



## HS010

### **The Relationship between New Service during the Opening of Flight Routes Amidst The COVID-19 Endemic Surveillance and the AIRSERVE Service Strategy of Full-Service Airline**

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#### **Abstract**

The research objectives were to study the personal data, new service, service quality of full-service airline passengers at Suvarnabhumi Airport and to find the relationship between new service and the AIRSERVE service strategy. The researcher distributed the questionnaires to 426 respondents, who were the passengers of the airport. The statistics in use were frequency distribution, percentage, arithmetic mean, standard deviation, and correlation coefficient. Results: In terms of speed (fast), it was discovered that the quantity of sufficient airline staff was the most important factor. The most opinions were found to be in favor of technological convenience (smart). In terms of AI-assisted safety checks, accessibility, and seamless travel and work between humans and artificial intelligence (seamless), it was discovered that the most popular opinions are concerning travel accessibility to various routes. The most essential component of new types of services connected to the quality of service plan was the variety of routes covering and linking to all destinations, and the new service is related to the service strategy of AIRSERVE. The recommendation of the research was that the airlines should create a wider range of service routes and connect to more locations, allocate sufficient employees to serve passengers, and develop AI to be ready to serve safely. The managerial implication was the managers should improve the new service and AIRSERVE strategy since they could be better than high level. In addition, the seamless service provision should be highly paid attention since it is highly related with the AIRSERVE strategy. ( $r=0.717$ )

**Keywords:** new services, AIRSERVE service strategy, Covid-19, new normal





## 1. Introduction

The aviation industry is an industry that has been directly affected by the COVID-19 pandemic. Since 2020, as shown in Table 1 revealed by IATA, many agencies have had to adjust their strategic plans for organizational survival, and many organizations have adjusted their operating strategies by reducing costs, especially employee costs that account for 15 percent of total costs. (Thanakorn Narongwanich, 2020)

**Table 1** *The impact of damage on the aviation industry.*

Year	Passengers (millions)	Fights	Value of goods carried (billions)
2019	12.4	106,600	\$17.8
2020	4.9	46,200	\$16.3
2021	6.2	53,000	\$20.5
2022	9.4	70,600	\$21.9

Source: Thanakorn Narongwanich (2020)

According to the Tourism Authority of Thailand, which has released inbound tourist numbers, it is realistic to believe that the aviation industry will restart growing, albeit it will be difficult because the impact of COVID-19 has rendered many processes and procedures no longer normal. In addition to safety regulations, safety policy measures in other areas of disease outbreak must be considered in order to achieve good hygiene and build more confidence for passengers than previous standards in order for them to trust and create an impression of the new service concept, which consists of delivering service with speed (fast), innovation (smart), and seamless connection between people and innovation (seamless), which Kris Pattanasarn (2022), director and secretary of the Thailand Airlines Association, spoke at the aviation seminar under the topic "Alternatives, Survival" Direction and trend of the aviation industry in 2022 at Panyapiwat Institute of Management on July 25, 2022, giving information that the past COVID-19 situation from 2019–2021 has seen a large number of aviation personnel leave their jobs in almost every position. Therefore, every airline in collaboration with the IATA agency has the same mission, which is to call all employees back to work and recruit new personnel to fill the missing positions as quickly as possible. There is also a forecast for what will happen in the next 3 years, as shown in Table 2.



**Table 2** *The 3- year forecast for the evolution in passenger numbers*

Year	Overall	International	Domestic
2022	83%	69%	93%
2023	94%	82%	103%
2024	103%	92%	111%
2025	111%	101%	118%

Source: Seminar "Choices, Survival" Direction and trend of the aviation industry in 2022

Personnel preparation is critical since they are the first to adapt, learn, and adjust to changing measures, but they must still maintain service quality. Furthermore, the aviation industry has chosen new innovations and modern technology to provide passengers with convenience and speed, such as ticketing booths (Kiosk), check-in using a facial scanning system, and baggage checking with a scanner using the AOT Hello application, which will replace humans in some jobs. Mr. Louis Moser (2022) (Area Manager, Thailand, Laos, Cambodia, and Myanmar International Air Transport Association) at the event Seminar "Choices, Ways of Survival," organized by Panyapiwat Institute (PIM), said that these cutting-edge technologies are not yet able to completely replace humans. They are only the first line of entry at airports. There is also a mission to make travel a seamless journey between humans and robots in order to connect and reach all areas around the world. Because of the aforementioned gaps from post-Covid-19 service provision and technological competition in the airline industry, airline staff must study and master trends in order to understand the direction of the service format in order to be in accordance with the organization's mission and make a positive impression. A positive image leads to improved service quality.

## 2. Objectives

2.1 To study the personal data of full-service airline passengers at Suvarnabhumi International Airport.

2.2 To study the new service of a full-service airline.

2.3 To study the service quality from the AIRSERVE service strategy of a full-service airline.

2.4 To Study the relationship between new service and the AIRSERVE service strategy.





### **Scope of Study**

1) The population were the passengers at Suvarnabhumi International Airport. The sample were 426 passengers.

2) The area of study was Suvarnabhumi International Airport.

3) The scope of content and the independent variables were personal factors consisting of gender, age, educational level, occupation, income, frequency of traveling, service period and type of service as well as new service consisting of fast service (fast), innovative service (smart) and seamless service provision (seamless). The dependent variables were AIRSERVE service strategy

4) The scope of the study period is from November 2022–February 2023

### **Expected benefits**

1) The research findings will benefit Suvarnabhumi International Airport and could be applied to improve and develop service quality.

2) The research findings will help service providers, officials, and ground personnel improve their services.

3) The research findings will benefit researchers, students, teachers, and those interested in further study.

## **3. Research Question**

3.1 How was the new service of Suvarnabhumi International Airport during the time of COVID-19 becoming an endemic disease?

3.2 What are the important factors of the AIRSERVE service strategy?

## **4. Literature Reviews and Research Frameworks**

### **4.1 New Service**

Krit Pattanasarn (2022) explained that currently, the number of visitors and passengers has risen much higher compared to prior to the COVID-19 crisis, and there was reason to believe that the aviation industry will resume expansion, albeit slowly. Many processes have become abnormal as a result of COVID-19's impact. Especially in the aviation industry, where you meet a lot of people. In addition to safety regulations, safety policy measures in other areas of disease outbreak must also be considered in order to achieve good hygiene and build more confidence for passengers than previous standards in order for them to trust and create an impression of the new service, which consists of providing service with





speed (fast), innovation (smart), and seamless connection between people and innovation (seamless), which Kris Pattanasarn, director and secretary of the Thailand Airlines Association, delivered a speech at the aviation conference titled "Choices, Ways of Survival," Direction and trend of the aviation industry at Panyapiwat Institute of Management on July 25, 2022, providing information that the previous COVID-19 situation from 2019-2021 has seen a large number of aviation personnel leave their jobs in almost every position, which, if in line with the current number of tourists in the aviation business, whether it is an agency or an airline company, has the same goal of preparing sufficient personnel for the number of passengers. As a result, every airline, in partnership with the IATA agency, has the same mission: return all employees to work and recruit new personnel to replace vacant positions as soon as possible. It is also expected that the number of passengers will increase each year during the following three years. As a result, personnel preparation is critical since they are the first to adapt, learn, and adjust to varied measures while still maintaining service quality.

According to Louis Moser (2022) (Area Manager, Thailand, Laos, Cambodia, and Myanmar International Air Transport Association), these cutting-edge technologies are yet to entirely replace humans. At airports, they are merely the first point of contact. There is also a mission to make travel between humans and robots a seamless voyage in order to link and reach all corners of the planet. As a result, airline staff must study and master trends in order to understand the direction of the service format in order to be in accordance with the organization's mission and make a positive impression. A positive image leads to improved service quality.

#### 4.2 AIRSERVE Service Strategy

Suttha Sanphet Panit and Suraphit Phromsrit (2014) studied and researched strategies for improving service quality in business class of leading international airlines. Until discovering the AIRSERVE service strategy in all 8 areas, which consists of various factors, with details as follows:

1) Strategy A = Global Air Network, an aviation network that covers the entire world. 2) Strategy I = Premium In-flight Products, excellent in-flight service products. 3) Strategy R = Reliable High Safety Standard, confidence in safety with high standards. 4) Strategy S = Superior Service Promises, excellent service standards. 5) Strategy E = Exclusive Personal Touch, employee service development. 6) Strategy R = Effective Recovery Guarantee, effective error guarantee. 7) Strategy V = Valuable Privileges and Benefits, developing travel





benefits. 8) Strategy E = Express Connectivity, convenience and speed in contacting and access information.

Netsiri Ruangriyaphak et al (2021) studied causal relationship model of "AIRSERVE service strategy" that affects the repeated use of services by passengers of Garuda Indonesia Airlines found that a sample group of 250 Indonesian passengers agree that the service quality of Garuda Airlines' "AIRSERVE" strategy Indonesia as a whole is ranked at the highest level. When looking at each aspect, it was found that the quality of service and the overall use of repeat services were at a high level. When looking at each aspect, it was found that the emphasis on repeat use of services was at a high level. Causal relationship at a statistical significance level of 0.05. It was found that the AIRSERVE service strategy has a direct relationship between the repeat use of Garuda Indonesia Airlines and the interaction between gender, nationality, and AIRSERVE service strategy when the variable gender is the control, having an indirect effect at the value of 0.124\* and the variable nationality at the value of 0.130. The model that has been developed for a full-fledged airline can be used to improve service development in order to encourage repeat use of the airline in the future.

#### 4.3 Service Innovation

Passengers benefit from increased service innovation. Passenger service expectations and needs have changed, thus airlines must offer new services to provide greater value to consumers. Maintain a competitive advantage through service innovation by lowering service costs, improving service and product quality, and boosting passenger value. Tang, T. T., Wang, M. C., and Tang Y. (2013) have invented and introduced new things (Radical Service Innovation) or developed and improved on existing ones (Incremental Service Innovation) in both product and process innovation, which is consistent with O. Suttijak and K. Youngmee's work. (2013)

Furthermore, Chongsoonthornwong, C. (2016) demonstrated that commercially developed service innovation can be a new service in the market (radical service innovation) or an existing service that has been used to increase the value of the service and service is the concept of evaluation by the service recipient making a comparison between the expected service and the service actually perceived by the service user. If the service provider is able to provide services that are consistent with the service recipient's needs or create a service that is at a higher level than that, the service recipient expects the said service to have good service quality, which will make the service recipient very satisfied with the service received. Therefore, the quality of service means ability to meet the needs of the service business. Quality

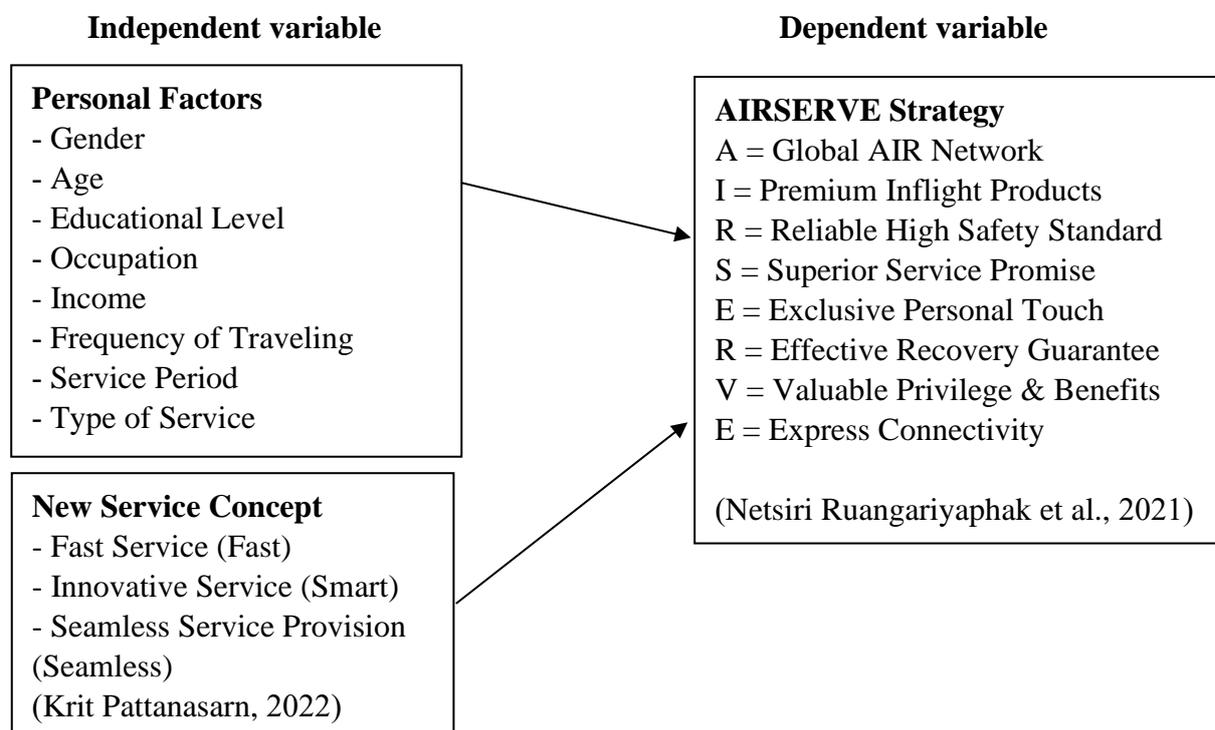


of service is the most important thing that will differentiate a business from competitors. Providing service quality that meets expectations using service quality measurement tools.

Personal characteristics such as gender, status, job position, and working years differed in preparation for the transition to artificial intelligence technology, according to Parichat Wichupakornkul (2020). The overall awareness and acceptance of the shift to artificial intelligence technologies among Bangkok hotel personnel was at moderate level.

Service innovation to improve service quality, according to Phuwadon Ngammak and Chawalee Na Thalang (2020). As a result, it is crucial to adapt to and support changes in technology that are important in the air transportation industry, something that many business operators prosper and survive because of innovation.

### Conceptual Framework



## 5. Methodology

In this section, we describe the population, data collection method, instruments, and data analyses used.

### 5.1 Population, sample, and data collection

The population were unknown number of passengers at Suvarnabhumi International Airport. The sample size of the study was 426 passengers, which was from 385 passengers and 41 reserve based on unknown sample size calculation (Yamane, 1967).The





researcher applied convenience sampling.

### 5.2 Instruments

The questionnaire was divided into three sections: personal factors, new service model and AIRSERVE service strategy. The questions used were validated by IOC from 3 experts at 0.87 and tested for reliability was 0.89 from the tryout of 40 similar samples from the other airport.

### 5.3 Data Collection and Analysis

The researcher, together with the teams, collected the data at Suvarnabhumi Airport in November 2022- February 2023. The descriptive statistics such as frequency and percentage were used to analyze the personal data and mean and standard deviation were used to analyze the level of new service and AIRSERVE strategy. To this the researcher calculate and interpret the meaning and interval of the ranges from highest to lowest as 5-1 as below:

4.21 – 5.00 = Highest

3.41 – 4.20 = High

2.61 – 3.40 = Moderate

1.81 – 2.60 = Low

1.00 – 1.80 = Lowest

For the hypothesis testing, the researcher used Pearson's Correlation to study the relationship.

## 6. Results

### Part 1 Descriptive statistic

n=426

Personal Factors	Options/Answers	Participants	%
Gender	Male	229	53.8
	Female	197	46.2
	<b>Total</b>	<b>426</b>	<b>100</b>
Age	Gen B Between 58-76 Years Old	20	4.7
	Gen X Between 43-57 Years Old	91	21.4
	Gen Y Between 25-42 Years Old	178	41.8
	Gen Z Less Than 25 Years Old	137	32.2
	<b>Total</b>	<b>426</b>	<b>100</b>
Education Level	Under Bachelor's Degree	74	17.4





Personal Factors	Options/Answers	Participants	%
	Bachelor's Degree	270	63.4
	Master's Degree	67	15.7
	Doctoral Degree	15	3.5
	<b>Total</b>	<b>426</b>	<b>100</b>
Occupation	Business Owner	41	9.6
	Independent Contractor	65	15.3
	Company Employee	120	28.2
	Government Officer	118	27.7
	Others	82	19.2
	<b>Total</b>	<b>426</b>	<b>100</b>
Income per Month	Less Than 10,000	67	15.7
	10,001-20,000	133	31.2
	20,001-30,000	137	32.2
	30,001-40,000	44	10.3
	40,001-50,000	26	6.1
	More Than 50,000	19	4.5
	<b>Total</b>	<b>426</b>	<b>100</b>
Frequency of Traveling	1-5 Times	252	59.2
	6-10 Times	61	14.3
	More Than 10 Times	113	26.5
	<b>Total</b>	<b>426</b>	<b>100</b>
Service Period	Pre COVID-19 Pandemic	119	29.6
	Post COVID-19 Pandemic	126	27.9
	Both Periods	181	42.5
	<b>Total</b>	<b>426</b>	<b>100</b>
Type of service	Connecting Flight	58	13.6
	Direct Flight	219	51.4
	Both Types	149	35.0
	<b>Total</b>	<b>426</b>	<b>100</b>





The majority of participants were male (53.8%) and in the Gen Y age range of 25–42 years old (41.8%). Most had a bachelor's degree (63.4%) and had careers as company employees (28.2%). The respondents mostly had a monthly income of 20,001–30,000 Thai baht (32.2%).

Frequency of traveling 1–5 times per year (59.2%) The period of time when most people used the service was both before COVID-19 and after COVID-19 (42.4%). The type of flight used was mostly direct flight (51.4%).

### Part 2 New service analysis results

n=426

New Service	□	S.D.	Level
1. Fast Service (Fast)	3.83	0.572	high
2. Innovative Service (Smart)	3.87	0.582	high
3. Seamless Service Provision (Seamless)	3.88	0.623	high
<b>Overall</b>	<b>3.85</b>	<b>0.583</b>	<b>high</b>

It was found that the overall new service was at a high level in every aspect, with an average of 3.85. Looking at each aspect, it was found that it was highest in the area of providing seamless services (seamless) at an average of 3.88.

### Part 3 AIRSERVE service strategy analysis results

n=426

AIRSERVE Service Strategy	□	S.D.	Level
A = Global Air Network	3.96	0.838	high
I = Premium Inflight Products	3.94	0.819	high
R = Reliable High Safety Standard	3.79	0.823	high
S = Superior Service Promise	3.88	0.843	high
E = Exclusive Personal Touch	3.82	0.898	high
R = Effective Recovery Guarantee	3.90	0.840	high
V = Valuable Privilege & Benefits	3.92	0.849	high
E = Express Connectivity	3.89	0.843	high
<b>Overall</b>	<b>3.88</b>	<b>0.578</b>	<b>high</b>





It was found that the overall AIRSERVE service strategy was at a high level in every aspect, with an average of 3.88, with the highest aspect, with an average of 3.96, being A = Global AIR Network.

**Part 4 The relationship between personal factors, new service model and AIRSERVE service strategy analysis results** n=426

<b>Relationship between personal factors and new service model to the AIRSERVE service strategy</b>				
<b>Personal factors</b>	Pearson's Correlation	Signification Level	Direction	Relationship Level
Age	-.132**	.007	negative	low
Income per Month	.099*	.041	same	low
Frequency of Traveling	.040	.415	same	low
<b>New Service Model</b>	Pearson's Correlation	Signification Level	Direction	Relationship Level
Fast Service (Fast)	.600	.000	same	moderate
Innovative Service (Smart)	.673	.000	same	moderate
Seamless Service Provision (Seamless)	.717	.000	same	high
<b>Overall</b>	.798	.000	same	high

The result of the hypothesis found that there is a high relationship between overall new model service and AIRSERVE strategy at a high level ( $r = 0.789$ ). The highest factor was seamless service provision at high level ( $r = 0.717$ ).

## 7. Discussion

Objective 1: To study the personal data of Suvarnabhumi International Airport passengers who have used full-service airline services. It was found that the majority of participants were male (53.8%) and in the Gen Y age range of 25–42 years old (41.8%). Most had a bachelor's degree (63.4%) and had careers as company employees (28.2%). The respondents mostly had a monthly income of 20,001–30,000 Thai baht (32.2%). Frequency of traveling 1–5 times per year (59.2%) The period of time when most people used the service was





both before COVID-19 and after COVID-19 (42.4%). The type of flight used was mostly direct flight (51.4%). In line with Louis Moser (2022), the impact of COVID-19 has caused every part of the aviation industry to be more cautious.

Objective 2: To study the new service of a full-service airline. The total of the new service model idea was determined to be at a high level in every aspect, with an average of 3.85. When each aspect was examined, it was discovered that it was highest in the area of seamless service (seamless) at an average of 3.88, which is compatible with the concept of Louis Moser (2022) and Krit Pattanasarn (2022) that those cutting-edge technologies are not yet entirely capable of replacing humans. They are merely the initial step in screening passengers when they enter the airport for their luggage. They also have a mission to make the path between people and robots as seamless as possible in order to link to all regions of the world and Parichat. Vi. Chuphakornkul (2020): Artificial intelligence technology has made it inevitable for many businesses to adopt this technology.

Objective 3: To study the service quality from the AIRSERVE service strategy of a full-service airline. It was found that the overall AIRSERVE service strategy was at a high level in every aspect at an average of 3.88, with the highest aspect with an average of 3.96 being A, Global Air Network. This is consistent with Netsiri Ruangariyapak and others (2021). Service quality strategies will affect the repeated use of services by passengers. Strategy A = Global Air Network, an aviation network that covers the entire world.

Objective 4: To study the relationship between new service and the AIRSERVE service strategy. It was found that personal data had a low relationship with the AIRSERVE strategy overall, except for gender, which had a high relationship. and age were related in opposite directions. As for the new service model, it is related to the overall AIRSERVE strategy in the same direction at a high and medium level, consistent with Phuwadon Ngammak Chawalee Na Thalung (2020), using innovation to help create added value (valued creation) is a method that will drive businesses to have the potential to develop and increase capabilities in the aviation industry, much of it is in the form of new methods in passenger service to create service innovation and increase service efficiency and is in line with Netsiri Ruangariyapak et al. (2019), all 8 aspects of service quality strategy have an effect on repeat service use by passengers and it is a guideline for improving and developing the quality of service in every aspect to ensure that passengers are impressed by the use of the service and come back to use the service again.





## 8. Conclusions

From the results of data analysis using statistical programs, it was found that the majority of participants were male (53.8%) and in the Gen Y age range of 25–42 years old (41.8%). Most had a bachelor's degree (63.4%) and had careers as company employees (28.2%). The respondents mostly had a monthly income of 20,001–30,000 Thai baht (32.2%). Frequency of traveling 1–5 times per year (59.2%) The period of time when most people used the service was both before COVID-19 and after COVID-19 (42.4%). The type of service was mostly direct flights (51.4%).

The overall new service is at a high level in every aspect, with an average of 3.85. Looking at each aspect, it is found that the highest level is in providing seamless services (seamless) at an average of 3.88. The overall AIRSERVE strategy is at a high level in every area. The aspect with an average of 3.88, with the greatest aspect being A = Global Air Network, has an average of 3.96.

The relationship between personal information and providing new services to the AIRSERVE strategy found that the personal factors have a low overall relationship with the AIRSERVE strategy in the same direction. Except that gender has a high level of correlation and age is related in opposite directions, as for the new service, it is related to the overall AIRSERVE strategy in the same direction at a high and medium level.

## 9. Recommendation

The study found that new service and AIRSERVE strategy are highly related and they need some improvement to achieve the satisfied service, particularly smooth and connectivity of the technology. In the future study, the researcher should focus on more latent factors. The research instrument should provide more qualitative study which could elaborate more reasons and details of latent factor affect the uses. The managerial implication of the study was the managers should pay more attention to technology and service which provide seamless service to the passengers.





## 10. References

- Chantarapanich R. (2021) Impact and Adaptation of Airline Business in the COVID-19 Outbreak Situation, Academic Journal of Buriram Rajabhat University, Vol. 13 No. 1 January - June 2021.
- Narongwanich T. (2020). How will the aviation industry get through COVID-19? College of Tourism and Hotels, Sripatum University, Bangkok. Company Airports of Thailand Public Company Limited (2020). Air transport statistics 2020. Available at [www.airport.thai.co.th](http://www.airport.thai.co.th) access: December 1, 2020.
- Ngammak P., Na Talang C. (2020) Innovations to Increase the Quality of Passenger Services in Commercial Airlines in Thailand. Faculty of Management College, University of Phayao.
- Pattanasarn K. (2022). "Choices, Ways of Survival," Direction and trend of aviation industry. Aviation seminar. Panyapiwat Institute of Management. July 25, 2022.
- Phothijathoom S. (2021) The Principles of Good Governance Affecting Service Quality Management of Nakhon Pathom Government Center, Nakhon Pathom Rajabhat University, Faculty of Management Science, Journal of Management Science, Vol. 8 No. 2 (2021): July - December 2021.
- Prasertsri S. (2019) Service Innovation Market Orientation and Alliance Orientation that Affect the Business Performance Case Study: SMEs Hotel in Phitsanulok Province Thailand, WMS Journal of Management School of Management, Walailak University.
- Ruangariyapuk N., Naulsom N., Christensen Milindra T., Hutsarin P. (2021) A Causal Relationship Model of "Service AIRSERVE Strategies" Toward to the Repeat Service of Garuda Indonesia Airline's Passengers. MUT Journal of Business Administration. Volume 18 Number 1 (January – June 2021).
- Vichuparkornkul P. (2021). Bangkok Hoteliers Preparation to Technological Change (Ai) Master of Business Administration, Silpakorn University.

