origin to point of consumption. For the purpose of meeting the needs of customers.

The main activity of managing logistics.

Stock and Lambert (2001) has divided the activities of logistics management processes into 13 activities, as detailed below.

1. Customer Service (Customer Service) customer service includes the activity. To contact or to coordinate directly with the customer. By activity, customer service has been analyzing the activities to be done in order to satisfy our customers. Under the service level And the cost of resources to build a proper

2. Preparing spare parts and after-sales services (Part and Service Support) activity. Comprehensive after-sales service In the event of repairs and services related to the product that is sold as a replacement for a while. customer needs The instructions for maintenance. This activity contributed to increased customer satisfaction. And will affect the purchasing decisions in the future. You can build loyalty to a brand. To say to new customers. Which has helped to build relationships with customers in the long run.

3. The process according to the customer's order (Order Processing) is an event that marked the beginning of the process, the logistics. And an operational unit None can respond quickly to customer needs. This activity may be divided The three sub-sections: 1) the operational aspects including work orders into the system. Scheduled Delivery And the invoice (Invoice) 2) The communication also modify / edit the order. To query the status of orders, traceability and accelerate the rush 3) the provision of credit and charge products. Which serves to monitor the credit and charge and collect the goods. The implementation of the order speed of operation, accuracy is an important part in increasing the level of customer service. Since this activity is part of the job. None requires a meeting between the customer and the company. It affects the perception and understanding of customer service. The satisfied customers.

4. forecasting customer demand (Demand Forecasting) activity. With regard to the demand for products or services, future prospects

5. Inventory Management (Inventory Management) activity. This is important because the amount of inventory that the organization has will affect the financial conditions. The supply to meet customer demand. Including production planning

6. Warehousing and storage (Warehouse and Storage) activity. Covers the management area to store or take inventory. Appliances

7. transport activity (Traffic and Transportation) activity. Comprehensive managed mobility products. The choice of method of transporting goods such as ships, trucks, trains, planes. Or various forms of transport

8. Purchasing / Sourcing (Procurement) activities are activities that are spending 40 to 60 percent of the company's revenue. In the event that the acquisition of supplies or services for the production process remains effective

9. The reverse logistics (Reverse Logistics) activity. Or deal with products that are returned to the Company

10. Select the location of factories and warehouses (Plant and Warehouse Site Selection) activity is an important part in the build or lease a warehouse or factory. Allows a response to demand.

11. The process involves handling materials (Material Handling) activities related to movement or flow of raw material during production. And the final product in the factory or warehouse. To ease the process of moving. Reduce the distance of moving to a minimal reduction during production. Management provides the agility to move to avoid a deadlock. And reduce losses from spoilage or breakage waste burglary. Which are managed or moving material

12. Packaging and Packaging (Packaging) activities related to packaging. And packaging Packaging plays a role in two perspectives: 1) for the marketing teams focused on a form of treatment. None attract customers, 2) the perspective of logistics. Is to play a role in protecting the products not to damage from storage and transport. And enable the storage and movement of products is going to be easy.

13. Communication in the logistics (Logistics Communications) activity. Supporting the logistics and organizational success. By effective communication that will help with decisions and fast execution, reduce delays between departments respond to customer needs more quickly. The effective communication should check communications in an integrated manner: 1) communications between organizations such as the company's suppliers and customers, 2) communication between agencies within organizations, such as Marketing, Engineering, Accounting and Production 3). communication activities in the field of logistics, as mentioned above, 4) communication between units in different activities logistics. Lahore, and 5) communication between members of the supply chain, which could not contact the company directly.

DISCUSSION

Research Managing logistics affecting operators flower shop. You can discuss in Nakhon study has found that consistent with the research of the e Noonan Athletics Joe and Sylvia Gold (2552) studied the management of the logistics of farmers Suanmali. In the district Charoen Phon district Banphotphisai Province found that managing the logistics of farmers Suanmali. In the district Charoen Phon district Banphotphisai Nakhon Sawan There is no exchange of information between partners, availability, performance, no consistency, production does not meet the timing requirements of the market, as they are planned. This makes the overall cost higher. Therefore, the need to improve the way the data is to be exchanged openly, the refills quickly. Accurate and more efficient. And inventory turns from the original cost inventory into a virtual assets. Cash flow streamlines The research found similar. Thanet Siri Suwan (2549). study of logistics planning to export the fruit has done an analysis of logistics activities, fruit exports from the harvest. Collects quality audit grading Packing boxes and containers, and transport it to the destination is the last step, the study of the flow of materials and information. Involved in logistics for the export, then analyze, find solutions to problems and to be updated with a technical approach to forecasting (Forecasting). To predict the market's demands, and multimodal transport multiple formats (Multimodal Transportation). To create a new way of transportation discovered by research of piya PON.

The word Moon estate (m. p. app). Study on grabop logistics management of pineapple, Mrs. Lambert under the supply chain management framework. It found that the problem of logistics, pineapples, Mrs. Lambert in the plan (the Plan) found that farmers lack the financial planning. Transport, energy and raw materials procurement (Source) encounter problems ordering raw materials, transportation (Delivery) having trouble choosing a vehicle to transport it. Problem management, placement of pineapple in the transport and routing, transport research found sonic3 Suk (2551). study of logistics management of the furniture industry in the country, Thailand. It found that the business operations in the form of a private limited company registered capital is 1-50 million baht, with operators about the logistics management of the overall list and the sides the sides level often include aspects of customer service operations, according to the customer's order, inventory management, procurement, transport and warehouse management. The operator has a different business model. Practice about the logistics management of the overall procurement and transport differ. An entrepreneur Share capital and number of employees as well Practices on managing logistics as a whole.

The implementation of customer orders. Procurement Transport and Warehousing different. And entrepreneurs The duration of the different practices about managing logistics and inventory management are different. A significant level of 0. The research found 05 Supatra. Contributing Sermkit Gul (2549) studied the case study to evaluate ideas about performance management logistics of the corrugated industry. Found that the flow of information in the supply chain within the company in terms of production, there is no continuity. Lack of coordination, fast This causes a direct impact on the planning, production, delivery, and management or controlled. Cause a business loss is huge, so the development of the supply chain of a company must be managed in the 4 major areas: The Plan (Plan), procurement of raw materials (Source), manufacturing (Make) and shipping. (Delivery) to achieve consistency in the.

Operations research found that consistent Chipper sacred ?? Clear Moon (2549) studied the management of logistics operators mill. In the province of Roi Et Found that entrepreneurs mills are mostly men. Bachelor's Degree or higher. A period of more than 15 years of operating capital, operating more than 15.

Million Baht Type of Business Partnership Revenue more than 1,000, 000 baht entrepreneurial practices about managing logistics and overall revenue side. The high level In many aspects, including the management, distribution and transportation management. And that is moderate, including management information and inventory management. Entrepreneurs The period of implementation of different management logistics are different. Entrepreneurs Operations are financed differently to handle logistics and inventory differences. And entrepreneurs There are different types of business will be managed logistics and transportation management. And management information and found that different. Research ascendancy Charoonprasitporn Sri Chot emit (2550) studied the effect of effectively managing the logistics. On the competitiveness of the food industry in Thailand found that entrepreneurs food in opinion with regard to performance management, logistics and overall revenue for all aspects of management. Inventory Procurement of transportation, etc., and feedback on the overall competitive advantage and earning all sides. In many aspects, including the cost difference.

And the focus on some of the markets. Entrepreneurs With registered number of employees and the period of operation vary. The feedback about performance management, logistics and feedback about the competitive advantage. Different assumptions about the relationship between management. The difference And the focus on some of the markets. Entrepreneurs With registered number of employees and the period of operation vary. The feedback about performance management,

logistics and feedback about the competitive advantage. Different assumptions about the relationship between management. The difference And the focus on some of the markets. Entrepreneurs With registered number of employees and the period of operation vary. The feedback about performance management, logistics and feedback about the competitive advantage. Different assumptions about the relationship between management. Logistics earnings florist. The assumption that Logistics management affects earnings florist shop in Bangkok is a separate issue its earnings variable is the flower shop. As well as monetary gains, the rate of sales growth, ROA, ROE, and the market share. Do not use the money, such as customer satisfaction and brand image, independent operators is handling logistics for the customer service. Freight Inventory Management and the flow of information and processes orders.

METHODS

In the study of The Management of the Warehouse System of Rubber Sheets and Rubber Scraps from Office of the Rubber Replanting Aid Fund at Ranong by using the system of the warehouse management and 5S activities. This study of the information had used the qualitative research by gathering of the information, were using of the observation method and the interview, entering to work in the area of the warehouse of rubber sheets and rubber scraps including studying of documents, books, articles, additional news.. For this study of the information, the group of the population were executives and staffs of Rubber plantation farmers group, Office of the Rubber Replanting Aid Fund: ORRAF, at Ranong. Since from November 3, 2015 to April 3, 2016, total time period of 155 days.

PRACTICAL SUGGESTIONS

The Company carried on the business of fresh flowers. The results can be used as follows.

1. Fresh flowers shop operators need to handle logistics and customer service. The cargo Inventory management; And the flow of information and process management buy out. Because of logistics management in all aspects will affect earnings at a cost of business.
2. Business operators need to focus on the management of logistics for all sides. The service, transportation, inventory management, product backlog. And the flow of data and process management for businesses because of the fresh flowers to the importance of managing logistics specialist.
3. The operator must have a plan for managing inventory. To make a proper inventory of the needs of the customer or market and no amount appropriate to the needs of customers or markets. And must not have an excessive amount of rotten flowers. To calculate the lifetime and durability of each flower species. Statin flowers such as roses or flowers will last longer preserved flowers and so on.

ACADEMIC SUGGESTIONS

The results of this study can be extended to a wider range of views will be helpful in explaining the phenomena and problems of managing logistics. Or other issues that are related to each other. The research is strongly suggested issues for further research follows.

1. This research was conducted with entrepreneurs florist live in the province to study the literature it perceives to be educated with other operators in the same business, but not in the province.
2. In this study, a study of the logistics that affect entrepreneurs in so doing further research. There should be a comparative study between the parties managed logistics and operations management, logistics is not to be the case in the next update.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and encouragement of Associate Professor Dr. Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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A Optimal Use of Alternative Energy to Reduce Costs

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Abstract. This research study aims 1. The purpose of this research study, the decision to use renewable forms of 2. The decision to use renewable energy. The research group for offices and community case studies linking the canal. The canal links. Buddhist province Nakhon Pathom.: Analysis of the use of energy efficiency to reduce costs. The randomized population in 400 of the samples in 2440 were for offices and communities canal link to. The canal linking district Buddhist Nakhon Pathom.: Analyze the use of renewable energy technologies in a systematic manner with the complex elements in both. high humidity, such as organic food categories. And the heating value, such as plastic foam sheet, enabling its municipal waste used to generate electricity must have a process to adjust to fit the way such as use of biogas for a food or substance. organic, high humidity The method is suitable for burning waste the precious heat. But the two main components of mixed waste, enabling its use for power generation, it is still difficult. With the high cost and environmental impact much. So even if the waste has the potential to be used in the production of electricity using renewable fuels, but more needs to be implemented process management. Or how the right technology Participation of citizens And there is the possibility of economics, a key objective of this research is a significant level of 0.50. Results from research Found that the demand for renewable energy, the overall opinion that much ($\bar{x} = 4.07$), the demand for renewable energy. Comments are at a high level ($\bar{x} = 3.80$), the renewable energy used in many opinions ($\bar{x} = 3.75$), the type of biomass that needs to be used. Comments are at a high level ($\bar{x} = 3.54$) for the use of renewable energy technologies. Opinions on the level with moderate ($\bar{x} = 3.41$) renewable energy is an alternative, community interest and support research and pilot production. Renewable mentioned include Solar energy, wind energy and biomass fuels derived from biomass such as agricultural waste from rice husk, rice straw, sugarcane bagasse, and wood pulp.

Keywords— Renewable Energy, Efficient, Cost Reduction

INTERODUCTION

Renewable energy is an alternative to the government's attention and support both research and pilot production. Renewable energy is also discussed. Energy from solar, wind and biomass energy derived from biomass, which is waste from agriculture, such as rice straw, bagasse pulp, waste wood, rubber, etc. These fuels can replace imported fossil fuels of coal and crude oil. part In addition, the government also recognizes the importance of using municipal solid waste as a fuel to generate electricity, with the support of several policy areas. It is expected that the results will be in power then. You can reduce the problems caused by the impact of waste management and disposal of such waste by the community, not sanitary. It is also expected that the production of electricity from municipal solid waste will enable monetization of waste management on the other. Which was originally meant to handle municipal solid waste costs only.

The Office of Community and unlike other biomass fuels. The complex composition of both organic compounds with high humidity, such as food waste. And the heating value, such as plastic foam, paper making, importing waste used to produce electricity must have a process to adjust the quality to suit the way, such as use of biogas for a food or substance. organic, high humidity The method is suitable for burning waste the precious heat. But the two main components of mixed waste, enabling its use for power generation, it is still difficult. With the high cost and environmental impact. So even if the waste has the potential to be used in the production of electricity using renewable fuels, but more needs to be implemented process management. Or how the right technology Participation of citizens And there is the possibility of economics, which is a key objective of this research.

The research found problems with behavior management, reduce costs and evaluating efficiency, renewable energy. Case Studies office and the community to the canal. The canal links. Buddhist province Nakhon Pathom.. Office of Population and Communities on the use of renewable energy. To understand the problems in the areas of renewable energy will lead to improvements and solutions to the renewable energy sector and to meet the needs of renewable energy used to fit better.

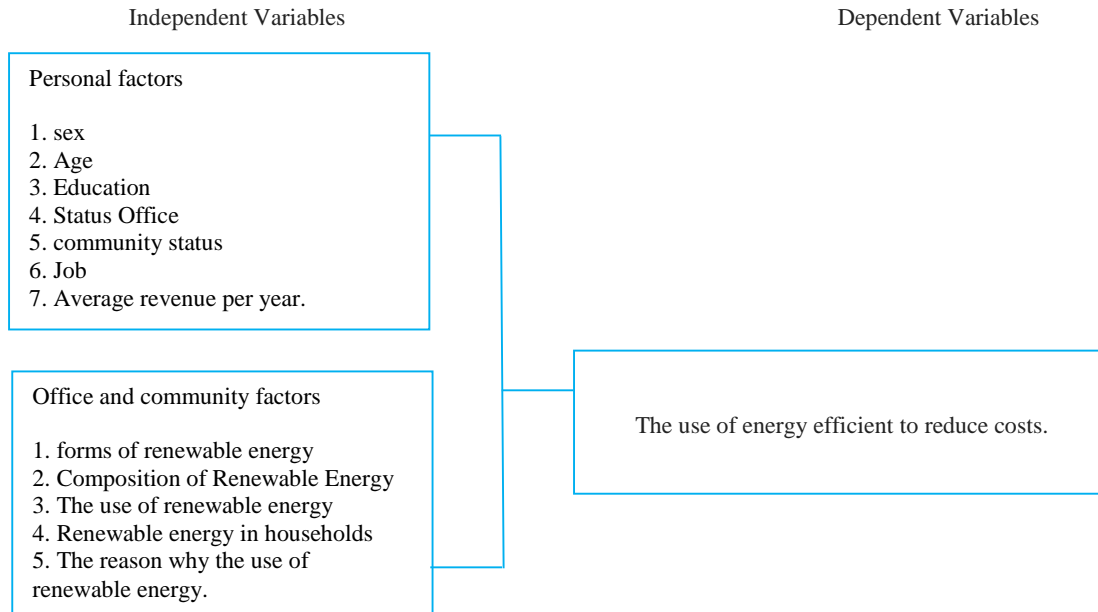
RESEARCH OBJECTIVES

Study the use of renewable energy and The decision to use this form of renewable energy.

SCOPE OF RESEARCH

Personal factors are gender, age, education. status Office And the average annual income of the parties have different opinions on the type and. The use of renewable energy not different.

FRAMEWORK FOR RESEARCH



RESEARCH METHODOLOGY

Research in this Researchers have created using a questionnaire. (Questionnaire) to gauge opinion. Sample The Office and Community The use of renewable energy Behavior management, reduce costs and evaluating efficiency, renewable energy. The research was designed to gather information. The process of creating tools.

2.1 Study of documents Textbooks and related research To be informed is to create a query. The researchers sent a questionnaire to a random sample was taken out a questionnaire that was already going to trial (Try out) to find the confidence to sample.

2.2 Draft questionnaire sent Offer your elder. To correct the text properly in accordance with the purpose and scope of the research. To find the confidence to sample 400 then calculates the confidence to check the coefficient alpha (Alpha Coefficient) The reliability equal. 92 and verify the accuracy and comprehension test questions. the tests were accurate (validity) test results and confidence. (Reliability) by testing of the questionnaire asks to be revised before it is applied to the demographic reality. From the sample of behavior management, reduce costs and evaluating efficiency, renewable energy.

2.3 creates questions The questionnaire used a number of questions. Consists of 4 parts.

Part 1: Overview of the respondents.

Part 2: analyzes information on choosing and using renewable energy technologies.

Renewable energy used in the office and the community.

Part 3: to renewable energy use in the community.

Section 4 analyzes the problems and suggestions for reflection behavior management, reduce costs and evaluating efficiency, renewable energy. Case Studies office and the community to the canal. The canal links. Buddhist province Nakhon Pathom. The appearance of a questionnaire rating scale (Rating Scale) score is determined by the 5 levels.

Level 5 means most comments.

Level 4 means a greater extent.

Level 3 means mediocre reviews.

Level 2 means a few reviews.

Level 1 represents the lowest opinion.

THE RESEARCH DEBATE

Public research the use of renewable energy efficiency to reduce costs. The group has set an example to the office and a community of Klong, Nakhon Pathom This study is a survey (Survey Research) aims to study behavior management, reduce costs and evaluating efficiency, renewable energy. The requirement to use renewable energy offices and community use of

renewable energy. And to study the problems caused by the type of energy used to suit each side of the office and the community to suggest solutions to problems using renewable energy.

1. *The use of renewable energy forms:* Found that the use of renewable energy found that the demand for renewable energy. The overall agreement with ($\bar{x} = 4.07$), the demand for renewable energy. Comments are at a high level ($\bar{x} = 3.80$), the renewable energy used in many opinions ($\bar{x} = 3.75$), the type of biomass needs to be used. Comments are at a high level ($\bar{x} = 3.54$) for the use of renewable energy technologies. There are no reviews at the agreed medium ($\bar{x} = 3.41$)

2. *Composition renewable energy use:* The use of renewable energy found that the majority opinion is in high level. Solar ($\bar{x} = 4.12$) of wind power. Comments are at a high level ($\bar{x} = 3.81$) hydropower opinion at a high level ($\bar{x} = 3.75$) geothermal energy. Comments are at a high level ($\bar{x} = 3.57$), biomass ($\bar{x} = 3.30$), respectively.

3. *The use of renewable energy technologies:* The use of renewable energy technologies that are selected using a smokeless stove to save energy. Comments are at a high level ($\bar{x} = 4.16$) responded great barbecue / Brazier opinion at a high level ($\bar{x} = 3.98$) Gas Stove biomass. Comments are at a high level ($\bar{x} = 3.78$), barbecue economic opinion at a high level ($\bar{x} = 3.65$) charcoal kiln. Comments at a high level ($\bar{x} = 3.51$) and incinerator opinions are moderate ($\bar{x} = 3.40$), respectively.

4. *Renewable energy used in households:* The types of biomass used'd find that most want to adopt fuel supplies are easy to find. Opinion at a high level ($\bar{x} = 4.12$) on the operation of the facility opinion at a high level ($\bar{x} = 4.7$) Energy efficiency opinion at a high level ($\bar{x} = 3.98$) can do it. Comments are at a high level ($\bar{x} = 3.73$), respectively.

5. *The reason for the use of renewable energy:* The demand for renewable energy found that most farmers are demanding. Comments are at a high level ($\bar{x} = 3.96$), housing and businesses. Comments at a high level ($\bar{x} = 3.54$) industry. Comments at a high level ($\bar{x} = 3.47$), transportation ($\bar{x} = 3.31$), respectively.

The study of behavior management, reduce costs and evaluating efficiency, renewable energy. Case Studies office and the community to the canal. The canal links. Buddhist province Nakhon Pathom.. Consistent with research immaculate Bird Sing (2001: 86) studied the effects of managing demand in electricity. Rural households to choose electricity, community or village that much. The conditions (traffic intensity, solar, etc.) will have to decide whether to deal or not depends on electricity. Load electricity use of the community. That the demand for lighting by just how.

Nantana Kohchaseeni (2004; 29-35) were evaluated by cell power systems. Solar Integrated Case Study Project in Border Patrol Police School found that the project had changed their lives as well as to increase the welfare of the teachers, even indirectly. It is not a matter of money The attitude of teachers and community members who benefit from this program, most members welcomed the government agency has provided assistance systems produce electricity with solar cells, which are useful in the development of teaching the use of such material. Modern and quality of life in the community for the better. The knowledge about the equipment is essential in the operation must be to educate those involved in this study had estimated that the project has been beneficial in terms of the environment in terms of economic processes. carbon, calculated in terms of carbon reduction and value created is Baht. In the environmental assessment has over 30 years of photovoltaic systems installed can produce electricity sufficient to meet demand, and increase the capacity and quality of instruction as well as activities associated with many other parts. Research continues at its.

Kongsak Kuamrasi. (2006) studied the policy of the government to encourage the use of natural gas in vehicles to substitute infectious tunes. The future The implementation to be successful, it's necessary to prepare a proper plan. To be able to perform each step in a systematic and effective. And requires the cooperation of all parties involved, from various departments of the government whose vision is central to the action. Throughout the various operators Including a corporate leader or leading source of funding to develop a long-term investment is critical to the prosperity appeal structure of electricity. Policy on renewable energy in road transport. Power management model appropriate for the community.

CONCLUSION AND RECOMMENDATIONS

1. To support research, education and dissemination of knowledge on energy.
2. The research and development of technology and the use of renewable energy in local higher efficiency.
3. The research and development community about renewable energy management system in a standardized and efficient image rights.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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The Decision to Invest in Thai Massage

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Abstract. The decision to invest in Thai massage business qualitative research using in-depth interviews. And quantitative research by Aims to Study the Value of Business Investment in Thai Massage Business Qualitative research will be conducted by interviewers from about 20 Thai massage providers. Quantitative research will analyze data using financial analysis techniques. Study Value for Investment to guide investment decisions. Study on investment decision in Thai massage business. It was found that when using the discount rate of 10%, the net present value (NPV) of the project was 487,387.08 baht and the IRR of the project was 77.55. The cost benefit ratio (BCR) of the project was 1.719. With a payback period of 2.56 years, the entrepreneur should invest in a Thai massage business because the present value of the project is also positive. The cost-benefit ratio of the project remains high. And the internal rate of return of the project is greater than the interest rate.

Keywords— Value for money, Thai massage, Business

INTERODUCTION

From the current economic situations, most of people face the problem about the revenue imbalance with the expense. So, many family needs to make their supplement money. For example, after working or on holidays they will do the extra job such as selling food, that's chosen with low cost because of low risk or without cost as service business; laundry service or massage that's interesting with many kinds of them for instance, Thai massage, foot massage, relaxing massage or spa. However, the massager should have the knowledge and skill about massage because it's related to anatomy, if the mistake happens it can makes the losses for the service person and the customer.



Nevertheless, the massage business can mostly and continuously makes income to the country. Due to the face that the tourists are interested in massage which is popular because the most of tourists attend to their health more, the massage is well-known among the foreigners and the service fees are not too high comparing with the overseas. So, the well-off entrepreneurs decide to do the outbound massage business such as in Korea, Japan or Sweden etc.

In Thailand, Thai massage is the traditional way of health caring that's inherited from the past till now. The evolution Thai massage that's link with concepts, theories, practices including belief, rite and religious dharmic principle until developed in Thai health caring pattern. Thai massage and relaxing massage situation are more acceptable and health caring is alert than before. Thai massage is relevant to Thai people from cradle to grave so, they should preserve this folk wisdom by realizing and appreciating in identity of Thai traditional medicine and supporting or applying to use in daily life. Ministry of Public Health has promoted and developed the Thai traditional medicine to be the option for health caring with running the integrating of Thai traditional medicine project reach to the government public health since 1999 that made the people was aware about their health more. Moreover, the government policy that pushes Thailand to be the Asia health and tourism center which makes medical tourism grow up rather high so, the entrepreneurs decide to do massage business more this point causes the competition higher which the owners must increase the service proficiency, make the customers in high satisfy and advantage with unique.



Researcher was interested in satisfying service pattern for customers then analyze about Thai massage business investment decision to be the guideline for the entrepreneurs who interested in this business will get return on investment or not by using financial analysis.

OBJECTIVES

To study the values of business investment in Thai massage business

RESEARCH FRAMEWORK

For the study consists of 3 research frameworks were;

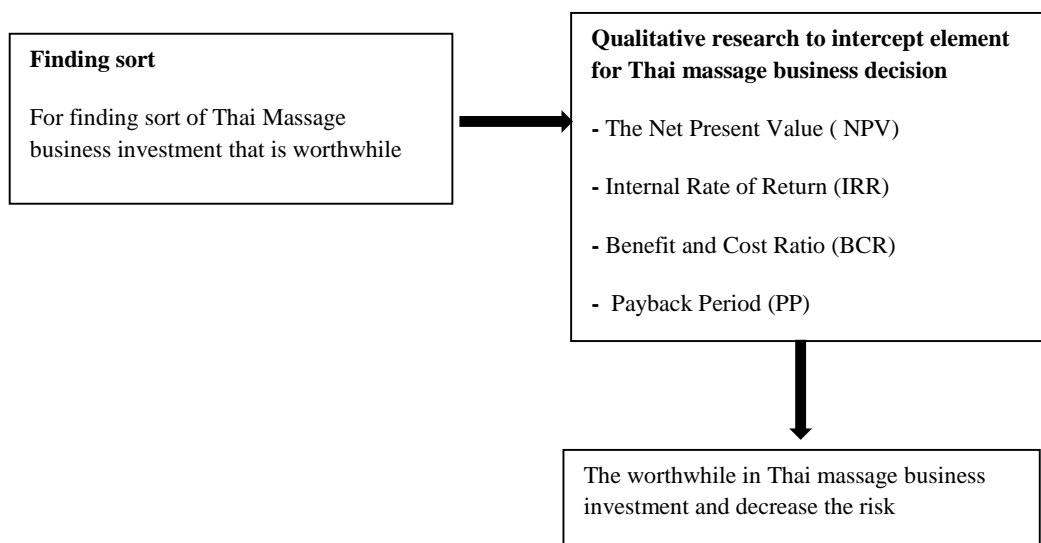
1) *Area*: Research area was Bang Rakum Subdistrict, Bang Lane District, Nakhon Pathom Province.

2) *Content*: there were

- 2.1) The Net Present Value (NPV)
- 2.2) Internal Rate of Return (IRR)
- 2.3) Benefit and Cost Ratio (BCR)
- 2.4) Payback Period (PP)

3) *Population and Sample*: The data collection using observing and in-depth interview with Thai massage business entrepreneurs lead to effective transaction planning

CONCEPTUAL FRAMEWORK



EXPECTED OUTCOME

The investor in Thai massage business can use it for investment decision and running the business for decreasing the investment risk.

DATA COLLECTION

The qualitative data collection were

- 1) Study and prepare the data for target group contact
- 2) Interview and use the questionnaires for in-depth data analysis

DATA ANALYSIS

- 1) Descriptive analysis was studying the rule and regulation in Thai massage business management, the pattern and generality
- 2) Quantitative analysis is financial data analysis which were asset, income estimation and responsive of change by using financial indicating tools were the net present value (NPV) and benefit and cost ratio (BCR)

RESEARCH RESULT IN INVESTMENT DECISION

The assessments of Thai massage business decision from the data collection and the budget of this business in Nakhon Pathom Province from the beginning to the ending from the first to the fifth year of the project and the cash flow showed in annual. In the first year, there were the investment about building rental deposit and decoration consists of 1 rental building in community and other fixed assets. For the estimation there were 10 customers per day per hour with 3 massagers without salary but share the income in 50 per 50. About the service fees was about 200 baht per hour and increased 10 percent per year. For the equipment fees, rental fees and loan were fixed cost and fluctuating fees was public utility fees would increase every year at 10 percent.

1) *The result of The Net Present Value (NPV):* The result found that the net present value of Thai massage business project was 487,387.08 baht. It meant that net benefits value in the future when deducted to the present value found that the investment with the asset with 10 percent interest would gain benefit and profit in the net present value at more than 0. It could conclude that Thai massage business project was worthwhile for investment.

2) *The result of The Benefit and Cost Ratio (BCR):* The result found that the benefit and cost ratio of Thai massage business project was 1.719. It meant that Thai massage business project would get compensation more than expense, the investment for this project was suitable.

3) *The result of Payback Period (PP):* The result of payback period was 2.26 years. It meant that Thai massage business project would return the compensation for the investor start from the third year.

4) *The result of Internal Rate of Return (IRR):* Thai massage business project had the result of internal rate of return at 77.55 percent, it meant that the positive value of the percentage was high compensation to invest.

CONCLUSION

The possible analysis of Nakhon Pathom Thai massage business investment aimed to estimate the worthiness of investment decision in Thai massage business could summarize that . At the 10 percent reduction, the present value was 487,387.08 baht, the benefit and cost ratio was 1.719, the internal rate of return at 77.55 percent and payback period was 2.56 years. It was appropriating for investment because the present value was still in positive, high benefit per asset and internal rate of return was in high value than interest rate.

RESEARCH RECOMMENDATIONS

- 1) This project was impact investing but the entrepreneurs should be aware of the corporate social responsibility, efficiency, effect, the potential of the investors and the others and the customers property.
- 2) The awareness of the competitors, should have the counterplan.

- 3) The awareness of the economic fluctuation effect that had many internal and external factors that affected to revenue and asset level changing following to economic situation flow including interest changing of the commercial bank so, the careful expense budget plan should be required for worthwhile service.
- 4) For the government, was the guideline for making the income to the community in quality, comfortable and sanitary massage business.

OTHER RECOMMENDATION

The investment uses a lot of cost, the investor should be aware of economic situation, current social, future trend. Another point is worthwhile investment, rate of return and the risk management.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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Retail Marketing Strategies of Tha Nam Sam Sen Community, Dusit District, Bangkok

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Abstract: The research study aims to investigate the analysis of the condition of market's competition, and the retail marketing strategy of the community, as well as the analysis of the factors influencing on the retail marketing strategy of the community. The research study also targets on advising the developed retail marketing strategy with the purpose of advancing marketing capacity of Tha Nam Sam Sen community, Dusit district, Bangkok in terms of administration and competition. The participants of the study were community's leaders, retailers in the community, and citizens in the area of Tha Nam Sam Sen community, Dusit district, Bangkok, which were 15 people in total. The purpose of these people's participation was to collect the data through focus group interview, and to adopt the technique of content analysis with the purpose of indentifying category, and the main themes of the research. The research revealed that the analysis of retail strategies and location are the crucial marketing factors of retail stores in Tha Nam Sam Sen community since it is located in the urban area; thus, most customers are habitants living around the area. In addition, due to the fact that these shops are traditional retail stores, they should be developed in terms of the management, design, and display to be more modern and systematic, which would be convenient for their customers. The process was done by using the store's design of modern stores or 7-11 convenient stores as models. Moreover, retail stores in the area of Tha Nam Sam Sen should consider on merchandise assortment as well due to the unique of the specific goods offered in each store. Thus, pricing policy depends on the quality factors of goods and customer service, and the expectations of customers. Additionally, if retail stores are able to adopt modern technology with the store's management, such as barcode scanner, it would be convenient and quick for customers' payment process. In addition, communication mix is also considered as a vital factor in the development, especially advertizing and publicizing once there is a tendency of diminished circulation.

Keywords: Retail Marketing Strategies, Retail Store for Community, Tha Nam Sam Sen Community

INTRODUCTION

Trade and service businesses account for the largest proportion among all of business sector and are major contributor to the national economy. Especially retailing which is a traditional business of Thai people for a long time. Since the Sukhothai Period, wholesaling and retailing is hugely important in a country's economy. In addition to ranking as the second highest-income just below industry sector and has the third highest employment rate followed by the agricultural sector, wholesaling and retailing also directly affects the subsistence of Thai people. Thus, retail business is one of economic activities which drive the overall economic and social development of the country. It acts like the gearwheel to improve people's standard of living and quality of life by functioned as the intermediaries that directs the flow of products from producers to customers (AnusartSrathongwian, 2010).

Retail businesses are associated directly to consumers because they are end consumers, who use the goods or services and have not purchased them for produce or resale. The characteristics of a retail business are varies according to business size, investment and management, product line, pricing policy, business style and entrepreneurship. Small retail businesses include wide varieties of category from hawker, stalls, and grocery stores (usually called sho-huay) to a big size store or department store. Multinational companies' overseas investments can be seen in different formats including discount Store, supermarket, and 24-hour convenience store. The retail businesses are marketing institution that allowed the connection between manufacturers and consumers. At the same time, they also provide marketing information for consumers. (PattarawanSukpun, 2014)

Today, the rapidly world economy and business' development has dramatically changed the pattern and structure of retail business. The small Retailer is facing the recession due to the expanding of large-scale retailers, such as department stores or supermarket. The small retailers have suffered from the impact of large-scale retail; as a result the strong resistance was created to protect the retail business of the community. The Thai Chamber of Commerce and Board of Trade of Thailand (2013) have assessed the performance of retail business in the fourth quarter of 2013. The result shows that retailing growth is expected to slow down as purchasing power decreases and consumer's debt increase. Retailers need to adjust according to the changes in domestic and overseas economy. The government was recommended to urgently find the best solution for problems and obstacles in border trade and promote tourism in repayment of the decreasing purchasing power.



However, many retailers can successfully change management strategy and develop areas in order to deal with large-scale retail in the vicinity. Hence, creating business advantages is the key factor that entrepreneurs need to consider, particularly, considering and planning marketing strategies to develop sales process in retailing. Retailers have to study and understand the market demand and customer needs. The marketing strategy for retail business is considered in both short-term and long-term business competition. (SantithornPhuripakdee, 2011)

Therefore, it is of great importance and practical interest to study the retail marketing strategy of Tha Nam Sam Sen Community, Dusit District, Bangkok, and to determine factors influencing on the retail marketing strategy of the community. Consequently, the approach of the development of entrepreneurial knowledge to meet maximum customer satisfaction and the enhancement of competitive skills against today's retail business can be proposed.

OBJECTIVES

1. To investigate the analysis of the condition of market's competition and the retail marketing strategy of Tha Nam Sam Sen Community, Dusit District, Bangkok
2. To investigate the analysis of the factors influencing on the retail marketing strategy of Tha Nam Sam Sen Community, Dusit District, Bangkok
3. To propose the approaches for developing the retail marketing strategy in order to enhance management and market competitive skills of Tha Nam Sam Sen Community, Dusit District, Bangkok

RESEARCH METHODOLOGY

This qualitative research investigates and analyzes the the factors influencing on the retail marketing strategy of Tha Nam Sam Sen Community, Dusit District, Bangkok. Six main components that are considered in the analysis including: (1) Location (2) Merchandise Assortments (3) Pricing Policy (4) Communication Mix (5) Store Design and Display (6) Customer Services. (Michael Levy and Barton Weitz, 2007)

Fifteen populations were divided into three subgroups: community leader, retailers, and villagers of Tha Nam Sam Sen Community, Dusit District, Bangkok. In the data collection process, participants were told about the purpose of the study before participating in the focus group interview. The researchers observed participants' reaction, emotion, and feeling from facial expression and tone of voice to be used in depth analysis of data. In addition, the researchers will request the participants to record the video and audio to collect as much information as possible along with writing down the raw data. The content analysis was used to determine the topic/category and pattern or themes of the research.

RESULTS

The results of the data analysis can be summarized as follows:

1. Context of of Tha Nam Sam Sen Community: In regard to cultural society, there are cultural diversity involved having people from a variety of cultural including Hainanese and Chiu Chow who settle down there for many generations, and Indian. In regard to population, there were about 1830 people, 335 households, and 420 families residing in the town and a community committee. Most of population is low educated and work as trader and worker.

In regard to the area, the community area is located in the boundaries of the Crown Property. The economic, social, and residential conditions are diverse. Most of the residences were dense and dilapidated. PrasatBooyavas Temple is the anchor of the villagers in the community.

2. Factors influencing on the retail marketing strategy of Tha Nam Sam Sen Community: The factors influencing on the retail marketing strategy of Tha Nam Sam Sen Community were analyzed by using the informed six components. The results show that:

2.1 The store location of retail business is the most important marketing factor: Density of population in the community, purchasing power, direct competitors, and equipment Facilities must be considered in the selection of retail store locations in order to maximize overall benefits and minimize the costs. Tha Nam Sam Sen Community retail stores are located near the community center, on the gateway and on the street. In addition, most of retailers also determine fixed store opening times. Some traditional retail stores are located in the community or in the city, away from large retailers store such as Big C and Lotus which invested after the investment of traditional retail stores and located 6-10 kilometers apart. Still, there are also convenience stores, such as 7-Eleven and modern convenience stores which invested after the investment of traditional retail stores and located only 1-5 kilometers apart. This has had a huge impact on traditional retail stores' sales.

2.2 The result of the survey also demonstrates a variety of product categories: Many retailers sell the same products such as dry food, snacks, cigarettes, alcohol, detergent, soap, non-alcoholic drinks, etc. Most of the villagers in the community bought drink and consumer goods. Therefore, the entrepreneurs focus on selecting products that meet the needs of their customers, if not, they will stop selling that products and some retailers stuck to sell the same old products. However, there are also some retailers who have chosen new products that meet their customers' needs to sale in their store.

2.3 In regard to pricing policy: the results show that the price is not very different among the stores because it is pre-determined by the market price or by the equality of the price with other retailers. The retailers will set the price by adding the desired profit from the cost of the items. Community retailers have labeled the price at the packaging or shelves of the goods. Also, they have tried to find the cheap source from wholesale stores in order to offer lower price for their customers.

2.4 In regard to marketing communication mix: community retailers give credit to customers and hire a salesperson to help selling the products and facilitate customer choice. However, most retailers do not have publicity or sales promotion such as offering discounted prices or discounted coupons to encourage the villagers' buying.

2.5 In regard to store layout and product placement: the stock are always back up to guard against stockouts. Product placement was organized by category. While some community retailers or traditional retailers didn't attach great importance to creating an atmosphere within the store. Product placement in some retail stores is disorder and there was no movement in products position in special occasion. However, best-selling products were placed in the front of the store to facilitate buyers and sellers.

2.6 In regard to customer service: we found that the villagers shopped from the retail stores from evening until dusk. Retailers of the community have fixed store opening times. By being a community entrepreneur, the retailers can build a good relationship with the customers.

3: Swot analysis of Tha Nam Sam Sen Community's retail stores: The table demonstrates the Swot analysis of Tha Nam Sam Sen Community's retail stores:

<i>Strengths</i>	<i>Weakness</i>
1. The products are cheap, multitudinous and popular among the villagers.	1. Entrepreneurs didn't analyze the data, plan and make a decision in marketing.
2. The brands are accepted by the villagers.	2. There is a limit to the variety of flavors.
3. The entrepreneurs can make a fast decision.	3. There is no administrative system ,in particular, the accounting
4. The stores are located in the community, thus the customers can easily buy the goods.	4. Most of our target customers are local customers who live in the nearby communities. There were only few irregular customers; hence most of the purchases were from regularly sale product.
5. Transportation is very convenience; the store location is perfect for loading or unloading goods.	5. The stores are located in the old and narrow shop house and may be difficult to extend, product placement is disorder and can be lost.
6. The store opens every day, and can provides A continuous service for the community.	
<i>Opportunities</i>	<i>Threats</i>
1. Can easily access to customers because the store location near the communities	1. The risk of high competition due to the market access that is not very limited. Local entrepreneurs lack a better understanding of consumer behavior in their area. Foreign entrepreneurs, in turn, have the knowledge in term of information that can help reducing the cost .With effective management, the new entrepreneurs, such as 7-11 and Lotus Express, etc. can access to the market anytime.
2. Consumer goods are relates to daily purchases. Thus, the market expansion has increased according to the population.	2. Today's retailers are facing increasingly competitive, especially in terms of price, which has directly impacted small retailers. They have to goout of business because they can't find new strategies to deal with large scale retailers.
3. The government stimulated economic growth by increasing consumer spending, as can be seen in Rising rates in the number of credit cards.	3. Multinational retailers have high investment and modern technology.
	4. The risk from a traffic system

DISCUSSION AND CONCLUSIONS

The results from the analysis indicate that factors influencing on the retail marketing strategy of Tha -Nam Sam Sen Community, Dusit District, Bangkok are the store location, merchandise assortments and customer service. In order to improve the operating result of retailing business, the following approaches are purposed:

1. The entrepreneurs who have achieved good or successful operating result in the market are the one who has a clear perspective on the marketing strategy. The positions of the store have to be clearly determined is and different from other competing stores. They have to seek for information on market demand on a regular basis and have to be wide open with changes in the market, which is consistent with the findings of WasanaPhuangbubpa (2011) that large-scale retailers with excellent operating result in the market have a clear strategic perspective and always acquiring knowledge about the market.

2. Retailers have to be receptive and adapt to new things, such as finding new goods to sale in the store regularly. Also they have to offer a variety of products and providing convenient and fast service to satisfy customers. This is consistent with ApichayaNiwet's (2013) study that the availability of a wide variety of products to meet the needs of people in the community and fast service will increase customer satisfaction and resulting in sales.

3. Successful retailers will devote much attention to finding a cheaper source of supply, so that they can offer a lower price for the customers. Particularly, it is not a focus on price reductions, but the fair prices and honesty, which is consistent with ApichayaNiwatt's (2008) research, that low cost retailers have more cost effective than retailers who do not use price strategies. Having customer satisfaction in price is not always revealing with price war. Customers have a different perspective on price perception which can lead to customer satisfaction.

4. Successful retailers need to have a marketing promotion during the festivals or in lower sales period to motivate customer's purchases. According to research by NattapolSetkornnukul (2011), marketing promotion and distribution channels are one of the features that have a strong influence on customer affinity. Changing the marketing strategy of retailers that sell consumer goods in highly competitive markets (from other retailers offering similar product to customers) and in less competitive markets did not have a positive impact on the sales and the number of customers. It may be necessary to conduct further research to investigate in this area.

5. Retailers must determine the location of products, management of product placement within the store and in front or outside of the store in a manner that is effective and influential to customers' purchases. This is in line with research by Michael Levy & Barton Weitz (2007) that showcases shop enhances interest of stores, and facilitates shop visits.

6. Retail strategy that has important role in marketing is the focus on speed of service and the provision of services to customers such as picking goods and deliver to customers without the customers leaving their own car or a home delivery service as well as provide customers a convenient parking to impress the customers and this resulting in the satisfaction of the service.

SUGGESTION

Based on the interviews with target groups in Tha Nam Sam Sen Community, Dusit District, Bangkok , the researcher suggested that the responsible agencies such as the Bangkok Business Support Center should investigate and place importance on these problem and support the entrepreneurs. Especially in terms of investment, some entrepreneurs still lack the knowledge of financing. In addition, Tha Nam Sam Sen Community's retail stores should turn themselves to be a business partners with modern convenience stores such as Seven Eleven . The partners can be assistance in terms of selling goods at cheaper price than the market price, so that the entrepreneurs can sell products to consumers in their local area. All six factors of retail marketing strategy mentioned above are very important factors. But, above all else, business owners must be committed, acquiring new knowledge, study market competitive at all times, and be ready to grow their business continually to compete in the constantly changing retail world.



ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.LuedechGirdwichai, The Chancellor of SuanSunandhaRajabhat University, Bangkok, Thailand.

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Strategies to Promote Medical Tourism in Ranong Statement of the Problem

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Abstract: Research study on strategies to promote health tourism Ranong aims: 1) To study and review of medical tourism in the hot springs. And eco-tourism of the province. 2) strategic approach to promoting health tourism. And strategies to promote the tourism market of the province. In a study covering the area of health tourism in the province. Researchers have determined the population sample was divided into tourist destinations in Thailand. Tours and leisure travel, health tourism of Ranong. The findings are reliable, the researchers refer Tourism Authority of Thailand to visit the province. The questionnaires during peak periods of the province in December 2016 to late January 2017, which amounts to a lot of tourists. In order to understand the behavior and opinions of tourists in traveling to medical tourism Ranong. This will be a strategic approach to promoting health tourism and health medical tourism marketing strategy to promote the province. The study found that female popular health tourism Ranong than men By 65.25 and 34.75 percent, respectively, ages 21-25 years old were the most popular tourist destinations are getting healthier Ranong 19.75 percent and the second was aged 31-35 years old, single, with 16.00 percent, up 49.00 percent on a tour of the respondents to comment on the medical tourism hot springs in the product in very valuable \bar{x} = 3.70, the price was high, with a \bar{x} = 3.72, the distribution channels at a high level with an \bar{x} = 3.88 promotion. the market Couple to a large extent by the value \bar{x} = 4.13 partnership at a high level with an \bar{x} = 4.05 programming in high level with the \bar{x} = 4.12 for the personnel. to a large extent by the value \bar{x} = 3.73 the plan is to a large extent by the value \bar{x} = 4.

Keywords: Strategy, Marketing Mix Strategy, Tourists, Health Tourism

INTRODUCTION

World tourism trend that has high amount of tourists affects to Thai tourism industry which extremely increase in economic system and social because it's an important income for foreign currency, job making and the provincial growth. Furthermore, tourism is the important thing for basic public utility transportation development including commerce and investment in tourism industry which helps the economy recover than other industry. However, Thai tourism industry has a competition in service for tourist facility more (Tourism Authority of Thailand, 2011)

According to National Economic and Social Development Plan Issue 12 (2017-2021) focusing on tourism market promoting and in-depth studying of the tourists for responding in tourism product and service management that go along with tourists' taste and need for stimulating the production and service in tourism industry this is the way of tourism development that need to know what tourists expect in each group to tourism. Especially, natural tourism, culture in each region and to be in Thai focusing on quality tourists to develop product and service in full cycle (Office of the National Economics and Social Development Board, 2017)

In the current situation of the southern group are ready and have a potential to take care of tourist. Moreover, they have a lot of tourism products such as ecotourism, medical tourism, cultural tourism, agro tourism, Buddhist tourism and historical tourism. From the past, the southern tourism situation is still fail because of lacking in tourist attraction link, public relation, good marketing plan and staffs and the staffs lack of tourism cooperate proficiency and lack of good tourism development and management. For the tourism product development and management should balance between the host and the visitor and related with tourism marketing plan.

Ranong Province is the first province of the southern Andaman site on 545 kilometers, highway no.4, Ban Tub Li, Mamu Subdistrict, Kraburi District, at the Kor Khod Kra or Kiew Kra that is the narrowest of Malaya Cape, the width from the east to the west just 50 kilometers. Nowsaday, Ranong has a lot of natural tourist attraction, beautiful and peaceful beach, full of underwater resource, big and small islands, mineral spring, green forest and the most attractive is culture and people's way for ecotourism to be the new place of tourist attraction.

The tourism promotion should has the trail of tourism strategy 5 elements are basic structure and facility development, tourist attraction recovery for long lasting, product, service and tourism supporting factor development, trust making and tourism promotion and cooperative between government, private and local sector promotion in tourism resource management to reduce and protect the effect from tourism in the future. It should be aware of the suitable of the area physical, the policy planning for strategic management that focusing on all people related in operating planning which match with the government policy and province development strategy.

OBJECTIVES

- 1) To study the tourists behavior and opinion in mineral spring medical tourism and ecotourism in Ranong.
- 2) To find the way of medical tourism promoting strategic specification and tourism market promoting strategy in Ranong.

RELATED CONCEPTS AND THEORIES

World Tourism Organization define of tourism is the travelling in international condition 3 elements are

- 1) Travelling to stay in temporary, not permanent
- 2) Travelling with willing and satisfy of the visitor, not forced to the war
- 3) Travelling for other objective, not for working but for relaxing, relative visiting, recreating, entertainment, sport, seminar, studying and business contacting.

This research used the concept and theory of Uengchanil Parichat (2011:19) said that the behavior is the express of always familiar action till become personal identity, like habit conclude that the behavior can notice that but the habit cannot notice.

Tourism industry concept of Wanthanom Chantouch (2009:12) consists of direct and indirect business. The consumption of foreigner tourists is invisible export because buying with foreign currency that help to promote various work and economic circulation. Furthermore, it's for relaxing and cross-cultural understanding. Tourism industry can come up with foreign currency which is stable for balance of payments.

The concept about marketing strategy of Saisribundit Nalinrat (2009: 26) said that marketing strategy using marketing mix are product, price ,place and promotion controlled by method, process and marketing management system focusing on responding customers need to marketing target and service and should be aware of marketing chance and service selling with all people.

RESEARCH FRAMEWORK

- 1) *Area:* Study the medical tourism in Ranong
- 2) *Population and sample:* Thai tourist, divided to tourist and visitor to medical tourism in Ranong from December 2016 to January 2017.
- 3) *Content:* 1) Study the tourists' behavior and opinion from medical tourism in Ranong
2) Analyze the way of medical tourism promoting strategy and tourism marketing strategy that suit with medical tourist attraction in Ranong.

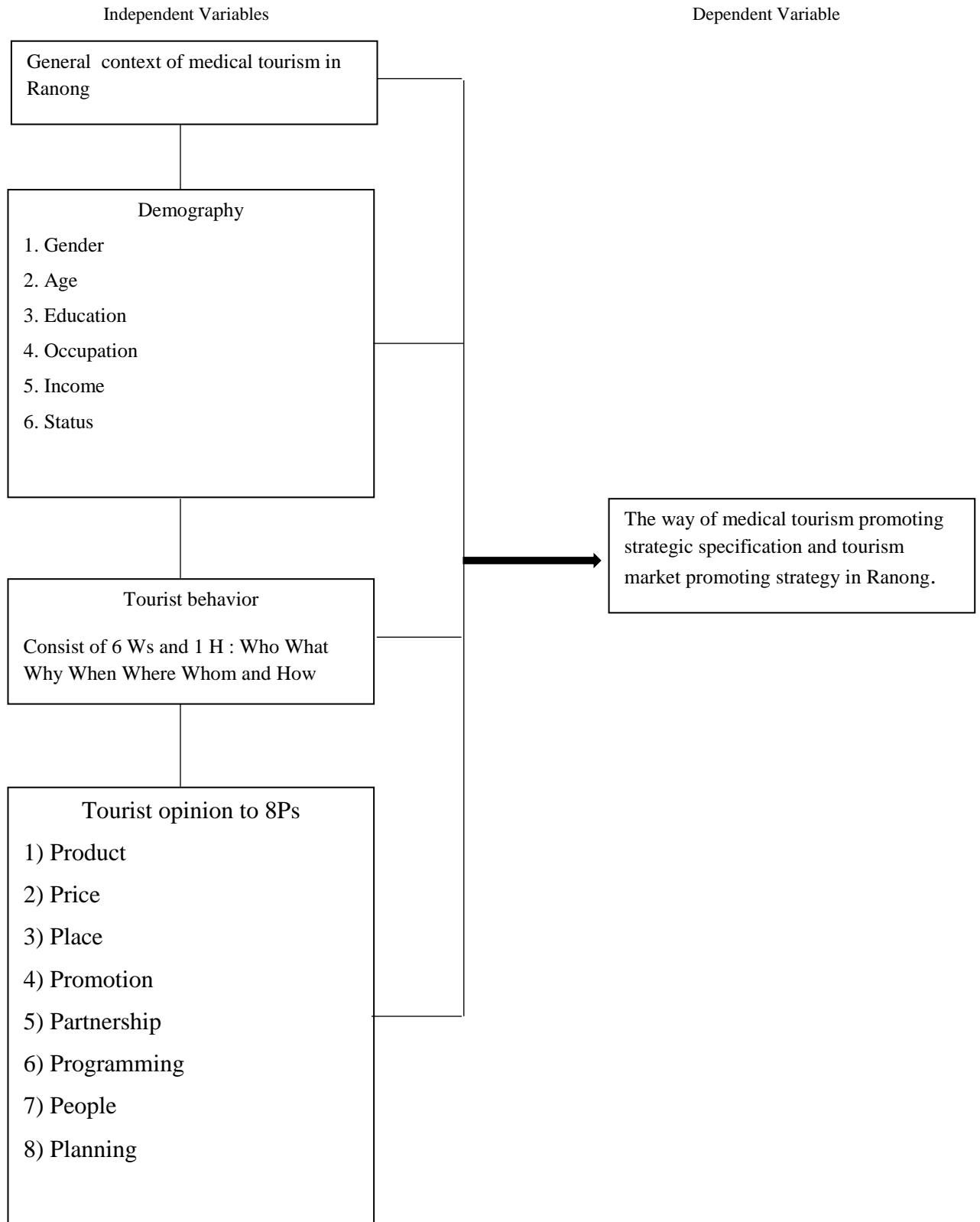
DEFINITIONS

- 1) Strategy is the planning for operation in suitable environment or SWOT analysis said that strength, weakness, opportunity, barrier and harm in period needed. For planning in using method and resource of medical tourism in Ranong to the setting goal.
- 2) Marketing Mix Strategy: 8P's is marketing factors to response the tourist's need or motivate for product and service needed in medical tourism in Ranong
 - 2.1) Product Strategy is the identity of medical tourism in Ranong for making value to the tourist in transportation, accommodation and safe.
 - 2.2) Price Strategy is indicated to the service standard and type of tourism such as mineral spring bathing fees, accommodation fees, conference room fees, and activity fees.
 - 2.3) Place Strategy is the tourists are convenience to buy products such as internet or travel agent.
 - 2.4) Promotion Strategy is suitable and effective marketing promotion such as public relation, selling by person and sale promotion.
 - 2.5) Partnership Strategy is the cooperate between over 2 organizations or people to operate together with understanding with formal and informal.
 - 2.6) Programming Strategy is the special events in program and activity in Ranong to increase the payment amount, satisfactory of the tourist in suitable time.
 - 2.7) People Strategy is all staff must be trained for better service to run the progress business.
 - 2.8) Planning Strategy is focusing on the excellent of medical tourism in Ranong with clear target time, advance and competition analysis and flexible operation to indicate the image and distinctive point of the tourist attraction.
- 3) Strategies of Tourism Promotion is the framework of operation for solving anticipate problems or activities in Ranong to make it to be well-known.
- 4) Tourist is Thai people who visit in Ranong more than 24 hours but not over 60 days for medical tourism.
- 5) Health Tourism is medical tourism in Ranong for promoting health and mind and body therapy.

EXPECTED BENEFITS

- 1) Recognize the tourists' behavior and opinion of medical tourism in Ranong
- 2) Recognize the way of medical tourism promoting strategic specification and tourism market promoting strategy in Ranong

CONCEPTUAL FRAMEWORK



RESEARCH METHODOLOGY

The study was the qualitative research and quantitative research to study the tourists' behavior and opinion in medical tourism in Ranong by using 8P's to be the way of medical tourism promoting strategic specification and tourism market promoting strategy in Ranong.

POPULATION AND SAMPLE

Population: The data collection using the questionnaire from Thai tourist and visitor in medical tourism in Ranong in 2016 about 71,462 people from Ranong Tourism and Sports Office 2016

Sample: Thai tourist and visitor in medical tourism in Ranong using sampling with nonprobability and accidental sampling using Taro Yamane (Sitthisomboon Monsit, 2007)

$$n = \frac{N}{1+N(e)^2}$$

n	=	Sample
N	=	Population
e	=	Error not over 0.05

RESEARCH INSTRUMENT

The questionnaire using the 5 rating scale with 4 parts:

- Part1: Demography were sex, age, education, occupation and status with close end question
- Part 2 : Tourists' behavior for medical tour in Ranong
- Part 3 : About 8 P's
- Part 4 : Other recommendation to promote medical tourism in Ranong

These were the instrument creating

- 1) Study the related concepts and theories for creating the questionnaire
- 2) Create the questionnaire
- 3) Bring the questionnaire to the savants to check the content validity and recommend if required
- 4) The savants check the content validity and Item Objective Congruence Index with 3 scales

+1	=	Comform
0	=	Not sure
-1	=	Not conform

And the acceptable IOC should be at 0.50 over (Department of Academic, 2002)

$$IOC = \frac{\sum R}{N}$$

IOC	=	Item Objective Congruence Index
R	=	Savant's score
$\sum R$	=	The sum of all savants' score
N	=	The number of savant

- 5) Reliability using Alpha Coefficient of Cronbach,1951

$$\alpha_k = \frac{K}{K-1} \left[1 - \frac{\sum S_i^2}{S^2} \right]$$

α_k	=	The reliability
$\sum S_1^2$	=	Numbers of the items
S_1^2	=	The sum of variable of each item
K	=	The variable of all items of the questionnaire

The reliability should be more than 0.80 (Wanichbuncha Kalaya, 2008)

DATA COLLECTION

There were 2 parts

- 1) Primary Data using the questionnaire collected from the tourists and visitors in medical tourism in Ranong about 400
- 2) Secondary Data collected from researching the journal, research, thesis, government document, magazine and internet.

DATA ANALYSIS

- 1) Analyze the question into group.
- 2) Group the content after data analysis
- 3) Analyze the 8P's
- 4) Data processing to be the way of medical tourism promoting strategic specification and tourism market promoting strategy in Ranong.

RESEARCH RESULT

- The answerer were 400 people, female 261 was 65.25 percent, male 139 was 34.75. The most people with age between 21-25 were 79 people = 19.75 percent, between 31-35 were 64 people = 16.40 percent and over 46 years were 62 people = 15.50 percent.
- The status, single about 196 people = 49.0 percent, married about 186 people = 46.50 percent and separate or widowed about 9 people = 2.25 percent.
- The education, bachelor degree 196= 49.0, secondary school 46= 11.50 and high school 39= 9.75.
- The occupation, student 117= 29.25, government officer 87=21.75, private officer 62= 15.50.
- The income, lower 10,000 baht 151=37.7, 10,001-20,000 baht 15= 28.75 and 20,001-30,000 baht 50=12.50.
- The opinion to the product was high \bar{x} = 3.70 the recommendation was mineral spring had no sulfur smell.
- The opinion to the price was high \bar{x} = 3.72 The recommendation was the fees was suitable.
- The opinion to the place was high \bar{x} = 3.88 The recommendation was the online ticket should be required.
- The opinion to the promotion was high \bar{x} = 4.13 The recommendation was should be the sign and the public relation more.
- The opinion about the partnership was high \bar{x} = 4.05 The recommendation was should be cooperate with the community more.
- The opinion about the program was high \bar{x} = 4.12 The recommendation was should be the health caring program more.
- The opinion about the people was high \bar{x} = 3.73 The recommendation was general officers should give the information.
- The opinion about the planning was high \bar{x} = 4.14 The recommendation was should have the marketing promoting plan.
- The opinion in overall was high \bar{x} = 3.85 The recommendation were should focus on planning, promotion and program.

RESULTS AND DISCUSSIONS

The using of information technology is required to run the business with accurately by using online booking, giving the information to save time and money including contact with the tourists through the internet, e-mail, and mobile phone with e-payment Warangkoon Surin (2008). The development by using the information technology for hotel and tourism business about the philosophy, vision and goal and using the marketing mix applying with the technology.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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The Key Factors that Influence Customer Behaviour of Luxury Goods in Thai Male Generation Y Case Study: Watch

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Abstract: This research is being conducted for examining the key factors that influence customer behaviour to purchasing of luxury goods in Thailand market, focusing Thai male in Generation Y as a result of an increase spending of luxury goods by this segment and luxury watch was selected as a case study as it is one of luxury goods categorized in fashion group that represent the major product sector in the luxury goods market. Currently, luxury good is become important and also play surprising role in the economy in any countries especially in modern society. Although, the recent downturn of economy in the world but did not impact to all luxury brand industry. According to Forbes (2010), many luxury players for instance Rolex, Tag Heuer, Panerai, reported still strong sales in emerging markets. Thailand is a country part of Asia. Thailand is a developing country but the people adapt more about foreign cultures and also they are more fashion aware. From the result it is the dramatic growth of upper and middle class or increasing of income level and purchasing power between Thai customers. This is the new challenge to purchasing luxury goods in marketplace of customers. On the other hand, many people believed the in the luxury goods market the competition is not focus on the price but focus on customer's behaviour of the customers. So, in this point the marketer need to understand to build up the appropriated and successful strategies to beat the competitors. From this point the researcher apply the qualitative research method utilize to focus group interview is applied aims carry out the answer from gathering in-depth from the participants.

Keywords: Customer Behaviour, Thai Male Generation Y, Luxury Goods, Strategy, Marketing

INTRODUCTION

Currently, dramatically increase sale of luxury goods that enlargement in the market especially in Thailand is bring to the researcher's attention. According to data in section above illustrates that the luxury brands in Thailand is high rivalry, not just existent but also the new entrance. Because the rising in the luxury modern brand consumption and potential of the marketplace in the present. It can be seen that the researcher as a marketer consideration that successful the marketing strategies need to apply to achieve the competitive benefit over another. So, to thoughtful of the customer behaviour is very significant and also useful in scheming the appropriate and efficient marketing strategies(Kotler, 2012). This point could focus on customer behaviour in the luxury goods market is selected in the subject of attention in view of that.

LITERATURE REVIEW

Luxury brands are regarded as images in the minds of consumers that comprise associations about a high level of price, quality, aesthetics, rarity, extraordinariness and a high degree of non-functional associations(Heine, 2011). Luxury as a idea is quite complex and context precise; even one single individual have differing opinion about luxury(Dubois et al, 2001). According to Heine et al., (2010), in any the potential of luxury brand ought to be evaluated by the constitutive characteristics of luxury, which are explained in the detail can following chapters. These clarifications are identified by the following principles below:

Price: The brand illustrates products which belong to the most luxurious products of their group.

Quality: The brand shows eternal top-of-the-line products, that will not be arranged of even after long process or flaw but rather restored and also which often even enlarge in value over time.

Aesthetics: The brand performs like a chic and unsuccessful dandy, who will never leave the house in less than perfect style. Whenever and wherever the brand is seen, it exemplifies a world of prettiness and stylishness.

Rarity: On the contrary to mass-market brands, the brand must limit its manufacture and tries not to make known its (high) sales numbers. The brand need to focus to obtain and is not accessible at any times or any places.

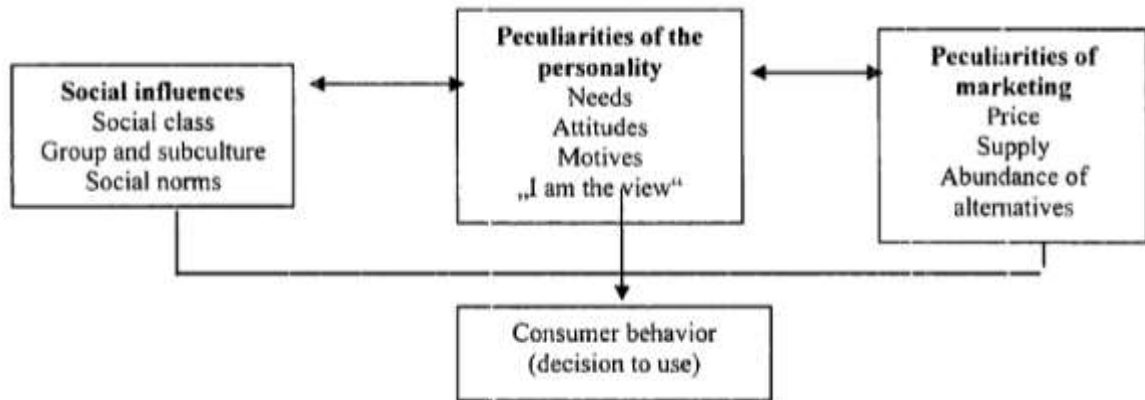
Extraordinariness: Brand has a style and mind of its own and its products present a "kick" and revelation with the expected and unexpected.

Symbolism: Brand represents "the best from the best for the best"; that individuality fills the room and not considering of whether it is of a clear or understated character and deep inside, it is increase with pride.

According to Dibb et al (2006), "Customer Behaviour" is a subject which across many learning areas, which including Psychology, Sociology, and Marketing as well. This concept could be combining with the theories of the psychology views (Woodside, 2012). The traditionally of customer behaviour has been thought about "Why people buy". According to Evans (2009), in the marketing areas consumers do not buy products, but buying the benefit. According to Schiffman and Kanuk (2012), customer behaviour as "The behaviour which exhibit of searching for the information evaluating, purchasing, using, and disposing of real products and services that the customer anticipate will gratify need and wants." It can be seen how

person make decision to purchase product by expenditure their limited resources. In addition, according to Peter and Olson (2005), the customer behaviour is a straight action to purchasing for a particular product.

Generation Y, Gen Y or the Why Generation is a group of people born between the years 1980-1990 aged 19-28 years old. It is estimated that Thailand's population is in the age group GenY approximately 10 million people approximately 16% of the total population(NationalMaster, 2012). Gen Y is the population group born after. Extraordinary Generation or Generation X, Gen X, was born in a time when the country peacefully and grew up in an era of dramatic changes in the environment. Social, economic and political siege the breakthrough technology is just beginning to enter the working age. The habit of self-expression is high. Not like in the frame and unfavorable conditions. Gen Y is a modern trendy and often gets bored easily.



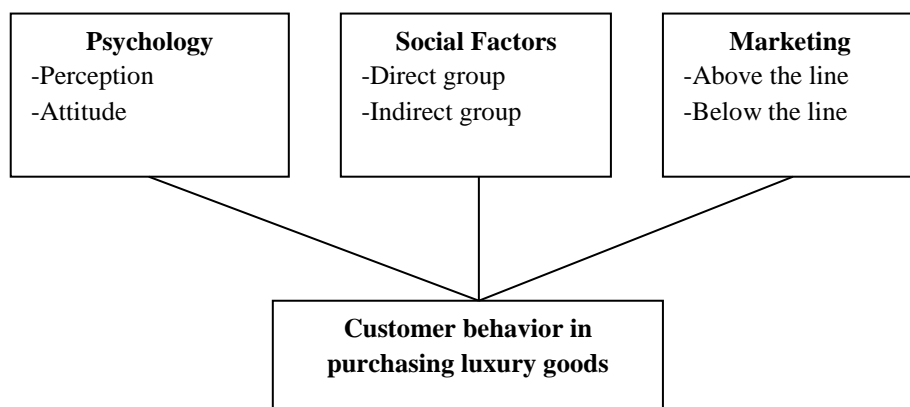
The model of demonstrative usage of luxury goods Source: Giacalone, (2006), Ait-sahalia et al, (2002)

From this model there are three factors which involve to luxury industry were recognized. In each factors including, personality, social and marketing as well which the author have to specifically and find out the parts of interest in each factor.

METHODS AND CONCEPTUAL FRAMEWORK

Research method is a fourth layer of research onion diagram. This process is the guideline to the collect and analysis data to complete the objectives of the research. According to Tashakkori and Teddlie (2009), the research method can be classified into three types: qualitative, quantitative and mixed method. Refer to research method the qualitative research furnish in-depth and non numerical data and also involves the collection and analysis data that relationship with attitudes, meanings and beliefs. Whereas, the quantitative data is rely on the meaning derived from collection result, number in standard numerical and analysis managed through the use of statistics and diagrams. In part of mixed method is the conjunction of both qualitative and quantitative research methods(Saunders et al, 2007). In this study the author applied the qualitative research method because this method acceptable for the social constructionism which based on philosophy of this study. There are several of advantages in qualitative research method, this method provides detail and depth; focuses real deep than analyzing counts and ranks by recording behavior, attitudes. This method that simulates experience of people; and also makes openness and supporting people to enlarge on their answers can open up new areas of subject not originally carefully. Whereas, the limitation of qualitative research method depend on the ability of researcher mainly, in case of interviews and observation. As referred the information above this study will be focus on the qualitative research method. It can be seen the data collection and analysis are the main of the research onion diagram; this is the important procedures which bring the answers to research question and assumption.

CONCEPTUAL FRAMEWORK



RESULTS

Psychology: According from focus group interview all participants agree that people purchasing luxury goods to create good personality and the same time that can make look upper social and make me look luxurious. In the general people respect to someone look seems good attractive in this point can make reliable of the people who using the luxury goods. According to the table above follow from the transcript of interview, as a result it could be summarize that the all participants trust that the luxury product essentially come with the price and quality. Aesthetic and history are recognized the customer in part of business owner and the politician (local) it can be seen the aesthetic and history are significant to image and make brand awareness to them.

Social Factors: According to the result above in 3 participants are mentioned to friend and 2 participants that mentioned to famous people. While there is 1 participant is mentioned to family. Base on the discussion of interview, it looks clear that friend is the most influence to purchasing the luxury watch in Thai male customer. Friend is helpful to sharing the opinion and gives the recommendation about product that can support the decision making of customer before purchase the product. Furthermore, 2 participant mentioned about the famous people can make awareness and persuade to purchase the product for look better same the famous people. While family still influence to purchase the luxury watch according to participant II mentioned about the family give some opinion to me because he realizes in opinion of the family first.

Marketing: According from the result above 2 participants are mentioned both above and below are useful for promoting the luxury watch. Regarding from the interview, the marketing tools are contributed both channels to promote the luxury watch among Thai male customer to purchase the product. It can be seen the marketing tools (advertisement) applied to the business market in the present. However, other point is interested from 2 participants said online media cannot see the real product in this point is the big issue because luxury watch is high price if the customer cannot see the real product before purchase the product the customer will not be trust in the product. On the other hand, if the customers go to the official shop and also asked the detail of the product from personal selling (specialist) that will make decision clear to purchase the product. While from 4 participants selected the online media to receive information and also comment from another customer which sharing the opinion in online media will decide before purchase the product. From the script 4 participants believed online media can get the target of customers fast because online media becomes is a part of routine life, therefore marketers can resolve the reliability problem, the online media is becoming high capability tool of marketing to encourage the product.

CONCLUSION AND FUTURE WORK

Social Factor: according to the results it should be cleared friend still is the most influence to the customer for decision before purchase the luxury watch; friend is helpful to sharing the opinion and gives the recommendation about product that can support and help the customer make decision easier. In part of the famous people can make awareness and persuade to purchase the product for look better same the famous people. While family still influence to purchase the luxury watch family give some opinion and realizes and respect in opinion of the family first.

Further research : Counterfeited luxury goods: Based on the outcome from interview. There is some point interesting, that luxury watch cannot warranty that every people who wear luxury watches are rich because the counterfeited luxury products are very popular in the market. In this issue look interesting to study and appreciate the nature and inspiration of customers because there are a lot of people in this groups that decide to purchase the counterfeited ones even the people can pay for the authentic. The luxury companies should understand the personality of them that may benefit to the companies on developing strategies to beat this issue.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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The Study of Warehouse Staff Opinions on Training and Development of Human Resources Department: Case Study of Steel Tank Firm

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Abstract: The purpose of this research is to study the opinions of warehouse staff on training and development in 4 aspects, the need for training and development, designing training courses, training format, and follow-up training. To compare the opinions of warehouse employees on training and development by gender, education level, age, and income. This research was a descriptive study using questionnaires as a tool to collect data from a sample of 80 warehouse employees. Statistics used in data analysis were mean, standard deviation and the hypothesis tests were F-test and T-test. The results of the research show that the opinions of the warehouse staff as a whole and each side were at a high level that the average scores was 4.12. While the need for training and development was highest at 4.16. When compared the opinions of the warehouse staff on training and development by gender, education level, duration of working life, and income found that the warehouse staff of different gender had not significant difference in their opinions on training and development. But Warehouse staff with Education, age, job and income are different had significant difference in their opinions on training and development statistically at the 0.05 level.

Keywords: Training, Development, Warehouse Staff

INTRODUCTION

Nowadays, in the most industries business is critical competitive that made them create strategies to be advantage competitive to get larger market share. Business administrations aims to make the organization prosper, continuous and stable organization development. The success factor for corporate management is that "personnel" is an important factor. Therefore, the development of personnel to have the knowledge and ability to work for the organization is an important basis to drive the organization. Competitive businesses are constantly striving to develop themselves. The organization must change management and apply knowledge in the present day. Employees or personnel in the organization must to increase their potential in various ways. Way to maximize the potential of the person who is most effective is the training. Because the training is to teach people to learn and understand the academic principles, how to do the right job, modern and appropriate for the job. This enhances the qualification and performance of the work to be more efficient and productive.

At present, the distribution of 200 liters of steel tanks has been steadily increasing. Both old and new competitors are entering the competition. The current competitive landscape has changed a lot. The business will grow, depending on the skills, knowledge and capabilities of the people. Therefore, the Company must develop its employees with the skills, knowledge and ability to make the right decisions and understand the strategic management. This is an important factor for the success of both present and future organizations.

The importance of training by Dale S. Beach (1980), the importance of training is as follows: 1) Reduce learning time to work properly. Accurate training will increase productivity for organizations, 2) To improve the work better. Training is not only a necessity for new employees but it is indispensable for the working staff to work better, 3) To create a positive attitude towards work, engagement and loyalty to the organization, 4) To help solve the problems of work, reduce accidents, absenteeism, the resignation of employees, 5) For manpower planning, this is a person placement to meet the needs of the organization. Training for quality responsibility, including morale, 6) To give employees new skills and career advancement.

For this reason, the researcher is interested in studying the opinions from the warehouse staff to the training and development of human resources department: Case Study of Steel Tank Firm. They have their own warehouse. It is therefore necessary to have knowledge of warehouse operations. If the warehouse staff does not have a good understanding of warehouse operations, advanced technology knowledge, warehouse services to meet customer needs well enough. It will affect the organization and the sustainability of the business. The purpose of this research was to study the level of feedback of the warehouse staff on the training and development of human resources department in a case study. And compare the opinions of the warehouse staff with the training and development of the human resources department. By comparison, the variables were gender, duration of working life, education level, and income. This research can be used as a guideline for planning, training and development of personnel in the warehouse to meet the needs of employees. The information is used to develop, train and develop staff in the warehouse to be efficient and cost effective.

CONCEPTUAL FRAMEWORK

Conceptual framework of this research is shown in figure 1.

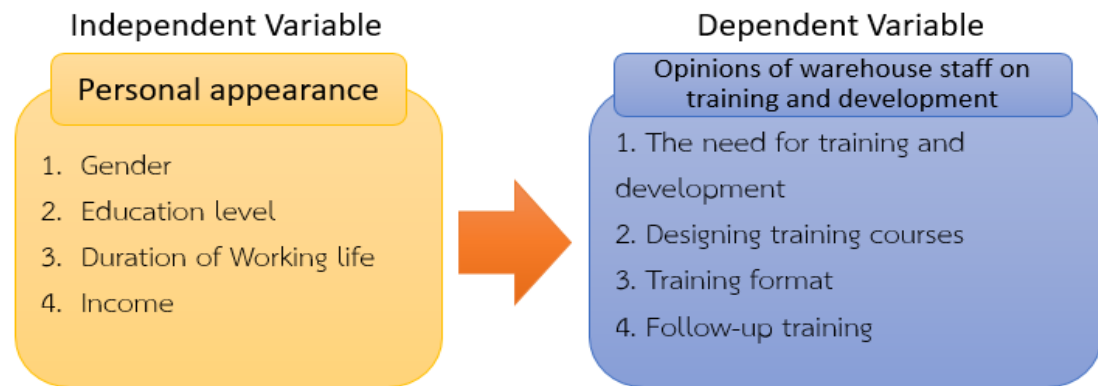


Figure 1. Conceptual framework

HYPOTHESIS

Based on the research problems and conceptual framework above therefore the hypotheses of this research are as follows:

1. Warehouse staff with different gender have different opinions about the training and development of human resources department.
2. Experienced warehouse staff working differently have different opinions about the training and development of human resources department.
3. Warehouse employees with different education levels have different opinions about the training and development of human resources department.
4. Warehouse staff with different incomes had different opinions on the training and development of human resources department.

RESEARCH METHOD

The study was survey the opinions of warehouse staff on the training and development of human resources department in case study of steel tank firm by the questionnaire. Population is Warehouse staffs of case study of steel tank firm with the 80 samples by using stratified random sampling and Taro Yamane formula to define the tolerances 0.05. And set the independent variable is 1) Gender 2) Education 3) Duration of working life 4) Income, dependent variable is 1) The need for training and development 2) Designing training courses 3) Training format 4) Follow-up training.

1. Create survey tools: The tools used in this research were Questionnaires. It is divided into 2 parts.

Part 1: The questionnaires related to the general characteristics of respondents such as gender, age, education level, average income per month, duration of working life, number of 5 items.

Part 2: Analytical Questionnaire Warehouse staff comments on training and development of human resources department bring to analysis of mean and standard deviation. The question in Part 2 is an open-ended question. Using the Scale Rating Scale (Likert Scale), the rating level is 5 levels, highest = 5 point, high = 4 point, median = 3 point, low = 2 point, and lowest = 1 point. So that the respondents could choose the answer that best suited their behavior and satisfaction.

2. Analysis of data and statistics used in research: Analyze the data by collecting all the data collected for all purposes by using statistical tools to analyze data for the study as follows:

2.1 Analysis of respondents' data using basic statistics is percentage.

2.2 Analysis of the opinions of warehouse employees using basic statistics is mean and standard deviation.

2.3 Compile hypothesis with inferential statistics. Hypothesis testing Warehouse staff with different demographic characteristics have the same or different views on training and development of human resources department. F-test and t-test were used at 0.05 significance level.

RESEARCH RESULT

Based on the results of the study of warehouse staff's opinions on training and development of human resources department, it was found that warehouse staff, case study company, there is a level of opinion on the training and development of human resources development in the following areas. 1)The need for training and development 2) Designing training courses 3) Training format 4) Follow-up training. All of them were at a high level. Overall, the average was 4.12 and the training and development needs were the highest at 4.16.

Based on the hypothesis testing results, it was found that different warehouse personnel with different demographic characteristics resulted in opinions on the training and development of the human resources department. The results of the analysis can be summarized as follows:

Hypothesis # 1 concludes that the warehouse staff, who have gender with different, have opinions on the training and development of resource department personnel is no different, both overall and in each aspect.

Hypothesis # 2 concludes that the warehouse staff, who have duration of working life with different, have opinions on the training and development of resource department personnel is 3 aspects that are not different: 1) the need for training and development of personnel; 2) Training format, and 3) follow up training. But designing training courses is different as Significant at 0.05

Hypothesis # 3 concludes that the warehouse staff, who have education level with different, have opinions on the training and development of resource department personnel is different, both overall and in each aspect.

Hypothesis # 4 concludes that the warehouse staff, who have income with different, have opinions on the training and development of resource department personnel is different, both overall and in each aspect.

DISCUSSION

Discuss the results of the analysis of the opinions of the warehouse staff on the training and development of the human resources department in case study can be concluded that the warehouse staff has a high level of overall opinion. Which can be discussed in detail below.

1. The need for training and development: Research findings on the need for training and development from warehouse staff feedback to training and development of human resources development was at a high level based on individual factors, 1) Courses offered in technical competency of the work group were 4.20 on average at the highest level. 2) The courses presented match the strategy of the event. 3) Course presented on the Training Road Map of the event.

As well as additional inquiries regarding the need for new curriculum development, the Human Resources Department in cast study has a comprehensive work plan to find out the needs for staff development. It also analyzes new knowledge needs from the workforce always so that they can provide knowledge, skills, and expertise to their employees. This corresponds to the research of J. Yingyod (2015), who studies of Krung Thai Employee's Opinions on Training and Development of Human Resources by using questionnaires and interviews from the sample, Krung Thai Bank employees 204 samples of Human Resources and Corporate Governance. The study found that the level of feedback about the employee training and the employee's age was correlated with the training needs.

2. Designing training courses: Research findings on Designing training courses from warehouse staff feedback to training and development of human resources development was at a high level. Because Human Resources Department has designed a training curriculum that has the knowledge to meet the needs of the employees and can be used effectively. The course is designed to allow trainees to explore their potential and stimulate interest in learning. The content of the course is relevant to the purpose. This corresponds to the research of Pannipa Jamchuti (2001), who studies " Personnel Development of Technology Mooban Kru Pak Nue School" by using questionnaires from the school population. The study of human resource development has found that there is a need for different forms of development. It should focus on the content and experience of skills, knowledge, abilities, the use of innovative equipment.

3. *Training Formats*: Research findings on Training formats from warehouse staff feedback to training and development of human resources development was at a high level. Because Human Resources Department recognizes the importance of training, it analyzes the importance of factors that affect training, such as: The training model must consider the objectives of the training program for the trainees to understand and learn the skills. The method used must be consistent with the content that the trainee must learn. Include appropriateness in the format of training based on ability, gender, duration of working life, location, lecturer and number of participants. This corresponds to the research of Kanchana Supornphan (2000), who studies on training satisfaction of staff of the Telephone Organization of Thailand has found that the trained head of staff is satisfied with the training process in training by way of lecture, practice, study, field trip, and brainstorming activities.

4. *Follow-up Training*: Research findings on Follow-up training from warehouse staff feedback to training and development of human resources development was at a high level. In each case, the evaluation model can be evaluated in terms of both the course content, learning styles, and guest speakers. And the results of the evaluation to improve and develop the training has the highest level of warehouse staff's opinions. Since the Human Resources Department regularly evaluates / monitors training results for ROI on a quarterly basis, it must analyze and use the right tools to produce results to match the content and purpose of learning. It covers almost every part of the content curriculum, learning styles and lecturers. This corresponds to the research of J. Yingyod (2015), who studies of Krung Thai Employee's Opinions on Training and Development of Human Resources by using questionnaires and interviews from the sample, Krung Thai Bank employees 204 samples of Human Resources and Corporate Governance. The study found that the employees were satisfied with the training process in the post-training evaluation and the pre-training questionnaire. And employees believe that the assessment allows programs to be developed and improved.

CONCLUSION AND RECOMMENDATIONS

The next research should include a comparative study of other similar training organizations as a guideline for further development of the training and development model. It should focus on the elements of the training in each aspect at a deeper level to achieve a more detailed study. And to be able to improve the training management style and development to be more effective. And should analyze the budget and return on training and development based on the annual income statement to demonstrate the value of training. And the research results have been developed to achieve maximum efficiency. The warehouse management system must have knowledgeable employees in accordance with the research of Varaporn Saninmool (2015), who studies process and perception of an advantage of using a Warehouse Management System to guide the improvement and development of factors that affect the perception of using warehouse management systems.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr. Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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The Performance Measurement in Logistics for Warehouse Management System

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Abstract: This research aims (1) to survey and analyze warehouse department's personnel data with utilization of WMS (2) to prepare warehouse department's personnel readiness with WMS. The statistics used to analyze data such as frequencies, average percentage. Research results summarizes as follows: 1. Analysis on warehouse personnel's perception on utilization of WMS in general is at a high level, and when perception by item is considered, it is found that warehouse personnel perceive utilization of WMS at a high level. 2. Warehouse personnel having different personal factors, such as gender, age, education, working experience, and working position, have different perceptions of general WMS. The study reveals that personnel who work in warehouses perceive the usefulness of WMS program. It is found that the opinion at the highest level is when utilize WMS program, past information can be retrieved, such as total sales, total demand for goods representing an (Mean=4.80). The opinions at high levels are as follows: using of the WMS program can automatically create invoice according to billing system including showing warning status of due payment date, representing an (Mean=4.45); using of the WMS program can create higher achievement in working (achieve correct and precise results), representing an (Mean=4.05); using of the WMS program supports disbursement of goods according to FIFO method, representing an (Mean=4.00). For the results of an analysis on acceptance of utilization of WMS program, it is found that the opinions are in high levels in the following order: agreeing with the utilization of the WMS program in working situation, representing an (Mean=4.55); agreeing that information from the WMS program is useful to your work, representing an (Mean=4.42); and agreeing to use the WMS program, representing an (Mean=4.15).

Keywords: Warehouse Management System, Performance Measurement In Logistics

INTRODUCTION

Along with technological and borderless-media globalization current, change develops widely and quickly at a leap. Ekgnarong Woraseha, 2015. This is apparent from modern, user-friendly, easy-to-operate, and facilitative-everywhere technology. In addition, modern technology brings tremendous change in the way of living and working behavior effecting in more serious business competition. In free-trade era, entrepreneurs both in manufacturing and service industry need to develop their ability and edge in competition. Incorporating modern and organization-appropriate information-technology as principle tools in logistic management and add efficiency in management to accomplish business target. It is utmost necessary and important for the management of developing Thai industry including quality of goods and services, service flexibility, reducing of costs, and rapid and correct response. Prajogo, D., & Olhager, J., 2012.

Today, the coming of free-trade has destroyed the international-trade barrier and foreign investment effecting in more intense competition at national and international level. Entrepreneurs have to adapt themselves to increase ability to compete and equivalent with new foreign competitors who are equipped with capital, and know-how in human-resource and technology management which is an advantage for foreign investors to claim as difference in higher standardized management. Chiang, D. M. H., Lin, C. P., & Chen, M. C., 2011.

In a survey on efficiency of Thailand domestic entrepreneurs' logistic by National Statistic Office, it is found that the problem of miss-appointment is key problem met by most entrepreneurs representing 84.4 per cent. The problem of miss-appointment derives from various causes, be it change of manufacturing plan or lack of manufacturing materials, but one important cause is inefficiency of warehouse management. Businesses need to depend on warehouses to keep stocks of finished goods or raw materials as protection from change of demand and supply on short notice, and as assurance of having enough stock of goods for manufacturing or distribution via warehouse management system. Ruiz, N., Giret, A., Botti, V., & Feria, V., 2011. If the data of raw materials is not update or erroneous, it may effect planning and controlling of warehouse procedure, for example, purchasing department would not know the exact number of the remaining goods in the warehouse which in turn would cause mistakes in placing orders for materials and manufacturing has to delay, or if the number of finished goods is wrong, sales department may think that there are goods in the stock and make an appointment to deliver to customer, but on delivery date, it is found that there are not enough finished goods in the warehouse so could not deliver as promised to customers. These are examples of problems of data management in warehouses frequently happened in real working situation. Gu, J., Goetschalckx, M., & McGinnis, L. F., 2010.

WMS is a program developed for general warehouse management where goods are received, stored, and distributed. The WMS program system consists of 3 main working systems which are Receiving, Storage, and Delivery. Delivery of goods is the transportation of goods to customers according to the information in the Purchase Order, or transport or move them anywhere such as to other warehouses, for example. Receiving of goods means goods transferred from manufacturing factory, depository of goods, or by ordering from manufacturers which have to be verified first by the list of goods to be stored in warehouse to plan for storage because different types of goods have different characteristics.

Receiving information in the list of goods may be done Online via an Internet system from Suppliers or key-in by computers at the receiving center. In receiving of arriving goods, counting procedure must be observed to verify correctness, miscount, or damage. On condition that Barcode system is needed, the Barcode which accompany the goods could be used or the Barcode could be set up or even the Barcode system could be set up. The system would print out the Invoice to be sent with the goods according to the prepared Format. After delivery, warehouse areas may need Relocation for appropriate storage of the goods. The system would display the available areas in a form of Graphic for easy moving. Besides, the program system could link with other related working systems such as E-Commerce system, manufacturing management system, accounting system, or human resources system. Han, D. M., & Lim, J. H.,2010.

LITERATURE REVIEW

Kumnai Ahipuchayasakul (2005, pages 14-20) explains the importance of the warehouse. It is an important activity connecting one activity in the supply chain of distribution from producer to consumer. By having a warehouse as an interconnected activity. It serves to balance the consumption, which has an unstable demand rate. And it is unpredictable to produce in advance which yields a more accurate estimate. Although planned production of demand-led products, which is estimated in advance, is a factor to consider. However, the uncertainty of consumption demand can cause imbalance in a certain period of time. The production system must continue as planned. If the output period exceeds the demand for consumption. Warehouses will also be used as a tool to accumulate surpluses. Subsequently, when demand is higher than production at any given time The warehouse will then discharge the accumulated goods into the market. To meet the demand The average balance in the long run. Moreover, when the production of a barrier is interrupted, it must be stopped temporarily. For any cause, such as the damage of machinery in production. Need to make repairs Or lack of raw materials to produce. In case of labor disputes, there will be a strike, etc. The goods stored in the warehouse will be brought to market as compensation. Although not enough to meet the normal needs of the production business is still operational. But it is a garden that can alleviate the suffering of consumers to a certain extent. Until the production downtime is fixed.

Tanith Sorarat (2009: 7-10) states that warehouse management is concerned with the efficiency and effectiveness of increased or reduced cost relationship management with the amount of inventory stored to satisfy customer satisfaction. To be delivered in accordance with the conditions have been agreed in time. And the volume of goods subject to financial constraints and uncertain shipping times due to different factors. However, there is a need for inventory to accommodate future situations arising from the uncertainty of the delivery of the finished product or of the warehouse. It is an important activity of logistic management, which is well-known behind the transport activities by mission and serves to receive goods by checking the number. The manner in which the classification is categorized by management with a system of validation and counting is related to the quantity, quantity, quality and quality of all types of warehouses acting as right holders. Temporary product owner, which means responsibility for product.

Apinya Kraissamrong (2012) conducted a study to analyze and solve the problem of the process of disbursement of finished goods of the factory case by applying the Location Code and the Warehouse Management System (WMS). Disbursement of finished goods more quickly. It can also increase the production of goods to meet the needs of customers more quickly. By consideration. In the Invoice Receipt Process Swarm Issuing a release report Customer item separation And check the goods in the car. Based on the application of the Location Code and the Warehouse Management System (WMS) of the factory. The results of the study show that the 37.5% reduction in invoicing time can be reduced by 33.33%. Reduction in product release at 50% reduces the separation time. According to the type of customers, 44.44% and 27.78% of the time checked the car. The overall picture of this study can reduce the time to 27.78% compared to the old way. Shopping in the process of disbursement products.

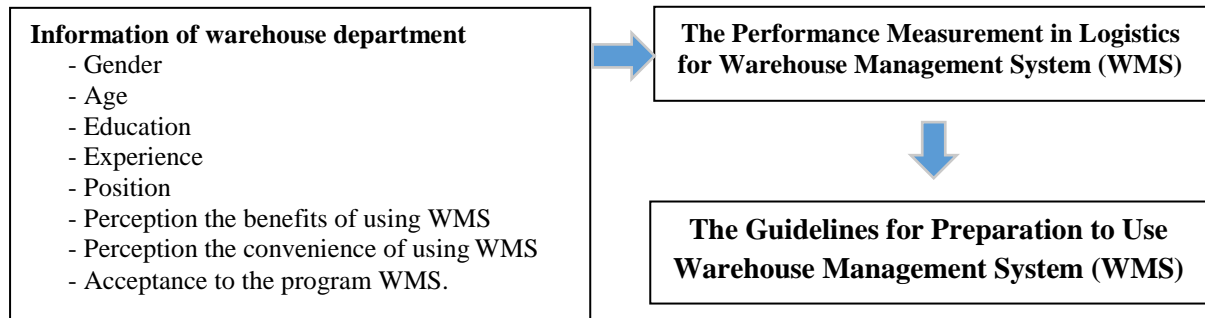
Pongsawat Iamsamang (2012) has improved the finished warehouse management in the spring plant used in automotive parts. The focus is on reducing wastage from warehousing workflows and improving work efficiency. The current state of the problem is found. Warehouse departments have overpayment costs that the management sets a budget on. Due to work process issues that do not add value. In terms of improving warehouse management. Starting from the current survey and analyzing the workflow by studying how to work with ECRS (Eliminate-Combine-Rearrange-Simplify), we have improved and corrected transportation problems in the warehouse. too By segmenting the ABC by moving goods should be close to the exit. And improve the workflow in the warehouse to reduce waste. The AGVs (Automatic Guided Vehicle System) structure is used to transport transportation in the plant instead of transported by staff, and the introduction of an ERP system with a barcode to reduce workflow and increase productivity. Accuracy in work in warehouses. From implementation, design, and warehouse management. It has been found that it can reduce the distance from 28,376 meters per day to 14,603 meters per day, or decrease 49%, and reduce the length of time in the warehouse from 2,457 minutes per day to 633 minutes per day or reduced. 74% and the improvement resulted in the reduction of the number of moving employees from 51 to 49, or 4%, or reduced to 326,256 baht per year.

Thipawan Eampiyakul (2008) studied the operation of the aftermarket technology repair service business. And there are operational problems, including high volume spare parts. Spare parts are not properly stored and stored. And the process of disbursement of spare parts to technicians is time-consuming and error prone. By the process of improving the number of spare parts. ABC Parts (Ng, 2007) calculated the maximum and minimum volume and method of order control for spare parts in groups A and B. Since the value of these spare parts is 97.19%. Specify the location of the spare parts. And define the storage location ID. Then prepare a workflow guide. The improvement results in increased efficiency in inventory

management, ie spare part ratio increased from 2.13 to 3.18. Cost of storage decreased from 1,617,922.81 baht per year to 1,582,747.12 baht per year. 18 minutes is 13 minutes and the error rate in computer parts counts decreased from 27.53% to 18.56%

Rathawut Wongwit (2007) studied the operation of the state enterprise's stockpile. The purpose is to improve the efficiency of the parcel operation. The problems encountered were: 1. Warehouse lack of storage regulations. Placement includes systematic maintenance. 2. The process of receiving and storing. Procurement Process And the batch counting process is slow and error. The improvement phase starts from the 5S activity, then the priority of the package is divided into several factors. Determining the maximum and minimum storage volume of a package. Storage design Storage location and location code storage and application development to help optimize inventory management, only for the disbursement. The results are from the research. Storage is being packaged into categories. Tidy Increased ease of delivery and reduced time to carry out inventory. Data warehouse work is accurate. Trustworthy and courteous to other warehouses. The same way Can be applied to be useful. The improvement results in increased efficiency of the stockpile by 1.40% (2.) The correct picking rate increased by 1.31% (3.) Time The mean of the process of receiving and storing parcels decreased by 4.03%. (4.) The average time of the disbursement process was reduced by 37.95 (5.)

CONCEPTUAL FRAMEWORK



RESEARCH METHOD

This is a survey study. The researcher takes the following procedure:

1. *Data gathering.* The researcher interviews 200 personnel working in or related to warehouses in Central region of Thailand.
2. *Data verification:* Data in the printout from data base shows direct results, for example, if the answer on the online questionnaire is "male" the printout data will show "male," so the researcher has to assign number 1 in accompaniment.
3. *Design factors:* that correlate to items in the programmed questionnaire.
4. *Record data:* provided by 200 samples in the sample group for statistical analysis using programmed package.

RESEARCH RESULT

Results of Personal Data Analysis

The study reveals that personnel who work in warehouses perceive the usefulness of WMS program. It is found that the opinion at the highest level is when utilize WMS program, past information can be retrieved, such as total sales, total demand for goods representing an (Mean=4.80). The opinions at high levels are as follows: using of the WMS program can automatically create invoice according to billing system including showing warning status of due payment date, representing an (Mean=4.45); using of the WMS program can create higher achievement in working (achieve correct and precise results), representing an (Mean=4.05); using of the WMS program supports disbursement of goods according to FIFO method, representing an (Mean=4.00); using of the WMS program can respond to customers' demand in time, representing an (Mean=3.98); using of WMS program supports goods reservation or delivery verification of restricted goods, representing an (Mean=3.65); using of the WMS program can support various types of warehouses such as factory warehouse, depository warehouse, or depot, representing an (Mean=3.64); and The opinions at medium levels are as follows: using of the WMS program supports Cross Docking procedure, representing an (Mean=3.45); using of the WMS program makes management and administration convenient, easy and reduce complicated procedure, representing an (Mean=3.41) average; using of the WMS program supports inter-department transfer of information, representing an (Mean=3.35); using of the WMS program helps reduce general costs for the organization (keep minimal stock of goods), representing an (Mean=3.33); and using of the WMS program can create price proposal by corporating customer, goods, and pricing information, representing an (Mean=3.25). Duangjai Jundasang, 2015. For the results of an analysis on acceptance of utilization of WMS program, it is found that the opinions are in high levels in the following order: agreeing with the utilization of the WMS program in working situation, representing an (Mean=4.55); agreeing that information from the WMS program is useful to your work, representing an (Mean=4.42); and agreeing to use the WMS program, representing an (Mean=4.15).

CONCLUSTION

For the results of an analysis on perception of the convenience of the WMS program, it is found that the opinion is at a high level which is coincide with the findings. The perception on usefulness, on technology in creating usefulness, and that

technology presents valuable option for work. In performing the same task, if new technology is applied, it effects higher quality work or finishes the work faster relating to more earning which is an external motivation.

For the results of analysis on the perception of usefulness of the WMS program, it is found that the opinion at highest level is using of the WMS program can retrieve past information such as total sales, total quantity of goods needed which is coincide with the findings. Polidoro F, Theeke M, 2012. Warehouse Management System is a system that covers the whole management in a warehouse, for example, receiving of goods with performance invoice, printing of sticker labels showing storage areas, and compiling documents for free-distributed order-form, etc. Management by WMS program is very useful i.e. better control on stock of goods, higher efficiency of retrieving of information for feedback, and better management report. Besides, the system can link the WMS to order placement of goods and past information can be easily retrieved.

The study results reveals that the perception of WMS in general is at a high level which is coincide with the research done by Fugate, B. S., Mentzer, J. T., & Stank, T. P.,2010. Who studies the opinion of users to package program for warehouse management which aims to study opinions of users of package program and compare opinions of effecting package program for warehouse management. The results of the tests are users of the package program have opinions on receiving of goods, recording of information of goods, storing of goods, and distribution of goods, at a high level.

RECOMMENDATIONS

1. Bringing in Information Technology System into organization planning should be supported seriously by every level of management so that using of the WMS can be effective.
2. There should be ways to build good conscious mind within personnel in using appropriate information technology for the work, maintaining tools and equipment in the system to be ready for use continuously, never use the system for personal entertainment which is risky to be attacked by virus, and cause working deficiency in the system.
3. Handbook providing guideline of operation of the system is needed for new comers to work in place of leaving personnel by following the procedure in the handbook to keep WMS to work continuously. (Anchalee Hiranphaet, 2017)
4. Follow up and evaluation of information technology utilization should be done in a form of committee consisting of representatives from different departments to monitor achievement of the system. If the usage of information technology system cannot help achieve the objectives of warehouse management, newer methodology and measures to solve the problems so that information technology system can support warehouse management system to achieve its real objectives.
5. In choosing hardware to be used with information technology system, hardware with production standards at international-accepted level and available in world market should be the best option which in turn making the hardware's price not higher than others in the market. (Sutthachaidee Wanee, 2015).
6. The barcode sticker should be pasted at a position not too high for average people so that it should not be too difficult when scanning the barcode. Barcodes should be placed at an appropriate position to scan conveniently.
7. Surrounding conditions effect the performance of barcodes, for example, goods with barcodes should not be placed outdoor since barcode reader would not be able to read barcode information.

RECOMMENDATIONS FOR THE FUTURE RESEARCH

1. There should be prior survey on general problems of warehouses.
2. Questionnaire should include response from related department i.e. IT.
3. Give explanation and examples to respondents for clearer picture.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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The Study to Optimize the Truck and Monitor Shipping

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Abstract: This research study Establishments who have undertaken professional experiences, encountered difficulties in shipping which are not efficient enough to meet the needs of customers as well. You still can not make deliveries achieved 100% of the work is still not done as a measure that is defined as the process does not have the technology to reduce errors in the accuracy of the data. at full capacity shown in the table below. Information Delivery Period Found that the total average number of 25 947 freight invoice was accounted for an average 94 percent that can be used successfully. An average of 6 percent can not delivery. Products are distributed through an average 90 percent of which is accounted for over the average of 10 percent, with the distribution, including 24 587 for months. The study data to track and monitor the delivery of the establishments that have the professional experiences and studies from various sources. Made aware of how to manage its liabilities. This can be done by targeting or performance indicators, providing transportation are obvious. Studies have previously route planning, distribution and transport of goods. Reduction in the movement of goods and support to improve work processes using technology to help increase performance with the correct process even more. So, from this study concluded that improving work processes are less complex and defined indicators or targets for service delivery technologies to aid in workflow and route planning before distribution. the product is very important to be able to improve the efficiency of freight services and tracking shipments as well. This will benefit both the enterprises themselves in terms of cost reduction and responding to the needs of consumers as well.

Keywords: Optimize, The truck, Monitor Shipping

INTRODUCTION

In the shipping business today. This is one factor that plays an important person in society. This form of transport such as road transport. Water transport Rail Transport And air transport, etc. The modes of transport with the highest proportion is. Road transport (Ministry of Transport, 2009), although road transport is more costly than other forms of transport. However, with the limitations of other forms of transport can not transport the beginning to the end. The road transport has advantages that can act as an intermediary in the distribution of goods from producer to consumer. (From door to door to the recipient) to meet the needs of service users (Koson Deesintum, 2009).

The problem of distribution is also another issue that is important, especially in an industry where costs are mainly of transport. The transportation process will generally focus on the part of management to deliver goods as fast as planned. Which may compromise the accuracy of the information, resulting in customer complaints, such as the number of items that must be shipped to the customer in each. The volume of each product The grading of delivery to the customer. That should be shipped to any customer order first, and next to transit in each of the value and efficiency.

The researchers collected data to the operator. The company is engaged in domestic express cargo business. And the storage of Fleet Management is planning a route, and track the performance of a shipping clerk. The researcher was interested to study ways to increase the efficiency of tracking and monitoring the delivery of establishment. To improve delivery performance.



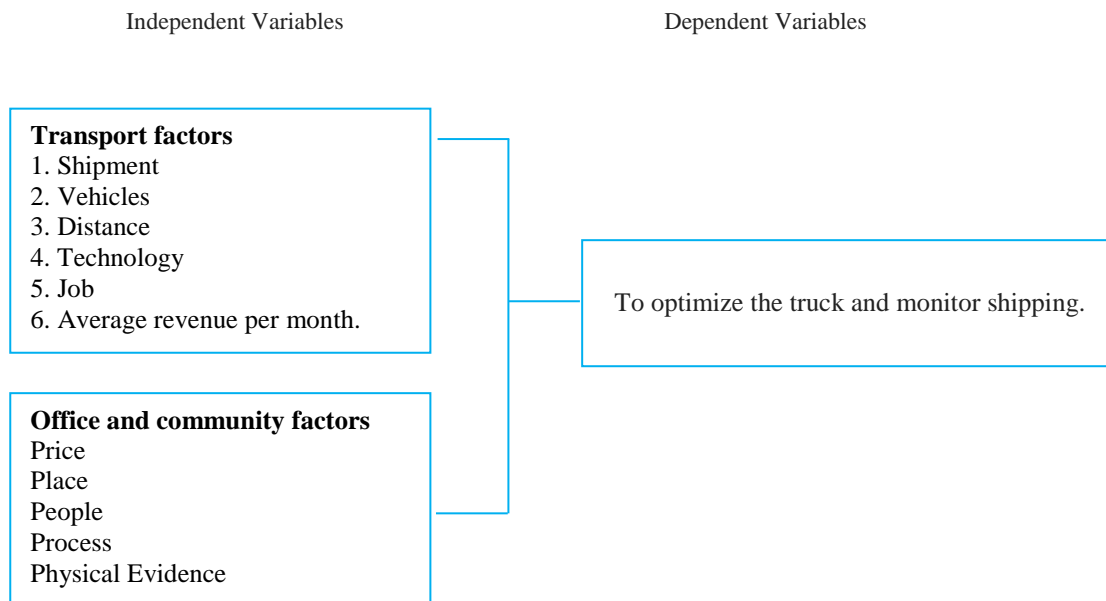
RESEARCH OBJECTIVES

The study tracked vehicle freight efficiency and Learn how to fix a product residues.

SCOPE OF RESEARCH

Tools used in research and data collection in this research include primary data is data delivery, the establishment of the research have been discussed by the conservative establishment than the secondary. from theory to research that involves the delivery of an effective solution to reduce its liabilities.

FRAMEWORK FOR RESEARCH



RESEARCH METHODOLOGY

Research in this Researchers have created using a interview. Sample The Office and Community The use of shipment, reduce costs and evaluating efficiency, The research was designed to gather information. The process of creating tools.

The study will be conducted comprising the steps as detailed below.

Step 1: studies and preparation of the work within the distribution center's establishment.

Step 2: Prepare Data volume shipping its success and accrued on a daily basis in order to find the problems and suggestions to resolve.

Step 3: A study performed to deliver solutions based on fundamental data used to analyze the problems.

Step 4: Analyze the process of working in distribution and pattern of delivery. To analyze the factors that cause the problem.

Step 5: summarizes the results of this study and suggestions.

From this research The researchers collected data from the document review, data delivery, success and cost of goods pending the establishment of the Chief of Staff and the documents used in the study were:.

- Primary data is data used in the study collected data from shipping directly to the establishment.

- Secondary data as a secondary document data used in this study to analyze and synthesize content from various sources and documents, research papers related research. Domestic and foreign

THE RESEARCH DEBATE

Clark and Dwight, 1964 has developed algorithms for problems of transportation of goods to customers, many of which can reduce the distance to be shortened by combining the two paths together by a principle. is to integrate the product into the same field by the delivery of the first customer, combined with the delivery of customer two main routes that same path, which is better than isolation.

The shipping shortens the shorter much after Holmes and Parker. 1984 have conducted research on the issue of transport of goods by a limitation in the capacity of the vehicle and tested a model of route for shipping. from the central warehouse only spread to the delivery of the vehicles used by more than one vehicle model using the heuristic of Clark and Dwight later Tanti.

Tantikorn Phipibul and Rungsak Kaewthammachai (2007) conducted a study on logistics issues central to the unit distribution, or customers in different provinces across the country, which is determined by the volume of freight each essentially include a path to the car. truck lane to bring the product to the point of delivery also covers the management of transport in order to return with the lowest cost method. Vehicle routing heuristic devices and Dwight Clark then be compared with the traditional method (Nearest Neighbor).

From the literature suggests that there is some consistency. The story is consistent, it is the shipping route. The truck route map to be used. To the point It also covers the delivery of transport management in return for the lowest cost. Managing transport goods Due to customer demand by shipping moving from the source to the destination set to respond to consumer logistics is a combination of information, transportation, administration, inventory, materials management. packing Logistics channels that add value to take advantage of the time and place of all, with regard to transportation. It involves all the logistics.

So, The use of the agency's information technology activities and resources applied together. In order to move the product or service. From suppliers to customers Song of the supply chain to transform natural resources, raw materials and other materials into a finished product. Then send it to the last customer (consumer or End Customer) in the philosophy of the supply chain. The material was then used May be recycled at any point of the supply chain time. If the material is a material that can be recycled (Recyclable Materials) is related to the supply chain, value chain.

The driver will be required to assess the satisfaction of the customer (Q-Sheet) to end customers. Satisfaction on all of the vehicles (Fleet only at maturity) and submit an assessment. Satisfaction came to represent the contractor vehicles. To forward it to the company for processing next. If customers request a change of venue when the shipping vehicles to store customers. The driver must notify the contractor vehicles to contact the company to perform the work according to the company intended to file a complaint about the customer service in the travel transportation. The driver must not Disputes with clients in all cases Keep detailed service offensive to allow customers to ask questions and clarify the company.

Improving the organization's activities must be continued past the Government and some state enterprises have set the standard for that. Employees found the lack of updates. Until the later technology has changed the distribution of information which is not standard, it is still like this above example. Illustrates the lax standards longtime Present day organizations, both public and private sectors need to be competitive. The loser of the winner of the competition is the subject of this standard. Organizations that lack of attention to the prescribed standards are backward-conscious organizations are also developing some standards. However, organizations that learn techniques to improve the standard continues to be a front organization craftsmanship.

CONCLUSION AND RECOMMENDATIONS

- 1) From the study found. Provides statistical information on shipping not detailed enough on education. If you have the opportunity to study in the future. There should be enough information for the study.
- 2) Education in this establishment will benefit and who will study the development of shipping the product to be effective.
- 3) Study the opinion that the next time there should be an establishment of many. The results were analyzed and compared. To see the results more clearly.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr. Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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Study of Import-Export (Shipping) Personnel's Capacities: a Case Study on International Trading Companies, Thailand

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Abstract: The research on studying of import-export (shipping) personnel's capabilities: a case study on international trading companies is a quantitative research. Propose of this research is to examine factors that related to working abilities of personnel in import-export (shipping) field of international trading companies. Variables have been indicated, which are 1) Independent variables, such as personal factors (sex, age, educational levels, experiences, and working sector); 2) Dependent variables, such as capacity factors, capability factors, knowledge factors, and practicing factors of import-export (shipping) personnel. The result shows that, the percentage of respondents to the questionnaire are female more than male (54% female, 46 % male), 56 % of the respondents are in between 21-30 of age, 56 % have lower and bachelor degree educational levels, and 65% are working as operation officers or messengers. Furthermore, most of the respondents indicated that obtaining customs broker licence is the first indicator (4.72%) for capacity and capability. The second important indicator is resourcefulness and intelligence (4.62%), and the least important indicator is foreign languages and good inter-personal relationship skills. Whereas, on working efficacies, most of the respondents agreed that knowledge on legal and custom regulation is the most important (4.76%), the second most important factors are import-export knowledge, knowledge on dealing with international trading documents, and knowledge on rules and regulations (at equal percentage of 4.72). For shipping practices, most of the respondents admitted to have abilities for negotiation (4.76%), experiences related to import-export (4.72 %), the third is proficient on reading and preparing documents for dispatching (4.68 %), and the least is versatility on work related (4.56%).

Keywords: Import-Export (Shipping), Personal's Capacities, Customs Brokers, Shipping Labours

INTRODUCTION

Nowadays, expansion of economics, of importing-exporting, started to show a better result. International business, import and export, are therefore growing. Work positions for customs formality is increased, Kabali, I. M. ,2014. following the expansion of international trading companies, import-export business. Helseth, M. H., & Coulson, D. W. ,2013 As the result, shipping labours is insufficient and under effective. In consequence of hard work and unreliable working time for the shipping, as well as several specific trainings and licence to be obtained, there are only small numbers of those who are interested and passed the training working in this field. As oppose to worker requirement and world's business growth. Aforementioned, study of shipping personnel are important to world business. On top of that, shipping resources have to be screened; when AEC is started in which ability to deal with load work burdens, and competency and work experiences are considered to support the expansion of economics. Araque, C. E. ,2011, Danai Tianphut,2002

McClelland 1993, cited in Panorpan Jaturongkul, 2550, page4 defined "competency" as personalities inside an individual that push forward the person to produce a good work or as specified. Hoge, Tondora, and Marrelli (2005, p.517, cited in Panorpan Jaturongkul, 2550 identified structure of competency as KSAPs, which are Knowledge; Skills; Abilities; and Personal Characteristics. Which is linked to end results and can be compared with benchmark They have high power over an achievement of work of a person, are a character or responsibility, also they are able to be improved by trainings. Narongwit Sangtong (2547, page27) added that competency is capability, or competency of a person in a position. Not only competency is behaviours, but also believes, attitudes, and inner personalities. Nonetheless, Jramporn Prathomboon (2547, page23 cited in Panorpan Jaturongkul, 2550) said that competency is what explaining a person's characteristics and particularities, as well as knowledge; behaviours: skills; and, in which quality and higher standard works are expressed. Corresponding to idea of Sutat Nampulsuksan (M.P.P. cited in Panorpan Jaturongkul, 2550) where the meaning of competency is characteristics, both in knowledge and skills and individual's behaviours, which are important for successfully working in each position. Wu, J., & Haasis, H. D.,2013 As you can see, from above theories, competent worker is able to increase production or improve business processing, which will be a way to help solving shipping worker shortage problems. Concisely, this research has been studied for a better shipping worker screening, as a result for improving the quality of work and preparing for the growing world's economics and step forward to the AEC. Lin, H. S., & Hsieh, L. Y. ,2011, , Fayle, C. E. ,2013

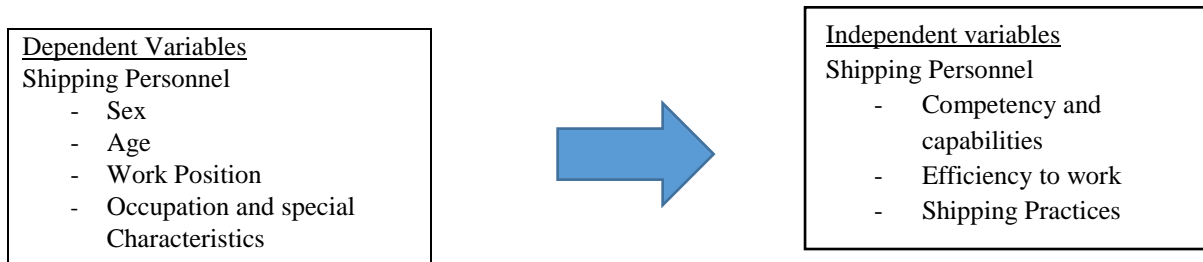
RESEARCH OBJECTIVES

1. Advised standardized properties for shipping personnel in companies of Thailand.
2. Study relationships between competencies and personal factors of shipping personnel in companies of Thailand.

RESEARCH METHODOLOGY

To work in the shipping field, one needs to have specific knowledge of the vocation. Therefore, this research is conducted to identify special characteristics that are needed in a shipping worker for international trading companies.

Variables in the research Research Framework



Population

Samples: Sampling method – selecting 25 persons on every work department, considering simple probability where population in each department have equal chance to be selected, and group will be indicated for the population.

DATA COLLECTION PROCESS

Researcher contacts the companies for list of population/samples and information for the study. Interview is conducted to gather information and identify problems that are often occurring in the company. Then review to design the study process, using self-ministered questionnaire.

- Data is collected in international trading companies.
- Data collection period: 6 months.
- Correcting and completing the questionnaire before analyses.

The corrected and completed questionnaires are selected by each tool's criteria, and will then be analyses and evaluated.

DATA COLLECTION TOOL

Data collection tool for this research is questionnaire for international trading companies in Thailand. Rating scale questionnaire is used, given points dividing into 5 levels:

- 5 = It is the most important
- 4 = It is important
- 3 = It is fairly important
- 2 = It is rather important
- 1 = It is the least important

There are 3 steps in designing the questionnaire for Thai's merchant maritime.

- Step 1: information prior to designing the questionnaire
- Step 2: identifying the needs for shipping personnel in international business
- Step 3: general suggestions, which the data will be self-collected

RESULT DISCUSSION

For competencies and capabilities, the study showed that the respondents obtained a certificate for custom broker licence, are resourceful and intelligence in solving problems, have good inter-personal relationship, foreign language skills, and responsible to organization and customers. It means that the population consider the important of competencies and capabilities; total mean is 4.67 4.83 with standard deviation of . 0.37, has the highest total opinion. The reason is that working as shipping required adequate knowledge, including academic skills, knowledge, and desire for success. Which is correlated to McClelland theory (1993 cited in Danai Tepnuput, 2545, page4); competency is clusters of knowledge, attitude ,skills and of an individual, which greatly affecting successes of work for that person, roles or responsibilities which corresponding to success, and can be compared with standard criteria, as well as is able to improve by training. Office of the civil service commission indicated that competency is group of knowledge, skills, capabilities, behaviors, and result of practice, which part of these are resembled from knowledge ,skills, capabilities personalities, attitudes, and popularity of each individual. Duangjai jandasang,2015. For knowledge, the study found that the respondents have knowledge about legal and customs regulation, knowledge of importing-exporting, knowledge of dealing with international trading documents, and have knowledge of rules and regulations. To conclude, the sample considering the importance of work efficiency; total mean

is 4.76 4.93 with standard deviation of 0.25, has the highest total opinion. Because knowledge of the work are required to work as shipping, as well as experiences and expertise in remembering, making decisions, differentiation of each section.

This correlated to Prapapen Suwan (cited in Aksorn Sawasdee, 2542, 26) concept, explaining that knowledge is an initial behavior that learners are remembering from recognizing, seeing, hearing. This level of knowledge is knowledge of definition, meaning, rules of structure, truth, and problem solving. Understanding may expressed in the form of skills in “translation”; which means ability in describing about such information using their own language; and “definition” that expressed in the form of opinions and conclusion; as well as ability for “estimation” or expectation of what going to happen. Benjamin S. Bloom (cited in Sawasdee 2542, 26-28) has given the meaning of knowledge as recalling of a specific thing, procedure, and method. In 1965 Bloom and friends have also studied about human’s cognitive domain, which comprise of 6 knowledge levels from the lowest to the highest. Explanation of each level as follow:

1. Knowledge means learning that emphasized of remembering and recognizing for thoughts, things and events. These memories are from simple memories and liberated from each other to complex memories with relation to other memories. To reasonably expanding this memory knowledge is to play, respond, translate, conclude, or interpret it.
2. Comprehension is intellectual abilities to reasonably extend knowledge and memories, responding to meaningful stuffs, conclude, and abilities to translate, or interpret something.
3. Application is abilities to use the knowledge, understanding, and comprehension of stuffs to solve new problems. By using of knowledge, especially comprehension, together with ability to translate, conclude, or interpret of the stuff.
4. Analysis is abilities and skills higher than understanding and application, which is able to differentiate things that being considered, which correlated, also investigating relationship between sections to identify whether each composition is compatible to each other, and generate thoroughly understanding of one thing.
5. Synthesis is abilities to compile compositions for produce single story or thing. Synthesis has the property of gathering information and detail of various stories together, firstly in order to form an unclear structure, which requires creativities within selected limitation.
6. Evaluation is abilities to decide about thoughts, popularities, results, answers, strategies, and substances for some objectives. Criteria are created for evaluation and consideration. This is the highest of characteristics of cognitive domain, where knowledge, understanding, application, analysis, and synthesis are used for evaluation of one thing.

About shipping practices, the applicants have negotiation abilities, experiences related to import-export, expertise in reading and preparing documents for dispatching. It can be concluded that shipping practices is considered important; total mean is 4.68 with standard deviation of 0.30, has the highest total opinion. To explain this, shipping practices has the power over success of the organization, which conform to theory of Schermerhon (1966, p785), said that working practice means behaviors that a person has successfully done under their responsibilities. Working practice of a person depend on

- 1) Personal characteristics, knowledge, skills, and experiences of work, which related to working practice;
- 2) Attempt to work of a person, meaning the willingness to work of a person, which related to grateful to work, whereas depending on motivations to work. Tongzon, J. L., & Lee, S. Y. ,2015 When a person has motivation to work, they will try their best to successfully done it;
- 3) support from the organization, payment, materials for work, and facilities on the workplace. These supporting stuffs are connecting to providing the chance of a person to do the work. Embassy, U. S. ,2014

SUGGESTION

The companies should encourage the employees for gaining of knowledge and expertise in logistics, by sending the workers to trainings or courses arranged by the government, in order to help the workers getting better understanding of practices and attaining new knowledge to improve their work and life. Consequently, producing fewer errors and reduce the time of work. Zhao, G. ,2014, September.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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A study of Logistics Management Awareness among Electrical and Electronic Industries in Central Thailand

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Abstract: This research aims at study important of logistics management in organization related to procedure developing and reduces cost of electrical and electronic industries in Central Thailand. This research is qualitative research that information gathering by deeply interviewing and potential assessment in logistics, sampling group in this research is 15 companies of electrical and electronic industry entrepreneurs in Central Thailand then evaluated and defined to conclusion. The results are found that electrical and electronic industries in Central Thailand emphasized on strategy management is 76 percentage, technology information management is 53.33 percentage, effectiveness and efficiency in logistics is 48.57, planning and operation is 43.33 percentage and cooperation is 30.00 percentage. In addition this research found that senior managers of these industries interested on developing logistics procedure in organization for sustainable and reducing cost. In other hand manager in medium level and operation staffs think that the development will make more over load duties in working and prefer to work as the same. Thus the importance of logistics and supply chain awareness among electrical and electronic industries in Central Thailand needs to cooperate with in organization and attempt to indicate problems and solution in operation.

Keywords: Logistics Management, Electrical and Electronics Industry

INTRODUCTION

Industry groups of electrical and electronic products are large of shareholding cost and inventory carrying cost of GDP (Gross Domestic Product) that make cost of logistics management will be higher also. Increasing potential and enhancing logistics management for competitiveness among entrepreneur in Thailand especially electrical and electronic industry that the reason why Thailand is main production of the world such as Hard disk, Driver, Hardware computer, Circuits and others electronics equipment. These electrics products are distributed within domestics and distributed to overseas, electrical and electronic products have been growth and also increasing of number of entrepreneur including small size, medium size and large size operated in supply chain.

In year 2011, Thailand faced flood crisis cover industrial plants especially in central Thailand which consists of 7 main plants that time the entrepreneurs got troubles to improving logistics management and met problem continuously affected perspective in business including fluctuation in competition countries.

Electrical and electronic industries in Central Thailand are facing these problems and obstacles, these are necessary need to improve and adjust structure of logistics managements relate to market needs also expand competitive advantage in the world market.

The concepts to enhance potential logistics management impact on supporting electrical and electronic industries because able to help distribute electronics products however customer's need may change their decision to buy higher – technology of electronics tools products while major of the entrepreneurs are produce lower – technology products that reason why the entrepreneurs need to qualify in many ways. 1. Accelerate to consumer behavior changes and technology changes 2. Concentrate on production as customer's needs. 3. Develop upstream industries with new technology and innovation. 4. Develop capacity labor skill for sustainable electrical and electronic industries in Central Thailand and able to create advantage competitive.

This research appreciated importance as above, concept enhancing potential logistics management, so this research experiment for sampling group of electrical and electronic industries in Central Thailand and gathering information by in depth interview and evaluate potential logistics management. Then analyze the information logistics management awareness electrical and electronic industries in Central Thailand.

OBJECTIVE

To study potential logistics management awareness electrical and electronic industries in Central Thailand.

LITERATURE REVIEW

1. General information about electrical and electronic industries. Present, electrical and electronic industries are steady condition cause fluctuation of partner countries economy including distribution channel of many products are higher especially air condition and fan goods. Increasing of electronics production industries as Table 1 show rate of total sale changes electrical and electronic products. In the other hand production going decrease because their moved base industry plants to ASEAN countries.

Table 1: Sales Change Rate of electrical goods.

Products	Sales Change Rate (%)	
Air condition slit type, compressor and fan	8.34	↑
Washing Machine	17.49	↑
Thermos Bottle	7.60	↑
Refrigerator	2.32	↑
Microwave	-28.25	↓

Source: Electrical and Electronic Institute (2015)

Investment conditions electrical and electronic industries in Central Thailand. In many firms are supported by BOI which are several types of firms requested such as firms need high cost to investment such as Hard Disk Drive, Solar Cell & Solar Module and Semiconductor. For adjustment of electrical and electronic industries in Central Thailand in the future (Attasit Champha, 2015) expects to production of electrical and electronic will be few increases because there are still high level fluctuations of partner countries economy.

Electrical and electronic industry is quit rapid change both demand and supply specified these industry has limitation and risk in production process and international trade. Thus now electrical and electronic industries are facing problem in medium and downstream few value added, another problem is many firms lack of export structure means electronic industries in Thailand provide less kinds of products specially Hard disk which is more complex substitute products as smart mobile, very popular and continually tend to growth. Customer's behavior changes in day of "Internet of things" they want to purchase more high-technology tools for Smartphone, Tablet and Device & Gadget. However lack of workers and skills of workers in Thailand are main problem for developing production that is very important in electrical and electronic production line.

2. *Logistics Management*: Stock and Lambert (2001) gave definition that logistics management is moving products procedure or provide service from upstream to downstream either official or private. Besides logistics management scope responsibilities more than production procedure but it is complex activities. Arun Borirak (2002) gave definition that logistics management is system related distribution channel and providing service in moving products that affect to expand margin profit and reduce cost. Kumnai Api Prachayakul (2003) gave definition that logistics management is a part of supply chain procedure helps to planning , supporting, controlling flow out of products efficiently and effectively, also keeping service and information technology involve begin point to finish point for meeting customer's need.

3. *Potential logistics Assessment*: Criteria and index in potential logistics assessment of organization prepared to cooperation between official and private SME Projects in Industrial Federation of Thailand established for others organization can assess by themselves field logistics management when compare to international standard and compare with others organization within Thailand. Thus purpose to each organization able to define their strengths and weakness also can use this information to develop their operation and competitive advantage by using Logistics Scorecard suitable with their organization. Its separate to 3 kinds of business are Production industry, Services Business and logistics provider industries, they have indicate index potential logistics 5 sides are strategy, planning and capability, effective and efficiently in logistics, information technology management and cooperation between organizations. In each indicate index and points 1-5 level from lowest potential to highest potential who are assessor should be oversee all logistics activities or manager for efficiently assessment.

RESEARCH METHOD

This research is qualitative research, to study analyze information gathered in group electrical and electronic industries in Central Thailand and present in Descriptive Research explain to study logistics management awareness among electrical and electronic industries in Central Thailand for reference to solution problems. Researcher gathered from 2 sources.

1. *Interview information: Focus Group Discussion*: Study impacts on logistics and supply chain management awareness among electrical and electronic industries in Central Thailand. Researcher did in Depth- Interview as unstructured interview with open question spend 3 hours for interviewing per company. Researcher interviewed 15 companies in electrical and electronic industries and gathering specific problem and have Moderator control topic in discussion. Supang Chantavanich (2006)

2. *Information: Logistics Scorecard*: Potential logistics assessment is important tools to assess total 5 sides with 23 indicating and index criteria 5 levels, 1 is lowest potential to 5 is highest potential by self-assessment selected Logistics Scorecard analyze to direct organization. Managers or who are control logistics activities will be moderator in interviewing then analyze the results of assessment by calculate Mean total of 15 companies and calculate to percentage.

RESEARCH RESULT

The results of this research found that entrepreneurs among electrical and electronic industries in Central Thailand they gave opinion and assessment of potential logistics awareness as table 2.

1. *Setting strategies:* Managers interested on developing logistics operation in organization and appreciated on logistics strategies Mean equal is level 5 which is highest and found that system in organization can support to customers complaint and input to assessment system that the way to improve providing services to their customers. Besides they got 4th level in developing customer’s satisfaction and organization deal with provider agreement also they got 3rd level exchange information for developing logistics activities in Win-Win strategy. In 2nd level, manager found that agreement with their customers can exchange information for developing logistics activities in Win-Win strategy.

2. *Planning and capability in operation:* Managers agree that organization have regular and standard for methods in operation including activities related to providers and their customers, they are continually improving operation in organization and capabilities in logistics activities planning related in organization, checking stock and cooperating to quick response their customer need are in 3rd level. They found results that organization understand tend to market products and using statistic to forecast customer’s needs, planning human resources in logistics, including management system and following cargo status inventory and purchasing processing are in 2nd level. Last, organization determined planning in logistics to relate strategies and thinking of remain resources in organization and supply chain is in 1st level.

3. *Effective and efficiency in logistic:* Managers have comments that inventory turnover rate and liquidity of cash and inventory management related to liquidity of cash in organization including effective and efficiency in delivery are in 3rd level. Beside manager found that organization should to develop logistics activities in department be related together and able to cooperate to their customers and delivery to them on time, organization should to set Target Stock Level and assess opportunity cost from stock. In addition organization should to understand environmental and security policy and important to reduce cost in supply chain efficiency in 2nd level.

4. *Information technology management:* Managers have comments their staffs understand and knowledge in information technology in logistics management and able to adjust to operation and activities to decision making are in 4th level. Their comment that organization set standard code for products and procedure only some products to customers including can bring to develop in logistics supply chain. They use Hardware (computer tools) and Software program to help manage information technology in logistics and supply chain for collect data and process information or present to other departments are in 2nd level that as Varaporn Saninmool (2014) said in her research “The Study Readiness of Warehouse Staff Using Warehouse Management System Program” found that impacts on staffs different in gender, age, education, experience and position, they have knowledge and awareness system in difference. So using information technology is quite difficult to decision making.

5. *Cooperation in organization:* Managers have comments organization should to cooperation between alliances organizations in logistics field base on win-win strategy are in 2nd level. They are not realize importance cooperation between logistics research and development that are in 1st level related to Patcha Chaichanapal (2013) said in her research “Collaboration Patterns in Construction Industry for Sustainable Business Alliance Development” that found organizations which are selected to be alliances should be considered from several such as finance liquidity, management system for improving potential so organization have to realize to consideration process to cooperation in organization.

Table 2: results Mean of assessment among electrical and electronic industries in Central Thailand.

Index	Level					Meaning
	1	2	3	4	5	
1. Determine strategy in organization						
1.1 importance to logistics strategy					✓	- Senior manager determined policy or strategy in logistics. - separate department or work as team to responsible logistics activities in organization (meeting from other departments) - Key Performance Index in logistics - logistics activities assessment in organization - Review and develop strategy in logistics
1.2 Agreement with provider and exchange information			✓			- have agreement in organization or contract with provider such as Purchase order ,requisition, e-mail or others - Exchange information between organization and provider beside on agreement such as effective of provider
1.3 Contract with customers and exchange information		✓				- have agreement in organization or contract with customers such as Purchase order ,requisition, e-mail or others
1.4 arrange assessment system and improving customer satisfaction				✓		- customers satisfaction survey - department solve customer complaint /Sales department will take response - have operation system and gathering customer complaints - take response to customer feedback by every department related - analyze customer satisfaction survey for developing in operation.

					products or services
1.5 arrange developing system and staffs assessment				✓	<ul style="list-style-type: none"> - Commitment Statement and announce to all staffs - training project to improve capability of staffs as commitment statement - organization is 3rd level - measure and assessment operation as Commitment Statement - Knowledge Management for exchange information and experiences between team and staffs
2. planning and capability in operation					
2.1 planning schedule	✓				- organization does not have planning in letter
2.2 customer need forecasting and market trends		✓			<ul style="list-style-type: none"> - Forecast customer needs in main products using sales experience - record customer need
2.3 planning and adjust operation in logistics in organization			✓		<ul style="list-style-type: none"> - sales planning and purchase resources and distribution - gathering information about logistics activities such as sales , inventory, distribution and deliver product without sharing information - cooperation between departments within organization such as sales , inventory, distribution and deliver products and operate inventory for quick response customer need
2.4 following cargo status inventory and purchasing processing and logistics activities		✓			<ul style="list-style-type: none"> - following cargo status inventory and purchasing processing - forecasting resource planning in inventory as customer need
2.5 developing process and standard operation procedure			✓		<ul style="list-style-type: none"> - setting process in operation as standard - comply with standard procedure
2.6 developing departments are responsible logistics activities		✓			<ul style="list-style-type: none"> - announce regulation, authority and job description related to logistics activities. - analyze to worker accord to job description
3. effective and efficiency					
3.1 developing logistics activities		✓			- planning and adjust some logistics activities and set planning.
3.2 Inventory turnover rate and liquidity of cash			✓		<ul style="list-style-type: none"> - awareness of Inventory turnover rate in some products - awareness of liquidity of cash
3.3 delivery products to customer time and effective in purchasing management			✓		<ul style="list-style-type: none"> - determined standard time of delivery in each products - using information about delivery time to planning delivery to customers consists of 1. Trucking in each type 2. Route schedule 3. Delivery in order
3.4 effective and efficiency in delivery			✓		<ul style="list-style-type: none"> - measurement time in delivery and ensure purchase more order of customers - on time delivery rate or correct purchase more order of customers more than 95 % - collect information reason why late delivery
3.5 inventory and opportunity cost		✓			<ul style="list-style-type: none"> - organization lack of setting Target Stock Level - organization lack of assessment opportunity cost from stock
3.6 environmental and security activities		✓			<ul style="list-style-type: none"> - environmental and security policy - environmental activities under the law only - security activities under the law only
3.7 logistics cost management		✓			- logistics cost management awareness only importance activities.
4. information technology management					
4.1 setting standard code for products and procedure		✓			- setting standard code for products and procedure only some products.
4.2 information management in logistics		✓			- using computer to information management in logistics in some activities.
4.3 improving human resources in information technology department				✓	<ul style="list-style-type: none"> - realize importance of improving human resources in information technology in logistics and supply chain department - The organization has enough people in this field. - have plan support to improving human resources in information technology in logistics and supply chain department
5. cooperation in organization					
5.1 cooperation between alliance organization		✓			<ul style="list-style-type: none"> - realize importance cooperation between alliance Organization in logistics fields. - planning to create cooperation between organization
5.2 realize importance cooperation between logistics research and development	✓				Organization not realize importance cooperation between logistics research and development
Mean in logistics sides					52.17 %

CONCLUSION AND RECOMMENDATIONS

This research is assessment logistics potential among entrepreneur electrical and electronic industries in Central Thailand results found that potential logistics entrepreneur all 5 sides and 23 index able to use the results to adjust planning potential logistics development in organization for creating manual to enhance potential in competitive advantage. In addition after assessment logistics potential among entrepreneur electrical and electronic industries in central Thailand, organization should be review and evaluate to results for developing in the future.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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A Review on Used Shoes Supply

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Abstract: This research focuses on reviewing used shoes supply chain. In preliminary, investigate of the chain and interview of stakeholders in the chain. Subsequently, SWOT analysis of used shoes showed several weaknesses and threats. In addition, value chain of this business was analyzed to categorize value added. As a result, many activities were found to increase value to the chain, especially, operation activities before remarketing. Those activities could create tremendous value to used shoes according to value chain activity. In this study, data collection is performed using observation and interview approach only at Rong Kluea Market. There is no previous study regarding used shoes supply chain. Supply chain of used shoes is considered for the first time, especially in Thailand setting. This study can be used as a guideline for entrepreneurs to adjust their weakness in order to reduce cost as well as to increase customer satisfaction. Moreover, the case study is extremely useful for other recycled products.

Keywords: Used Shoes Supply Chain, SWOT Analysis, Value Chain, Second Hand Market

INTRODUCTION

Fashion items such as clothes, bags, accessories, and shoes rapidly change in popularity. Their worth is reduced immediately when they are obsolete or shabby, so people always discard them and find a new item. The effect of this problem is the question; how can we manage all of the used and old items? Because if we do not recognize this issue, it can expand to become the cause of an environmental problem.

Thailand has an interesting business that we call the “second hand market”. This is a fascinating market where we can create value and remarket used items. The most popular items in second hand markets are clothes, bags, accessories, and shoes. Moreover, furniture, books, bicycles, and cars are also found at these markets. Especially, fashion items such as shoes are a large sector of the second hand market. Therefore, this research focuses on the used shoe market.

Shoes are a necessity for everyone. There are several materials and processes involved in the products from sandals to specialized shoes. Therefore, in terms of operational activities, they might be different. This industry is growing and the demand and the competitors for the products are increasing. In addition, the product cycle is relatively short because of the rapid changes in the market place and fashion consumer trends. As a result, this might lead to a higher level of post-consumer waste. Most worn and discarded (end-of-life) shoes are disposed of in landfills despite the fact that they are still valuable. In Thailand, used shoes are imported from others countries through the Laemchabang port and then forwarded to the Rong Kluea Market in the Sakaeo Province for remarketing. This research is a review of this supply chain with a SWOT analysis and an investigation of the chain value. Subsequently, a margin of used shoes is also shown. In addition, this study can be a guideline to manage other used items through a recycling process and bringing them back into the market. They still have value, but most people do not perceive this. In spite of this, it is also a chance to build new businesses and is one choice as a way to make more income.

LITERATURE REVIEW

There have been very rare studies on the used shoes supply chain, hence the reason for this study. The scope of this paper is related to the review of the used shoes supply chain and to identify its internal strengths and weaknesses, as well as its external opportunities and threats. In addition, to understand the value added in the chain by means of value chain analysis and margin in each stakeholder is interesting. The previous studies are reviewed in 4 main categories. Firstly, this study will look at a review recovery process in the chain. After that, SWOT analysis and value strategies are defined. Lastly, this research will look at the footwear industry. This section aims to designate some of the key ideas in understanding why the business organizations are interested in recovery products. How can we apply SWOT analysis to defined weakness and strength in business. In addition, how companies add value to their products. Finally, waste management in the footwear industry is analyzed.

2.1 End-of-life Strategies

Previous studies have informed that numerous business organizations are concerned about the environmental impact of the products during the final disposal process. Businesses attempt to create appropriate process to reduce waste at products’ end-of-life cycle. Pigosso, et al. (2010) presented eco-design concept which focused on remanufacturing. They concentrated on products’ end-of-life as a part of product life cycle. The End-of-life strategy includes processes such as; reuse, repair, refurbishment/reconditioning, remanufacture and recycling. This concept attempts to close the loop, reducing environmental impact and cost of life cycle manufacturing processes. The following definitions for these terms are used in this study:

Reuse is process of used materials, products or components by second customer without prior repairing or as formerly designed (Rathore, et al., 2011).

Repair is the process of bringing damaged components or items back to a functional condition (Rathore, et al., 2011).

Refurbishing/Reconditioning is the process of recovering components to a functional state to the original specification. For example: repainting, reconstruction and etc. (Rathore, et al., 2011).

Remanufacturing is the process gathering used products or components, assessing its condition, and replace worn, broken or obsolete parts with new or refurbished part (Pigosso, et al., 2010)

Recycling is the process taking used products, components and materials to fieldstrip, separate into categories and processing them to make the same material or useful degraded material (Pigosso, et al., 2010; Rathore, et al., 2011).

Nowadays, numerous business establishments propose to follow up the End-of-life strategies, because they consider it can decrease their business cost and waste in processes. Moreover, it can help to lessening environmental impact. Therefore, they try to add value to the recovery products and complete processes in short time. There are hardly any studies, considering in second hand products. This study is attentive in reuse, recycle, repair and refurbish of used shoes supply chain. Therefore, previous research will implement this chain.

2.2 Concepts of SWOT analysis

SWOT analysis is a common and overall tool to evaluate weaknesses, strengths, opportunities and threats in products, service and business models in primary (Yükael and Dağdeviren, 2007). Most organizations usually use this tool because it lacks complexity. Therefore, a SWOT analysis is the basic tool that helps a company to know its internal and external environment through internal strengths and weaknesses, as well as external opportunities and threats (Houben, et al., 1999). It can apply to various business sizes beginning from micro, small-to-medium, large enterprises and business networks. For example, Brook, et al. (2004) applied the SWOT analysis to investigate competitive knowledge from social media for a small start-up business. In primary, they used an opened-ended questionnaire format to interview six individuals, who were the owners and several key employees of the company, about the use of social media. Afterwards, they evaluated the information from the questionnaire and identified data to build the SWOT table. Their research aimed to utilize the SWOT framework to understand the selected company and find some ideas for the company's use of social media in order to increase competitive knowledge. In small and medium size enterprises, SWOT analysis can be a guideline for them to follow in creating strategic planning (Houben, et al., 1999). In 2002, Bernroider illustrated the results of an empirical survey and tried to find the differences in the SWOT analysis factors between micro, small-to-medium and large software enterprises. The results showed that the micro-enterprise had focused on internal factors more than large enterprises which focused on a globalized environment similar to the research of Shinno, et al., (2006) who used quantitative SWOT analysis to describe the global competitiveness of a machine tool industry. In addition, we can merge SWOT analysis with other methods such as using SWOT to support a decision-making model (Yükael and Dağdeviren, 2007). Moreover, the SWOT analysis is beneficial in planning energy policy and regulation for national sustainable development which was presented in the research of Markovska, et al. (2009). These researches are guidelines as how to adapt the SWOT analysis to investigate the used shoe supply chain and show the advantages of this method. In addition, results from the SWOT analysis can build organizational ideas to launch new strategic planning to increase their benefits. Therefore, it might be a guideline for used shoe entrepreneurs.

2.3 Value Chain Strategy

Now a day, there are a number of extremely competitive businesses. Therefore, some organizations attempt to create value in their chain. Generally, value chain is a tactic that they used for investigating their chain from the beginning. Value Chain focuses on processes, and how inputs are changed into the outputs purchased by consumers (Porter,1985). After analysis of the value chain, companies will know added value in the chain and how they operate. Elements in Porter's value chain are separated into primary and support activities. Primary activities are inbound logistics, operations, outbound logistics and marketing/sales. Support activities are secondary activities and can drive a role in primary activities. So, there are procurement (purchasing), human resource management, technological development and infrastructure. Walters and Lancaster, (2000) reported that several businesses have value chain process in details more than porter's model, such as The bluegum group and automotive industry. Each of them has some differences in the model. Customers today have more choice of products and services than ever before, but they are not completely satisfied (Prahalad and Ramaswamy, 2004). The concept of co-creation is offered to combine the firm, the market and the consumer together. In 2004, Prahalad and Ramaswamy, compared concept with no co-creation and co-creation. Co-creation increases collaboration between the firm, the market and the consumer. For example, they are joint problem definition and problem resolving. For this reason, this concept makes experience variety and then collective into one idea. Problems may be resolved directly according to the customers need. Value chain is not specified for the business chain. It can be used to evaluate network value by defining value linkages of players in the network (Peppard and Rylander, 2006). Fashion industry is an interesting sector because it has speedy change with demand driven. Fashion supply chain concerns on lead times, time to market, time to serve and react. Today, fashion market is really competitive and need to update product all the times. So, if they can shift into an agile supply chain and can forecast the demand, their cost will diminish (Christopher, et al., 2004). Value chain Strategy will adapt into step of analyzing value chain of used shoes. The expected result is activities in used shoes supply chain are defined into categories by using Value Chain Concept that illustrate how the chain create valued to used shoes.

2.5 Waste Management in Footwear Industry

The footwear industry is part of the largely fashion industry. In recent years, demands and competition in this industry has quickly increased. Life cycle of shoes is short, leading to a higher level of waste in end-of-life. Despite this, very limited studies have studied the effect of waste on environment. Staikos and Rahimifard (2007) aimed to generate an optimal method for waste management in footwear industry. They presented a decision-making model using analytic hierarchy process (AHP), which is a multi-criteria decision-making (MCDM) method. Generally, shoes waste management model consists of four alternatives in end-of-life which are reuse, recycling, energy recovery and disposal. Their research provided the optimal model for waste management process to represent responsibility for environmental and help the company to minimize cost in waste disposal process. However, this research focuses mainly on reuse, repair, recycle and refurbish of used shoes.

RESEARCH METHODOLOGY

This study starts from reviewing the used shoes supply chain by survey and interview stakeholders. After that, SWOT analysis is applied to define internal strengths and weaknesses, as well as its external opportunities and threats. Finally, value chain and margin in this chain are categorized and described. The methodology of this study can be defined as follows;

3.1 *Preliminary Data Collection*: This section is study of used shoe supply chain by survey and interview of stakeholders in the chain.

3.2 *SWOT Analysis*: SWOT Analysis applies to identify internal strengths and weaknesses, as well as its external opportunities and threats of used shoes.

3.3 *Value Chain and Value Added Analysis*: Value chain analysis starts from analyzing activities which occur. Two categories are identified which are; primary activities and support activities. Finally, value added of the used shoes is focused by looking at margin in each stakeholder.

3.4 *Summary and Discussion*: This step will sum up the result of this study and guide line some ideas for the further research.

RESULTS

4.1 Overview of The Used Shoes Supply Chain

Rong Kluea market is located in Sakaeo, near Aranyaprathet border. There are 5 sub-markets including Old Rong Kluea market, Golden Gate market, Dech Thai market, Thesaban II (New- Rong Kluea market) and Benjawan market. Each market can be allocated into specialty markets. Dech Thai market is specific to used shoes. The used shoes supply chain start from middleman in Dech Thai market who import used shoes from other countries such as Korea, Hong Kong, China through Laemchabang port in approximately 45 containers per month ($\approx 216,000$ pairs). Middleman sells used shoes to 4 groups of merchants at Dech Thai market. After modifying processes used shoes are resold to tourists and merchants from province. Finally, used shoes are distributed to other second hand markets. The overviews of the used shoes supply chain in shown in Figure1.

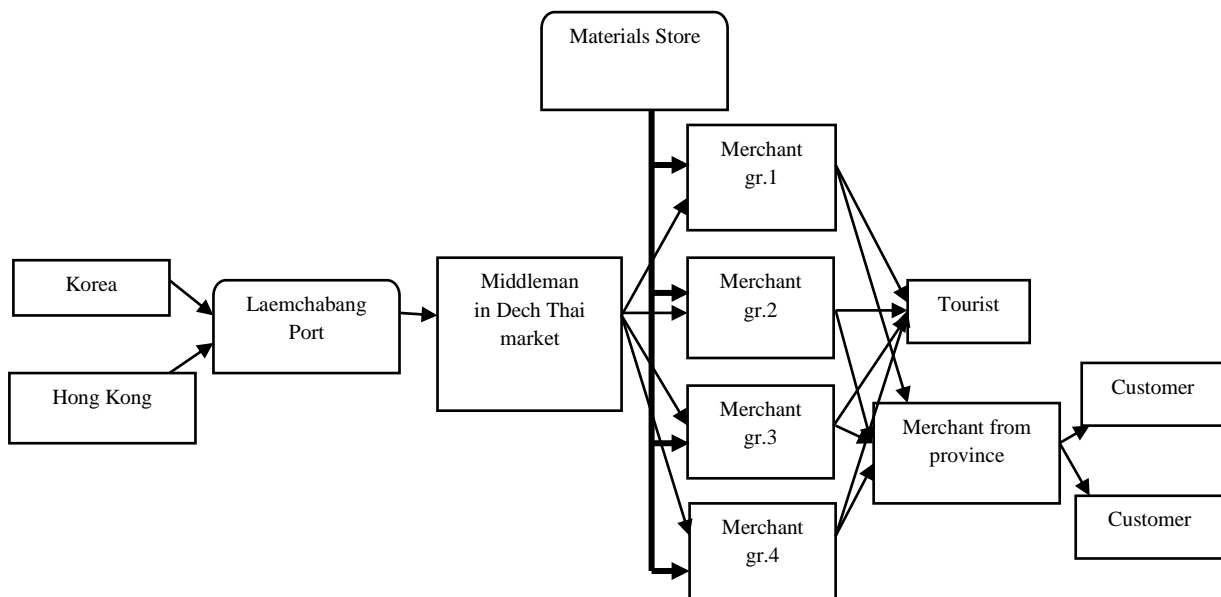


Figure1. Used Shoes Supply Chain

4.2 SWOT Analysis

This step is to identify the internal strengths and weaknesses, as well as the external opportunities and threats of used shoes which are different from other products because they are used products. The SWOT analysis of used shoes indicated several weaknesses and threats. However, there were some strengths that can be developed into opportunities. Table 1 illustrates the results from the SWOT analysis.

Table 1 SWOT Analysis of Used shoes

<p>Strengths</p> <ul style="list-style-type: none"> ○ Used shoes have a low price ○ Used shoes can make a high profit ○ Normally, used shoes are imported items ○ Used shoes can sell anywhere because there is no worry about a piracy problem ○ Used shoes are unique ○ Merchants can set the selling price of used shoes independently ○ Used shoes can sell in a variety of formats such as retail, depending on brand and their condition or wholesale bulk
<p>Weaknesses</p> <ul style="list-style-type: none"> ○ Used shoes still have defects; even though they are modified and fixed ○ Used shoes do not last as long as new shoes ○ Some used shoes cannot be modified or fixed. so they become waste ○ Used shoes are limited in size, version and color
<p>Opportunities</p> <ul style="list-style-type: none"> ○ Second hand markets or used shoe markets are expanding. Therefore, the opportunities of business is higher ○ The revolution of fashion ignites people to enjoy dressing up. So, used shoes are one good choice for them to mix and match ○ There are many examples of fashion influencers who wear used shoes. Therefore, people's interest in used shoes is increasing ○ Declining economy and spending habits of consumers are changing. Used shoes are a good choice for them
<p>Threats</p> <ul style="list-style-type: none"> ○ Extremely competitive businesses. (Example; new items from China) ○ Negative attitude about used shoes ○ Cannot forecast and request about the quality brand design, version, size or color of used shoes per lot

4.3 Value Chain Analysis

Value chain analysis expected to finding value added activities in supply chain for understanding current concept. Nowadays, stakeholders try to generate several activities for supporting their business. Table 2 describes the used shoes value chain analysis. From this section, identify what the activities stakeholders use to added value in the chain.

Table 2 Value Chain Analysis by Activities

Primary Activities	Supply Chain's Activities	Advantages
1. Inbound Logistics	1.1 Import used shoes from aboard 1.2 Transportation Lamchabung > Dech Thai market Dech Thai market > Other - markets 1.3 Dispense parts of shoes to labors	1.1 Get original brand name which have good quality 1.2 Transportation make the processes in supply chain drive and help to distribute goods to other provinces 1.3 Increase responsiveness of customers need
2. Operations	2.1 Separating 2.2 Selecting 2.3 Soles repairing 2.4 Washing 2.5 Repairing 2.6 Ornamenting heeled shoes & Painting	2.1 Easy to selecting 2.2 Can select used shoes in grade and price as they need 2.3 Repairing, washing, Ornamenting heeled shoes and painting are processes to added value for this products cause its make used shoes to durable and similar as new item

3. Outbound Logistics	3.1 Retail and wholesale sales	3.1 Retail is higher price but wholesale is lower price and specific to high quantity.
4. Marketing and Sales	4.1 Loyalty to customers for example; Deliver goods to customers at right time, right grade, right- quantity and right place 4.2 Select used shoes in good quality for customers when they can't come to select by themself	4.1 Get customers reliability and keep business relationship 4.2 Get customers satisfaction
5. Service	5.1 Deliver for province customers 5.2 Compensate to customers in case deliver incomplete quantity	5.1 Increase number of customers 5.2 Get customers reliability and keep business relationship
Support Activities	Supply Chain's Activities	Advantages
1. Procurement	1.1 Provide suppliers who have good quality of used shoes 1.2 Provide suppliers who have good quality and inexpensive parts/implements	1.1 Reduce waste and cost 1.2 Get high benefit and good quality of materials
2. Technology Development	2.1 Contact with suppliers on aboard by email 2.2 Online marketing	2.1 Reduce cost and it is a rapid communication 2.2 Contact and service customers immediately. Expand volume of customer and increase benefit.
3. Human Resource Management	3.1 Employ skilled labors 3.2 Teach technique and skill to labors	3.1 Get exquisite and high quantity products for response the customers need
4. Firm Infrastructure	4.1 Business model of middleman and merchants	4.1 Build business reliability

4.4 Margin of each stakeholder in Used Shoes Supply Chain

Used shoes are imported from other countries at low prices. Cost is about 19.63 Baht/pair. The middleman sells them to 4 groups of sellers in Dech Thai market at different prices. Consequently, sellers push them into processes for added value. Trading of the used shoes are comparable to retail prices and wholesale prices depending on quantity requested by customers. Each stakeholder benefits differently. The highest margin appeared among middleman producing 520.17% and the lowest margin was 25.71% in merchant group 1. Table 3 shows margin of each stakeholder in Used Shoes Supply Chain.

Table 3 Margin of each stakeholder in Used Shoes Supply Chain

Stakeholders	Cost	Selling price (Avg.)	Margin
Middleman	19.63 THB/pairs	121.74 THB/pairs	520.17%
Merchants in group 1	405.7 THB/pairs	Wholesale (80%): 450 THB/pairs	25.71%
		Retail (20%): 750 THB/pairs	
Merchants in group 2.1	206.6 THB/pairs	Wholesale (80%): 280 THB/pairs	47.14%
		Retail (20%): 400 THB/pairs	
Merchants in group 2.2	187.5 THB/pairs	Wholesale (80%): 250 THB/pairs	44.00%
		Retail (20%): 350 THB/pairs	
Merchants in group 2.3	158.4 THB/pairs	Wholesale (80%): 180 THB/pairs	28.79%
		Retail (20%): 300 THB/pairs	
Merchants in group 3.1	77.3 THB/pairs	Wholesale (80%): 100 THB/pairs	68.18%
		Retail (20%): 250 THB/pairs	
Merchants in group 3.2	56.1 THB/pairs	Wholesale (80%): 80 THB/pairs	85.38%
		Retail (20%): 200 THB/pairs	

Merchants in group 3.3	52.9 THB/pairs	Wholesale (80%): 70 THB/pairs	62.57%
		Retail (20%): 150 THB/pairs	
Merchants in group 3.4	39.7 THB/pairs	Wholesale (80%): 50 THB/pairs	51.13%
		Retail (20%): 100 THB/pairs	
Merchants in group 4	21.3 THB/pairs	Wholesale (80%): 30 THB/pairs	87.79%
		Retail (20%): 80 THB/pairs	

SUMMARY AND DISCUSSION

Used items always decrease in worth. Even though they still have value, most people are not concerned about this. Thailand has an interesting business that we call the “second hand market”. Used shoes are popular and are a large scale contributor in this market. The biggest used shoe market in Thailand is the Rong Kluea Market. The used shoe supply chain is different from the normal supply chain because products in this chain are not new items. Therefore, recycling processes occur in the chain. When analyzing the chain value it shows the value added activities in this chain. There are a variety of processes to create value before remarketing; for example, separating, selecting, sole repairing, washing, repairing, ornamenting heeled shoes, and painting. In addition, the SWOT analysis portrays some weaknesses and threats of used shoes, but there are some strengths that can be advanced into opportunities. Finally, the margin in each stakeholder is defined. Each stakeholder benefits differently. The highest margin appeared among the middlemen producing 520.17% and the lowest margin was 25.71% in merchant group 1. This study illustrates that used items still have value by showing the model of the used shoe supply chain and their margin. Therefore, it can be a guideline for other recycled products and also inform people to be concerned about the environmental effects from used products. For further research, the environmental impact from the used shoe supply chain will be investigated because in general the middleman cannot forecast the quality of used shoes. Importing used shoes in some lots has too much waste. This causes an environmental product problem. The middleman must find a suitable solution to manage or dispose of them which increases their costs. Even though used shoes can make a high margin in the second hand market, the environmental effect should be a concern also for achieving the optimal point between economics and the environment.

ACKNOWLEDGEMENT

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand. This work was supported by the Excellence Center in Logistics and Supply Chain Management (E-LSCM), Chiang Mai University, Thailand.

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A Review The Model of Marketing Strategy Affecting Customer Loyalty of Organic Products Store in Thailand

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Abstract: The purpose of this research to find out the model of marketing strategy affecting customer loyalty of organic products store in Thailand for the elderly group and working age group. This research offered both qualitative and quantitative research methods into the study. The quantitative research is carried out 870 samples of each group and related 1,740 samples. The data were collected by questionnaire, focus group discussion and key informant interview. The statistics employed in the research are frequency, percentage, mean, standard deviation, Confirmatory Factor Analysis (CFA), and Structural Equation Model (SEM). The results indicated that the factors affecting customer loyalty of organic products store in Thailand with both elderly and working age groups was service marketing strategy, customer relationship marketing, perception of service quality, and customer satisfaction. The results found that the most important components of the marketing strategy affecting customer loyalty in the working age group was perception of service quality in term of empathy and customer satisfaction in term of convenience gained which most influenced on customer loyalty in term of repeated service. While, the most important components of the marketing strategy affecting customer loyalty in the elderly group was customer relationship marketing in term of education model which most influenced on customer loyalty in term of word of mouth. The constructed model of the working age group was good fitted with the empirical data (Chi square/df=0.95, P-value=0.65338, RMSEA=0.000, GFI=0.99, AGFI=0.97) and the constructed model of the elderly group was goodness of fitted with the empirical data (Chi square/df=1.33, P-value=0.00271, RMSEA=0.021, GFI=0.98, AGFI=0.96)

Keywords: Service Marketing Strategy, Customer Relationship Marketing, Perception of Service Quality, Customer Satisfaction, Customer Loyalty of Organic Products Store

INTRODUCTION

According to long term national development plan, under the 11th National Economic and Social Development Plan (2012 – 2016), the “Philosophy of Sufficiency Economy” will continue to be adopted in order to ensure that the people have a self-sufficiency living, food security and low expenditure level, and to decrease the poverty of household and community sectors. Consequently, some farmers are adopting the philosophy and therefore had been shifting away from Commercial agriculture to organic agriculture. The government has set guidelines for farmers to produce organic products under organic standards of the 11th National Economic and Social Development Plan to support sustainable and environmentally friendly agriculture as well as making it a major organic-products hub in Asean. (Office of the Prime Minister, 2011) The national strategy “Thailand: Kitchen to the World” aims to accelerate the development of organic farming and therefore make it the safest source of agricultural product, and improve the quality of products to meet both foreign and domestic market (Planning Division, Department of Agricultural Extension, 2013). The Ministry of Agriculture and Cooperatives is the main agency that promoting the production of organic agricultural products. The agency is also responsible for the appointment of the National Organic Development Strategic Committee, tasked to draft the second (2013 - 2016) National Organic Development Strategic Plan. This second plan aims to improve the quality of life and health of farmers by promoting the production and consumption of products that are safe from chemicals and enhance the quality of organic products in Thailand to be a competitive product. According to operating result of the implementation of the first Strategic Plan for Organic Products (2008 - 2011), the results show that the area expansion rate of organic agriculture in Thailand had increased in the 2010 and there was an empowerment in Commercial organic agriculture by the framers continuously to certify organic agriculture standards. (Office of Agricultural Economics, 2013).

As mentioned above, both public and private organizations have promoted and supported the organic farming products; encouraging people to increase cultivated areas of organic fruits and vegetables and supporting retail and organic businesses to expand the market (Ministry of Commerce, 2557). In line with trends of population growth in Thailand in 2022, Thai will have lower population growth and birth rates, but the number of elderly people will instantly increase. Working age populations and youth population are going to be decreased, while the elderly population continually increased Pattanawong & Prasartkul, 2015). Today, most of the population express a broad interest in healthcare, therefore, Healthcare products can grow rapidly in the future. Despite the high prices of the product, consumers will be willing to pay more for healthy products.

The organic businesses in Thailand are in a form of specialty stores which focus on selling organic, healthcare, and environmental products. There were 315 specialty stores in 2011 (Office of the Permanent Secretary, Ministry of Commerce, 2011). Entrepreneurs use different business models including healthcare and environmental stores or organic supermarket. Organic specialty stores in Thailand, such as Nawilit store, Lemon farm, and Doikham shop, have expanded their branch networks to all regions of Thailand. A framework of sustainable development was adopted in order to gain competitive advantages to meet both foreign and domestic market needs. Entrepreneurs or retailers need to attach great importance on marketing strategies to build long-term customer loyalty. In particular, a service marketing strategies, customer relationship management, and consumer perceptions of service quality directly affects customer satisfaction and loyalty of organic products. Although organic products or organic business continue to gain in popularity among health-conscious consumers, they still have different target ranges of customers according to diverse lifestyle. Thus, organic products must be diversified to meet the needs of those customers. As the price of organic products is usually higher than the

non-organic one, target market is limited to high income customer group. Economic slowdown may result in low purchasing power of some organic products (Organic Agriculture Innovation Network, 2014).

For all these reasons, the researchers are interested in developing a marketing strategy model that influences customer loyalty of organic specialty stores in Thailand. The rise of health conscious in consumers and public and private sectors' attempt to promote organic marketing may influence consumer's intention to purchase organic products. Based on the previous study of consumer behavior and theories related to consumer behavior models that influence customer loyalty, most research in field of marketing strategies of organic stores urge greater attention to marketing mix issues and there is only limit researches that studied on marketing strategy by integrating customer relationship management, consumer perceptions of service quality, and depth analysis of customers loyalty of organic products in Thailand. The results of this research contributed to develop marketing strategy of organic products in Thailand and to provide entrepreneurs the information in promoting the production of organic products, as well as to provide marketing information for people interested in trading organic products in Thailand in the future.

LITERATURE REVIEW

The researchers have studied the following theories and researches that related to the variables in the research framework:

1. Regarding variables that influence customers satisfaction and loyalty, the concepts used in the study including (1) Lovelock and Wirtz's Marketing Strategy (2011), discusses marketing tools to reach consumer demand and create competitive advantages in service marketing ,also known as 7 P's which are product, price, location and time, promoting services and educating customers, personnel, processes and physical environment. (2) Rapp and Collins' Customer Relationship Management (1999) offers four customer relationship models, including Reward Model, the Contractual Model, the Value Model and the Educational Model. (3) Consumer perceptions of service quality concept, proposed by Parasuraman, Zeithaml and Berry, depends on five factors: convenience of service, service officer, service quality, speed of service, and information gained from the service. (4) Oliver's Customer Satisfaction concept (1997) discussed customer satisfaction in five dimensions: convenience of service, service officer, service quality, speed of service, and information gained from the service. And (5) Oliver's customer loyalty concept (1999) proposed a variant of customer loyalty: positive attitudes, repeated service and word of mouth.

2. According to Li and Green (2011), Mula (2012) and Suthar, Lathangi and Pradhan (2014), customer loyalty is a consequent of effective marketing strategy by the enhancement of product value Also, the service marketing strategy positively influenced customer loyalty. While Rahman, Haque and Jalil (2014) carried out a study by using structural equation to test the relationship between measured variables. It was found that product quality and pricing strategy had a direct positive influence on customer satisfaction and indirectly impact on customer loyalty. In Prasad and Aryasri (2008), Lee and Lambert (2008) and Binsar Kristian and Panjaitan's (2014) study the results show that customer relationship management affects customer loyalty. According to Ejaz, Ahmed and Ahmad (2013), their purposed model demonstrates that customer relationship management has a positive indirect influence on customer loyalty. Let's continue to pass on customer satisfaction. In Spiller, Bolten and Kennerknecht's study (2006), the results show that consumer perceptions of service and product quality has a direct positive influence on customer satisfaction and leads to customer loyalty. Binsar Kristian and Panjaitan (2014) carried out a study to examine factors affecting customer loyalty. The results show that customer satisfaction has a direct positive influence on customer loyalty, which is consistent with Lai's research (2014).

RESEARCH OBJECTIVES

To study the model of marketing strategy affecting working age and elder customer loyalty of organic products store in Thailand.

SCOPE OF THE REREARCH

In regard to content scope, the researchers studied in the area of the marketing strategy model that influences customer loyalty of organic product stores in Thailand. Factors that are considered in the analysis including: personal characteristics of customers, consumer behavior, customer feedback on service marketing strategies, customer relationship management, consumer perceptions of service quality, customer satisfaction and, customer loyalty of organic products store in Thailand

In regard to population scope, the populations used as the sampling are 870 customers who have bought the product more than two times over 6 months at organic products store in Thailand. The samplings were divided into two subgroup; working age and elder customer who purchased for international standards organic products and services from 315 organic stores (according to the stores listed in *Thailand Organic Mapping*) (Office of the Permanent Secretary, Ministry of Commerce, 2011). Key informants consist of six organic store entrepreneurs, two marketing academicians from organic store, and two academicians from office of the Permanent Secretary, organic farming sector, Ministry of Commerce. In regard to timing scope, the research was conducted on June, 2014 to December 2016. The data were collected on October, 2015 to December, 2015.

VARAIBLES

Exogenous latent variables include Service Marketing Strategy, Product, Price, Place and Time, Promotion and Education, People, Process and Physical Evidence. Customer Relationship Marketing is comprised of Reward Model,

Contractual Model, Value-Added Model, and Education Model. Perception of service quality includes Tangible, Reliability, Responsiveness, Assurance and Empathy.

Endogenous Latent Variables include Customer Satisfaction, Convenience Gained, Officer Services, Quality of Services, Duration of Operation and Information Received. Customer Loyalty Factors are Positive Attitude, Repeated Service and Word of Mouth.

CONCEPTUAL FRAMEWORK

Conceptual framework of this research is shown in figure 1.

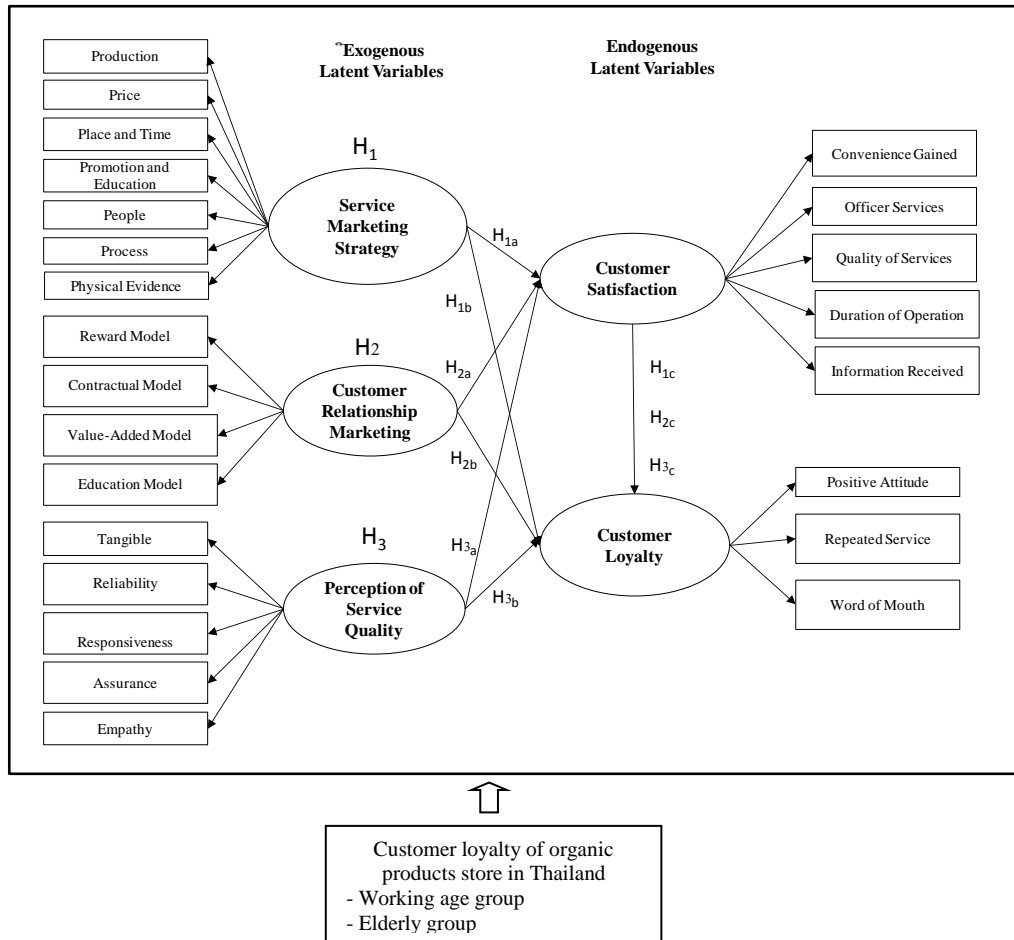


Figure 1: Conceptual framework.

HYPOTHESIS

H1: Service marketing strategies and customer satisfaction factors direct and indirect influences customer loyalty of organic products store in Thailand.

Hypothesis 2: Customer relationship management and customer satisfaction factors direct and indirect influence customer loyalty of organic products store in Thailand.

Hypothesis 3: Perception of service quality and customer satisfaction factors direct and indirect influence customer loyalty of organic products store in Thailand.

RESEARCH METHOD

A combination of qualitative and quantitative methods was adopted for this study. In terms of quantitative data, the populations used as the sampling were 870 customers who have bought the product more than two times over 6 months at organic products store in Thailand. Sample size was 30 times the number of observed variables, according to the requirements of the structural equation analysis (Aungsuchoti et al., 2008) The participants were divided into two sub groups; working-age population, between 20-55 years and elderly population, more than 55 years. Regarding qualitative data, the populations used as the sampling were 870 customers who have bought the product more than two times over 6 months at organic products store in Thailand. The participants were divided into two sub groups; 10 working-age populations, between age 20-55 years and 10 elderly populations, more than 55 years. The qualitative data is used as the verification of quantitative data after a collection of the questionnaires. Data from 10 elderly population in 2013- 2014 and

another 10 population related to the sales of organic products stores in Thailand will be used to assess the marketing strategy affecting customers loyalty of organic products in Thailand.

INSTRUMENT

Three instruments were used in this study: a questionnaire, interviews and group discussion.

Customers who have bought the product at organic products store in Thailand were drawn by using multi-stage sampling method. The first step was to determine sampling units (proportional to size), that is, 159 central stores, 41 Northern stores, 50 Northeastern stores, 16 Western stores, 20 eastern stores and 29 Southern stores (Total number of 315 stores) (Office of the Permanent Secretary, Ministry of Commerce, 2011)

The second step is to determine sampling unit of organic products stores by choosing the province with the highest number of organic stores in each region to be the representative. Specify sample sizes of 10% from all organic stores in each provinces using simple random. As a result, the six organic product stores in Bangkok were sampled. Then, the researcher used a stratified sampling technique to divide the population into 2 sub-groups: (1) working age 25-59 years and (2) elderly over 60 year. Systematic sampling was used to collect samples from 2 groups: (1) 870 working age population and (2) 870 elderly population who came to the sampled stores (58 people for each store) from Monday through Sunday during January and February 2016. store have a total of 870 people in each group.

Validity of the questionnaires was determined by 5 expertise using Item Objective Congruence (IOC) technique. Each question has IOC value of more than 0.60. Reliability test of the questionnaires was done by try-out with a similar group of 30 samples to determine the coefficient of Cronbach's Alpha Coefficient- α coefficient. Cronbach's alpha for the each question is .8, suggesting that the tool is reliable (Cronbach, 1990, cited in Vanichbuncha, 2009).

Data and statistical analysis are consisted of descriptive statistics; frequency distribution, percentage, measures of central value and standard deviation and inferential statistics; Confirmatory Factor Analysis: CFA and Structural equation model: SEM.

RESEARCH RESULTS

Part 1: Results of casual variables effecting on customer loyalty of organic products store in Thailand

1.1 Results of casual variables in working age group

Table 1: Coefficient results in working age group.

Effect and Casual Variables	Working Age Group											
	Service Marketing Strategy (SMS)			Customer Relationship Marketing (CRM)			Perception of Service Quality (PER)			Customer Satisfaction (SAT)		
	TE	IE	DE	TE	IE	DE	TE	IE	DE	TE	IE	DE
Customer Satisfaction (SAT)	0.41 *	-	0.41**	0.27**	-	0.27**	0.23**	-	0.23 *	-	-	-
	(0.10)	-	(0.10)	(0.05)	-	(0.05)	(0.10)	-	(0.10)	-	-	-
Customer Loyalty (LOY)	0.48 *	0.23 *	0.25**	0.24**	0.15**	0.09**	0.13**	0.13 *	0.00	0.57 *	-	0.57 *
	(0.13)	(0.07)	(0.13)	(0.06)	(0.03)	(0.06)	(0.12)	(0.06)	(0.12)	(0.06)	-	(0.06)
Variable R-Squared (R ²)	SAT 0.74	LOY 0.65										
Casual Variable R-Squared (R ²)	PROD 0.38	PRIC 0.46	PLAC 0.51	PROM 0.41	PEOP 0.51	PROC 0.54	ENVI 0.60	REW A 0.54	CON T 0.67	VAL U 0.65	EDUC 0.60	
Casual Variable R-Squared (R ²)	TAN G 0.53	RELI 0.63	RESP 0.55	ASSU 0.61	EMPA 0.71							
Effect Variable R-Squared (R ²)	CON V 0.70	OFF 0.59	QUAL 0.55	DURA 0.64	INFO 0.68	ATTI 0.68	REPE 0.71	MOU T 0.65				
Correlation Matrix of ETA and KSI												
Latent Variable	SAT	LOY	SMS	CRM	PQ							
SAT	1.00											
LOY	0.84	1.00										

SMS	0.82	0.78	1.00		
CRM	0.79	0.73	0.78	1.00	
PER	0.82	0.75	0.87	0.85	1.00

Note: DE=Direct Effect, IE=Indirect Effect, TE=Total Effect, PROD=Product, PRIC=Price, PLAC=, PROM=Promotion and Education, PEOP=People, PROC=Process, ENVI=Physical Evidence, REWA=Reward Model, CONT=Contractual Model, VALU=Value-Added Model, EDUC=Education Model, TANG=Tangible, RELI=Reliability, RESP=Responsiveness, ASSU=Assurance, EMPA=Empathy, CONV=Convenience Gained, OFFI=Officer Services, QUAL=Quality of Services, DURA= Duration of Operation, INFO= Information Received, ATTI= Positive Attitude, REPE= Repeated Service, MOUT= Word of Mouth

1.2 Results of casual variables in elderly group

Table 2: Coefficient results in elderly group.

Effect and Casual Variables	Elderly Group											
	Service Marketing Strategy (SMS)			Customer Relationship Marketing (CRM)			Perception of Service Quality (PER)			Customer Satisfaction (SAT)		
	TE	IE	DE	TE	IE	DE	TE	IE	DE	TE	IE	DE
Customer Satisfaction (SAT)	0.22** (0.06)	-	0.22* (0.06)	0.10** (0.03)	-	0.10** (0.03)	0.64** (0.06)	-	0.64** (0.06)	-	-	-
Customer Loyalty (LOY)	0.27** (0.07)	0.09** (0.03)	0.18* (0.07)	0.28** (0.04)	0.04 (0.02)	0.23** (0.04)	0.31** (0.07)	0.27** (0.07)	0.04** (0.07)	0.42** (0.11)	-	0.42** (0.11)
Variable R Squared (R ²)	SAT 0.82	LOY 0.61										
Casual Variable R Squared (R ²)	PROD 0.42	PRIC 0.51	PLAC 0.51	PRO 0.42	PEO 0.58	PROC 0.48	ENVI 0.52	REWA 0.47	CONT 0.66	VALU 0.62	EDUC 0.73	
Casual Variable R Squared (R ²)	TANG 0.58	RELI 0.62	RESP 0.54	ASSU 0.52	EMP 0.55							
Effect Variable R Squared (R ²)	CON 0.68	OFF 0.59	QUA 0.53	DUR 0.52	INF 0.60	ATTI 0.58	REPE 0.59	MOU 0.61				
Correlation Matrix of ETA and KSI												
Latent Variable	SAT	LOY	SMS	CRM	PQ							
SAT	1.00											
LOY	0.77	1.00										
SMS	0.82	0.72	1.00									
CRM	0.70	0.68	0.69	1.00								
PER	0.89	0.73	0.84	0.71	1.00							

Note: DE=Direct Effect, IE=Indirect Effect, TE=Total Effect, PROD=Product, PRIC=Price, PLAC=, PROM=Promotion and Education, PEOP=People, PROC=Process, ENVI=Physical Evidence, REWA=Reward Model, CONT=Contractual Model, VALU=Value-Added Model, EDUC=Education Model, TANG=Tangible, RELI=Reliability, RESP=Responsiveness, ASSU=Assurance, EMPA=Empathy, CONV=Convenience Gained, OFFI=Officer Services, QUAL=Quality of Services, DURA= Duration of Operation, INFO= Information Received, ATTI= Positive Attitude, REPE= Repeated Service, MOUT= Word of Mouth

Part 2: Results from Structural Equation Modeling Analyses

2.1 Results from Structural Equation Modeling Analyses in working age customers

Consistency test of structural equation model on factors that independent variable affecting the loyalty of working age consumers of organic products stores in Thailand. The results show that the model was consistent with the empirical data of the working-age clients. Regarding the assessment, consistency test with 2/DF value is 0.95 (155.33/163=0.95). According to the requirement, the value should not less than 2. In addition, the result of GFI analysis is 0.99 and 0.97, respectively, which were close to one and meet the requirement that the value should be greater than 0.90 and 0.85 at confidence level of 95 and RMSEA value is zero. It meets the requirement that the value should be less than 0.05. Therefore, the developed

models correspond to empirical data. That is, service marketing strategies have a direct positive influence on customer satisfaction and direct and indirect positive influence on customer loyalty. Customer relationship management has a direct positive influence on customer satisfaction and direct and indirect positive influence on customer loyalty. Perception of service quality has a direct positive influence on customer satisfaction and has a positive indirect influence on customer loyalty but does not directly affect customer loyalty, as shown in image 2. The analysis results of the marketing strategies that affect the loyalty of the working age group of organic product stores in Thailand show that: (1) service marketing strategies (Path Coefficient = 0.41), customer relationship management (Path Coefficient = 0.27) and consumer perceptions of service quality (Path Coefficient= 0.23) are factors influencing customer satisfaction. (2) Service marketing strategies (Path Coefficient=0.25), customer relationship management Coefficient=0.09) and customer satisfaction factors (Path Coefficient=0.57) are factors influencing customer loyalty.

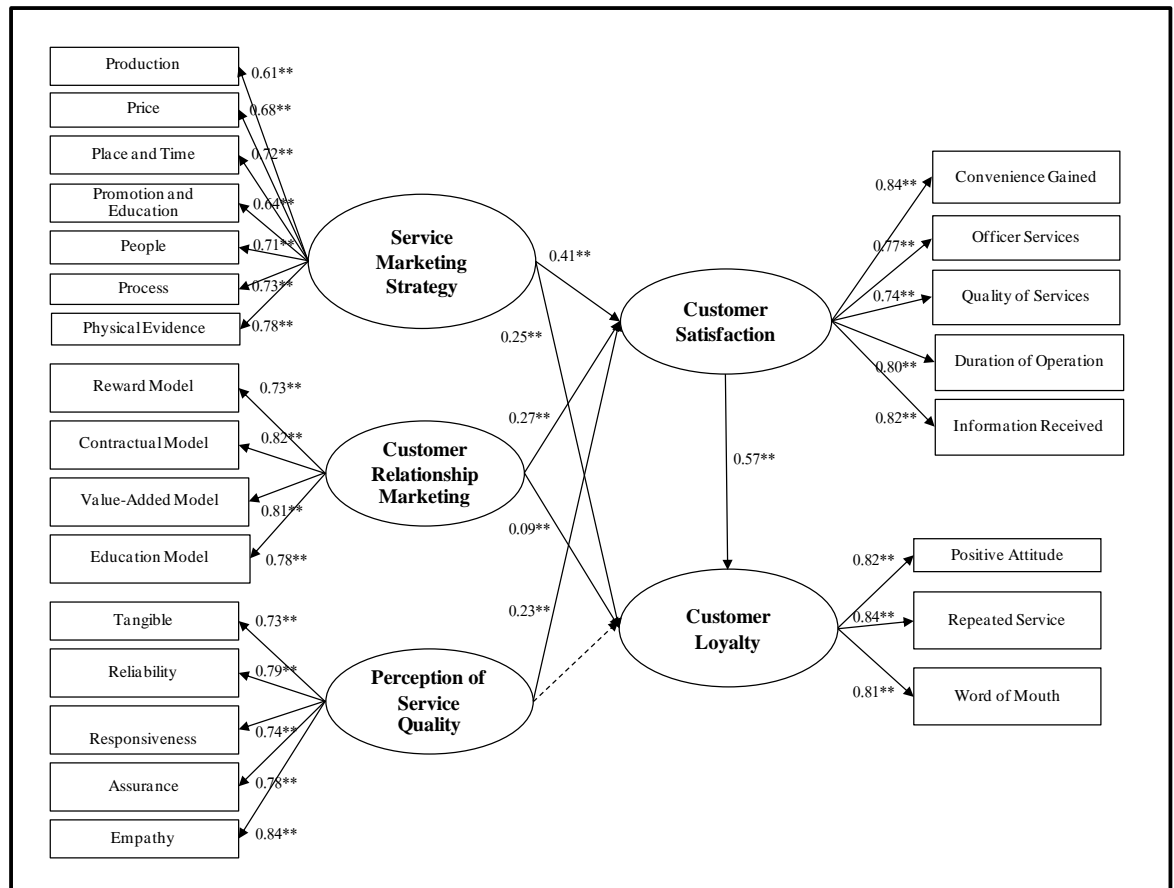


Figure 2: The model of marketing strategy affecting customer loyalty of organic products store in Thailand for the working age group.

When considering the relationship between variables, it was found that the observable variables influenced the loyalty of the working-age in term of positive attitudes, repeat service and word of mouth. The variables with the highest standard (B) value are carefulness and convenience gained (0.84), followed by contractual model (0.81), and Operational Time (0.80), respectively. All variables variance can be described by the component of (R²) marketing strategies that affect loyalty among working-age consumers of organic products stores in Thailand 65%.

2.2 Results from Structural Equation Modeling Analyses in elderly customers

Consistency test of structural equation model on factors that independent variable affecting the loyalty of elderly consumers of organic products stores in Thailand. The results show that the model was consistent with the empirical data of the elderly clients. Regarding the assessment, consistency test with 2/df value is 1.33 (228.07/172=1.33). According to the requirement, the value should not less than 2. In addition, the result of GFI analysis is 0.98 and 0.96, respectively, which were close to one and meet the requirement that the value should be greater than 0.90 and 0.85 at confidence level of 95 and RMSEA value is zero. It meets the requirement that the value should be less than 0.05. Therefore, the developed models correspond to empirical data. That is, service marketing strategies have a direct positive influence on customer satisfaction and direct and indirect positive influence on customer loyalty. Customer relationship management has a direct positive influence on customer satisfaction and direct and indirect positive influence on customer loyalty. Perception of service quality has a direct positive influence on customer satisfaction and has a positive indirect influence on customer loyalty but does not directly affect customer loyalty, as shown in image 2. The analysis results of the marketing strategies that affect the loyalty of the elderly customers of organic product stores in Thailand show that: (1) service marketing strategies (Path Coefficient=0.22), customer relationship management (Path Coefficient = 0.10) and consumer perceptions of service quality

(Path Coefficient = 0.64) are factors influencing customer satisfaction. (2) Service marketing strategies (Path Coefficient=0.18), customer relationship management Coefficient=0.23) and customer satisfaction factors (Path Coefficient=0.04) are factors influencing customer loyalty.

When considering the relationship between variables, it was found that the observable variables influenced the loyalty of the elderly customers in term of positive attitudes, repeated service and word of mouth. The variables with the highest standard (B) value are education model (0.85), followed by convenience gained (0.83), and contractual model (0.81), Value Model and Responsiveness (0.79), respectively. All variables variance can be described by the component of (R²) marketing strategies that affect loyalty among elderly consumers of organic products stores in Thailand 61%.

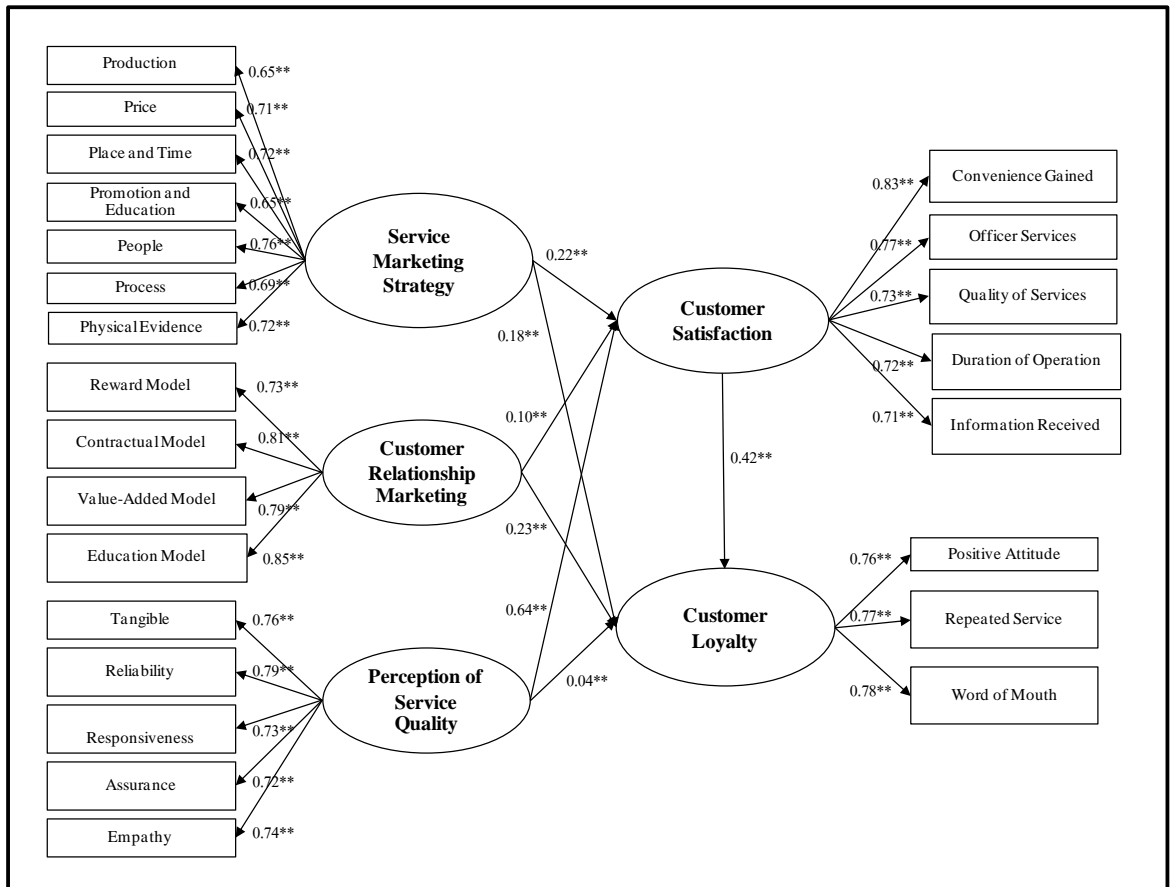


Figure 3: The model of marketing strategy affecting customer loyalty of organic products store in Thailand for the elderly group.

Part 3: HYPOTHESIS TESTING

The outcome of hypothesis testing in analysis of the variables in the structural equation model of the factors influencing the customers' loyalty of organic product stores in Thailand. The results demonstrate that the service marketing strategy, customer relationship management and perceptions of service quality influence elderly customers' satisfaction and loyalty of organic products stores in Thailand. The results show in Table 3.

Table 3: Hypothesis testing summary of the model of marketing strategy affecting customer loyalty of organic products store in Thailand.

Hypothesis	Working Age Group		Elderly Group	
	Accepted	Rejected	Accepted	Rejected
H₁ : The direct and indirect effects of service marketing strategy on customer loyalty of organic products store in Thailand				
H _{1a} : The direct effect of service marketing strategy on customer satisfaction of organic products store in Thailand	✓		✓	
H _{1b} : The direct effect of service marketing strategy on customer loyalty of organic products store in Thailand	✓		✓	
H _{1c} : The indirect effect of service marketing strategy on customer satisfaction through customer satisfaction of organic products store in Thailand	✓		✓	

Hypothesis	Working Age Group		Elderly Group	
	Accepted	Rejected	Accepted	Rejected
H2: The direct and indirect effects of customer relationship marketing on customer loyalty of organic products store in Thailand				
H2a: The direct effect of customer relationship marketing on customer satisfaction of organic products store in Thailand	✓		✓	
H2b: The direct effect of customer relationship marketing on customer loyalty of organic products store in Thailand	✓		✓	
H2c: The indirect effect of customer relationship marketing on customer satisfaction through customer satisfaction of organic products store in Thailand	✓		✓	
H3: The direct and indirect effects of perception of service quality on customer loyalty of organic products store in Thailand				
H3a: The direct effect of perception of service quality on customer satisfaction of organic products store in Thailand	✓		✓	
H3b: The direct effect of perception of service quality on customer loyalty of organic products store in Thailand		✓	✓	
H3c: The indirect effect of perception of service quality on customer satisfaction through customer satisfaction of organic products store in Thailand	✓		✓	

DISCUSSION AND CONCLUSIONS

Service marketing strategies have direct and indirect influences on loyalty of working-age and elderly customer of organic product stores in Thailand. In line with Lovelock and Wirtz's (2011) concept, integrated marketing management using service marketing strategies is a key factor in understanding consumer demand and gaining competitive advantages in service marketing business, as it importantly affects customer's satisfaction of service and quality of the service and influences decision making. Therefore, the service marketing strategy can be used to guide the direction of organic product business in Thailand in order to meet the needs of target consumers and to achieve long-term loyal customers in both working-age and elderly groups.

Conform to the research by Jeensorn (2011) that service marketing strategies positively influence brand loyalty, particularly, clean, safe and reasonable-price organic products. In addition, Arokiasamy (2012), found that service marketing strategy in terms of pricing, distribution and promotion of the product has positive influence on customer loyalty. In addition, Muala (2012) have analyzed the relationships model among variables. The results show that service marketing strategies, product, and distribution channels have a direct positive influence on customer loyalty. This result is in accordance with Suthar, Lathangi and Pradhan (2014) that brand loyalty was positively correlated with product marketing strategies, price, distribution channels and marketing promotion. In addition, service marketing strategies also have a positive indirect influence on both working-age and elderly customer's loyalty of organic product stores in Thailand.

This is consistent with the service marketing strategy concept of Lovelock and Wirtz, 2011) and the concept of Russell-Bennett, Mc Coll-Kenned and Coote (2007) which stated that both behavioral and attitudinal loyalty is directly related to customer satisfaction. In regard to competitive advantages of entrepreneurs, they need to satisfy the customers; precisely identify the needs of the customer, as well as the ability to analyze consumer purchases (Nasser & Ismail, 2014). Thus, the researchers have reviewed the related-literatures to study the evolution in concept of marketing mix which is the fundamental of understanding customer behavior, such as post-purchase behavior, repeated service and word of mouth. (Schiffman & Kanuk, 2010). However, the results are not consistent with the research of Jeensorn (2011). They stated that product, price and distribution channels have severe effects on customer's loyalty of organic Jasmine Rice. Due to the lack of quality assurance, high price, and low advertising, consumers who have bought organic jasmine rice stop buying the products. On the other hand, in Rahman's, Haque and Jalil's research (2014), it is found that the quality of products and pricing policy have a direct positive influence on customer satisfaction and indirectly influence customer loyalty of retail stores in Malaysia. Consequently, customer loyalty is the result of effective marketing strategies (Li & Green, 2011).

Customer relationship management has direct and indirect influence on customer loyalty among working-age and elderly customers of organic products stores in Thailand. The results show that customer relationship management has a positive influence on customer loyalty. This is in line with Rapp and Collins research (1999) which stated that the customer relationship model can be used as a strategy for adapting to the changing consumer's behavior and for achieving long-term loyalty customers. In addition, results also in line with Schiffman and Kanuk's (2007) concept of using marketing programs to build customer relationships, such as product placement and service for individual's interested and special offers. Customer management also affects customer trust and correlates with customers' respond such repeated service, customer loyalty, and a good recommendation. In addition, Prasad and Aryasri (2008) found that the use of customer relationship management tools can attract and motivate customers to remain loyal to the particular store. Lee and Lambert (2008) found that customer relationship management positive significantly influenced customer loyalty. In addition, customer relationship management has a positive indirect influence on working age and elderly's customer loyalty of organic products stores in Thailand. Prasad and Aryasri (2008), stated that customer satisfaction has become a critical factor, followed by commitment

and trust in customer relationship management and customer loyalty. Therefore, the effectiveness of the customer relationship management strategy tools are widely discussed and consistent with the research by Ejaz, Ahmed and Ahmad (2013), which examines the impacts of customer relationship management on consumer purchasing behavior. They found that customer relationship management strategy can perfectly attract customers to buy products. In different industries, customer relationship management will be used differently to create consumer's satisfaction and loyalty. Thus, the proposed model shows that customer relationship management has an indirect positive influence on customer loyalty in word of mouth through customer satisfaction.

Perceptions of service quality are direct and indirect influence working age and elderly customers' loyalty of Thai organic product stores. The results indicate that perceptions of service quality are direct positive influence customer loyalty. This corresponds to Parasuraman, Zeithaml and Berry's concept (1985) that quality of service is the perception and expectation of customers. It is very important because once customers receive the service; they will compare the quality of service with the expected service quality. If the quality of service is better than their expectation, customers will come back and use the service again. This leads to customer loyalty. In line with Bell, Auh and Smalley's research (2005) the perception of service quality has a direct positive influence on customer loyalty. According to Lai (2014), the perception of service quality also has a direct positive influence on customer loyalty. However, the results show that that the perception of service quality has no influence on working age customers due to the different level of service perceiving. Therefore, the working age customers may not pay attention to the quality of service because the organic food shops can provide full services for them, for example, the expansion of branches covers the whole country or the availability of the product. Unlike elderly customers, they have a high expectation for the convenient and good service system. In addition, that the perception of service quality has a positive indirect influence on working age and elderly's customer loyalty of organic products stores in Thailand. In line with Rahman, Haque and Jalil's (2014) research that study structural equations. They discover that service quality has a positive indirect effect on customer loyalty. Spiller, Bolten and Kennerknecht (2006) carried out a study by using satisfaction and loyalty as success factors of organic retailers. The results show that the perception of product quality and service has a direct positive influence on customer satisfaction and customer loyalty. Therefore the perception of service quality and excellent service, provided by the organic product retailer, can be a tool to build a good relationship with customers and encourage them to buy products or services continuously, as well as build long-term loyalty customers.

RECOMMENDATIONS

Policy Recommendations

1. Thai organic food entrepreneurs can apply marketing strategies that influence the loyalty of both working age and elderly customers, as well as use it as a guideline to improve or modify the operating result; enhancement of customers' satisfaction and trust. Marketing strategies can consequently resulting in the sales improvement and customers' loyalty of organic products.
2. The Ministry of Agriculture and Cooperatives should advance organic farmers to get organic certification by organizing seminars to transfer knowledge and production principles in international standards organic farming systems. The agencies should also have the farmers studying about marketing strategies that affect the loyalty of the customers. In addition, The Ministry of Agriculture and Cooperatives should cooperate with other agencies, such as the Ministry of Health, the Ministry of Commerce, the Ministry of Tourism and the Ministry of Technology and Communication to promote organic food consumption and expand organic products market.

PRACTICAL SUGGESTIONS

1. Organic food entrepreneurs in Thailand can apply marketing strategies that influence the loyalty of both working age and elderly customers, as well as use it as a guideline to improve or modify the operating result; enhancement of customers' satisfaction and trust. Marketing strategies can consequently resulting in the sales improvement and customers' loyalty of organic products. In addition, it is very important to attach great importance to service marketing strategies as it is an important component of marketing, particularly, selling a safe and standard organic products, investing on public relations. Organic food entrepreneurs must have a variety of channels to provide advice or use procedures to customers. Hence, the customers would not switch to use competitors' products or recommended the particular products to other consumers. For all these reasons, service marketing strategy can be the tool to monitor customer satisfaction after the purchase of a product or service, and to increase confidence and trust in service, and to finally archive loyalty customers
2. Organic food entrepreneurs in Thailand should also attach much weight to customer relationship management. This is an important factor affecting the satisfaction and loyalty of both working-age and elderly customers. Therefore, it is better to develop or enhance the level of customer relationship; doing activity together, creating a public relations for promoting or offering the privilege for customer. The activities must be regularly updated to reflect the ever-changing marketing environment and to give customers the most satisfice service.
3. Organic food entrepreneurs should adjust and improve service quality, particularly; an employee motivated is important to provide impressive services for customers. Buying behavior of elderly customer that focus convenience and speed service. In addition, when customers are about to buy goods or services they need to be confident that the service or product has a standard and have a reasonable price. Therefore, the entrepreneur should pay attention to the value that customers receive from the service. Entrepreneurs should consistently develop cleanliness and orderliness of the place, communication and service skills of the employee, in order to provide customers a satisfactory service and confidence to use the service once again.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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An Analysis of the Financial Return on Investment of Rural Road

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Abstract: This research is an analysis of the financial return on investment of rural road 3004 from Nakhon Phatom Police Station to Suansunandha Rajabhat University Nakhon Phatom Learning Center. This objective is an analysis of the financial return on investment if expanding route of bus. There are 200 sets of questionnaires for general information and requirements. The process of this research is to define population and sample, set sample size, define sampling plan, make a questionnaire, take the created questionnaire with the specialists, find index of congruence and try-out, explore the general information of people, study bus schedules of buses, calculate the cost of a project, calculate the project's return and analysis of financial return. The research showed that people are interested in bus service 7 percent and calculated NPV = -60,735,780.14. This means that the project is unlikely to invest or lose. There are 3 suggestions. (1) Based on the interview, the executives showed that analysis of the financial return should be calculated throughout the route of the bus. (2) May be for students or the people, live in the area, buy monthly card to guarantee minimum income to the bus. (3) Data of questionnaires showed they may not match the actual target group, resulting in discrepancies, so questionnaires should be collected from only students or people, live in the area, who are likely to be the actual target group.

Keywords: Analysis of the Financial, Financial, Bus

INTRODUCTION

Suan Sunandha Rajabhat University, Nakhon Pathom Learning Center, is one of four educational centers that have implemented teaching and learning according to the university's educational expansion policy and have started teaching since August 1, 2015. College of Logistics and Supply Chain is one of many faculties have taught at Nakhon Pathom Learning Center. However, since the Nakhon Pathom Learning Center conducts teaching in the initial stage. Traveling into the center of education is a problem that affects students directly. Students will be traveling by van, taxi and private car. There are currently no bus services available on this route. For this reason, the researcher recognizes the importance of the problem, the analysis of the financial return on investment of rural road 3004 from Nakhon Phatom Police Station to Suansunandha Rajabhat University Nakhon Phatom Learning Center. The purpose of this research is to analyze the financial return of an expansive route from Nakhon Phatom Police Station to Suansunandha Rajabhat University Nakhon Phatom Learning Center. As shown in Figure1.



Figure1: Extension route

LITERATURE REVIEW

1. Sample Selection

1.1 Probability Sampling is selecting units from all units in the population by sampling technique. According to the sample size set. Each sample unit in the population can calculate the probabilities or probabilities that will be represented in the sample. It can be divided into two types as follows.

- Equal probability sampling
- Unequal probability sampling

1.2 Non- probability sampling is the population may not know the true or not. It is not possible to use sample selection using probability and must use sample selection without probability. This is the sample unit selection and there is an equal opportunity. It can be divided into several types as follows.

- Accidental sampling

- Quota sampling
- Purposive sampling

2. Net present value: NVP

Net present value is the present value. In other words, it is the value that can be derived using an asset and is to evaluate “Can investment make a profit?” by moving each net cash that return to current value.

RESEARCH METHODOLOGY

1. Define population and sample. This research, the population is the people who live in the extension path. The sample is the person who lives in the extension path and near the road.
2. Set sample size. From the Yamane sample size table, 95% confidence level, discrepancy not exceeding 10%, the researcher used 200 samples because of limited budget.
3. Define sampling plan. The researcher used accidental sampling because it is convenient and save cost.
4. Make a questionnaire to store general information of people in that area such as gender, age, education and travel interests.
5. Take the created questionnaire with the specialists. In order for the specialists review content validity and make further suggestions, then to improve the questionnaire.
6. Find index of congruence and try-out. This research has been reviewed.
7. Explore the general information of people living in this area by using the questionnaire.
8. Study bus schedules of buses from the secondary data of the Bangkok Mass Transit Authority (BMTA) to determine the number of buses to pass and bus timetables.
9. Calculate the cost of a project. Investment costs include the cost of building a carriage, based on secondary data from the Bangkok Mass Transit Authority (BMTA). Operating expenses include utilities, such as electricity from lighting installations, car ports, and fuel bills. Maintenance costs and other expenses include the cost of repairs bus and accessories.
10. Calculate the project's return by using project revenue from bus fare.
11. Analysis of financial return is based on Net Present Value: NPV.

RESULTS

The results of the research are divided into 2 parts.

Part 1: Personal characteristics of the respondents.

Part 2: Analysis of financial return.

Part 1: Personal characteristics of the respondents. Analysis will use frequency and percentage.

Table1: Gender

Gender	Frequency	Percentage
Male	72	36.0
Female	128	64.0
Total	200	100.0

Table1 shows that the sample in this research. There were a total of 200 persons, 128 of them were female, or 64.0% and 72 males, or 36.0%.

Table2: Age

Age	Frequency	Percentage
Under the age of 15	4	2.0
15-18	22	11.0
19-22	64	32.0
Aged over 23	110	55.0
Total	200	100.0

Table2 shows that most of the samples in this research were 23 years of age or older, there were 110 people or 55.0%. A minor between 19-22 years, there were 64 people, or 32.0 percent. The age of 15-18 years, there were 22 people, or 11.0%. Under the age of 15, there were 4 people, or 2.0 percent.

Table3: Education

Education	Frequency	Percentage
Lower than junior high School	4	2.0
Junior High School	22	11.0
High School	56	28.0
Bachelor	112	56.0
Higher than bachelor	6	3.0
Total	200	100.0

Table3 shows that most of the samples in this research had 112 undergraduate level, or 56.0%. High School had 56 people, or 28.0%. Junior High School had 22 people, or 11.0%. Higher than the bachelor's degree, 6 people were 3.0% and 4 people lower than junior high school students, or 2.0%

Table4: Travel

Travel	Frequency	Percentage
Traveling with other people	22	11.0
Bike	6	3.0
Motorcycle	38	19.0
Car	58	29.0
Motorcycle Taxi	36	18.0
Taxi	30	15.0
Minibus	10	5.0
Total	200	100.0

Table4 shows that most of the samples in this study were traveling by car using 58 vehicles (29.0%), followed by 38 motorcycles (19.0%), 36 motorcycles taxi (18%), 30 taxi (15.0%), 22 traveling with other people (11.0%) , 10 minibuses (5.0%), and 6 bikes (3.0%).

Table5: Interesting use of the bus

Interesting use of the bus.	Frequency	Percentage
Interested	70	35.0
Ignore	130	65.0
Total	200	100.0

Table5 shows that people are interested in 35 percent. According to the interview, the specialist found that although people are interested in 35 percent, but when the time is really available, there will be people who use the service up to 20 percent of those interested. Mean that there will be about 7% (35 * 20)

Part 2: Analysis of financial return. Analysis will use NPV.

1. Predict the demand for the bus.

1.1 From the data collection, it was found that the bus that passes this closest route is the 515 bus, which has an average of 4 buses per hour. As shown in Figure2.

1.2 In Figure2, in the case that there are 4 buses per hour (blue line), there will be people who use the service up to 7 percent.

1.3 From the data collection, it was found that at the red star is bottleneck point. There is a need to use this road (7am to 6pm).

The passing vans through this road were 13 cars per hour * 10 people = 130 people.

The passing cars through this road were 1,080 cars per hour * 2 people = 2,160 people.

The passing motorcycles through this road were 420 cars per hour * 2 people = 840 people.

Summarize all the requirements using the road route. The average hourly rate was 3,130.

The estimated demand for buses is $0.07 * 3,130 = 220$ persons per hour.

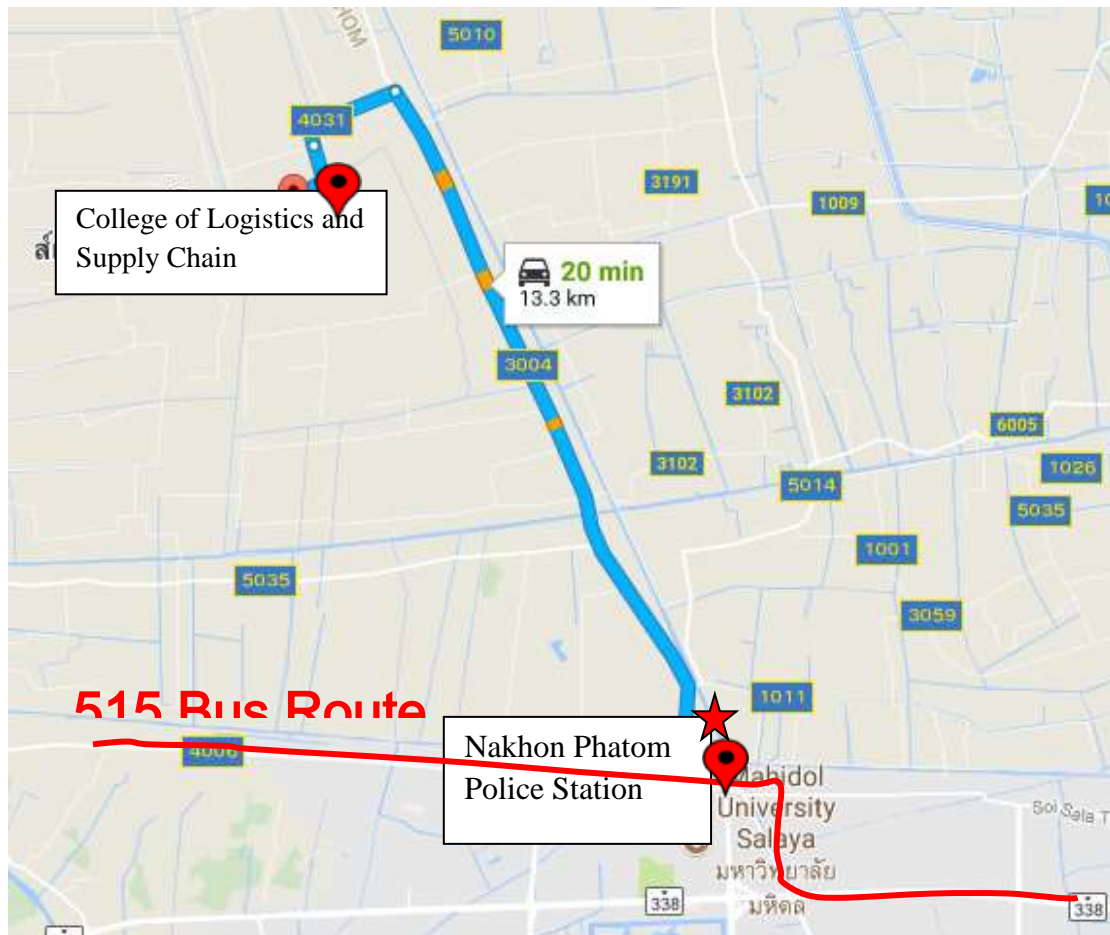


Figure2 515 Bus Route

2. Cost calculation

According to data from the Department of Land Transport, 2016, it was found that the average cost of bus service was 64.16 baht per kilometer.

Total distance is 26.6 kilometers.

Cost is $64.16 * 26.6 = 1,706.66$ baht per trip.

Total cost is $1,706.66 * 4 = 6826.62$ baht per hour.

3. Calculate the return.

The minimum bus ticket is 12 baht per trip.

The total income is $12 \text{ baht} * 220 \text{ persons per hour} = 2,640$ baht per hour.

4. Financial Analysis.

The total revenue is $2,640 \text{ baht per hour} = 2,640 * 12 * 365 = 11,563,200$ baht per year.

Total cost is $6,826.62 \text{ baht per hour} = 6,826.62 * 12 * 365 = 29,900,595.6$ baht per year.

The interest is charged at 8 percent of the loan rate.

The age of the project is set to 4 years due to maintenance of a large bus or change of bus.

No money invested in the start.

So calculating NPV = -60,735,780.14 baht

CONCLUSION

This research is the analysis of the financial return on investment of rural road 3004 from Nakhon Phatom Police Station to Suansunandha Rajabhat University Nakhon Phatom Learning Center. The purpose of this research is to analyze the financial return of an expansive route from Nakhon Phatom Police Station to Suansunandha Rajabhat University Nakhon Phatom Learning Center. From the predictions and calculations, it was found that in the route Nakhon Ratchasima 3004 rural highway extension from the police station to Suan Sunandha Rajabhat University. Nakhon Pathom Learning Center. The total income is 2,640 Baht per hour and the total cost is 6826.62 baht per hour. NPV = -60,735,780.14 baht so this project is not worth the financial return due to loss.

According to executives interviews to find the cause of the loss found.

1. Analysis of the financial return should be calculated throughout the route of the bus
2. May be for students or the people, live in the area, buy monthly card to guarantee minimum income to the bus.
3. Data of questionnaires showed they may not match the actual target group, resulting in discrepancies, so questionnaires should be collected from only students or people, live in the area, who are likely to be the actual target group.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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Study, Logistics and Supply Chain Management of the Organic Community Enterprise Baan Klong Kong in Nakhon Pathom Province

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Abstract: The objective of this Study, Logistics and Supply Chain Management of the Organic Community Enterprise Baan Klong Kong in Nakhon Pathom Province from upstream to downstream. A qualitative research using data collected by in-depth interviews with those involved and to analyze and interpret the results. The results showed that members of the Integrated Farming is the main occupation is farming growing vegetables. The group of enterprises is aiming to develop a long-term sustainable agricultural area. Stop using 100% chemicals. The goal is to produce organic rice and grow organic vegetables for the city. Establishing seed banks to lend to farmers planting. The yield used for household consumption. And sells products in the community. That people can buy into the region's communities. And in collaboration with several departments to drive organic way with sustainability. Creating well-being of members. It is seen that the group is planning to set up from upstream to downstream supply chain management system. From the selection of seeds to plant. Planting method agriculture Distribution and to increase the distribution channels. Including freight to various points along with their own car, farmers in the group's well-being. Strengthened economic sustainability. Plan to has been cooperated with several agencies to promote sustainable organic farming practices Strengthen the economy. So seen that logistics and supply chain management of the Organic Community Enterprise Baan Klong Kong in Nakhon Pathom province. Can do it by yourself but it must be developed to optimize. And solve the problems or obstacles is achieve for development continues.

Keywords: Community Enterprise, Community Capital, Supply Chain Management

INTRODUCTION

Over the past several years, Thailand has faced several economic times, and the government has tried to find ways for people to help themselves. Sufficiency Economy, which is the philosophy that His Majesty King Bhumibol Adulyadej is guided by His Majesty King Bhumibol Adulyadej has guided the way of life for the Thai people throughout. Since before the economic crisis in 1997, and later emphasized the solution to overcome the crisis. This philosophy of economic sufficiency has been accepted by countries around the world and can be sustained and sustained under globalization and change. That is a truly sustainable development concept. Community integration by the establishment of a community enterprise was born from the implementation of a community economy or sufficiency economy to develop continuously and systematically. There is an emphasis on dependence, learning to focus on doing, substituting, buying from the market. And it is the management of production and consumption systems in everyday life. The community can do it without difficulty. Making a purchase is a substitute for buying, reducing expenses, and helping the economy grow stronger. Sufficiency Economy, like the pile of buildings that keep the building strong, the country's economy will be strong and sustainable. Therefore, community enterprises are important in building a stable base for the country. By stimulating the grassroots economy to be strong and diversifying its employment opportunities, creating jobs, generating revenue and reducing the burden of costs, the majority of people in the country can become self-reliant.

At present, logistics management plays an important role. Supply Chain or Supply Chain Used to call units in the business line, that is, all units are part of a chain of processes. The same link in the same business line. To get the raw materials passed from the first unit. This is a manufacturer / supplier of raw materials. Go to the second unit, which manufactures the product. Then forwarded to the next agency. Who will sell the product to the consumer again? It can be said that the supply chain in the community enterprise is the search for varieties. How to cultivate to obtain good quality fruit. And the distribution of goods to the consumer systematically. And to add value to quality products. Longer life and higher prices make it more profitable.

To adapt to the ever-changing environment, economy, politics, trade and investment. The supply chain education of community enterprises has made the group sustainable and sustainable. It is possible to plan the planting from upstream to downstream, from the selection of seeds. Planting method Distribution Channel to deliver goods to consumers. Systematically To improve the members' economy, they can depend on themselves sustainably to make the foundations of the country better. According to the development plan, a community-based certification system (PGS) was established. Of the Ministry of Agriculture and Cooperatives.

RESEARCH METHOD

2.1 Research Objectives

In this research, we would like to study the supply chain management model of the organic farming community enterprise Baan Klong Kong in Nakhon Pathom Province

1.2 Research scope

Study and gather information from members of Organic Farmer Group in Baan Klong Kong in Nakhon Pathom Province. During the February 1, 2017 - April 30, 2016.

LITERATURE REVIEW

In the study, it was found that the community enterprise group lacked in supply chain management services. It is in the management from the upstream, midstream and downstream. Some community enterprises have made some inexperienced middlemen. Some community enterprises lack some experience, thus requiring passage through intermediaries. Make less profit. Or in the case of seeds, fertilizer cannot produce itself. I have to buy from other sources. The risk of shortage. (Anchalee Hiranphaet, 2016)

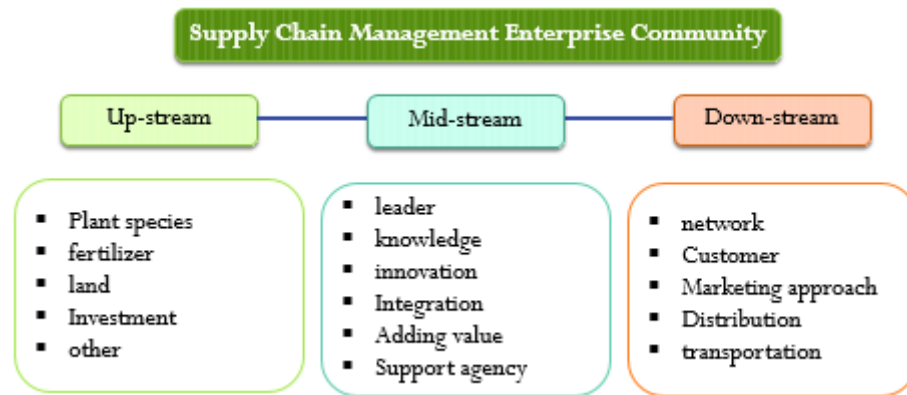


Figure 1: Show the supply chain management community enterprise

Supported community context are: (1) Community leaders (2) Social (3) Location (4) Participation (5) Economy (6) Coordination and (7) Community culture

Analysis of supply chain management model have made the management model are: 1) Supplying the whole area needs and selection of seed quality and standard. 2) Supply chain management process is planning to grow. 3) Packaging for distribution to markets and consumers. 4) Social outcomes are Application of wisdom people in the community (Boonthawan Wingwon ,et al, 2014). Demand for organic food is growing at a much faster rate than ever before, but not without numerous operational challenges. Farmers, retailers and food processor manufacturers are thus looking to streamline their supply chains while addressing ever-expanding market requirements.

Burgeoning consumer interest in healthy cuisine has not only revolutionized the organic food industry, but it has opened myriad new markets. Beginning life as a niche market with a small consumer base, addressed by a limited number of retailers, organic products are now a preferred choice of many quality-conscious domestic shoppers. (The Business of Food: Encyclopedia of the Food and Drink Industries, edited by Gary Allen and Ken Albala, Greenwood Press, London, 2007.)

With food expenditure growing about 7.67% from 2010 through 2012, the demand for organic food through the retail sales medium is anticipated to increase consumer food expenditure' Produce enters the market primarily through supermarkets and grocery stores, after it originates from large farms in the U.S., Mexico and South America. However, there are numerous small farms that are certified organic and also sell their produce in local markets such as farmers markets and restaurants. (Statistics and Emerging Trends 2014," FiBL and IFOAM.)

Theresa Podoll and David Podoll shared insights of their two families' farms in Fullerton ND. Activist and author Anna Lappé informed farmers that organic farming is "climate-smart farming." Permaculture guru Mark Shepard (restoration agriculture) explained how farmers can work with nature to transform their farms into systems that produce food sustainably and involve less work. (Key topics and highlights of the 2014 MOSES Organic Farming Conference held in Wisconsin:)

Value chain analysis

Aekamon Aeamso (2012) VCA is a strategic tool used to analyze the company's activities. With a clear goal for value development. And maximize performance. It can significantly increase the cost of a company's production or costs, or have competitive advantages over its competitors. Michael Porter presented the concept of Value chain model in 1985, where the value chain system is the management model for all the company's activities. The production of goods and services. The Value Chain is derived from the core activities that add value to the final product. With the support of Support activities This adds value indirectly to the Value Chain Model example below.

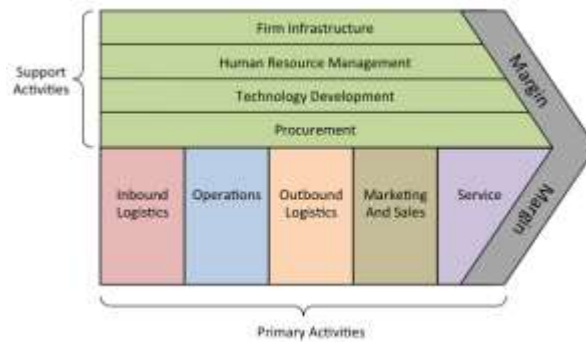


Figure 2: Show Value Chain Model

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. (Varaporn Saninmool, 2016)

2.4 Research Methodology

Research on Supply Chain Management of Baan Klong Yong Organic Farming Enterprise in Nakhon Pathom province is a qualitative research. Researcher conducts field research. By using data collection methods. The researcher selected a specific sample. Group discussion And in-depth interviews to gather information from discussions with informants on specific issues. The way of discussion is deep. To see the process of supply chain management from upstream to downstream. As well as sharing knowledge to analyze supply chain management effectively and appropriately to the area. By defining the questions used in questionnaires or questions to find answers that are still vague or unclear. By asking questions for use in studying opinions, attitudes, feelings, perceptions, beliefs, and behaviors. The new hypothesis is used to evaluate the development of supply chain management.

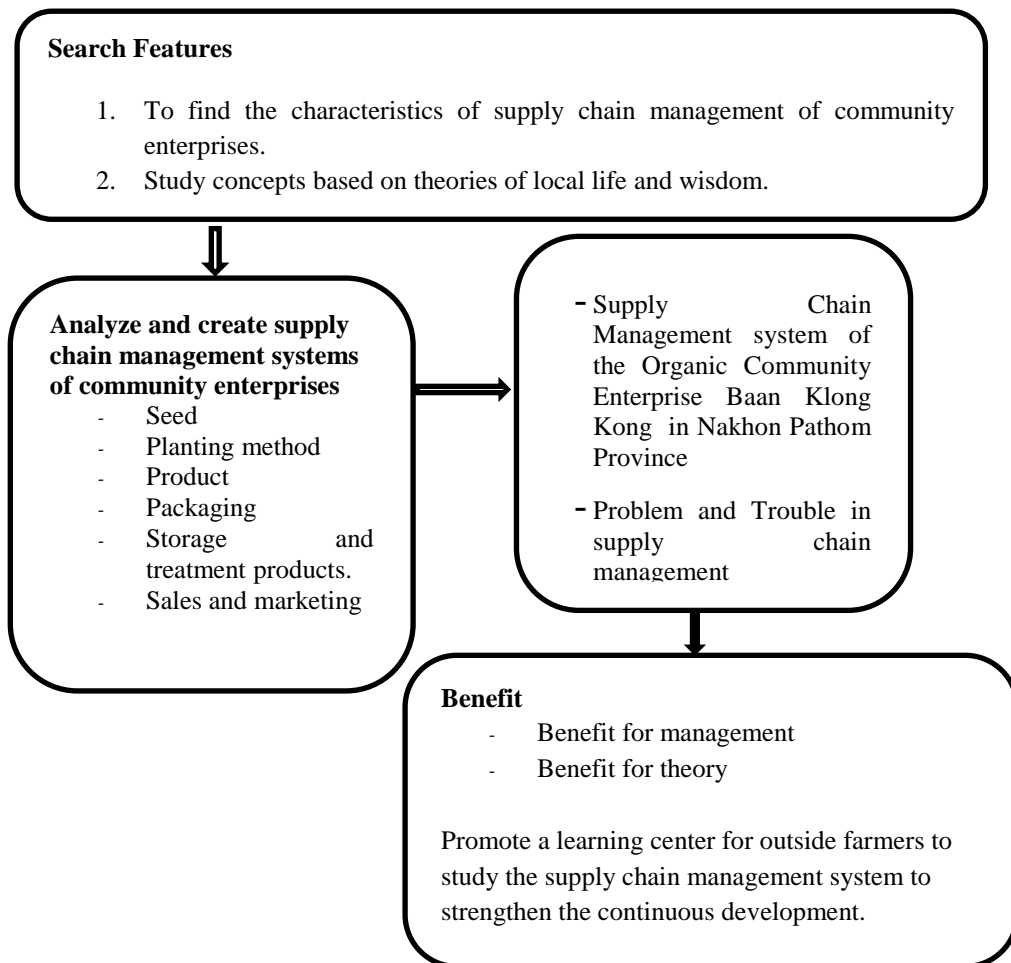


Figure: 3 Show research hypothesis

RESEARCH RESULTS

The community enterprise group was registered as a community enterprise in the year 2015. The members of the group recognized the importance of health so they combined to transform agriculture into organic farming so that the community would become an agricultural area for a better quality of life. And want to leave the middleman circuit to not produce the villagers are undercut and set their own price. The study on supply chain management of Baan Klong Yong Organic Farming Enterprise is a qualitative research. This study was conducted since the history. Operation Characteristics And supply chain management. the researcher begins with the upstream process: finding the right plant variety. Planting method Harvesting and processing. This process is midstream of supply chain management. And also to study the distribution of products to the market. And cargo handling This is the downstream process of the supply chain. The products sold are agricultural products with more than 20 different kinds of vegetables.

The process of supply chain management of the organic community enterprise Baan Klong Kong in Nakhon Pathom Province.

- | | |
|------------------------|--------------------|
| 1. Seed | 2. Planting Method |
| 3. Product | 4. Packaging |
| 5. Sales and Marketing | |

Supply chain activities and related parties in the supply chain of Baan Klong Kong in Nakhon Pathom Province Organic Agriculture Enterprise Group are divided into 3 groups as follows:

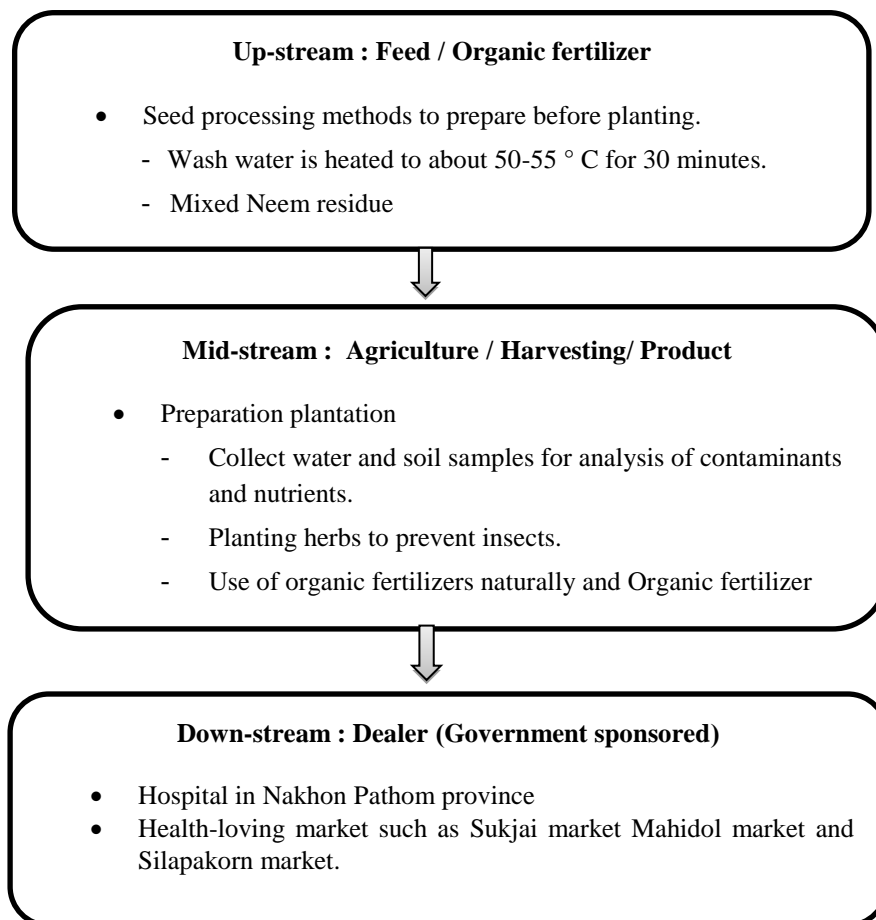


Figure 4: Show the activities and related persons in the supply chain of the community enterprise group.

Up-stream : Feed / Organic fertilizer

Vegetables grown by the group for sale in the form of organic products. The group plans to cultivate the plantation area to cultivate a variety of vegetable crops according to the market demand in order to satisfy the consumers. In addition, the group has set up a bio-fertilizer production unit for use in the maintenance of vegetable crops and can be trained at home to make the knowledge to sustainable farmers. Can be used to other uses, generating large amounts of output. And the quality of the group standards.

Mid-stream : Agriculture / Harvesting/ Product

Group members exchange knowledge about how to grow each type of vegetable crops. Have group members put into action. And we have been thinking of finding a way to cultivate a very fruitful development of the group and produce satisfactory results for continued development. The method of cultivation starts from the conversion. Soil samples are collected for analysis of contaminants and nutrient content. It also collects water samples to analyze contaminants to make the production of organic vegetables. Vetiver grass is also used to cover vegetable crops. And help condition the soil. The layout of the conversion to the east. There are medicinal plants that help prevent insects such as chili, lemongrass, basil, chickens, soymilk, by using manure from natural plants. Organic fertilizers are produced by the standards themselves. The seeds of the planted vegetables must be washed to a temperature of 50-55 degrees Celsius for 30 minutes, then mixed with neem residue and then sown to plant. Plant maintenance with the use of organic fertilizer. To grow vegetables with quality. When to harvest vegetables. Have to clean up the plot quickly. The diseased plant shredded immediately outside the planted area. The non-disease to be used to make fertilizer to use resources in the conversion to the maximum benefit. The main products of the group are vegetables such as Chinese kale, Chinese cabbage, lemongrass, galangal, chili, parsley, banana, basil, taro, broccoli, green salad etc.

Down-stream : Dealer

The government has a policy to allow the hospital to help farmers produce organic products. By the hospital in Nakhon Pathom Province first. And the products of the group. It also sells to niche markets such as Sukjai market Mahidol market and Silapakorn market. They are expected that the marketing of organic products should expand wider. Along with prompting Create awareness for consumers to be more aware of vegetable consumption. In addition, the group has opened shops in the community for interested consumers to see how to cultivate and buy vegetables at the group located at Ban Klang Moo Organic Group Enterprise. county Nakhon Pathom province as well.

CONCLUSION AND RECOMMENDATIONS

The study of Supply Chain Management of the Organic Community Enterprise Baan Klong Kong in Nakhon Pathom Province is a qualitative research. The objective of this study was to study the supply chain management model of Organic Farming Enterprise Group Baan Klong Kong in Nakhon Pathom province. They are a group of farmers who turn to agriculture, chemicals and organic agriculture. To grow organic vegetables sold to consumers. The research found that the main products of the group were more than 20 types of vegetables.

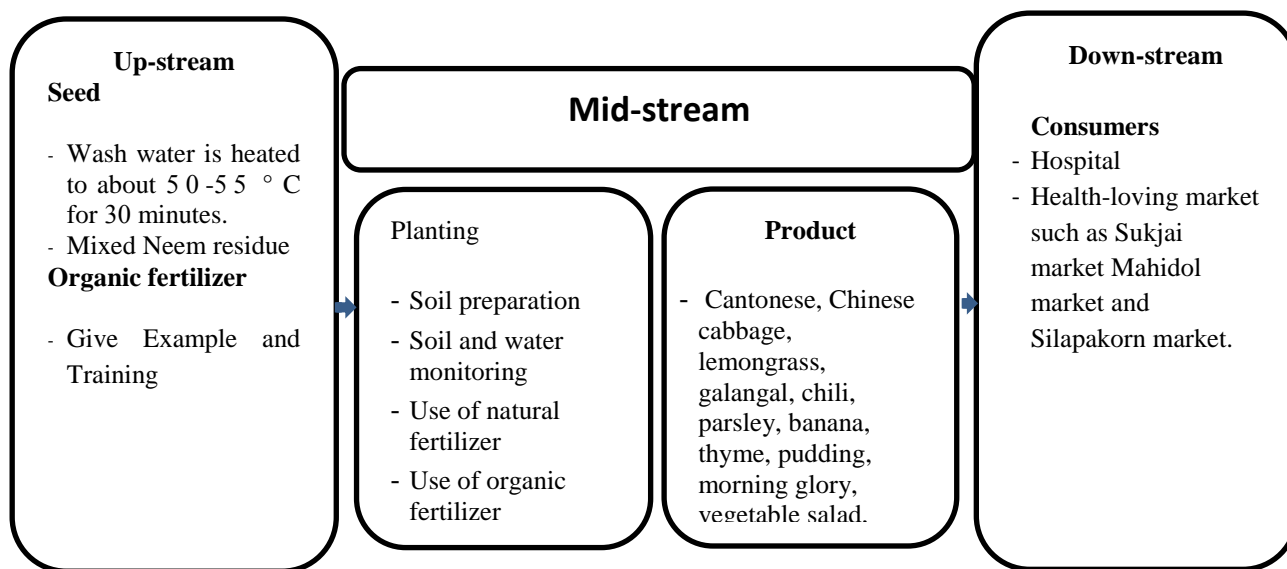


Figure 5: Summary of community enterprise supply chain management.

Supply chain management from upstream to downstream, the group tries to rely on itself as much as possible. There is a planned systematic cultivation of the same standard. To meet the objectives of setting up a community enterprise that requires members to be strong, sustainable. The cultivation is outside the household consumption, if there are a lot of it. The establishment of a group to promote the production of organic products can negotiate for distribution. They are supported by government. The production process is planned by the market demand. Because the product is not very old, it must be sold out in limited time. In addition, public relations groups are widely known. Increased sales channels. Planning to deliver the goods to customers in a timely manner. They have the use of logistics communication to meet the needs of customers quickly, accurately on time and quality products. These things make this group stronger. Members have sustainable economic security. Therefore, it can be seen that the supply chain management of Organic Agriculture Enterprise Group Baan Klong Yong in Nakhon Pathom Province. They can develop and organize themselves from the upstream to the downstream to further develop.

RECOMMENDATIONS FOR FUTURE RESEARCH

1. This study is a qualitative study. The information provided is in-depth information from the inquiry to gain in-depth information. But still lacking in width. If quantitative research is to collect data in a broad sense. It will make the information in other areas more and more, making it more wide angle.
2. This qualitative research is a study of supply chain management or logistics management systems. It should include other areas of study, such as innovation, to increase knowledge, and to further develop the group.
3. This research is the study of supply chain management of community enterprises only. The next research may be the supply chain study of other community enterprises in the same district or in the same province for comparison in the future.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand. The researcher thanked the community leader / community member. The information provided in this study Help guide Good informative coordinators and those involved in this study.

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Factors Influencing of Inland Waterway Transportation Business: The Case of Service Provider Selection in Thailand

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Abstract: This research has objectives to study about factors that influencing the selection of inland waterway transport service provider as follows; 1) To study and analyze to factors that influencing the selection of inland waterway transport service provider in Thailand, and. 2) To study about process of how to selected of inland water way transport service provider in Thailand. This research also study about entrepreneur group who was received the waterway transportation service in Thailand. The collected data referred the questionnaire distributed to 86 samplings. The research found that the customers who use of waterway transportation in Thailand were highest sensitive to transportation price changing then time and the safety during transition respectively. The relation examine of models was able to measure by index of consistency $\rho^2 = 0.571$ was higher than acceptable criteria was corrective indicated by develop model of 91.36 percent and corrective inspection model of 98.88 percent. Hypothesis testing found that the data of factors influencing selection of inland waterway transportation service provider in Thailand in term of time, price and safety of during transition impacted to make decision to select the waterway transportation service provider in Thailand was statistically significant at 0.05 level of confidence.

Keywords: Inland waterway transport, service provider, utility theory, Conjoint analysis

INTRODUCTION

Transportation was important for all business sectors. Transportation was activities related and supported to other activities included production process, purchasing process, warehouse management and service (Hall, R., 2012). Transportation was the part of logistic and important for the specified production price. However, if it was compared to total cost, it was quiet high cost. Therefore, it depended on pattern of transportation, amount of warehouse and location of customer etc (Nagurney, 2010). In short we were able to say that the efficiency transportation not only received and deliver product in time but also those products were in good condition, not loss or damage. (Theppitak, 2008) During transportation should be suitable cost so waterway transportation included Thai's logistic development that has not happened yet.

Most people have limited knowledge of transport economics. They would say, "I just want to be able to travel conveniently, safely and affordably, without higher taxes, pollution or conflict with other road users." Notice the just in this statement, reflecting the assumption that these aspirations are modest and reasonable. Yet, they are actually expensive, complex and contradictory. Accommodating ever-growing motor vehicle travel requires significant resources to continually expand roadway and parking capacity, and provide traffic services, in addition to accident risk, pollution emissions and other undesirable impacts. A motorist thinks, "I pay vehicle taxes and fees so I should get parking and traffic services," little realizing that their user charges are insufficient to cover the full costs imposed by their driving.

Transportation policy and planning decisions affect virtually every aspect of life. Such decisions often involve tradeoffs between conflicting objectives. For example, strategies to increase vehicle travel speeds can increase crash risk and degrade walking conditions. Some emission reduction strategies increase vehicle costs or reduce total motor vehicle travel. Expanding parking supply increases building costs and taxes. This report provides a framework for evaluating and rationalizing such decisions. Some transport impacts, such as vehicle operation costs and travel time values, have been widely studied and estimates of their magnitude are easily available, making them relatively easy to evaluate. Other impacts, such as changes in walking conditions and greenhouse gas emissions, are more difficult to quantify, and so are often dismissed by decision-makers as intangibles, with the implication that they are less important than tangible impacts. The result is decision-making biased in favor of easy-to-measure impacts at the expense of more difficult-to-measure impacts.

Waterway transport enables trade and contacts between all the nations and provides the main vehicle for imports and exports to the rest of the world. Almost 90% of freight trade is seaborne, while short sea shipping represents 40% of inland waterway exchanges in terms of ton-kilometers. The quality of life on islands and in peripheral maritime regions depends on good maritime transport services. Each year, more than passengers embark and disembark in ports. Overall, maritime industries are more important of employment and income for the economy.

In this research, the researcher paid attention in selection domestic inland waterway transportation service provider who was important because it reflected on customer user's demand what the factor influencing was driven for selection the service. If you known those factors, you cloud take these data to apply or improve the service efficiency service in the future.

RESEARCH OBJECTIVE

The objective of the study were ;

To study and analyze about the factor influencing selection waterway transportation service provider in Thailand

To study about the selection process of waterway transportation service provider in Thailand

Scope of research

The population in this research were waterway transportation customer user who needed to transport product or material obtained by container cargo of 100 customers so the scope of this research were in Bangkok and Samutprakarn provinces.

RESEARCH FRAMEWORK

In this part said that the concept theory and the research result related to the survey method to find the factors influencing selection transportation service provider that found that in beginning most survey method would apply marketing survey approach to study customer behavior

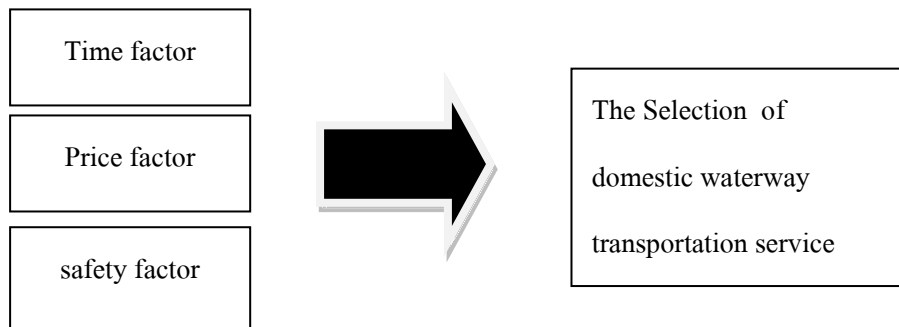


Figure 1. Research Framework

Independence variables such as factor influencing selection service provider for instant time, price and during transportation safety and dependence variable such as selection waterway transportation service provider approach

The time factor (The Travel Time)

The Value of Travel Time (VTT) refers to the cost of time spent on transport. It includes costs to businesses of the time their employees and vehicles spend on travel, and costs to consumers of personal (unpaid) time spent on travel. The Value of Travel Time Savings (VTTS) refers to the benefits from reduced travel time costs. Travel time savings is often the principal benefit of a transportation project. Congestion relief projects are justified primarily by the reduction in travel time they will bring about. Travel time savings can also lead to reductions in vehicle operating costs. Those benefits are discussed in the Vehicle Operating Cost Reduction section. Example, a new lane is added to a freeway, increasing traffic speeds and decreasing delays., a signal coordination strategy is implemented, allowing for faster travel along a particular corridor..an improvement to a transit system reduces waiting time or increases travel time reliability. It can also reduce travel time on a parallel highway.And how to approach were (1)Estimate average travel times before and after project implementation. If possible, these should be calculated separately for different time periods, such as different times of day (peak and off-peak) and different days of the week (weekday and weekend). If traffic is diverted from another road or roads, estimate travel time savings for users of these roads as well. If this analysis will account for changes in travel time reliability, then it will also be necessary to calculate changes in travel time variance and arrival delay (for example, the frequency of peak-period traveler arriving more than 10-minutes later than average).(2)Establish appropriate travel time unit cost values (cents per minute or dollars per hour) for each trip category.(3) Calculate the total value of travel time savings for the project.

An important step in valuing a project's travel time savings is establishing travel time unit costs (cents per minute or dollars per hour). Various factors can affect travel time unit costs, including the types of trips, travelers, and travel conditions. If possible, different travel time unit costs should be assigned to different types of travelers and travel conditions, as discussed in more detail in the Categories of Travel Time and the Issues to Consider sections.Because there is no market for buying and selling travel time, indirect methods must be used. Several types of studies have been conducted to determine the monetary value businesses and travelers place on travel time costs, based on analysis of business costs, traveler surveys, and by measuring behavioral responses by travelers faced with a trade-off between time and money, for example, when offered the option of paying extra for a faster trip. Below are some general conclusions from this research.

Freight and business travel time (called "paid," "on the clock," or "commercial" time) tends to have relatively high unit costs because it includes the value of driver wages and benefits, vehicles and cargo, and the need to meet delivery schedules. Personal travel time is usually estimated at 25% to 50% of prevailing wages, but varies by factors such as type of trip, traveler and conditions. Travel time unit costs tend to increase with income, and are lower for children and unemployed people (put differently, employed people are often willing to pay more for travel time savings). Travel time unit costs tend to increase with variability and arrival uncertainty, and are particularly high for unexpected delays during activities with strict schedules such as business travel and commuting. Some travel time has a low cost or positive value because people enjoy the experience, including recreational travel and errands that involve social activities.

Under pleasant conditions walking, cycling and waiting can have low or positive value, but under unpleasant conditions (walking along a busy highway or waiting for a bus in an area that seems dirty and dangerous), costs are two or three times higher than in-vehicle time. Travel needs and preferences vary. For example, some people place a higher cost on time spent driving while others place a higher cost on transit travel.

The price factor (Vehicle Costs)

Changes in the costs of owning and operating vehicles (trucks as well as cars) resulting from a transportation improvement project are counted as benefits or disbenefits. Example, Roadway capacity expansion reduces congestion delay which reduces fuel costs. Pothole repairs and street resurfacing reduces vehicle wear. Improvements to alternative modes (walking, cycling, ridesharing and public transit) on a corridor allows some travelers to reduce their automobile travel, decreasing vehicle operating costs. Transit-oriented development allows some households to reduce their vehicle ownership, providing ownership cost savings. Vehicle operating costs refer to costs that vary with vehicle usage, including fuel, tires, maintenance, repairs, and mileage-dependent depreciation costs (Booz Allen & Hamilton, 1999). Projects that alter vehicle miles traveled, traffic speed and delay, roadway surfaces, or roadway geometry may affect travelers' vehicle operating costs, which should be considered in a benefit-cost analysis. Vehicle ownership costs refers to fixed costs that are not directly affected by vehicle mileage, including time-dependent depreciation, insurance and registration fees, financing, and residential parking. Projects that change per capita vehicle ownership rates, such as significant changes in the quality of alternative modes and land use accessibility, may affect vehicle ownership costs, which should be considered in benefit-cost analysis.

Estimate changes in total vehicle miles traveled along a corridor.

Estimate changes in vehicle travel speeds and delay due to road and traffic conditions.

Estimate fuel consumption rates, fuel prices, and non-fuel-related operating costs.

Calculate total changes in vehicle operating costs.

For improvements to ride quality, such as pothole repairs and curve or grade reductions, estimate effects on vehicle wear.

Estimate changes in per capita vehicle ownership in an area.

Estimate average vehicle ownership costs.

Calculate total changes in vehicle ownership costs.

The Safety factor

A change in traffic accident (also called crash or collision) rates that results from a transportation project has an economic value. For example, A pedestrian/bicycle bridge is built, eliminating a dangerous intersection crossing for pedestrians and bicyclists. Rumble strips are added to a freeway, reducing the number of drivers who veer off the road. A railroad crossing is moved above grade, eliminating conflicts between trains and pedestrian and vehicle traffic on the street. A sharp curve in a road is eliminated. Transportation planning decisions often affect crash risks. Benefit-cost analysis can help identify the most cost-effective projects and evaluate decisions that involve trade-offs between safety and other planning objectives, such as travel speed and vehicle costs. Safety impact analysis requires information on how a project will affect crash frequency and severity. Most crashes are property damage only (PDO). Casualty crashes, in which somebody is injured, disabled or killed, are less frequent but much more costly to society. Crashes can impose a variety of market and non-market costs, include property damages, traffic delay, emergency response services, medical care and rehabilitation expenses, lost productivity, plus pain, suffering and grief. Safety evaluation requires monetizing (measuring in dollar values) human life and safety. This can be controversial since some people fear that monetization implies that human life is a commodity, and from some perspectives human life has infinite value (most people would be unwilling to die for any amount of compensation). However, individuals and public agencies often make decisions that require trade-offs between incremental changes in safety and other benefits and costs. For example, motorists may need to decide whether to pay extra for an optional safety feature when purchasing a vehicle, and a transportation agency must decide whether to allow higher traffic speeds, or implement roadway design changes that affect crash rates. Applying monetized values helps make planning decisions that affect safety more consistent (Ayasanond, 2017), and therefore more efficient and equitable.

Theory and basic concept to develop the selection transport service provider model

This research not purposed to develop applying to predict selection transport service provider behavior in the future but it would take model to develop influencing each factor affected selection transport service provider so they were able expected by method which was conjoint analysis but the method which researcher selected as estimated by selection transport service provider model or choice logit model because this model had be suitable type of consideration behavior prediction of customer most this model was favour in utility faction which was main function model to develop.

Favour theory was studying basic to consider selection service model provided such as random utility theory was developed by customer behavior theory in economics and marketing. This theory was assumed that customer was satisfied with whatever service. The customer chose highest satisfied with service in addition satisfaction getting from service was measured in quantity by utility function but who needed to study customer behavior could not always be measured satisfaction. Utility function separated by two parts as first was systematic components and second was random components.

Conjoint analysis

As we know that the conjoint analysis is a survey-based statistical technique used in market research that helps determine how people value different attributes (feature, function, benefits) that make up an individual product or service. The objective of conjoint analysis is to determine what combination of a limited number of attributes is most influential on respondent choice or decision making. A controlled set of potential products or services is shown to survey respondents and

by analyzing how they make preferences between these products, the implicit valuation of the individual elements making up the product or service can be determined. These implicit valuations (utilities or part-worths) can be used to create market models that estimate market share, revenue and even profitability of new designs. A product or service area is described in terms of a number of attributes. Each attribute can then be broken down into a number of levels. Respondents would be shown a set of time, price, safety created from a combination of levels from all or some of the constituent attributes and asked to choose from, rank or rate the products they are shown. Each example is similar enough that consumers will see them as close substitutes, but dissimilar enough that respondents can clearly determine a preference. Each example is composed of a unique combination of product features. The data may consist of individual ratings, rank orders, or preferences among alternative combinations. As the number of combinations of attributes and levels increases the number of potential profiles increases exponentially. Consequently, fractional factorial design is commonly used to reduce the number of profiles that have to be evaluated, while ensuring enough data are available for statistical analysis, resulting in a carefully controlled set of "profiles" for the respondent to consider.

Basic concept to apply in model development

This study had purpose model development to implement in behavior prediction. Selection transport model was estimated by methods but the method was selected by researcher for example estimation by logit model the reason was this model optimal with type of considered behavior prediction of entrepreneur. Most this model was favour used utility function was the model of main function to develop model. Papacostas, C.S. and Prevedouros said that utility function was indicator satisfaction level of entrepreneur who chose type of travelling and decided travelling of each person to chose type of traveling depend on traveling objective so utility occurred was the part of choosing the type of travelling and this utility function was necessary to specified variables which were linear equation as

$$U = a_0 + a_1x_1 + a_2x_2 + \dots + a_nx_n$$

Therefore;

U	=	Utility
x ₁ x ₂ x _n	=	weighted of variables
a ₀ a ₁ a ₂	=	constant of each variables

Coefficient got from analysis shown each variable effected satisfaction of transport customer received service. The sign of coefficient shown the direction of variable responded to satisfaction, if the mark was (+) means satisfaction level higher as variable had more value in spite of this if the mark is (-) means the satisfaction reduce as the variable had more value due to satisfaction could not be measure whatever indicator coefficient value had no meaning itself but when took coefficient of variable compared with each other could reflect the behavior of transport customer

RESEARCH UTILIZATION

To know the factor influencing selection waterway transport service provider

To know the process of selection waterway transport service provider

Hence, to able took the factors gotten from study to apply in Key Performance Indicator (KPI) to measure and assess the performance own service next

RESEARCH METHODOLOGY

Collecting data to analyze was both the primary and secondary data to design questionnaire by collected from waterway transport service customer such as

1. Primary data was from interview the company who was container waterway transport service customer in Thailand such as data related the specified freight of data service provider of demand quantity to deliver container of customer and container transport company provider such as container transport price, container transport lead time and during transport safety.

2. Secondary data was answer questionnaires collected from container waterway transport customer in Thailand. There were factors such as price, transportation fee, transportation time and security

Target and size of sampling group

The main objective of this research was to study behavior to selection container transport model of waterway transport customer in Thailand. Population group was waterway transport customer inland in Bangkok and Samutprakarn. From the table illustrated the size of sampling group from Herbert Askin and Raymond R. (Apinant Chuntanee, 2529) confidence level at 95percent when total 100 populations size of sampling was 86 so the design questionnaire that researcher specified in this research at 86 questionnaires

RESEARCH RESULT

Research result about the factors influencing selection waterway transportation inland still had no research performance obviously therefore factors that the researcher got from interview and select only factor to expect that impact selection transport model in this research. For theory and concept in this study about the selection transport model behavior. Theory had many method depended on suitability and objective of study. For this research, researcher chose the analysis by customer behavior theory and utility theory which mention variability in selection transport model behavior by creating logit model which was technique to study selection customer behavior to compare with selection transport model

Research result found that respondents sampling group chose transport model. Reliability inspection result of model found that finding that finding index of consistency of model to process data by HieLow program got $\square^2 = 0.571$ this was the higher appetite criteria showing that the model could explain model selection behavior of service correctly met the survey. This research set the hypothesis by three independent variables was TT (Transportation Time), TC (Transportation Charge) and CS (Charge of Security) at confidence level at 95percent. TC (Transport Container) had significance to selection transport model. If confident level reduced to 90percent found that CS (Charge of Security) had significant selection transport model more, in case TT (Transportation Time) had significant to selection transport model at confident level at 95 percent

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr.Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University Bangkok Thailand.

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Marketing Mix Factors Affecting the Loyalty of Customer Fitness Club in Bangkok Metropolitan

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Abstract: The purposes of this research were 1) to study the Marketing Mix Factors Affecting The Loyalty of Customers Fitness Club in Bangkok Metropolitan; 2) to compare the loyalty of the customers; In Bangkok Metropolitan. The samples used in the study were Customers who use fitness in Bangkok Metropolitan. The samples were 400 quota random sampling. The instruments used in the study were questionnaire And alpha Cronbach reliability by market mix. The reliability of 0.75-0.82 and customer loyalty were 0.81-0.85. The statistics used were frequency, percentage, mean, standard deviation, t-test, variance and multiple regression analysis. The results of the research are as follows: 1) The Marketing Mix Factors Affecting The Loyalty of Customers Fitness Club In Bangkok Metropolitan in all factors. It can be presented as an equation. Loyalty = 0.064 +0.124 products +0.191 price +0.097 place +0.083 Public Relations +0.132 Personnel +0.199 Service Procedure +0.151 Physical Features By this equation, the power of prediction is 0.96. 2) Personal factors of gender, education and occupation have no effect on the loyalty of fitness users. In Bangkok Metropolitan While age and income factors have different effects on the loyalty of fitness users. In Bangkok Metropolitan, the difference was statistically significant at the 0.05 level.

Keywords: Marketing Mix Factors, Loyalty of Customers Fitness, Bangkok Metropolitan

INTRODUCTION

At present, in Thailand, there are more changes and developments in economy deriving from globalized communication in which people connect more conveniently and quickly. The changes cause various forms of businesses such as manufacturing business, servicing business, and trading business. Within each business section, competition is very high. The management of each business section intends to develop their organization to growth and advance. What support the growth of the organizations is building the products or services to respond to customers' needs in the market. During such time when people live in civilization, their health are contradictorily becoming worse since people spend time working intensely and forget paying attention to their own health. What follows is that their earnings have to be spent for curing and medication. Most important thing during this time and is currently most popular is keeping good health. Working out in fitness centers is one of popular health keeping.

The goodness of working out in fitness centers are of many folds since fitness work out helps good posture, strong muscles, decrease fat accumulation in various parts of the body, lose weight, prevent heart diseases, strong heart beats, decrease coronary artery disease and myocardial infarction, decrease blood pressure, decrease an opportunity of high blood pressure and cerebrovascular disease or stroke, prevent obesity, prevent osteoporosis, strengthen bones, prevent and cure diabetes, prevent allergy, increase immunity, decrease hyperlipidemia to prevent heart disease, refresh the body, decrease strain from endorphin which is a hormone produced by our brain while working out. The hormone is similar to morphine which helps create happy feeling, having nice and deep sleep, better digestion, prevent constipation since there is movement of intestines. (Chutima Sirikulchayanonta, 2011)

As the result of the popularity of fitness work out, fitness and body exercise business is very competitive. Numerous fitness centers pop up everywhere to respond to modern day people who begin to pay attention to health but do not have enough time to travel far from home or office. Therefore, fitness business is competing severely in prices and services becoming a challenge of utilizing marketing mix factors to build royalty in service usage to find success in competition. Utilization of marketing mix tactics is administrated as a tool to ensure service success. Now it is well noted that customers' needs are changing all the time. The awareness of the products and services in one's business and the knowledge of clear customers' needs will assist the organization to develop continuously and effectively in doing business, to give an edge in competition, to build customers' confidence, to respond to customers' needs, and most importantly, to build customers' royalty.

Loyalty is a deep binding of repeat purchase or fostering of products or services with evenly satisfaction in the future. The purchase behavior is buying the same brand or products in the set of the same brand. The behavior change is influenced by effective condition and the potential marketing efforts. Besides, loyalty also means customers' attitude towards products and services leading to prolong relationship dissuading customers to stay with the organization or outlet. Loyalty is not only repeat purchase behavior, but also covers feelings, thoughts, and prolonged relationship. (Kodcharat Punyawat, 2014) Other than that, customers' loyalty is the customers' repeat purchase of the organization's products or services and is customers' prolonged behavior resulted from customers' habit, for example, thinking of the brand as first choice or telling of the brand. The factors effecting customers' loyalty to products or services are mainly two factors i.e. first, organization's strategic management factor which are quality service and showing of social responsibility, and implementation of effective

strategic customer service management; second, customers' psychological attributes factor such as customers' satisfaction and brand confidence. These two main factors are important elements for building customers' loyalty. If the organization can pin point and understand the two factors, customers will be loyal for a long time (Nation, 2012).

For a study on marketing mix effecting customers' loyalty of customers of fitness centers in Bangkok, the researcher aims to survey how fitness management implement marketing strategy to consumers to find factors effecting customers' loyalty, together with a study the difference of personal factors towards the royalty, aiming that this will be useful for fitness management's planning and decision making in response to customers' needs and sustainable fitness business in the future.

RESEARCH OBJECTIVES

1. To study marketing mix factors effecting loyalty of fitness customers in Bangkok
2. To compare loyalty of fitness customers in Bangkok classified by personal factors of fitness customers in Bangkok

STUDY HYPOTHESES

1. Service marketing mix factors effect royalty of fitness customers in Bangkok
2. Loyalty of fitness customers in Bangkok differ according to personal factors

RELATED DOCUMENTS AND LITERATURE

The researcher study various related researches to establish research framework. The contexts of literature review are as follows:

Concepts and Theories on Consumer Behaviors

Kotler and Armstrong (2006, p. 128) said consumer behavior meant purchase behavior of last consumer either personal or household, in buying products or services for personal consumption, while Kuester (2012, p.110) said consumer behavior was a study of individual, group or organization of people and the process the use to select, keep, and dispose things related to products, services, experience or concepts in response to their needs and the effects of such processes to consumers and society. (Wut Sukcharoen .(2007, p. 6). said consumer behavior meant human activities derived from attempts to consume and to dispose of products or services. On the other hand (Chuchai Smithikrai, 2014, p. 6) presented that consumer behaviors were actions of an individual relating to decision making, buying, utilizing and disposing of the left-over of various products or services beginning from the realization of the needs to respond to his own needs and wishes. Studies on factors influencing consumer behavior consisted of cultural factors, social factors, personal factors, and psychological factors, to learn of various characteristics of consumers' needs and arrange marketing stimulations to suit them. When the buyers received the marketing stimulation or other stimulations passing through buyers' thinking which represented a black box not possible for seller to guess, the work of seller and marketing employee was to look for things that could influence buyer's characteristics and thinking. The study of target buyer's characteristics was useful for marketing employee to understand the customers' needs and characteristics and arrange various marketing mix to stimulate and respond to target buyer's needs correctly. (Ratthanan Pongwirithon, 2009, p. 13); Chattaporn Samerjai, 2007, p. 32); Siriwan Sareerat and other, 2007, p. 125)

Concepts and Theories on Marketing Mix

Marketing mix was a controllable variable. In marketing, marketing mix meant response to needs, a variable controllable to customer's satisfaction. Marketing mix was something business had specified to respond to consumer's needs to which the consumer would be satisfied and led to business's specific objective. Moreover, marketing mix was a business controllable factor consisted of products, prices, distribution, and promotion. (Kotler, 2003, p. 16; Wannaporn Buddhapoompitak, 2013, p. 13 ; Sudaphon kuntonbutrs, 2007, p. 12)

Concepts and Theories on Customers' Loyalty

Jacoby and Chestnut (1978) presented guidelines for customer's loyalty measurement that loyalty was a result of customer's buying products or services regularly and also presented that loyalty was an index of highly successful organizational goal and it was highly necessary to keep these loyal customers. Gamble, Stone and Woodcock (1989) divided loyalty into 2 types: (1) Emotional Loyalty was the state of mind, attitude, belief, and wish of customer towards organization's products or services. Organization could benefit from customer's loyalty, attitude, and belief. When look deeper into details of loyalty, it was found that good and special feelings were inside customer's mind. Therefore, organization should show sincerity by responding to customer's loyalty with good relationship through effective service; (2) Rational Loyalty derived from actions as results of pleasure, willingness, or satisfaction of good service on products or services, i.e. receiving response to customer's needs which would shield customer to turn their loyalty to other organizations even though one customer could be loyal to more than one organization.

Aaker (1991) presented that brand loyalty was something that showed consumer's commitment to a brand of product. Brand loyalty was the most important element of Brand Equity since if consumers could not see differences of each brand, it would be a reason customers decided to buy other brands. But if consumers had brand loyalty at a high level, consumers bought the product continuously, including that it was a main element for consumers to buy repeatedly, customers who had experience with the products would decrease marketing investment for such brand. The business would have bargaining power with the outlets and prevent such brand from competitors' threat.

Lau (1999) said marketing analyst paid attention to the concept of loyalty since loyalty was something to induce customers to buy products or use services. Moreover, brand represented an identity to differentiate it from other organizations' brands which was useful to purchase repetition and consumers' telling. Brand management had to be clear, pointing in the direction leading to customers' loyalty to the organization in the future. Oliver (1999) mentioned that loyalty was something deriving from consumers' good feelings which developed deep commitment and repeat purchase for satisfying products and services. Repeat purchase for products and services would be made for same brands. Change in consumers' action would appear only when they were affected by such products of services; and in other words, in measurement of customers' loyalty levels for each element, it was necessary to specify the margins according to customers' levels of view point towards the products and services. Customers' attitudes were evaluated in 3 levels.

- Satisfaction to brand's element which means Beliefs
- Satisfaction to products or services which means Attitude
- Determination to buy everything relating to the products which means Behavior

Therefore, concepts relating to loyalty were correlation of widely accepted attitudes and behaviors.

The results of revision of literature can be concluded in the following concepts:

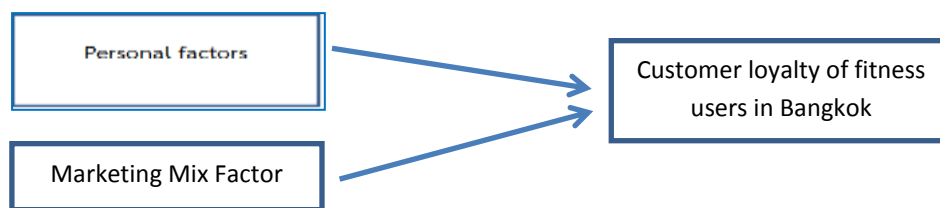


Figure1 Research Framework

METHODOLOGY

A study on Marketing Mix Factor Effecting Loyalty of Fitness Customers in Bangkok is a quantitative research. The research population consists of fitness customers in Bangkok. Due to unavailability of clear-cut number of the population, Cochran's sample size formula was used, Cochran (1953), to get 385 samples. The researcher added 15 samples to the population to get minimum 400 samples. Quota random sampling was used in the 6 zones of Bangkok specified by balloting for 2 administrative districts in each zone. Then, samples were conveniently picked to represent sample numbers of each district as follows:

Table 1 Districts for Sample Gathering

Zone	Districts of Sample Gathering	Number of Samples
Rattanakosin Group	Bangsue Dusit	66 samples
Burapha Group	Donmueng Bungkum	66 samples
Srinakarin Group	Minburi Nongjok	67 samples
Chaophraya Group	Bangna Sathorn	67 samples
South Krungthon	Jomthong Thungkru	67 samples
North Krungthon	Bangphlad Thawiwattana	67 samples

Research tools were questionnaires with content correctness and reliability tests, Alpha Cronbach Formula. Marketing Mix Factors got reliability values of between 0.75-0.82 and customers' loyalty got reliability values of between 0.81-0.85. Statistics used were Frequency, Percentage, Average, Standard Deviation, t-test analysis, Variance analysis, and Multiple Regression analysis.

RESEARCH RESULTS

Section 1 Descriptive Statistic Data

1) The research results revealed that most of the samples who responded to the questionnaires were female (55.50 per cent), aged between 25-35 years (50.00 per cent), bachelor degree (84.00 per cent), company employees (46.00 per cent), and earning per month of between 20,000-30,000 baht (42.50 per cent).

Table 2 Service Marketing Mix in the Views of Fitness Customers in Bangkok

Service Marketing Mix	Mean	SD	Evaluation Levels
1. Products	4.12	0.71	High
2. Prices	4.04	0.66	High
3. Location	4.20	0.58	High
4. Public Relations	4.24	0.60	Highest
5. Personnel	4.24	0.61	Highest
6. Service Process	4.09	0.60	High
7. Physical Characters	4.14	0.66	High

2) The research results revealed that service marketing mix in customers' views were at the very high to the highest levels whereas the first three items of the evaluation were Public Relations factor (Mean = 4.24), Personnel factor (Mean = 4.24), and Location factor (Mean = 4.20), in that order.

Table 3 Loyalty of Fitness Customers in Bangkok

Loyalty	Mean	SD	Evaluation Levels
1. Satisfaction to Element of Fitness Service	4.11	0.52	High
2. Repetition of Fitness Service	4.20	0.65	High
3. Pleasure in Telling and Introduction to Fitness Service	3.78	0.98	High

3) The research results revealed that the loyalty of fitness customers in Bangkok was at a very high level. The first three items were the repetition is fitness service (Mean = 4.20), Satisfaction of element of fitness service (Mean = 4.11), and the pleasure of telling and introduction of fitness service (Mean = 3.78).

Section 2 Hypotheses Testing Data

The results of the test on service marketing mix factors revealed that the factors had influence on the loyalty of fitness customers in Bangkok. The researcher ran a Multicollinearity test on independent elements using Pearson Correlation statistic with a condition that there should be a correlation between any pair of variables at no more than 80 per cent as shown in Table 4.

Table 4 Multicollinearity Test

	Products	Prices	Location	Public Relations	Personnel	Service Process	Physical Characters
1. Products	1	.681**	.550**	.614**	.624**	.528**	.425**
2. Prices		1	.693**	.700**	.657**	.629**	.501**
3. Location			1	.757**	.656**	.640**	.583**
4. Public Relations				1	.741**	.667**	.587**
5. Personnel					1	.590**	.483**
6. Service Process						1	.651**
7. Physical Characters							1

The results of the analysis revealed that independent variables had no problem concerning Multicollinearity. After Multiple Regression analysis, the results of the analysis were presented in Schedule 5 below.

Table 5 Service Marketing Mix Factors Effect Loyalty of Fitness Customers in Bangkok

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	SE.	Beta		
(Constant)	0.064	0.047		1.365	0.173
1. Products	0.124	0.012	0.169	10.574*	0.000
2. Prices	0.191	0.014	0.246	13.328*	0.000
3. Location	0.097	0.017	0.110	5.878**	0.000
4. Public Relations	0.083	0.018	0.096	4.659**	0.000
5. Personnel	0.132	0.015	0.155	8.734**	0.000
6. Service Process	0.199	0.015	0.229	13.392*	0.000
7. Physical Characters	0.151	0.012	0.194	12.709*	0.000

$R = 0.98$ $R^2 = 0.96$

The research results revealed that all marketing mix factors effected the loyalty of fitness customers in Bangkok and all factors could be presented in formulae as follows: Loyalty = 0.064 + 0.124, Products + 0.191, Prices + 0.097, Location + 0.083, Public Relations + 0.132, Personnel + 0.199, Service Process + 0.151, Physical Characters. The mentioned formulae have prediction power of 0.96. For Hypothesis 2 The Loyalty of fitness customers in Bangkok differs according to personal factors, the researcher utilized statistics of Independent t-test and One Way ANOVA to test the hypothesis as per results in Schedule 6.

Table 6 Classification of Loyalty of Fitness Customers in Bangkok by Personal Factors

Dependent Variable	Independent Variable				
	Gender	Age	Education	Profession	Earning
1. Satisfaction on elements of fitness service	1.10	3.61*	0.68	1.55	10.22**
2. Repetition of fitness service	1.24	3.68*	0.82	1.28	12.31**
3. Pleasure telling and introduction fitness service	1.32	3.65*	1.11	1.88	8.06**
Loyalty of fitness customers	1.48	3.67*	1.33	1.84	9.08**

Presentation of Independent t-test and ANOVA values (* sig = 0.05 ** sig = 0.01)

DISCUSSION AND SUGGESTIONS

Research results revealed:

1. The loyalty of using the fitness service was affected by the product factor at a statistically significant level conforming to the work of Panidha Apichat and other (2009) who found that sufficient equipment and facilities effected the satisfaction in fitness center service. And a research by Norasate Kamalasuddhi and Other (2006) found that applicants of fitness centers placed their attention on product factor especially on safety and standard of exercise tools. Besides, in a research by Virojane Pornvichitchinda (2014) a study on factor affecting decision making in choosing fitness center, a case study on True Fitness and Fitness First, found that product factor on presentation of modern equipment and tools, learning class and newly invented tools to members affected their decision making to choose services.
2. The loyalty of using fitness service was affected by price factor at a statistically significant level conforming to the work of Norasate Kamalasuddhi and Other (2006) who found that applicants of fitness centers placed attention on price factor in price appropriation to forms of services, and Virojane Pornvichitchinda (2014) found that price factor in membership fees was appropriate to services and quality of tools affected the decision making on choosing the services of exercise center.
3. The loyalty of using fitness service was affected from location factor at a statistically significant level conforming to a research by Norasate Kamalasuddhi and Other (2006) who found that applicants for membership placed their attention on location factor in appropriation and convenience of traveling to use exercise center.
4. The loyalty of coming to use fitness services was affected from public relations and marketing promotion at a statistically significant level conforming to the work of Norasate Kamalasuddhi and Other (2006) who presented that marketing promotion factor in special discount affected the decision making to apply for membership. The research by Kittichai Prajerdchaiwong. (2005) found that promotion factor in having premium or bonus affected decision making to extend membership and a work by Virojane Pornvichitchinda (2014) found that promotion factor in having premium or bonus affected decision making in choosing exercise center.
5. The loyalty in using fitness service was affected by personnel factor at a statistically significant level conforming to a work by Songphol Kaewchantawee (2013) who found that service personnel factor in service intention affected satisfaction on beauty clinic service and Virojane Pornvichitchinda (2014) who found that service personnel factor in good temperament, service with bright smiles, affected decision making in choosing services.
6. The loyalty of fitness service was affected by process of service at a statistically significant level conforming to a research done by Kittichai Prajerdchaiwong. (2005) who found that process of service in trainer's quality of service and speed of service affected extension of membership, and Virojane Pornvichitchinda (2014) found that service process in employee's ability in solving offhand problem, giving customer fast service, giving systematic exercising classes and appropriate timing of each class, affected decision making in choosing services.
7. The loyalty of fitness service was affected by physical character at a statistically significant level conforming to a work by Kittichai Prajerdchaiwong. (2005) who found that construction and presentation of physical character in cleanliness and hygiene, especially in changing rooms, toilet rooms, and bath rooms, affected significantly on extension of membership, and a work by Virojane Pornvichitchinda (2014). found that construction and presentation of physical character in fitness cleanliness, good atmosphere, and beautiful decoration, affected decision making in choosing exercise centers.
8. The loyalty of fitness customers in Bangkok differed in personal factors in earning and age which conformed to a research by Kittichai Prajerdchaiwong (2005) which studied factors affecting extension of membership of body exercise centers administering by branches in Bangkok, found that demographic factors in different earnings that affected decision making in extension of body exercise center membership for branches servicing consumers in Bangkok. On the other hand, Virojane Pornvichitchinda (2014) studied factors affecting decision making in choosing body exercise centers, a case study of True Fitness and Fitness First, found that different age factors affected differently the decision making in choosing body exercise centers, True Fitness and Fitness First, conforming to a research by Pakorn Wongsawet & Ithikorn khamdej (2011) which studied factors affecting decision making in choosing body exercise centers for consumers in Nongkhaem District, Bangkok, and found that demographic factors in different ages affected differently to decision making in choosing body exercise centers.

SUGGESTIONS

The research results can be divided into two types as follows:

1. *Suggestion on utilizing the research results*

1. All service marketing mix factors affected the loyalty of fitness customers in Bangkok. Therefore, entrepreneurs have to be attentive to marketing in all factors. However, in keeping to importance of factors, the research results found that the most important factor was service process ($b=0.199$) since most fitness customers in Bangkok had limited time in body exercise. Therefore, service arrangement to fit customer's needs and time is most important. Second, price factor ($b=0.191$), specifying appropriate price of service for different types of services to suit individual customer, providing several cashier counters and means of payment, would help fitness business entrepreneurs to perform better. Thirdly, physical character factor ($b=0.151$), i.e. the convenience and comfort of parking, safety system, lighting, sufficiently cool air conditioning system, and clean toilets, were important factors of success for fitness business. Fourthly, personnel factor ($b=0.132$) with special emphasis on trainers who give counseling service while exercising on appropriate exercise for individual. Fifthly, product factor ($b=0.124$), i.e. the variety of exercise tools and the continuous maintenance of the different types of tools.

2. Service marketing mix factors with less influence but still importance were location factor ($b=0.097$) and public relations factor ($b=0.083$). These factors may not affect loyalty of fitness customers in Bangkok, but may be important as synergistic effect of the total success of fitness business.

3. The research results found only earnings and age factors which could induce difference in loyalty of fitness customers in Bangkok since difference in levels of earnings would lead to consumers' different needs. Therefore, entrepreneurs may need to rearrange their own fitness centers to fit into the different levels of earnings of service users. On the part of age factor, this was the results derived directly from physical fitness problems. Customers with different ages may be able to exercise differently, including that they may be able to use different exercise tools. Hence, it should be the function of the entrepreneurs to pay attention on these factors.

2. *Suggestions on future research*

1. This research puts emphasis on marketing mix factors affecting the loyalty of fitness customers only in Bangkok. Interested parties may make use of the research framework to collect data from upcountry, capital vicinity, or collect regional data, or collect from all over the country and analyze in different reports.

2. Analysis in this research emphasized only quantitative study. Interested parties could top-up on the research by doing qualitative study or combination study later to extend in deeper and clearer dimensions.

3. This research was a cross-section study and not a continuous order study. Therefore, interested parties who wanted to top-up the research could do continuous study as well.

4. Theoretically, some academics proposed that marketing mix factors would affect satisfaction before loyalty. Therefore, interested parties who wanted to top-up on this research by putting customers' satisfaction as transfer variable, and put loyalty as dependent variable; and do the path analysis to arrive at an interesting outcome.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and encouragement of Associate Professor Dr. Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Bangkok, Thailand.

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