DESIGNING A LINE OA HR BOT TO SUPPORT HUMAN RESOURCES MANAGEMENT BETWEEN COMPANY EMPLOYEES AND OUTSOURCED STAFF

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ABSTRACT

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This study presents a method for Thai international airline contractual workers in the vicinity of the Ubon Ratchathani Airport to get to classes punctually. To effectively train outsourced employees, this research intended to design a LINE Official Account (LINE OA) HR bot as a tool to support human resources management between company employees and outsourced staff. Initially, this study was qualitative, using case studies executed to reveal the problem of missing training courses and what can be accomplished in a practical setting. A cohort of 7 persons was chosen, comprised of key informants including both regular employees and outsourced workers. An individual in-depth interview form was used as a research method, and the case study was created using descriptive analysis of the results. Therefore, a LINE OA HR bot was developed and tested on users for each interviewee position to determine whether or not it could be used to resolve problems at the next step. The results of the research are that the LINE OA HR bot replied swiftly and with accurate, complete, accessible, and comprehensible information. Additionally, it offered a shortcut menu that aided the outsourced staff with other inquiries and an option to seek a personal meeting with the administrator, which improved the effectiveness of cooperation between the companies.

Keywords: Human resources management; outsource; LINE OA HR bot

1. INTRODUCTION

Given advancements in air transportation efficiency and innovation regarding comfort, speed, time, and costs, the state of the aviation industry has continued to improve (Polat & Korkmaz, 2018). There is, however, still a need for development in several aspects of the airline business, including ground handling, catering, social responsibility initiatives, advertising, cargo facilities and storage, fuel, and technical services. It is a challenge for airline enterprises to manage all of these operations within a single company. As a result, airlines have utilized outsourcing more frequently to save operating expenses, outperform their rivals, and enhance the quality of their products and services. We will focus on one international airline operating in Thailand, headquartered abroad to apply these principles. Because of its sparse staffing levels and high passenger capacity, Ubon Ratchathani's aviation industry has the potential to expand throughout Thailand's lower northeast.

Due to high competition in the aspects of ground service handling and catering, this company shrank and sought assistance from outside sources for specialized tasks. In this way, the airline could delegate and oversee operations to an outsourced firm, from policy to the implementation of every stage of the task. The manager of this airline at the Ubon Ratchathani Station currently uses an outsourced company to support the airline with some of the required workforce. The range of duties include human resource management, a proactive strategic support function that includes managing outsourced employees who work for the airline, coordinating their activities, and providing training materials. The outsourced employees were unable to attend classes on time and in addition to this their licenses have expired due to a variety of factors, including a misunderstanding between the airline and the outsourced firm regarding the amount of time trainees can accommodate accessibility issues with the training materials, and a failure on the part of the outsourced staff to follow up with the training sessions.

As a result, ground operations became insufficiently outsourced, forcing some outsourced staff to work overtime or work every day until the outsourcing company sent more people in. Not only did it face an expired license problem, but this airline also continuously received the same questions from its outsourced staff, especially about welfare, and training courses, and rules and regulations. From various research studies, the results indicate that technology has a significant impact on both human resource function and the organization as a whole (Taule et al., 2021).

A chatbot could assist human resource management (HRM) by attending to repetitive questions and customizing HRM help in response to findings from chatbot usage analysis. "Chatbot first" is a growing trend in customer service, for it is thought that chatbots run a similar function for the internal users of the human resources department by responding to regular queries and directing staff to the appropriate information (Gartner, 2019; Accenture, 2018; Majumder & Mondal, 2021; Trapero et al., 2020). Prior research implies that the chatbot is one sample of AI technology recommended as essential for improvement both organizationally and in terms of productivity. According to Gartner (2019), chatbots are the most popular application of AI in businesses, valued for their effective support and convenient information access (Brandtzaeg & Flstad, 2017). Hence, some human resource departments and organizations have begun to adopt this technology, helping human resource employees answer questions within the same system as chatting via LINE. What is different is that chatting or asking for information via the LINE OA HR bot can create direct and informal conversations using artificial intelligence to provide information to full-time employees. Line OA, an official LINE account that helps businesses facilitate company advancement and even more interesting, it can transmit messages, chats, pictures, and videos. Additionally, the Line OA can advertise products, services, and news.

The LINE OA HR bot was utilized by the research team to solve coordination problems between the international airline at Ubon Ratchathani Airport and its outsourced staff with its quick response feature that can provide detailed information, saving both costs and manpower and improving effective communication between both companies. Moreover, other corporations may benefit from this platform to support efficient manpower planning for human resources departments because an outsourcing company's primary goal must be to deliver high-quality services. Furthermore, there is no research to support the use of this platform as a tool to monitor and control outsourced employees' work by the Human Resources Management Agreement. We hope that this effort encourages and educates others to investigate similar chatbot use cases.

2. LITERATURE REVIEW

A systematic review of related publications will be provided in this section. Related works were split into 2 groups: (2.1) human resource outsourcing for aviation and (2.2) chatbots for human resource functions.

2.1 Human resource outsourcing for aviation

In recent years, there have been new trends in human resource research in the aviation industry. Previous research aimed to improve employee customer service quality, allowing them to consistently provide excellent customer service in a timely and effective manner (Wirtz et al., 2008; Crispin et al., 2016). In a study by Wattanacharoensil and Yoopetch (2012), this service quality was found to be a competitive advantage for airlines, and it can be achieved by supporting highly competent human resource staff throughout all operations. In this regard, there have been newer human resource management research studies focusing on worker satisfaction (Polnak et al., 2020) and ground service agent attitudes (Trang, 2019) in the case of the international airline at Ubon Ratchathani Airport.

Taule et al. (2021) noted that two challenges are still present in the human resource function: to become more strategic by improving organizational performance while reducing spending. As a result, human resources departments have become increasingly motivated to scale back administrative activities to give more attention to strategic work and management organization (Wilton, 2016). As a consequence, managing

all of an enterprise's activities is quite challenging, and airlines and a majority of other companies outsource work due to this fact. Businesses can thus concentrate on their core competencies while outsourcing tasks that fall outside of their competence to companies that are leaders in the relevant industry. Thus, by concentrating on its core competencies, the organization saves time (Polat & Korkmaz, 2018).

According to Giley and Rasheed (2000) and Quinn and Hilmer (1994), outsourcing is typically an abbreviation of "outside resource use". DeNisi and Griffin (2005) and Greaver (1999) defined outsourcing as referring to the company working with an outside source to deliver services that were previously provided inside the company when it transfers some of its ongoing internal operations and decision-making authority to an outside provider or organization. Extensive research on outsourcing has been addressed in the management literature (Giley & Rasheed, 2000; Harrison et al., 2001; Petersen et al., 2005; DeNisi & Griffin 2005; Morrow Jr et al., 2007; Kotabe et al., 2012). Usually, a corporation decides on its main duties before contracting out other tasks. It is common for only somewhat simple tasks to be outsourced, such as recruiting employees with benefit plans and even running those programs. Airlines may decide to outsource jobs because external specialists have more access to superior cost drivers such as low-cost locations, experience, learning, and economies of scale.

A further possible advantage is the maximization of flexibility, according to Rieple and Helm (2008). This would imply that more outsourcing would define legacy airlines in a rapidly evolving environment. Organizations frequently search for structural designs that can be more efficiently undertaken by outsiders who investigate new ways of being competitive while reducing spending on programs such as in-house versus outsourced training or development programs. The main benefit of in-house training and development is that the company may be guaranteed that the content of those efforts is precisely and carefully customized to meet those needs. Another benefit is flexibility, especially in terms of scheduling, as the training and development program can be presented when it really represents the needs of the company. Because the organization does not have to maintain its training and development staff or even its facilities, cost reduction is the main benefit of an outsourced training or development program. This benefit enables the managers to deliver training and development at a cost that is typically lower than would be possible if it were to do the training and development itself (DeNisi & Griffin, 2005; Bazargan, 2016; Gazley & Simmonds, 2018).

Reviewing earlier papers, it was found that the issue facing these companies is discovering human resource management practices that allow the organization to provide high-quality service even when using outsourced companies. Meanwhile, numerous international airline research studies have concentrated on service quality, but in the context of this airline, the research gap rather lies in communication problems regarding outsourcing employees in order to effectively train them.

2.2 Chatbots for human resource functions

Chatbots are utilized in a variety of travel and hospitality-related sectors. Curiously, a sizable number of researchers have examined factors that have an impact on users in particular study fields, focusing on the intention to adopt and utilize chatbots in the tourism industry (Pillai & Sivathanu, 2020; Kasinathan et al., 2020; Alotaibi et al., 2020), hotels (Buhalis & Cheng, 2020; Um et al., 2020), restaurants (Leung & Wen, 2020; Kim et al., 2020; Yoon & Yu, 2022), and airlines (Majumder & Mondal, 2021; Jiménez-Barreto et al., 2021; Arreza, 2022; Gatzioufa & Saprikis 2022). These studies clearly demonstrate that a number of innovative tourism and hospitality organizations have begun to embrace AI.

Organizations must deal with complicated issues including how to improve customer satisfaction and eliminate communication barriers between the business and clients or consumers, hence, many businesses have considered implementing them. At the same time, several companies have realized that it is essential to employ chatbots for internal communication in the human resource sector. For instance, the chatbot can help choose the most qualified candidates and assist the human resource manager by advancing the recruiting process thus saving time (Gigi & Gunaseeli, 2020). Additionally, chatbots are specifically thought to assist the HRM function in areas including hiring staff, onboarding, and training, simplifying repetitive tasks, and responding to frequent queries from employees (Vrontis et al., 2021).

Thus, the development of chatbots, a significant field in artificial intelligence and natural language processing has made enterprises more AI-focused. A bot is regarded as an effective communication system that may be employed within an organization to carry out some communication-oriented tasks without any need for humans (Majumder & Mondal, 2021). Moreover, human resources departments have migrated to the e-HRM platform due to awareness of its competitive advantage (Mohan, 2019). The function of human resources in the company is being redefined by HR chatbots. HR chatbots are assisting in increasing productivity and streamlining manual operations by creatively addressing fundamental human concerns and opening up new possibilities for responsiveness.

In summary, in tourism and hospitality sector, HR chatbots are built to communicate with consumers and communicate with employees through problem-solving guidelines. However, the research gap is that HR

bots are never designed to facilitate communication between the outsourced staff and the human resource department. Furthermore, hiring experts and having a budget are necessary to construct HR bots. Conversely, if it is created using the Line Application, it can be made without the need for further computer knowledge. The LINE OA HR bot is generated by following a manual template and is free of charge. The researchers of this research paper were therefore interested in using the LINE OA HR bot to assist in providing answers to queries about the training of outsourced employees.

3. METHODOLOGY

3.1 Population and sampling

The informants studied the design in a practical context through a qualitative case study. Research respondents were chosen from a specific sample of 1 full-time employee and 6 outsourced staff members: (1) the airline station manager, (SM) (2) the duty manager (DM) (3), the passenger service leader (Lead PSA), (4) a passenger service agent (PSA), (5) a porter, (6) the ground service equipment supervisor (Sup Ramp), (7) and a ground service equipment leader (Leader Ramp). The sample group was selected from the organizational chart in the case study of an international airline at Ubon Ratchathani Airport.

3.2 Research methods

The Human Research Ethics Reference Number for this study is UBU-REC-92/2565. The UBU-REC-92/2565 code has granted the Certificate of Approval (COA) for the fiscal year 2022. By reviewing the above and modifying questions from previous research investigations, a semi-structured interview design was created for all respondents. Firstly, all of the respondents replied to an in-depth interview to determine the frequency of questions concerning training courses that occurred between regular and outsourced employees that led to the design of the LINE OA HR bot. After that, the LINE OA HR bot was developed and tested on users for each interviewee position to determine whether or not it could be used to resolve problems.

3.3 Data collection process

Interview forms were used to collect data in a semi-structured interview style under experimental communication and interaction with the LINE OA HR bot on the topic above. Data analysis involved a case study descriptive analysis.

3.4 Conceptual framework

Figure 1 presents the study's conceptual framework including the construction of the research method. This research used the case study method to answer questions focused on the factors of the outcome, the method, and the process leading to positive results in the environment affecting the business (Yin, 2003). The case proved to be a learning process for the researchers (Stake, 1988). In this research, the researchers selected a case study of an international airline in the area of Ubon Ratchathani Airport to design a LINE OA HR bot for human resource management related to outsourced worker training. It was used to answer questions regarding training courses, reduce the process of answering redundant questions, and increase the accuracy of answering questions through a database that has been constantly updated while enhancing operations between the airline station manager at Ubon Ratchathani Station and the outsourced staff.
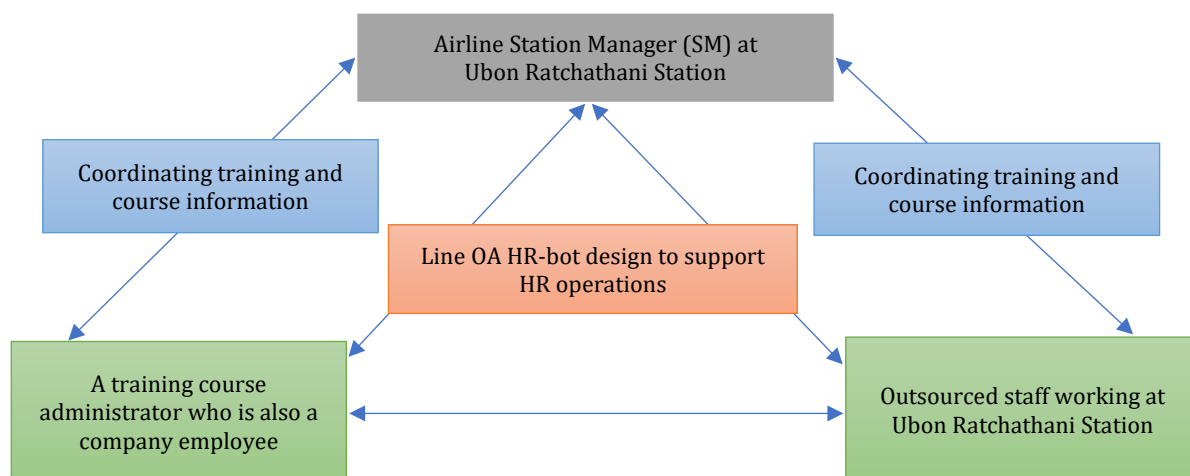

Figure 1: Conceptual framework

4. RESULTS AND DISCUSSION

According to the conceptual framework in Figure 1, the in-depth interview took place in two phases. The first phase used a semi-structured interview to investigate questions regarding training courses for outsourced staff and led to the design of the HR bot, while the second phase focused on the evolution of the Line OA HR bot.

First Phase: Semi-structured interview

This research employed questions regarding training courses for outsourced staff as follows:

Question 1: Which training courses are required for employees to work at each position in the area? (A question for the airline station manager)

Interviews with the airline station manager, the training programs for both full-time employees and outsourced staff are as follows: (Table1):

Table 1: Training courses for full-time employees and outsourced staff

Staff position \ Courses to be trained	Dangerous Goods (DGR) Cat.8	Dangerous Goods (DGR) Cat.9	Dangerous Goods (DGR) Cat.10	Safety Management	Ramp Safety Awareness	Emergency Response Plan	Aviation Security (AVSEC)	Human Factors	Crew Resources Management	Ground Operation Manual	Basic Load and Trim
Airlines Station Manager (SM)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Duty Manager (DM)	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Leader Passenger Service (Lead PSA)		✓		✓	✓	✓	✓	✓	✓	✓	
Passenger Service Agent (PSA)		✓		✓	✓	✓	✓	✓	✓	✓	
Porter		✓		✓	✓	✓	✓	✓	✓	✓	
Ground Service Equipment Supervisor (Sup Ramp)	✓			✓	✓	✓	✓	✓	✓	✓	
Ground Service Equipment (GSE)	✓			✓	✓	✓	✓	✓	✓	✓	

Source: 1st Interviewee, the airline station manager, personal communication (2022)

Question 2: Do you know which courses you need to retake every 24 months?

According to sample interviews, there are so many courses offered to each individual that the majority of outsourced employees are unable to recall the dates for each course. Additionally, there are a total of 27 outsourced employees spread across six outsourced positions. Most of them started their work at different periods (e.g., the 1st interviewee, the airline station manager).

Question 3: What do you think about the current training coordination process? Is it efficient, convenient, fast, and meets your needs?

Sample interviews reveal the following three issues with the existing training coordination process: 1) redundant procedures for interfirm coordination (e.g., the third interviewee, the passenger service leader, personal communication, 2022). The organization chart indicates that an anonymous outsourced company in Thailand is in charge of hiring employees by an international airline contract. The duty managers of outsourced companies are primarily responsible for carrying out the following tasks: coordinating with other airlines, accounting, paying salaries, and supervising various aspects of the operation.

The duties of a duty manager are divided into the following categories 1. The document officer and IT supporting officer are in the same section, 2. the ground service section and the ticket office, and 3. the parking section. The chain of command must be followed in order to contact training inquiries. For instance, the ground service equipment supervisor might contact the duty manager via phone or email to inquire about the training attendance schedule once the ground service equipment agent has first contacted the ground service equipment leader. Additionally, the outsourcing firm employs close to 2,000 people who wish to manage and assist other airlines including Thai Smile, Bangkok Airways, Nok Air, and Air Asia. In order to learn more about airline training courses, their expiration dates, or whether they should repeat the course every 24 months as required, outsourced firm personnel commonly ask the airline station manager or administration at Ubon Ratchathani Station.

2) Figure 2 illustrates a case where a messenger may transmit inaccurate information due to a large number of recipients (the fourth interviewee, the ground service equipment supervisor, personal communication, 2022); and 3) multiple line reports have delayed responses (the third interviewee, the passenger service leader, personal communication, 2022 and the 6th interviewee, the ground service

equipment supervisor, personal communication, 2022). Thus, it is possible to demonstrate the coordination system that was previously created in a flowchart (Figure 2) from the interview. The flowchart in Figure 2 depicts the phases of coordination among the organizations (third interviewee, passenger service leader, personal communication, 2022).
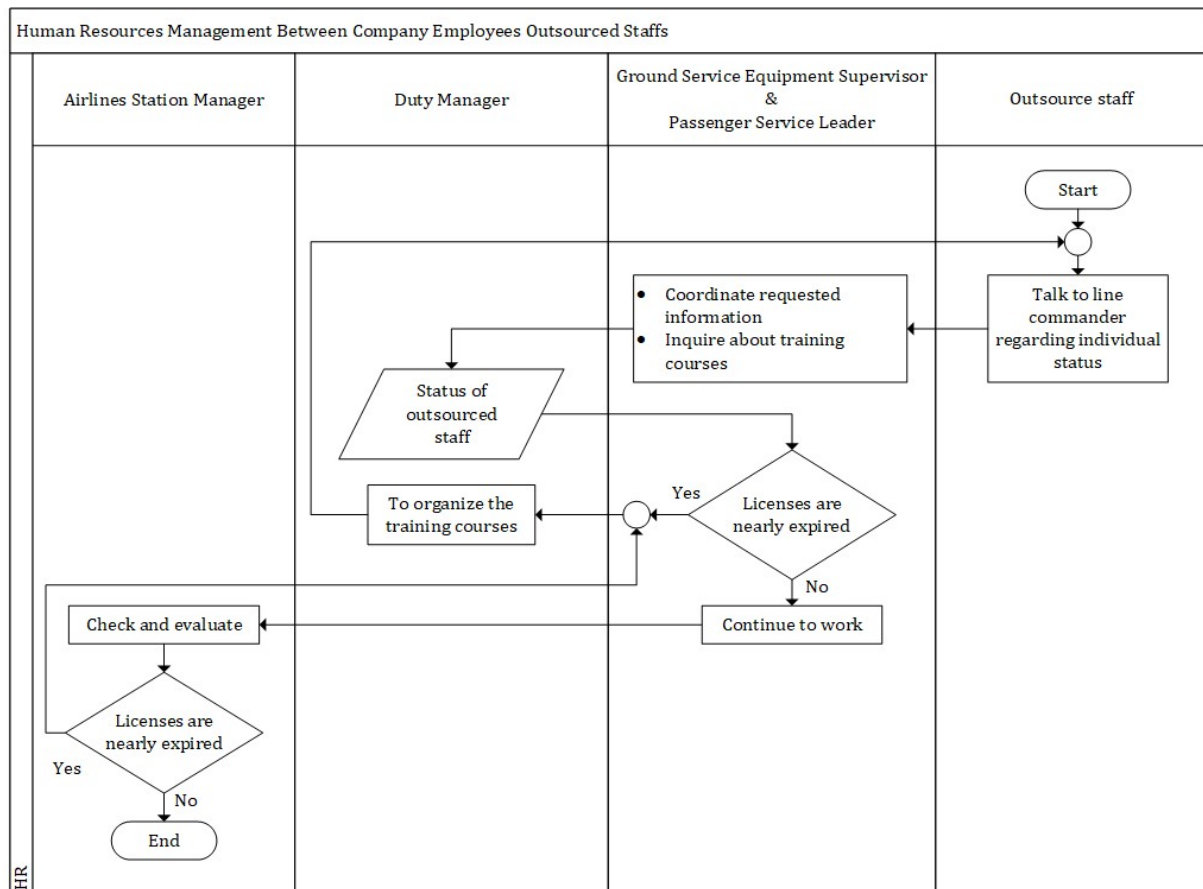

Figure 2: The prior coordination system between full-time employees and outsourced staff
Source: 3rd Interviewee, the passenger service leader, personal communication (2022)

Figure 2 shows that each outsourced employee undergoes a series of processes in order to get information about particular training courses. The first step is for personnel to convey essential information to the ground service equipment supervisor or passenger service leader in the chain of command. The second step requires the leaders or supervisors to report any specific inquiries to the duty manager of the linked outsourced company. If supervisors and leaders sought information about their training programs they had to meet with the duty manager. Additionally, since each position requires the completion of at least eight training sessions, contractors must adhere to the same process. The airline station manager checks and assesses the contractor's performance as a consequence. The duty manager of the outsourcing company will be immediately notified by the airline station manager if an outsourced employee does not possess a license so that the issue can be addressed.

Thus, in the case study of one international airline operating at Ubon Ratchathani Station in Thailand cooperation among the organizations is the key issue with human resource management regarding the training of outsourced workers. Many frequently-asked questions are made to the duty manager of the outsourced company and the airline station manager at Ubon Ratchathani Station due to repetitive procedures and a large number of subordinates. Worker inquiries concerning the training programs offered by the airline and the deadlines by which they must be completed must be updated or redone every 24 months. This ensures that they remain conscious of the fact that they must finish their coursework and keep their licenses current in order to continue performing their duties. With the existing strategy, outsourced employees must report via the line of command which involves multiple recipients, and they are unable to obtain thorough information and as a result, the LINE reaction time is quite long. The development and enhancement of collaborative processes

are essential for providing effective coordination across companies. The cost and effect of the loss in communication obtained from the interview is shown in Figure 3.
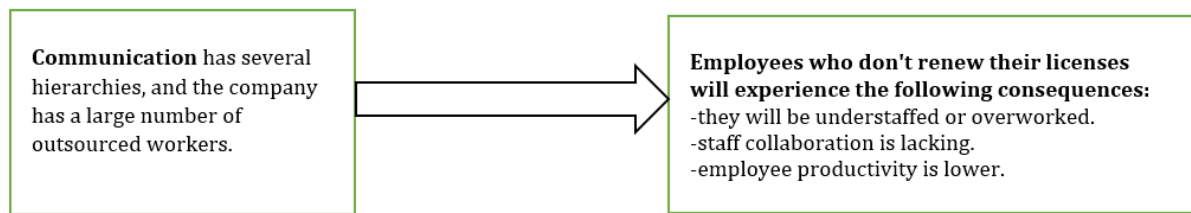

Figure 3: Cost and effect of the loss in communication

In response to Figure 3, the LINE OA HR bot was created for human resource management to help coordinate and provide information about courses the airline requires the outsourced personnel to take in the case study of an international airline operating at Ubon Ratchathani Station. Following a suggestion of Trapero et al. (2020), the Line OA HR-bit can solve the problem of communication and it should apply to our research problem. The Line OA HR has been designed using the framework shown in Figure 4.
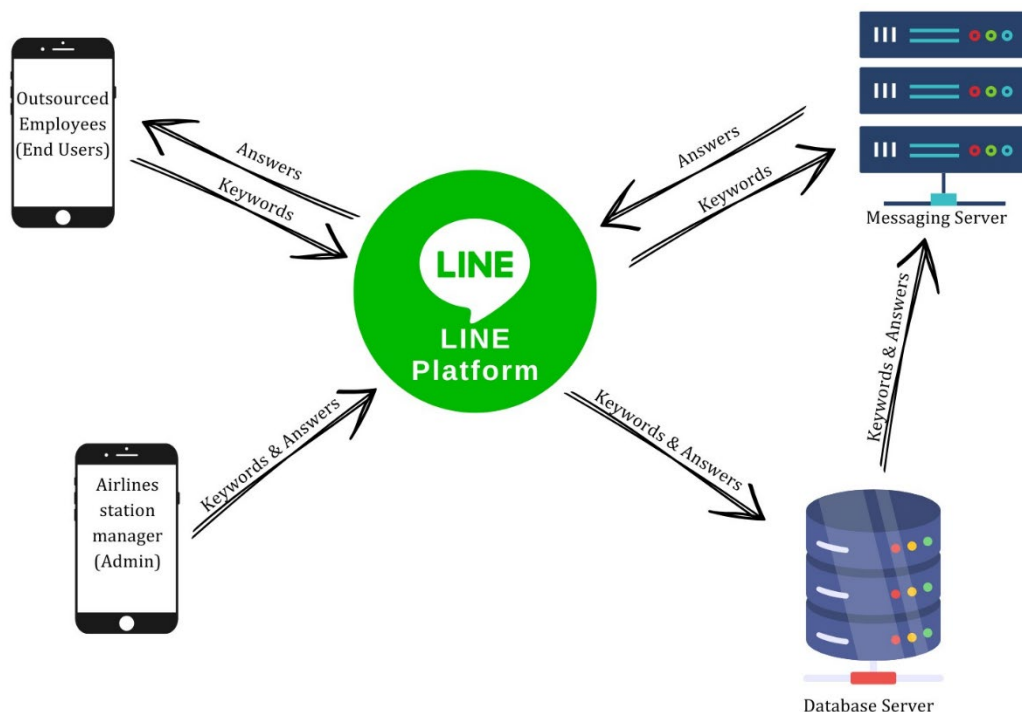

Figure 4: The design framework of the LINE OA HR bot for the case study

From Figure 4, when an employee (or user) wants to use the LINE Chatbot system to inquire about the training calendar, the training schedule, or any information related to themselves, such as details of the training courses required for his or her position or courses that will automatically expire, the employees must enable the LINE Application on their mobile phone to scan the QR-Code to add line chatbot system as a "friend" for the first time. Then, employees can register and use the LINE Chatbot system, which has a basic menu for employees to use, such as training calendar inquiries, training schedules, or information related to themselves. Once the employee has selected an item from the menu, the LINE application will send a message request to the LINE platform that provides the LINE bot service to check the message received from the LINE application. Once completed, they will send a message reply to the LINE platform and the LINE platform will send the message back to the LINE application for employees to read.

The information officer (or administrator), is a person who is in the same position as an airlines station manager at Ubon Ratchathani Station, and the person responsible for the information management service through the web application system (the LINE platform) involving employee information, training schedules, and other information. Coordination occurs through duty managers and external procurement companies by

telephone and email. After the LINE OA chatbot has been created, we will reveal the effectiveness of the designed system by implementing it with staff at the case study organization.

Phase 2: Implementation of the LINE OA HR bot

The chatbot was implemented from July to September 2022, and the effectiveness and outcomes of employing the OA chatbot have been compiled. The staff was interviewed from June to September 2022, and the findings of the interviews with those who had used the LINE OA HR bot at that time are described below.

1. The chain of command used to coordinate within organizations is no longer the same, and Figure 3 illustrates how the coordinating process can be considerably shortened. The HR operation bot is depicted by a use/case diagram where all employees have easy access to training information. One full-time person, the airline station manager, can be reached via Live Chat (the 5th interviewee, a porter, personal communication, 2022; the 7th interviewee, the parking lot service worker, personal communication, 2022). Outsourced employees can submit other questions using the built-in Live Chat menu. In addition to inquiries regarding the training program, alternatively, if outsourced employees wish to speak with the airline station manager, they can speak with the administrator (Admin.) directly (the 5th interview with a porter, personal communication, 2022). As a result, the LINE OA HR bot can coordinate with and contact organizations more quickly and conveniently.

2. Figure 3 further demonstrates that the outsourced staff received accurate information because they generally ask the same questions to the airline station manager (the 3rd interviewee, the ground service supervisor, personal communication, 2022; the 4th interviewee, a passenger service leader, personal communication, 2022). Considering that it was derived through a study of the interview data, the LINE OA HR bot system database is then updated with the correct data, with the airline station manager serving as a single control operator.

3. The answers provided by the system depicted in Figure 3 are clearer (the 3rd Interviewee, a passenger service leader, personal communication, 2022; and the 4th interviewee, another passenger service agent, personal communication, 2022) because they are automated responses generated by the artificial intelligence of the LINE OA HR bot.

4. Moreover, Figure 3 represents the LINE OA HR bot reducing the workload of supervisors at each station, each of whom is responsible for a large number of employees, and making the coordination among the organizations more effective (the 1st interviewee, the airline station manager, personal communication, 2022; the 2nd interviewee, the duty manager, personal communication, 2022; the 6th interviewee, the passenger service leader, personal communication, 2022). For instance, the "training recode" option is for supervisors who want to view the information of their subordinate employees immediately without requesting information from full-time employees (the 1st interviewee, the airline station manager, personal communication, 2022).
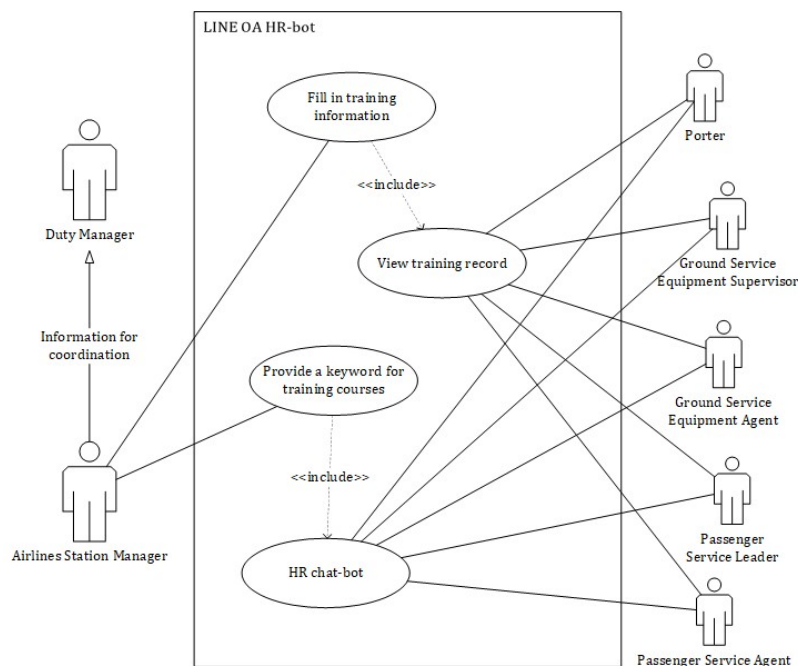

Figure 5: Using case diagrams
Source: the 3rd research team

The LINE OA HR bot can be seen in Figure 5 regarding outsourced worker training in the case study of an international airline at Ubon Ratchathani Station. Researchers discovered that neither regular nor outsourced employees necessarily possess computing expertise. Hence, the LINE OA HR bot proposed for training courses has to be crafted in the most user-friendly manner. Moreover, using the LINE OA HR bot can answer questions for outsourced staff reducing the length of the coordination process among organizations, and can answer questions accurately, clearly, and quickly. Findings demonstrated that the LINE OA HR-value bots can notify outsourced employees in the vicinity of the Ubon Ratchathani Airport to enable timely license renewal, raising that rate to 100 percent, as presented in Table 2.

Table 2: To present research results

Name of the training course/expiration	Outsourced employees		Percentage (%)
	License expiry	Timely license renewal	
Dangerous Goods (DGR)/expiration 17/09/22	13 persons	13 persons	100
Human Factors/expiration 14/09/22	27 persons	27 persons	100
Ramp Safety Awareness/expiration 12/09/22	25 persons	25 persons	100
Emergency Response Plan (ERP)/expiration 10/09/22	25 persons	25 persons	100
Ground Operation Manual/expiration 06/09/22	25 persons	25 persons	100

This finding confirmed the work of Venusamy et al. (2020) that a human resource department's goals are to hire employees, reduce employee misinformation, and increase profitability. Chatbots can respond to all questions, including those on the progress of an application or more general questions about the organizational culture, work standards, etc. Employees can be informed via the LINE OA HR bot about new policies, approaching deadlines, or changes for filing important reports. Questions related to employee attitudes, objectives, and their accurate assessment of skill development are also addressed by the responses offered. However, the weakness of chatbots involves continuing struggles with communication abilities as seen in related research by McTear (2018). By explaining its use, the manager is able to resolve these issues. Therefore, a secure password must be used to access data. Thus, the research demonstrates that the LINE OA HR bot supports these human resource functions.

5. CONCLUSION AND RECOMMENDATIONS

An organization that decides to use an outsourced company must realize that they may encounter problems in terms of the standards and quality of employees and coordination among organizations. The study of problems with human resource management at an international airline, Ubon Ratchathani Station, discovered that the license renewal system was not timely. The LINE OA HR bot provides outsourced employees access to information enabling them to check their training at any time, ensuring that they renew their licenses on time was discovered through investigating this concept and related research.

To understand the problems at present and identify the most effective solutions, studies are being conducted using qualitative research methodology. According to the results, each outsourced employee needs to execute a Line command that comprises a series of steps to inquire about training courses in order to receive the necessary information. Reviewing concepts and associated research, we found that the difficulty in managing human resources between an international airline and the outsourced company coordinates work in agreement with standards of quality while also lowering the cost of employee training. As a consequence, the chatbot concept can be used in the airline industry, particularly to help this airline and the outsourced company handle their communication challenges and develop an efficient communication system.

Questions that assist in course attendance and timely license renewal serve as initial considerations when creating a chatbot. Subsequently, a tool that enables outsourced employees to access information whenever they require it and receive the correct information, will be created based on a previous database that frequently answered the queries. The development of an HR bot should also start with a shared understanding of the issues facing the organization, according to the study's findings. In the meantime, the airline's station manager at Ubon Ratchathani Station designed an HR bot for the international airline that directly addressed issues concerned with failure to renew licenses on time, and therefore, using the HR bot concept for solving issues facing the outsourcing organization can be helpful. As a result, adopting the HR bot concept to address

the issues the outsourcing organization is experiencing may indeed be advantageous. The outsourced employees are asked how often they ask questions and how frequently they are provided answers that result in late license extensions and generate these questions and answers in the HR bot.

At the same time, a survey of related studies reveals that developing a chatbot requires skilled professionals together with sizable expenses. As a result, it was concluded from the study that using the Line OA Application to construct chatbots would contribute to the problem's resolution. However, there are restrictions on how the chatbot could use the limited word input, therefore users need training on how to use it in order to recognize terms that the employee can use. According to the study results, a total of 27 outsourced workers needed to renew their licenses. This demonstrates that the LINE OA HR bot is capable of completely resolving issues, demonstrating the applicability of the chatbot concept. However, the station manager at Ubon Ratchathani Station responsible for the system (Admin) must constantly keep the database of LINE OA HR bot up-to-date and accurate.

A limitation in the research is the testing period of the tool because the LINE OA HR bot provides effective communication for only 5 courses, since most courses repeat every two years, and require a waiting period for license renewal in the following term to be able to collect further information for 2023. The LINE OA HR bot will have speech recognition and proper organization implemented for future studies. Due to the organization's ability to apply the LINE OA HR bot, it serves as a sub-organization with regard to the province served.

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