

ความเป็นผู้ประกอบการภายในองค์กรสำหรับบุคลากรของท่าอากาศยาน*

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บทคัดย่อ

การวิจัยครั้งนี้ เป็นการวิจัยแบบพสานวิธี โดยใช้การวิจัยเชิงคุณภาพ และการวิจัยเชิงปริมาณ มีวัตถุประสงค์ เพื่อศึกษากรอบแนวคิดความเป็นผู้ประกอบการภายในองค์กรสำหรับบุคลากรของท่าอากาศยานในประเทศไทย เครื่องมือที่ใช้ในการวิจัย คือ ตารางการสังเคราะห์เนื้อหา จากเอกสารที่เกี่ยวข้อง 64 รายการ และแบบประเมิน กรอบแนวคิดการวิจัย เรื่อง โมเดลการพัฒนาความเป็นผู้ประกอบการภายในองค์กรสำหรับบุคลากรของท่าอากาศยาน ซึ่งทำการประเมินความเหมาะสม โดยผู้ทรงคุณวุฒิ จำนวน 5 คน วิเคราะห์ข้อมูลโดยใช้สถิติ ค่าเฉลี่ย (\bar{X}) ส่วนเบี่ยงเบนมาตรฐาน (Standard Deviation : S.D.) และการวิเคราะห์เชิงเนื้อหา (content analysis)

ผลการวิจัยพบว่า 1) กรอบแนวคิด โมเดลการพัฒนาความเป็นผู้ประกอบการภายในองค์กรสำหรับบุคลากรของท่าอากาศยาน ประกอบด้วย การเป็นผู้ประกอบการภายใน 3 ด้าน มีองค์ประกอบคุณลักษณะ 16 ด้าน ได้แก่ 1.1) พฤติกรรม ประกอบด้วย 1.1.1) สร้างนวัตกรรม 1.1.2) การมีความคิดสร้างสรรค์ 1.1.3) การดำเนินงาน เชิงรุก 1.1.4) การมองเห็นและใช้ประโยชน์จากโอกาส 1.1.5) การมองเห็นและใช้ประโยชน์จากโอกาส 1.1.6) การยอมรับ ความล้มเหลว 1.1.7) การสร้างเครือข่าย 1.2) คุณลักษณะ ประกอบด้วย 1.2.1) ทักษะ 1.2.2) ความสามารถ 1.2.3) การรับรู้สมรรถนะของตนเอง 1.2.4) การมีความรู้ส่วนบุคคล 1.2.5) การมีประสบการณ์ และ 1.3) ทัศนคติ ประกอบด้วย 1.3.1) ความสัมพันธ์กับองค์กร 1.3.2) แรงจูงใจ 1.3.3) ความพึงพอใจ 1.3.4) ความตั้งใจ 2) กรอบแนวคิดการบริการของท่าอากาศยาน ประกอบด้วย 9 ด้าน มี ได้แก่ 2.1) มาตรฐานความปลอดภัย 2.2) การจัดการจราจรทางอากาศ 2.3) การรักษาความปลอดภัย 2.4) การบริการผู้โดยสาร 2.5) การบริหารจัดการท่าอากาศยาน 2.6) ศิ่งแวดล้อมและ ความยั่งยืน 2.7) การกำหนดรหัสสนามบิน 2.8) บริการภาคพื้นดิน 2.9) ระบบการจัดการเหตุฉุกเฉิน

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Intrapreneurial for Organizational Personnel in Airports*

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Abstract

This research used Mixed methods research integrating both qualitative and quantitative research methods. This research aimed to explore the conceptual framework of intrapreneurship development for airport personnel in Thailand. The research instruments included a content synthesis table derived from a review of relevant literature comprising 64 items and an evaluation form on the research framework titled "Model for Developing Intrapreneurship in Airport Personnel." The framework was assessed for its suitability by a panel of five experts. Data analysis was conducted using statistical methods, including mean (\bar{X}), standard deviation (S.D.), and content analysis

The study revealed that the conceptual framework for the intrapreneurship development model for airport 1) Intrapreneurial consists of three key dimensions with a total of 16 characteristics, 1.1) The behavioral dimension includes 1.1.1) innovativeness 1.1.2) creativeness 1.1.3) proactiveness 1.1.4) opportunity recognition 1.1.5) risk-taking 1.1.6) tolerance of failure and 1.1.7) networking. 1.2) the attribute dimension includes 1.2.1) skills, 1.2.2) abilities 1.2.3) perception of their own capabilities 1.2.4) personal knowledge, and 1.2.5) experience. Lastly, 1.3) the attitudinal dimension includes 1.3.1) relationship to the organization 1.3.2) motivation 1.3.3) satisfaction, and 1.3.4) intention. 2) Airport services covers 9 dimensions: 2.1) safety standards 2.2) air traffic management 2.3) security management 2.4) passenger services 2.5) airport management 2.6) environment and sustainability 2.7) airport code designation 2.8) ground services, and 2.9) emergency management systems.

Keywords: Intrapreneurial, Airports

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Importance and Research Problems

The aviation industry is an industry with exponential growth, especially after the outbreak of the Coronavirus (COVID-19) in 2022. The aviation industry has recovered due to passenger demand, especially passengers from low-cost airlines. From the assessment of the aviation situation by Bank of Ayudhya on business/industry trends: air transport services in 2023-2025, the air transport business is expected to grow well. Both domestic and international passenger transport will grow in line with the recovery of the tourism sector. Freight transport services are gradually recovering in line with economic activities. Meanwhile, price competition is likely to become more intense amidst the burden of business recovery and costs that are likely to increase in line with energy prices (Sathapongpakdee, 2022). Due to the intensifying competition in business (Kuratko et al., 2011:8), it is explained that for a business to be successful, each organization must try to reduce costs, improve product quality, and continuously develop the quality of customer service in order to stay in the market. Therefore, each organization should focus on creating entrepreneurs within the organization to create new products or services to the market for sale to existing or new customers in order for the organization to have sustainable business results. As a result, the demand for personnel to meet the needs of the industry has also increased. From the perspective of entrepreneurs, it is found that personnel must be developed to support the growth of the industry. Educational institutions and private companies have been continuously implementing this (Office of the National Higher Education, Science, Research and Innovation Policy Council, 2021). This is a challenge in developing human resources to meet the needs of the aviation industry, which is in line with the 20-year Thailand Industry Development Strategy 4.0 (2017 - 2036) developed by the Ministry of Industry as a framework for driving the development of the Thai industrial sector over the next 20 years according to the Thailand 4.0 development framework, which consists of 3 strategies: 1) Reforming Thai industries into industries driven by intelligence; 2) Reforming the industrial ecosystem to support industries driven by intelligence; and 3) Connecting Thai industries with the global economy. Promoting the grassroots economy and entrepreneurial society is one strategy under Strategy 1 to develop entrepreneurs at all levels to have an entrepreneurial mindset, which will be an important strategy for developing various industries, not just business owners. Having these characteristics will be a key to enabling businesses to smoothly overcome any changes. Therefore, in preparing organizations in the aviation industry, especially airport management that must manage costs and face the current changes, it is necessary to have a personnel development approach that must come from analyzing the environment and various changes. One of the personnel development approaches is to create entrepreneurs within the organization, which is accepted

by many scholars that it can help organizations have better performance and sustainable competitiveness. Entrepreneurship within the organization can be done in the form of creating a new business or making changes within the organization. The organization can develop entrepreneurship in employees, support the creation of new innovations, create an entrepreneurial atmosphere in the organization, and create a team of entrepreneurs who are not affiliated with any agency (Kulkalyuenyong, 2018).

Therefore, this research is part of the research on the model of developing entrepreneurship within the organization for airport personnel, which studies the framework of entrepreneurship within the organization and the framework of airport management as a guideline for developing a model to develop entrepreneurship development within the organization for airport personnel that matches the future work skills that the aviation industry needs and is consistent with future changes in the world.

Research Objective

To study the framework of Intrapreneurship for airport personnel.

Literature Review

This research is a study of concepts, theories and related research from books, textbooks, academic articles, research, and internet databases both domestically and internationally. There are 2 concepts as follows:

1. Intrapreneurship: Study of concepts and important matters related to the concept of entrepreneurship within organizations, including concepts about entrepreneurship, concepts about intrapreneurship, concepts of intrapreneurship, and creating Intrapreneurship.
2. Airport Services: Study of concepts and important matters related to airport management, including the meaning of airports, types of airports, airport services, and aviation service standards.

Research Methodology

Research type

This study is mixed methods research. The research is divided into four stages, with qualitative research in stages 1-3 and quantitative research in stage 4 as follows:

Stage 1: Design tools for researching information, using content synthesis, including internal entrepreneurial frameworks and airport service concepts.

Stage 2: Research the documents and review the relevant literature. Collect information from the documents by studying the theoretical concepts in books, textbooks, academic articles, research articles, Internet databases, as well as domestic and foreign research related to the concept of internal entrepreneurship and airport service. The research framework is as follows:

1. Documents related to the concept of entrepreneurship within the organization include:

1.1 The concept of entrepreneurship (Theeravanich, 2006; Lassen et al., 2006; Drucker, 2007)

1.2 The concept of intrapreneurship (Kuratko, et al., 1990; Covin, and Slevin, 1991; Zahra, 1991; Covin, and Miles, 1999; Hitt, et al., 2001; Ucbsaran, et al., 2001; Hornsby, et al., 2002; Antoncic, and Hisrich, 2003; Reynolds, et al., 2004, as cited in Belinda, et al., 2007; Bhardwaj, and Momaya, 2006; Belinda, et al., 2007)

1.3 Entrepreneurial concept in organization (Pinchot, 1985; Lumpkin, and Dess, 1996; Antoncic, and Hisrich, 2003; Covin, and Miles, 1999; Williams, and Wood, 2015; Lechner, et al., 2016; Nissan, et al., 2016; Urban, and Aparicio, 2016; Lucas, et al., 2016; Gorgievski, et al., 2017; Arend, et al., 2017; Hughes, et al., 2017; Newbert, and Tornikoski, 2018; Randolph-Seng, et al., 2019; Zhao, and Ha-Brookshire, 2019; Freiling, and Baron, 2020; Kraus et al., 2020; Brem, et al., 2020; Gielnik, et al., 2020; Ryan, and Deci, 2020; Morris, et al., 2021; Suarez, and Hechavarria, 2021; Guzmán and Santos, 2021; Urban, and Ratsimanetrimanana, 2022)

1.4 Creating entrepreneurship within organizations (Kreiser, et al., 2002; Henione, and Korvela, 2003; Morris, et al., 2008; Fox, 2008; Kuratko, 2009; Mehta, and Gupta, 2014)

2. Documents related to the airport service concept include:

2.1 Definition of airport (Office of the Council of State, 2003; Jittangwattana, 2008; Office of the Council of State, 2010)

2.2 Type of airport (Thai Encyclopedia for Youth, 1997)

2.3 Airport services (Thai Encyclopedia for Youth, 1997)

Stage 3: Analyze the data obtained in the document research by using data synthesis of content analysis and frequency analysis.

Stage 4: evaluate the applicability of the research conceptual framework. Assess the applicability of the conceptual framework of the study reviewed by experts, as follows:

1. Using the research framework of Step 2, identify the key issues in the conceptual frameworks of intrapreneurship and airport services, which provide primary information for 5 individuals. The selection criteria are as follows: (1) knowledge and expertise of entrepreneurs within the organization. (2) having knowledge and expertise in airport services to evaluate the appropriateness of the research framework.

2. Experts collect estimated data, evaluate the appropriateness of the research framework, and provide opinions on the intrapreneurship framework, airport service framework, and other recommendations in the recommendations.

Data and Target Group

Data sources and research samples are divided into 2 parts:

1. Related literature, including theories from books, academic articles, research articles, and both domestic and international research on the concept of entrepreneurship in organizations or intrapreneurship and airport service concepts, totaling 64 items.
2. The informants consisted of 5 experts in entrepreneurship in organizations and airport service. Purposive technique was used according to the qualifications and work experience that were consistent with the conceptual research framework, namely 2 experts in intrapreneurship and 3 experts in airport services.

Research Tools

The research tools used in the research were divided into 2 parts:

1. A form to synthesize the content of the concept of intrapreneurship and the concept of airport services.
2. A form to evaluate the conceptual framework on the model for developing entrepreneurship within organizations for airport personnel.

Data Collection

1. Study and review relevant literature, including theories from books, academic articles, research, databases from the internet, and various research both domestically and internationally on the concept of entrepreneurship in organizations and the concept of airport services. Data analysis in this step uses content analysis, summarizes the main points and arranges the items by analyzing the frequency and analyzing the content into categories, and summarizes them into a list of synthesis of relationships and summarizes them as a conceptual framework for the research.
2. Collect quantitative data from 5 experts in the areas of entrepreneurship in organizations and airport services for the evaluation of the conceptual framework. The data collection steps are as follows: (1) Coordinate with experts to request permission to make an appointment to evaluate the conceptual framework. (2) Let experts evaluate the conceptual framework by collecting quantitative data using the conceptual framework evaluation form, and experts check the appropriateness, coverage, and content validity of the data, including providing suggestions in the open-ended questions.

Data Analysis

This research is mixed method research. It is a qualitative data collection. The data analysis method uses frequency and content analysis from various sources to create a research framework from studying documents and reviewing related literature. The data is analyzed by using the appropriateness and feasibility assessment form of the conceptual framework to analyze the appropriateness using the mean (\bar{X}) Standard Deviation (S.D.) and analyze the suggestions by content analysis to evaluate the appropriateness of the conceptual framework from experts.

Summary of Research Results

From the research, the research results can be summarized into 3 parts as follows:

Part 1: Study of documents and related research

The study analyzed entrepreneurship in organizations and airport services to develop a conceptual framework for enhancing entrepreneurship among airport personnel. The framework details are as follows:

1. Intrapreneurship in this research is the ability of personnel in the organization to develop innovations in the form of new products, services or work processes, as well as to systematically improve or upgrade existing products, services or work processes. The objectives are to increase the efficiency of operations, promote the organization's economic growth in the long term, and increase the organization's competitiveness in the context of sustainable business changes. There are 3 main groups of components: (1) behavior, (2) personal characteristics, and (3) attitudes.

Table 1 shows the characteristics of entrepreneurship in the organization. There are 3 main groups of components: behavior, personal characteristics, and attitudes.

Components	Intrapreneurship Framework
Behavior	<ol style="list-style-type: none"> 1. Innovativeness / Creativeness 2. Proactiveness 3. Opportunity recognition / exploitation 4. Risk-taking / tolerance of failure 5. Networking
Characteristics	<ol style="list-style-type: none"> 1. Skills / Abilities 2. Perception of their own capabilities 3. Personal knowledge 4. Past experience

Components	Intrapreneurship Framework
Attitudes	<ol style="list-style-type: none"> 1. Relation to the organization 2. Motivation 3. Satisfaction 4. Intention

2. Airport services in this research, services are the main mission of the airport, which is a licensed airport or temporary takeoff and landing area for aircraft under the authority of the Airports of Thailand, as follows: 1) Facilities, 2) Services provided by the airport without charge to users, 3) Services for passengers' enjoyment or Amenities

Part 2: Expert evaluation of the appropriateness of the research framework

Based on the evaluation of the appropriateness of the conceptual framework draft by 5 experts (i.e. experts with expertise in intrapreneurs and airport services), the analysis results of the conceptual framework are as follows:

1. The suitability evaluation of the internal entrepreneurship framework in section shows that the internal entrepreneurship framework is generally the most suitable ($\bar{X} = 4.77$, S.D. = 0.425) The highest appropriateness was in the aspect of entrepreneurial attitude, which had the highest average value ($\bar{X} = 4.90$, S.D. = 0.308), followed by entrepreneurial characteristics, which had the highest average value ($\bar{X} = 4.75$, S.D. = 0.444), and behavior, which had the highest average value ($\bar{X} = 4.68$, S.D. = 0.476), respectively.

2. The results of the evaluation of the appropriateness of the airport service conceptual framework found that the airport service conceptual framework Overall, the suitability was at a high level ($\bar{X} = 4.06$, S.D. = 0.594) . The highest suitability was for the service provided by the airport, with an average value at a high level ($\bar{X} = 4.20$, S.D. = 0.837) . Next was the service that provided enjoyment to passengers without the user having to pay, with an average value at a high level ($\bar{X} = 4.20$, S.D. = 0.447) and facilities, with an average value at a high level ($\bar{X} = 3.80$, S.D. = 0.447) , respectively.

3. From the synthesis of additional opinions and suggestions related to the conceptual framework of the experts, it was found that the consensus was on the draft conceptual framework. The additional suggestions are as follows:

1) The concept of entrepreneurship within the organization: (1) The definition of entrepreneurship within the organization should be revised to include Entrepreneurship in Organization, which should be

more meaningful than the characteristics of general employees in the organization. (2) Characteristics should be clearly separated, such as innovation/creativity, risk-taking/tolerance of failure.

2) The concept of airport service: (1) Airport service will be related to passengers, pilots, and cargo transportation, which must have the same guidelines in all 193 countries. (2) Therefore, service provision should focus on compliance with the established standards, namely, The International Civil Aviation Organization (ICAO), The International Air Transport Association (IATA), Federal Aviation Administration (FAA), and The Civil Aviation Authority of Thailand (CAAT).

Table 2 shows the analysis of airport service criteria.

Airport Services	Airport Management Standards			
	ICAO (Annexes)	IATA (Recommended Practices)	FAA (Federal Aviation Regulations)	CAAT (Civil Aviation Authority of Thailand)
Safety standards	Annex 14: Aerodrome Design and Operations	Safety management systems (SMS)	Part 139: Certification of Airports	CAAT Safety Management Regulations
Air traffic management	Annex 11: Air Traffic Services	Procedures for effective scheduling	Part 65: Air Traffic Control Tower Operators	CAAT Air Traffic Service Requirements
Security management	Annex 17: Security	Security screening guidelines	Part 107: Security in Airports	Airport Security Regulations
Passenger services	Annex 9: Facilitation	Passenger Service Levels (SLA)	Advisory Circulars on Passenger Facilities	CAAT Passenger Service Standards
Airport management	Annex 14 & Annex 19: Safety Management Systems	Airport operations management practices	Part 139 & Advisory Circulars	Airport Management Practices
Environment and sustainability	Annex 16: Environmental Protection	Green Airport Initiatives	FAA's Airport Sustainability Programs	CAAT Environmental Measures
Airport code designation	ICAO 4-letter airport code	IATA 3-letter airport code	FAA LID	using codes based on ICAO and IATA standards
Ground services	Annex 14 & Ground Handling Manuals	IATA Ground Operations Manual (IGOM)	Advisory Circulars for Ground Handling	CAAT Ground Operations Guidelines

Airport Services	Airport Management Standards			
	ICAO (Annexes)	IATA (Recommended Practices)	FAA (Federal Aviation Regulations)	CAAT (Civil Aviation Authority of Thailand)
Emergency management systems	Annex 14: Emergency Planning	Contingency and crisis management guidelines	FAA's Emergency Response Procedures	CAAT Emergency Management Plan

Part 3: The complete conceptual framework of intrapreneurship for airport personnel

The results of the evaluation of the appropriateness of the conceptual framework received from experts were used to improve the conceptual framework to be a complete conceptual framework as follows:

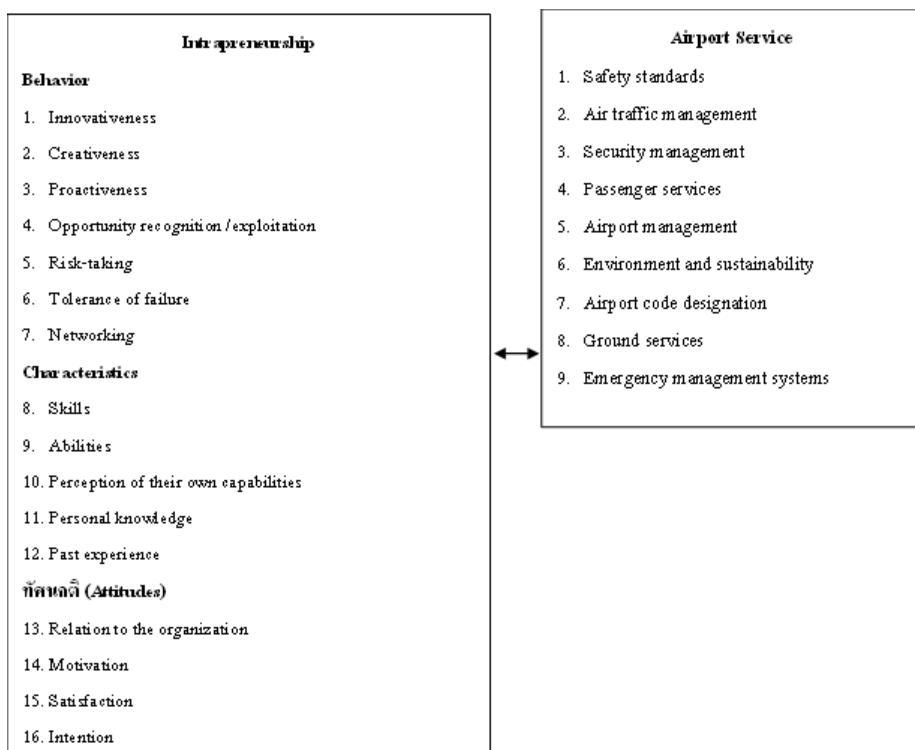


Figure 1. Research conceptual framework

The complete framework of entrepreneurial skills for airport personnel consists of:

1. Intrapreneurship framework refers to the ability of personnel within the organization to develop innovations in the form of new products, services or work processes, as well as to improve or upgrade existing products, services or work processes for airport services according to international standards. It is divided into 3 main groups and 16 subgroups.

1.1 Behavior, work ability and expression of moral courage, ethics with a sense of social responsibility, consisting of: 1) Innovativeness, 2) Creativeness, 3) Proactiveness, 4) Opportunity recognition /exploitation, 5) Risk taking, 6) Tolerance of failure and 7) Networking

1.2 Personal characteristics refer to the characteristics of an individual that affect behavior, decision-making, and work performance. These characteristics are important factors that help determine the potential and success of individuals in organizations or various business contexts. They include: 1) Skills, 2) Abilities, 3) Perception of their own capabilities, 4) Personal knowledge and 5) Past experience

1.3 Attitude refers to a set of thoughts, feelings, and behaviors that a person has towards something, such as work, organizations, or various situations, which influence how a person responds and makes decisions. Attitudes can be both positive and negative, and play an important role in a person's motivation, satisfaction, and work performance, consisting of 1) Relationship to the organization, 2) Motivation, 3) Satisfaction and 4) Intention

2. Airport service refers to the main business operations and services of the airport, which support the operation of users. The main services include passenger, pilot and cargo transportation. According to the international standards formulated by relevant organizations, it consists of nine aspects, including:

2.1) Safety standards, 2.2) Air traffic management, 2.3) Security, 2.4) Passenger service, 2.5) Airport management, 2.6) Environment and sustainability, 2.7) Airport code assignment, 2.8) Ground services and 2.9) Emergency management system

Both conceptual frameworks will lead to the exploration of the current and desired conditions of intrapreneurship for airport personnel in order to analyze and apply the needs assessment results to further develop a model for developing intrapreneurship for airport personnel.

Discussion of Research Results

From this research, the findings were found on the conceptual framework of organizational entrepreneurship and the conceptual framework of airport services.

1. Conceptual Framework of Intrapreneurship

The research found that organizational entrepreneurship plays an important role in increasing competitiveness and effective airport management. It consists of three main components: (1) entrepreneurial behavior, (2) personal characteristics, and (3) attitude, which is consistent with the research of Antoncic and Hisrich (2003) who stated that organizational entrepreneurship is an important factor in stimulating

innovation and organizational growth. In terms of (1) organizational entrepreneurial behavior, it was found that airport personnel must have creativity, risk-taking, and opportunity vision, which is consistent with the concept of Kuratko et al. (1990) who indicated that organizations that encourage such behavior in their employees will be able to better adapt to competition and changes in the aviation industry. In addition, Lumpkin and Dess (1996) supported the statement that "Proactiveness" or proactive operations is an important factor that helps organizations maintain a competitive advantage. (2) Personal characteristics the research found that "skills" and "self-efficacy perception" are important components of airport personnel. This supports the findings of Hornsby et al. (2002) who stated that employees' awareness of their potential will lead to better decision-making and innovation within the organization. In addition, Fox (2008) proposed that skills development through continuous training is the key to creating internal entrepreneurs, and (3) personnel attitudes. The research results indicate that motivation and relationships with the organization play an important role in the success of internal entrepreneurship development, which is consistent with the study of Covin and Slevin (1991) who emphasized that having an "Entrepreneurial Orientation" or attitudes that promote entrepreneurship is an important factor that helps organizations be agile and can continuously drive innovation.

The results of the study are in the same direction as the work of Morris et al (2008) who stated that promoting internal entrepreneurship can help organizations adapt effectively to economic and technological changes. In the context of the aviation industry, this research reinforces the idea that "airports that develop internal entrepreneurship will be able to increase their competitiveness and provide excellent service." This is consistent with the results of the study by Cheng Tseng and Chien-Chi Tseng (2019) who indicated that developing an "Entrepreneurial Culture" in aviation-related organizations will improve service quality and passenger satisfaction.

2. Conceptual framework of airport service

The research results on the conceptual framework of airport services show that there are nine main components: (1) safety standards; (2) air traffic management; (3) security; (4) passenger service; (5) Airport management; (6) Environment and sustainability; (7) Formulation of airport rules; (8) ground services; (9) Emergency management system, each component plays an important role in improving the airport service quality, and helps to meet the international standards set by international aviation organizations (such as the International Civil Aviation Organization (ICAO), the International Air Transport

Association (IATA), the Federal Aviation Administration (FAA) and the Civil Aviation Authority of Thailand (CAAC). Among them, (1) the safety standards confirm that airports need to implement the safety standards stipulated in ICAO Annex 14 (Air Traffic Design and Operation) and FAA Safety Management System (SMS) standards, which is an important factor to reduce aviation accidents. Brent's work (2020) emphasizes that "an airport with high safety standards will help enhance passenger confidence and improve the efficiency of the aviation industry." (2) The research of air traffic management points out that effective air traffic management is the core of the airport, and a flight control system that can adapt to the increase of flight volume is needed. Hecheng's work (2019) pointed out that "digital technology is used in management. Kurakit and Covin (2008) pointed out that "adopting the principle of system management will help the airport adapt to the changes in the aviation industry in a sustainable way." (6) The study of environment and sustainability emphasizes the importance of "green airport" or environment-friendly airport. Airports must comply with the work of Hornsby and others in ICAO Annex 16 (Environmental Protection) to minimize the impact on the environment. (2002) It is emphasized that developing airports in a sustainable way will increase the economic and social value of the aviation industry. (7) ICAO and IATA have formulated airport code standards to make their operation universal and to verify flight data accurately. Lumpkin & dess(1996) argues that a perfect standard system is helpful to improve the accuracy of airport management. (8) Ground services (ground services), such as kurko handling, refueling and aircraft services, have played an important role in improving airport operation efficiency pointed out that "developing technologies to support ground services will help improve the operational efficiency of airports and reduce costs." (9) Emergency management system. Emergency management is one of the factors that ICAO requires airports to make clear emergency plans to deal with emergencies such as air accidents or natural disasters. Antoncic and Hisrich (2003) pointed out that safety preparation is a factor to improve the trust of passengers and airlines.

The results show that the Conceptual Framework of Airport Service contains all the comprehensive elements needed for effective airport management. This study confirms the views of ICAO, IATA, FAA and CAAC that the improvement of airport service quality must be carried out simultaneously with safety standards, effective management and environmental sustainability. This result is consistent with the work of Bulent (2020), Cheng and Tseng (2019) and Morris et al (2008), who emphasized that the development of "entrepreneurial culture" and the use of technology can improve the efficiency of airports and promote the long-term competitiveness of aviation industry.

Suggestion**General recommendation**

1. Organizational managers can adopt a conceptual framework to develop intrapreneurial within the organization, so as to develop the functional characteristics of staff according to the mission of the organization.
2. Professors, researchers and scholars in the field of education can bring the conceptual framework of research to the peak of knowledge, which can be applied to the development of intrapreneurial research, so as to produce graduates and meet the future job skills required by the labor market.

Suggestions for follow-up research

1. This paper studies the necessity of the development of airport personnel's intrapreneurship, and based on the concept of intrapreneurship, studies the current situation of the desirability of airport personnel's service.
2. By putting forward the characteristics of new airport human resources development, the enterprise intrapreneurship development model of airport human resources development is developed.

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