A SELECTION OF PROJECTS TO INCREASE IN-FLIGHT MERCHANDISES OF LOW COST AIRLINES IN THAILAND.

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ABSTRACT

This study has objectives to 1) Study customer behavior factor affecting buying decision of In-flight merchandises. 2) Analyze the cause of In-flight merchandises decrease. 3) Select the suitable project to increase In-flight merchandises of low cost airlines in Thailand. Research tools are Analytic Hierarchy Process (AHP), Cause and Effect Diagram, depth interview and questionnaire. Two groups of respondents were selected, two hundred experienced In-flight merchandise airline employees and two hundred airline customers who used to fly and buy In-flight merchandises.

The research identified factors that affect customers' buying decision, they are the variety of In-flight merchandises, sales distribution such as online and delivery service and sales promotions. Data from customer behavior factors, causes and effects diagram and questionnaires based on AHP approach are used to propose four suitable projects in increasing In-flight merchandises, they are (1) develop sales operations including products choosing, (2) implement sales tool, (3) improve incentive plan by increase sales compensation and reward, and (4) train salespeople or cabin crew to increase knowledge, technique and skills. Four primary key performance indicators (KPIs); efficiency, probability of success, customer impact, and sustainability criteria are determined.

Conclusions were: The Analytical Hierarchy Process comprised of 400 decision makers showed that the most suitable project to increase In-flight merchandises is developing sales operations with a weight value of 0.332. The necessity of training salespeople was perceived as less significant and there was no statistically significant difference between the rankings of two groups of respondents.

Keywords: Increase sales, In-flight merchandises, Low cost airline

INTRODUCTION

The Global Airline Industry is facing challenges due to many factors that range from economic, social and politics. Low- Cost Carriers (LCCs) and Full Service Carriers are in severe competition. Further revenue passenger count remains static or at a very minimal increase, whereas number of carriers flying on the same route keeps increasing and every airline are fighting for the same cake. Airlines are operating with five to seven percent margin and are forced to earn extra revenues for saving cost as much as possible (Holloway S, 2008) [5]. New technologies and work process improvements made airline industry can change in a huge savings and contribute revenues from many activities. For the reason, the topic in selection of projects to increase In-flight merchandises has been interested because yield affects to airline success and even profitability. As for any industry, operating profit for an airline is defined as total revenues minus total operating expense (Belobaba, Odoni, & Barbhart, 2016) [1].

A normally competitive industry would be expected to earn its cost of capital, but the airline industry has not yet to achieve this (Holloway S, 2008) [5]. Researcher recognized the

importance of selling merchandises to customer while they are flying on the plane. Airline service quality, in particular, is not limit only to food service and flight entertainment. In-flight shopping is also a service that airlines provide to their customers. In-flight merchandises contribute revenue to airline and deliver service to passengers at the same time. The impressive service provided is essential to keeping volume up (O'Connell & Warnock-Smith, 2013) [10].

OBJECTIVE

1. Study customer behavior factor affecting buying decision of In-flight merchandises.
2. Analyze the causes of In-flight merchandises decrease.
3. Select the best project to increase In-flight merchandises of low cost airlines in Thailand.

Conceptual Framework

Figure 1:
Conceptual Framework
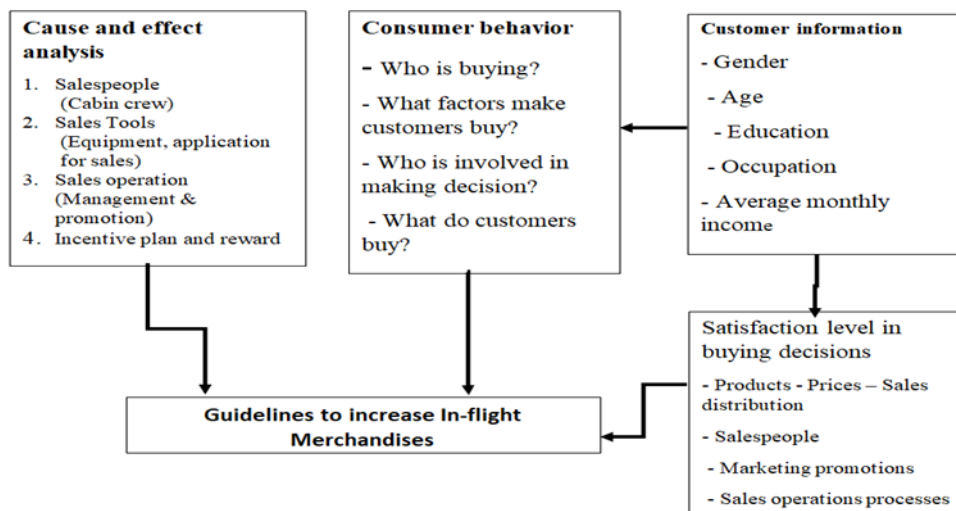
Overview of Airline Economics

In-flight Service Quality; from the research of Sultan and Simpson, they studied on International service variants: Airline passenger expectations and perceptions of service quality. A survey of passengers who traveled across the Atlantic Ocean was conducted using the questionnaire to evaluate customers' expectations and perceptions of European and U.S. airline passengers, the results showed that U.S. and European passengers focused on airline intangible as reliability as the most important attribute of an airlines' service quality, while tangibles, for example new technology aircraft and appearance of airline staff, were less important (Sultan F. & Simpson M. 2000) [13]. To increase revenue an airline needs to increase sales through various distribution channels. (Kankaew K. 2016) [7].

In-flight Sales Process; All sales processes comprise five key components. Depending on the products, market, and customers, sales management will define the sales job within the context of five components these are; (1) demand creation, (2) buyer identification, (3) purchase commitment, (4) order fulfillment, (5) customer service (Cichelli, 2018) [2]. (Moncrief and Marshall described a review of the traditional steps of selling These are: (1) prospecting, (2) pre- approach, (3) approach, (4) Presentation, (5) overcoming objections, (6) close and (7) follow-up. Although this is an old paradigm in the sales discipline, the on-board sales process has the same steps (Moncrief, and Marshall, 2005) [8]

Sales Management

Identification and selection of value element that have the biggest impact on the performance measures which are based on the supplier's differentiators and are appealing to the stakeholders, as a sales management activities, this means understanding and addressing the customer's business challenges (Hinterhuber & Liozu, 2016) [4]. Sales management consist of activities such as value proposition communication tools development, customer selection, opportunity validation, value sharing and value management, the business strategy major concerned with salesperson and the training and developing. About two decades ago, Wotruba (1991) argued that selling had progressed through five stages that are: provider, persuader, prospector, problem-solver and procreator. The problem solver stage requires obtaining details about the customers' needs and matching their needs with the seller's capabilities [16].

In-flight merchandises

Air travel is affordable for everyone and traveling by air becomes a part of many people lifestyles. In-flight sales can contribute the satisfaction of customers by high-quality products offer, and unique products. Some airlines suspend the In-flight merchandises because the current sales process no longer meets today's customer requirements. For this reason, some low cost airlines they have only food provided for passengers. The process in most flights with cabin crew are taking hot meal orders first as they are cooked fresh to order.

Shopping Motivation; Retailers realize that customers shop for many reasons beyond the mere acquisition of merchandise. Pamela (2009) reviewed mystery shopper motivation that shopping is used in a variety of service industries to measure service performance, as a training tool for employees, and to ensure the product offered [11]. The persons perform shopping in various motivations, that is a reward itself rather than need the product Sua Jeon (2006) revealed that shopping motivations such as perceived quality, transaction costs, searching costs, social interaction, and brand consciousness affect consumers' behaviors. [12].

The AHP Method

AHP is carried out in two phases which are hierarchic design and evaluation. For a defined problem, hierarchic design can be constructed using experts' knowledge and empirical data (Vargas, 1990) [14]. In any AHP design, there is an objective at the top, and criteria and alternatives are located under the criteria respectively. A design can be expanded by adding some sub-criteria between alternatives and criteria. Design (Weber, 1993) [15].

Example chart AHP hierarchical structure with three levels below
Level 1: Objective, Level 2: Main criteria, Level 3: Alternative

Figure 2:
AHP hierarchical structures Source: Analytical Hierarchy Process Design (Weber, 1993)
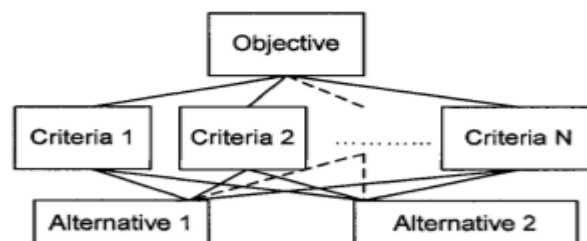
Root Cause Analysis Technique

In 1960s Ishikawa established quality management processes in Kawasaki shipyards. It is considered one of the seven basic tools of quality control. All processes were studied and use brainstorming methods. This method is able to help the designers focus their attention on the most important fundamental causes, discover opportunities for sustainability improvement and provide critical guidance to design for sustainability (Jayswal, 2011) [6]. Nitinun (2017) discussed information systems that Information systems covers all systems, people, and processes designed to create, store, distribute, and deliver information. Information systems are a bridge between business and computer science. [9]. It is an analysis tool that provides a systematic way of looking at effects and the causes that create or contribute to those effects (Gangadharan, 2013) [3].

METHODOLOGY

Firstly, identify the root causes and key performance indicators.

1) Brainstorm by using depth interview with high experience people who are in merchandise sales system. Cause and Effect Diagram is used to identify and analyze then propose possible project to solve problem of low in sales figures. Research the relevant literature study involved In-flight merchandises and sales figure and finding the root causes problem. Hierarchy Process (Analytic Hierarchy Process (AHP) is also studied.

Figure 3:
Fish-bone Diagram to show the main causes of a problem
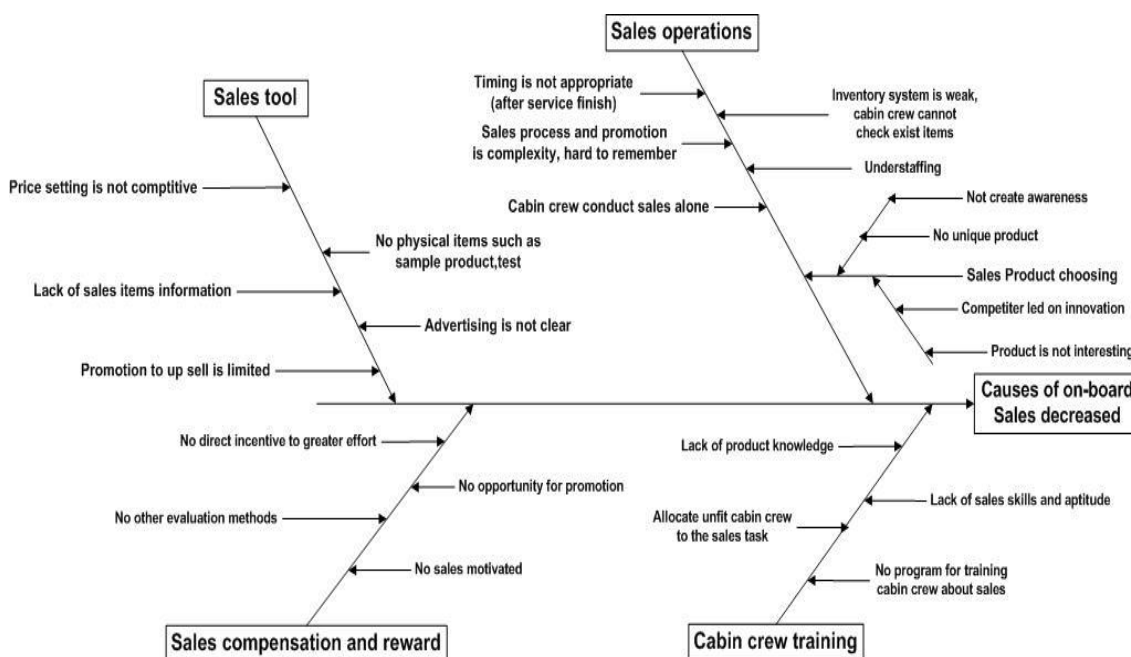
A typical cause-and-effect diagram depicted in Figure 3 has a box called fish head at the right hand side or the problem of on-board sales decrease, in which is written the effect that is to be examined. The main body of the diagram is a horizontal line, representing the main cause that need to be investigated. In each of the large bone there may be some smaller bones show level of causes. Each smaller bone is labeled with an idea, which represents a potential cause. Sometimes there may be a third level of bones or more.

2) Depth interview with management team related indicators of success and critical success factors.

3) Collects, analyzes and concluded that what are criterion and key success factors in alternative that has high value weights in solving problem.

Secondly, assess the criterion and Key Success Factors (KSF) of the alternative

The survey questionnaires are used to collect data and measure as Likert Scale, the respondents were asked to assess the suitability of the success indicators (where 1 = not strongly disagree, 2 = disagree, 3 = unsure, 4 = agree, and 5 = strongly agree) results are used to calculate the average.

Figure 4:
AHP hierarchical structures for making decision on projects selection
Source: Sustainability Based Decision Making Tools for Design and Assessment of Alternative Fuel Technologies by Gangadharan (2013).
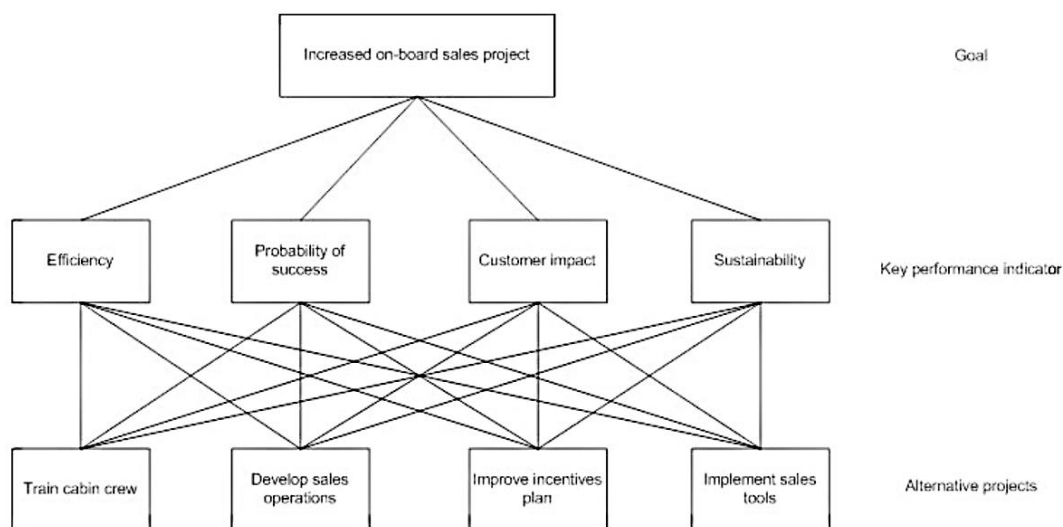
Thirdly, prioritize the alternative projects.

How to prioritize was done by using data from airline employees and customers. Establish a pairwise comparison matrix and check the consistency of judgments.

Finally, test the difference of decision making by two groups, to test whether there are significant differences in the ranking of data between the groups of airline employees and customers.

RESULTS

Root causes of In-flight merchandise decrease were segregated in to five main causes as here: 1) Products; not create customer desired, not create awareness of products. Moreover, competitors as online sales led on innovation and variety. 2) Sales strategy; little advertising, no concise promotional activities. 3) Sales operations and selling process; customers are not be much approached; inventory system is weak a cabin crew cannot check products exist; understaffing a cabin crew has no time to sell products. 4) Sales compensation and reward; no direct incentives to greater effort, no other evaluation method is required, sales performance is not the opportunity for promotion and incentives is not tempting. Averaged sales commission is less than 3,000 baht per month. 5) Sales training and development: No systematic program for training salespeople, allocate unfit people to the

task, some cabin crew lack of product knowledge sales skills and aptitude. As reviewed of literature, related researches and interview with experts on the criteria of a project selection four success indicators and four suitable projects are identified; (1) Efficiency (2) Probability of success (3) Customer impact (4) Sustainability

Results of identification of the suitable projects to increase In-flight merchandises

Table 1
Criteria to evaluate the guidelines/ projects

KPIs/projects	Xbar	SD	t	p-Value	H0 is rejected/accepted
KPI(1) Efficiency	4.53	0.63	4.65	0.000	rejected
KPI(2) Probability of success	4.03	0.61	0.30	0.384	rejected
KPI(3) Customer impact	4.40	0.67	3.25	0.001	rejected
KPI(4) Sustainability	4.33	0.76	2.41	0.011	rejected
Project(1)_Train salespeople	4.67	0.48	7.62	0.000	rejected
Project(2)_Develop sales operations	4.00	0.79	0.00	0.500	rejected
Project(3)_Improve incentive plan	4.17	0.79	1.15	0.129	rejected
Project(4)_Implement sales tools	4.60	0.62	5.29	0.000	rejected

Results of prioritization of the alternatives by using the AHP approach

Four primary alternative projects were rated by two groups are not much different, and the suitable project to solve problem of In-flight merchandise figure decreased were as follow: 1) Projects to develop sales operations. Adjust the activities in sell process such as timing of sales, selection products and decreasing selling complexity. 2) Improve incentive plan. Introduce compensation plan which is viable and motivate. Are all salesperson are only motivated by cash. Providing professional development rewards is that cabin crew can improve. 3) Implement sales tool such as advertising, promotion and price setting to engage customers.

Results of examination whether there are significant differences between two sets of project ranking by two groups of respondents.

Table 2
Results of Rankings comparison between two groups of respondents

Guidelines/ projects	Customer		Airlines Employee		Two groups	
	Weights	Ranking	weights	Ranking	Weights	Ranking
Train salespeople; increase knowledge, technique and skill	0.168	4	0.201	4	0.185	4
Develop sales operations	0.385	1	0.280	1	0.332	1
Improve incentive plan	0.268	2	0.251	3	0.259	2
Implement sales tool	0.179	3	0.268	2	0.224	3

Results of customers view were compared with results of airline employees' view by Spearman's rank correlation test to examine whether there are statistically significant differences between two sets of rankings or not. Both groups ranked no 1 to project of developing sales operations.

Key Performance indicators (KPIs); KPI is used to measure performance or assess performance. The result of measurement or the evaluation can be measured in quantitative data to reflect the efficiency and effectiveness of operations.

CONCLUSION AND FUTURE WORK

Identify criteria and find root cause from brainstorm by using depth interview with experienced In-flight merchandise department employees including salespersons and the management. Cause and Effect Diagram is used to identify and analyze then propose possible alternatives to solve problem of low in sales figures. Hierarchy Process (Analytic Hierarchy Process (AHP) is also studied. four success criteria were 1) Efficiency 2) Probability of project success 3) Customer impact 4) Sustainability

Level of criteria: Both groups of respondents rated the most important key performance indicators to "efficacy". Airline employees and customer rated the significant "customer impact "more than "probability of project success criteria", on the other hand airline employees rated the "probability of project success criteria" more significant than "customer impact"

Level of suitable alternative selection, Two groups of respondents' views were not much different. Develop sales operations was rated as primary suitable project, while group of customer rated the improvement of incentive plan is more suitable than implement sales tool; advertising, promotion, and airline employees rated implement sales tool; advertising, promotion is suitable more than improve incentive plan.

Based on the review of related literature and interview with in-flight merchandise experience, the major findings and conclusions of this study propose that future research may be conducted by studying more in details of other important of products selection in sales operations department for In-flight Merchandise Department.

ACKNOWLEDGEMENTS

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