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Bridging the Gap: A SWOT Analysis Addressing Challenges in Hong Kong's Aviation English Training Industry

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This study examines the factors that could influence the growth of the aviation English training industry in Hong Kong (HK). A document analysis approach was employed, using the SWOT as the analytical framework. The analysis focused on 32 publicly available documents published between 2019 and 2024, which discussed the industry, particularly HK-headquartered passenger aviation companies. The findings of this study showed that the development of the industry was driven by the diversity of training providers tailored for HK students and the local aviation market, in compliance with International Civil Aviation Organization (ICAO) protocols, and the expansion of HK-based aviation companies. However, the sustainable development of the industry was hampered by several challenges. These challenges included the limited availability of customized courses for HK students and the local aviation industry, general talent shortages in the aviation sector, various institutional and operational constraints, and increasing competition from international online courses. The remaining sections of this paper provide recommendations for industry players and the HK government while also highlighting the academic contribution of this study.

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Introduction

The global aviation industry relies on English as its lingua franca and requires frontline employees to have a good command of the language. To ensure safe operations, the International Civil Aviation Organization (ICAO) has established standardized language proficiency requirements that have been widely adopted. The specific characteristics of aviation English, including specialized terminology and phrases, require targeted language training. As a result, governments and industry representatives are increasingly recognizing the importance of aviation English courses in maintaining safe and efficient air traffic operations.

As Hong Kong (HK) is solidifying its status as a major international aviation hub (Government of Hong Kong, 2021), the importance of effective English communication has become increasingly pronounced. The HK passenger industry has witnessed significant developments over the past five years, driven in part by key institutions such as Hong Kong International Airport (HKIA) and Cathay Pacific (Lam, 2019; Skytrax, 2023a). In tandem with these efforts, the need to enhance aviation English proficiency among in-service and aspiring aviation professionals in the HK passenger aviation industry has gained prominence. Despite growing recognition of this issue, the aviation English training industry in HK remains relatively understudied. This industry primarily encompasses HK-headquartered training providers, students and educators in HK, and the local regulatory authorities. The limited study of this industry could hinder a full understanding of its merits and caveats, thereby potentially hindering the development of effective strategies for its growth. This project aims to address this knowledge gap by conducting an in-depth examination of the industry. By exploring the favorable and unfavorable aspects of the HK market, this study will provide valuable insights for training providers, policymakers, and aviation English training instructors, ultimately informing strategies to support the continued growth and development of HK's aviation sector.

To address this research gap, we conducted a document analysis and integrated a SWOT analysis (examining strengths, weaknesses, opportunities, and threats) as the analytical framework. This approach was used to investigate the factors influencing the growth of HK's aviation English training industry. The key question guiding this analysis is: What key internal dynamics and external contextual factors are influencing the development of the aviation English training market in HK?

Theoretical Framework: SWOT Analysis

Document analysis is a qualitative research methodology that systematically evaluates documents to identify topics and themes, considering the social, historical, and business contexts in which they are situated (Bowen, 2009). It recognizes that documents are not merely static texts but are products of and contributors to their social environments. The document analysis procedure entails four key stages: data collection, code scheme design, topic annotation, and intercoder reliability. While subjectivity bias is a limitation, this qualitative method can facilitate an in-depth understanding of complicated social issues (Kutsyuruba, 2023). It has been widely used to examine policy, business, and economic documents, including annual reports and marketing files. In the field of economic/business document analysis, this method often integrates business frameworks such as SWOT that can investigate factors impacting market

development (Asdal & Reinertsen, 2022). This study uses SWOT analysis to structure economic document analysis, exploring the factors that influence the aviation English training market in HK.

Wheelen et al. (2017) describe SWOT analysis as a framework for examining a regional industry. It identifies internal strengths that aid goal achievement, such as market expansion. It also pinpoints internal weaknesses that hinder desired outcomes, like poor financial performance. Additionally, the analysis considers external opportunities the industry can employ, such as supportive government policies. It also examines external threats that impede industry goals, such as market erosion by outside competitors. SWOT analysis thus allows researchers to explore both internal and external factors impacting the regional industry. It provides insights into institutional elements and broader contextual influences shaping industry performance and prospects.

SWOT analysis has been widely employed to examine the influencing factors impacting the development of the Asian aviation industry. Ellis (2020) applied the framework to examine favorable and unfavorable factors influencing efficient management in the Asian aviation industry. It was found that management efficiency is influenced by the geography of the airport, political issues, and the economic development of the industry. In the industry context, Nam et al. (2023) specifically compared the maintenance, overhaul, and repair industries in Northeast Asian countries. The findings showed that Japan has advantages in technology, China has advantages in cost, and Korea has advantages in human resources and quality.

Recent studies on the Chinese aviation industry have conducted SWOT analyses. Li (2020) identified several factors, such as the increase in e-commerce express deliveries, new technologies, and Chinese government policies, which mitigated the impact of COVID-19 on Chinese air cargo. Despite these mitigating factors, the industry was also threatened by trade tensions between the US and China and regional competition. In another study on Chinese aviation, Su and Zhao (2019) noted that Guangzhou Airport's growth is benefiting from government policies. In contrast, however, the facility also faces the threats of inefficient land supply, a lack of support facilities, and weak aviation production fundamentals. Hsu and Gu (2010) conducted a SWOT analysis of the aviation industry in HK. Their study highlights that the completion of the Hong Kong-Zhuhai-Macau Bridge makes it easier for passengers on long-haul flights to reach the airport.

Although Hsu and Gu (2010) have offered valuable insights into HK's aviation industry, their study primarily focuses on the operational aspects, leaving a gap in the understanding of the aviation-related professional training sector. Continuous training, particularly in aviation English, plays a crucial role in ensuring that professionals in this field can effectively and safely perform their duties. It is thus essential to investigate the internal strengths and weaknesses, as well as the contextual opportunities and threats of HK's aviation English training.

Methodology

A collection of 32 publicly available documents was compiled, spanning the period from 2019 to 2024, to examine the institutional and contextual factors influencing the HK aviation English training industry. The collection comprises texts that specifically address aviation English

training in HK or discuss factors that may impact the industry's growth. These documents were authored by key stakeholders, including regulatory bodies, operators in HK-headquartered passenger aviation companies, aviation English training providers in HK, academic researchers, and journalists. They incorporate various discourse genres, such as course descriptions, corporate annual reports, press releases, government policies, academic journal articles, and news reports. By doing so, the collected documents provide a robust dataset that enables a systematic examination of the dynamics shaping the aviation English training industry.

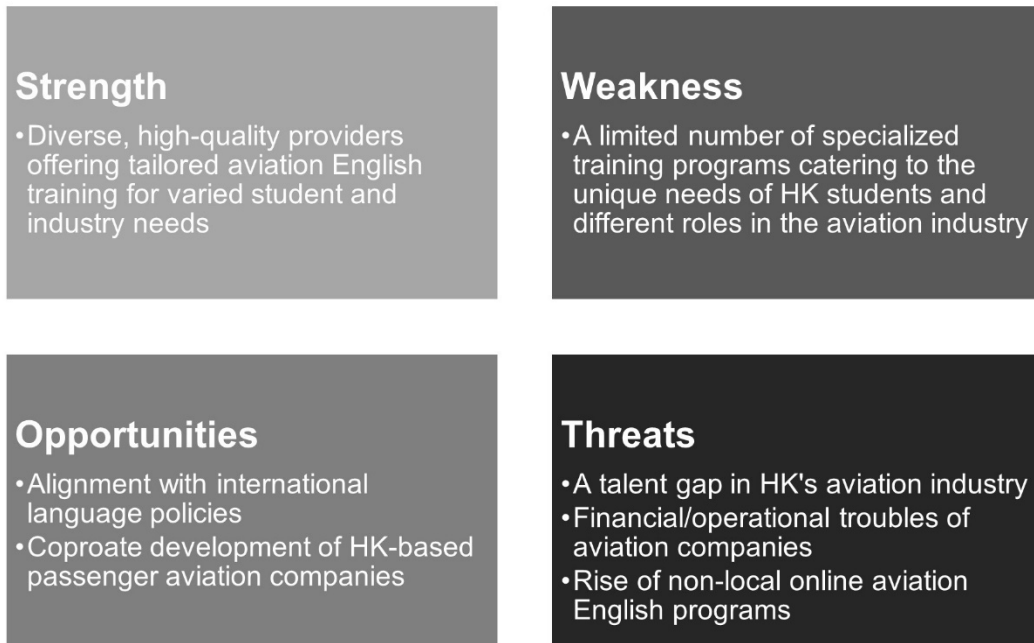
This study employed document analysis as the overarching methodological approach, integrating the SWOT framework (Wheelen et al., 2017) to systematically evaluate and organize the findings. Using this analytical framework, this project explored the internal strengths and weaknesses of HK's aviation English training industry, as well as the external opportunities and threats to its growth. To investigate the industry's internal factors, a review of the official introductory materials for relevant training courses was conducted. This investigation focused on the number and specific features of available training courses, as well as the market's training providers. This project then investigated how opportunities and threats influence the growth of the aviation English training industry in HK. Examining multiple sources revealed these external variables, which include regulatory changes, talent supply, and the financial and operational position of HK-headquartered passenger aviation enterprises.

Findings

As shown in Figure 1 below, the development of HK's aviation English training industry was influenced by a combination of internal strengths and weaknesses, as well as external opportunities and threats. A key strength of the industry was the presence of diverse training providers and high-quality instructors. This diversity enabled the delivery of tailored aviation English instruction that met the varied needs of both individual students and different sectors within the aviation industry in the region. Conversely, a significant weakness was the limited number of these customized programs, which struggled to meet the demands of a growing population.

The industry was also impacted by various external factors. Opportunities contained the HK government's policies mandating English as the lingua franca in the aviation industry, as well as the recent expansion of HK-headquartered international aviation companies. In contrast, threats to the industry included a talent shortage across various sectors, such as aviation maintenance and piloting, operational challenges faced by some HK-headquartered passenger aviation companies, as well as the emergence of online aviation English training courses that directly compete with local providers. The following section will further discuss the impact of these internal and external factors on the development and progress of the aviation English training industry.

Figure 1
SWOT Results for the Development of HK's Aviation English Training Industry



Strengths and Weaknesses In HK's Aviation English Training

Based on SWOT analysis (Wheelen et al., 2017), strengths and weaknesses are internal aspects of HK's English training industry. In the context of HK's aviation English training industry, these factors respectively enhanced and hampered its growth. According to this theoretical framework, the primary strength of HK's aviation English training industry was the diversity of training providers and their experienced instructors. Conversely, the main weakness in the industry was the limited number of training programs offered by these professionals.

Diversified Training Providers And Quality Instructors

An analysis of HK's current aviation English training programs revealed they were managed by various types of providers. These programs not only adhered to international language policies but also were customized to HK's local aviation industry.

Professional training institutions, local public universities and passenger aviation companies all provided aviation English training. Professional training providers primarily offered language training for airline pilots, air traffic controllers, and airport staff. For instance, the Hong Kong Youth Aviation Academy (HKYAA) developed a course titled "ICAO English Training" designed to prepare aviation professionals for the ICAO Proficiency Test at Levels 4 and 6. The instructors at HKYAA, who included airline pilots, Civil Aviation Department technical officers, and air traffic controllers, brought substantial experience in teaching aviation communication in English (see Table 1 below). Moreover, public universities, such as the School of Professional and Continuing Education at Hong Kong University (HKU SPACE), offered a

program aimed at students seeking to pass the ICAO English Proficiency Test at Level 4. HKU SPACE also incorporated aviation English into its aviation-related programs, such as the Higher Diploma in Aviation and Piloting (HKU SPACE, 2024). In addition to these external training providers, HK-headquartered passenger aviation companies provided internal training for new recruits and retraining of existing staff. For example, new hires at Cathay Pacific, including pilots and cabin crew, had to undergo aviation English training before assuming their duties. Existing staff were also commonly retrained to maintain the necessary proficiency.

HK's aviation English training industry could benefit from a diverse range of institutions offering programs tailored to various aviation roles and individual student needs. These programs demonstrate a nuanced understanding of the specific linguistic requirements across different aviation positions and student profiles. The involvement of industry experts as instructors brings real-world insights to the classroom, enhancing the practical relevance of the training. Furthermore, the localization of content to include HK-specific scenarios increases the practical applicability of the training. This approach not only ensures compliance with ICAO standards but also addresses the unique challenges of HK's aviation landscape. Consequently, these programs aim to equip personnel across multiple roles with the necessary language skills to perform their duties effectively in the regional aviation industry.

A Shortage Of Locally-adapted Training Programs In HK

Despite the presence of various course providers, the availability of aviation English training programs catering to the needs of students in HK and different roles in the regional aviation industry was limited. Only ten online/offline courses offered by HK-headquartered providers were found in the market, apart from corporate training. As shown in Table 1, HKU SPACE managed one of these courses, while professional training providers, such as HKYAA and Hong Kong International Aviation Academy (HKIAA), handled the others.

Table 1.
Aviation English training courses in HK

Name of the institutes	Course(s)	Official website
HKU SPACE	ICAO aviation English language proficiency training	https://hkuspace.hku.hk/prog/icao-aviation-eng-lang-proficiency-training
Aviation English Asia Ltd	ICAO Aviation English for cadet entry pilots ICAO Aviation English for commercial pilots, ICAO Aviation English for ATCOs or student ATCOs English for in-flight service and safety English for aircraft maintenance engineers, technicians, and mechanics English for airport customer service officers English for airport security officers Teacher training Rater training	https://aviationenglish.com/
HKYAA	ICAO English training	https://www.hkyaa.hk/about-us
Hong Kong Macau General Aviation Company Limited	Aviation English	https://hkmaviation.com/aviation-english/
HKIAA	Aviation English for air traffic controllers	https://www.hkiaacademy.com/en/air-traffic-management/professional-courses/atcs1963_aviation_english_for_air_traffic_controllers.html

The limited availability of aviation English courses that align with international language proficiency requirements while addressing HK's specific operational context may present challenges to the aviation English training market in the city. As passenger aviation companies continue to expand and the demand for new hires increases, the limited number of training programs and instructors may struggle to accommodate the influx of human capital. Furthermore, the insufficient number of such programs hinders the promotion of aviation English to the public in HK. While aviation English represents a specialized use of the language, offering courses to young people could attract their interest in pursuing aviation careers, thereby bringing more talents to HK's aviation industry and fostering the growth of aviation English training. To address these challenges, it is essential to expand the availability and accessibility of aviation

English training programs that comply with international standards and adapt to HK's specific context.

Opportunities For The Development Of Aviation English Training

As was previously reviewed, opportunities are the external contextual factors that institutes in an industry can use to realize a desirable outcome (Wheelen et al., 2017). Under this theory, this project analyzed the opportunities that aviation English training professionals could employ to develop the industry in HK.

Language Policies

The Civil Aviation Authority of Hong Kong (CAD) complies with ICAO standards in developing local language and training guidelines. One of these language policies requires individuals seeking the HK pilot license to pass the language proficiency test under the English Language Proficiency Assessment Program. Passing the language test demonstrates achievement of ICAO Operational Level (Level 4) (Civil Aviation Department, 2019a). In addition, following the ICAO Human Factor Training Manual, CAD also mandates that maintenance manuals must be written in a "simplified" form of English to enhance accessibility and understanding (Civil Aviation Department, 2023). Regarding training programs, CAD requires specific training modules in multi-crew cooperation courses, including upset prevention and recovery training. This requirement is aligned with the guidelines in ICAO Doc 10011 (Civil Aviation Department, 2019b).

This alignment ensures that HK's aviation professionals are well-trained through customized courses. Many professionals, including pilots, cabin crew, and air traffic controllers, are required to take aviation English courses and exams before they can assume their duties. As the English proficiency requirements for aviation professionals become more stringent, many of them need to be retrained to maintain their qualifications. Compliance with global language guidelines, therefore, increases the market demand for aviation English courses. Moreover, alignment with ICAO language guidelines encourages local programs to hire qualified instructors who strictly adhere to international standards and to develop teaching materials that meet ICAO requirements. In the long term, these measures are expected to improve the overall quality and effectiveness of aviation English courses in HK, ensuring that professionals are equipped with the necessary language skills to perform their duties safely and efficiently.

Corporate Development

Over the past five years, HK-headquartered passenger aviation institutions, such as HKIA and HK-based airlines, have attempted to strengthen their positions in the international markets. This was shown through increased institutional operational capacity and market share, enhancement of their global reputations, and the strengthening of intraregional connectivity. Such corporate ventures have driven the demand for a new workforce and are expected to attract students to aviation English training programs.

HKIA: Escalating Operational Service

The Three-Runway System (3RS) aimed to build a parallel runway to the north of the existing runway to meet the needs of the influx of international air passengers. From 2019 to 2020, the 3RS made solid progress in constructing the runway, completing sea filling and preparing the site for construction (Hong Kong International Airport, 2019). By 2021, major components of the runway – pavement works, parallel taxiways, runway grooves, and line markings – were completed (Hong Kong International Airport, 2021). In 2022, HKIA completed the installation of the major components of the runway, such as the air traffic control system and instrument landing system, enabling the runway to commence operations in July (Hong Kong International Airport, 2023). Additionally, the 3RS also incorporated the associated projects of a Terminal Two Concourse, an expanded Terminal Two, a new baggage handling system, and a new Automated People Movement system (Hong Kong International Airport, 2019; 2020). These projects were scheduled for completion in 2024 (Hong Kong International Airport, 2023).

The completion of these projects significantly boosted workforce demand. Once fully operational, HKIA was projected to require around 70,000 additional employees across various roles and departments. Roles like baggage handlers, cabin cleaners, and ground staff were in high demand to support the expanded operational ability and ensure the efficient functioning of the new facilities (South China Morning Post, 2023a). Consequently, this workforce expansion is driving a substantial need for aviation English training. Many positions, such as air traffic controllers and airport ground staff, required new hires to meet international language standards before beginning their duties. Thus, individuals interested in pursuing careers in this industry need to learn aviation English before applying for jobs.

HK-headquartered Airlines: Fleet Development and Market Expansion

The global ventures of HK-headquartered passenger airways varied based on company size. Cathay Pacific, a flag carrier, focused on fleet development, while other HK-headquartered airways emphasized establishing new routes in major Asian cities. These initiatives have increased the need for workforce and aviation English training.

Cathay Pacific's subsidiary, HK Express, focused on fleet development by purchasing 16 Airbus A321-220 neo aircraft (Cathay Pacific, 2020). The airline delivered the first aircraft in 2023 (Cathay Pacific, 2023a). When the fuel-efficient aircraft were fully delivered and operationalized, HK Express would increase its competitive edge in the Asian market. Cathay Pacific's development projects would help to enhance its competitive advantage against major rivals, such as Singapore Airlines, Shenzhen Airlines, and China Southern Airlines.

Other airlines have developed new routes in Asia in the past five years. Greater Bay Airlines, a low-cost airway founded in 2022, launched service from HK to five Asian cities – Bangkok, Taipei, Tokyo, Seoul, and Osaka – by 2023 (Greater Bay Airlines, 2023). Additionally, Hong Kong Airlines, a full-service international airway, opened new routes from HK to Phuket and Nagoya in 2023 (Hong Kong Airlines, 2023b, 2023a), expanding its network in Thailand and Japan. The new route development enhanced the competitive edge of Greater Bay Airlines and Hong Kong Airlines against major rivals. For instance, by launching the new

routes, Hong Kong Airlines secured a significant market share in Southeast Asia. Essentially, new route development enabled these airlines to increase their visibility to a greater number of Asian aviation stakeholders. This visibility expansion in Asia could expand their brand awareness in the global market.

Fleet and market expansion prompted the recruitment of new staff. Cathay Pacific set a target to recruit more than 800 cadet pilots in 2023 and 2024 combined, in addition to the approximately 250 cadet pilots recruited in 2021. The airline also looked to recruit 4,000 frontline staff as it prepared for increased passenger numbers and aimed to fly at a third of pre-COVID passenger capacity by the end of 2024 (Cathay Pacific, 2023b). Hong Kong Airlines was expected to recruit 10% more pilots and 40% more cabin crew in 2024. Hundreds of employees from Hong Kong and Mainland China would join the airline (PR Newswire, 2024). While newly established, Greater Bay Airlines planned to recruit over 100 new pilots in 2024 (South China Morning Post, 2023b).

Such large-scale recruitment drives the need for aviation English training and enhances the teaching skills of professional instructors. While companies commonly offer internal training for new recruits, pre-employment training for roles such as pilots and cabin crew, covering aviation English, is also essential. This demand for training presents significant opportunities for the aviation English training industry in HK, particularly in attracting students and fostering collaboration with HK-headquartered airlines. Additionally, aviation English instructors working at carriers and external training schools may encounter increased teaching demands because of the influx of recruits. These instructors can further develop their teaching competencies by swiftly adapting their methods to accommodate the needs of a large student population.

Threats To The Development Of Aviation English Training

In this project, threats refer to adverse factors in HK's passenger aviation that would impede the development of the local aviation English training industry. As detailed in the following sections, the principal threats included a talent gap and the financial and operational troubles of HK passenger aviation entities.

A Talent Gap In HK's Aviation Industry

The talent deficiency in the HK aviation industry was notable. As reported by the airport authority, the workforce in the industry would rise from 53,000 to 69,000 by the end of 2024, leaving a gap of 16,000 personnel. While the government proposed employing 2,800 personnel from the non-local market, the industry still needed another 13,200 personnel to complete ongoing and new projects (HKSAR, 2023).

Demotivated aviation students further exacerbated talent deficiencies. The economic slowdown caused by COVID-19, as well as a growing unemployment rate, weakened many students' ambitions to learn. This was demonstrated by students' lack of passion for learning new things and their gloomy attitudes toward personal career advancement. If it was unsolved, the practice would lead to cultivating disqualified aviation professionals, which would undermine efforts to cultivate internationally qualified aviation professionals (Ng et al., 2023).

A lack of qualified aviation professionals in the industry would delay the growth of HK's aviation English training. Due to the current high demand for aviation professionals, as previously discussed, a struggle to retain talents may result in students with low motivation and/or English proficiency enrolling in aviation English training programs. This situation could challenge program leaders and instructors in managing and teaching such students effectively. Moreover, the talent gap may drive aviation English instructors to seek opportunities elsewhere or transition to other industries where their efforts are more valued. As a result, there could be a scarcity of experienced aviation English instructors. This shortage could adversely impact the quality and availability of the training programs, making it difficult to maintain high standards and meet the growing demand.

Financial/Operational Troubles Of Aviation Entities

The financial and operational troubles of passenger aviation entities posed significant threats to the development of aviation English training in HK. Over the past five years, HK passenger aviation entities have experienced a severe downturn characterized by decreased air traffic, reduced passenger numbers, contracted corporate revenues, and contracted international market size (Ng et al., 2023). This decline in financial and operational performance might lead to reduced efforts in (re)training new or existing employees. As an important soft skill for aviation practitioners, aviation English training could be deprioritized by companies during such challenging times.

COVID-19 severely impacted international passenger aviation, leading to a significant decline in passenger traffic, flight movements, and revenue at HKIA from 2020 to 2023. As shown in Table 2, annual passenger traffic dropped from 60.9 million in 2020 to 0.8 million in 2021. Flight movements and passenger revenue also declined similarly. In 2022, passenger traffic stagnated at 1.4 million, with 145,000 flight movements. Despite these challenges, HKIA served 12.4 million passengers and facilitated 161,000 flight movements in 2023, resulting in HK\$8,217 in revenue. However, this represented only a partial recovery compared to 2019, with 2023 passenger traffic at just 16.5% of 2019 levels, far below IATA's projected recovery rate of 80% (IATA, 2022). Consequently, HKIA's financial performance was unlikely to fully recover to pre-COVID levels soon.

Table 2
Yearly Performance of HKIA (2019-2023)

	2019	2020	2021	2022	2023
Passenger volume (million)	75.1	60.9	0.8	1.4	12.4
Aircraft movements (thousand)	429	377	128	145	161
Revenue (million HKD)	19,470	17,106	5,936	5,798	8,217

(Hong Kong International Airport, 2019, 2020, 2021, 2022, 2023)

This financial shortfall could constrain HKIA's capability to support aviation English training for its new hires and existing staff. Although HKIA is likely to prioritize aviation English training, the financial shortfall might divert funds to more critical operational areas, thereby compromising investment in soft skills training. This reduction in funding would lower compensation for instructors, reduce their job security, and lessen the perceived value of their specialized expertise. Consequently, experienced and qualified instructors may be deterred from continuing their involvement in aviation English training both at HKIA and in the broader market.

Cathay Pacific faced mounting adversity, as reflected in key financial performance indicators such as passenger volume and passenger revenue. As detailed in Table 3 below, Cathay Pacific's passenger volume and passenger revenue declined severely from 2020 to 2022. The decline is driven by escalating COVID-19-related travel restrictions. Despite these challenges, the airline saw a notable increase in its financial status in 2023. Nevertheless, its passage volume only reached 22% of the volume in 2019, and the revenue only reached 34% of the amount in 2019. The numbers indicated that Cathay Pacific's financial recovery to its pre-COVID status would take considerably longer.

Table 3
Yearly Performance of Cathay Pacific (2019-2023)

	2019	2020	2021	2022	2023
Passage volume (million)	35.2	4.6	0.717	2.8	7.8
Passenger revenue (million HKD)	72,168	11,313	4,346	13,686	25,013

(Cathay Pacific, 2019,2020a, 2021,2022,2023)

Cathay Pacific also faced substantial operating issues. Despite strong demand in the American and European markets in 2019, Cathay Pacific's inefficient passenger capacity limited yield. The outbreak of COVID-19 in 2020 exacerbated the situation, resulting in travel restrictions and curtailed activities. To avoid insolvency, Cathay Pacific discontinued Cathay Dragon operations. Starting in the second quarter of 2020, Cathay Pacific launched ghostly passenger flights to a number of overseas destinations (Cathay Pacific, 2020). While essential, this choice resulted in lower passenger volume and income, as well as a lower international market share for the airline. In 2021, the HK government imposed new travel restrictions, resulting in the suspension of inbound foreign flights, substantially reducing the airline's worldwide market share (Cathay Pacific, 2021). Despite Cathay Pacific's slow expansion of foreign lines from 2022 to 2023, passenger traffic and revenue remained much lower than pre-pandemic levels.

Cathay Pacific's present financial and operational issues may demand transferring cash to fleet development in order to restore market share following COVID-19. This strategic shift in spending objectives will most certainly have an influence on the company's investment in (re)training its pilots and cabin personnel, notably in soft skills like aviation English. To save

money, Cathay Pacific may explore cutting teacher salaries and numbers, as well as shortening the time of aviation English instruction. As a result, the quality of instruction may suffer as instructors struggle with job security and the need to offer good training in less time. Because Cathay Pacific is a major provider of aviation English instruction in HK, this issue may have ramifications for the advancement and general quality of aviation training in the local market.

The Rise Of Non-local Online Aviation English Training Programs

The emergence of online virtual aviation English training programs offered by non-local providers posed a potential threat to the market share of programs operated by HK-headquartered training institutes. As shown in Table 4, numerous online synchronous and asynchronous courses have been developed, catering to the needs of pilots, air traffic controllers (ATCs), flight attendants, and students seeking to attain ICAO levels 4, 5, and 6. Many of these courses were examination-oriented, focusing on ICAO English and IR English, but were not localized. These programs may effectively meet the requirements of aviation professionals and students, particularly those who must pass international English proficiency tests. Such tests, including the ICAO language proficiency test, evaluate participants' ability to comprehend language used in radiotelephony communication (ICAO, 2009), rather than emphasizing knowledge of regional aviation markets. Thus, students in HK may opt for these online courses to prepare for these aviation English proficiency tests. As a result, this could erode the market share of HK-headquartered training institutes and bring significant challenges to local training providers, including potential losses of revenue and the need to adapt to new market conditions.

Table 4
Typical Non-Local Online Virtual Aviation English Training Programs

Course type	Training provider	Official website
ICAO English	Practice ICAO English	https://practiceicaoenglish.net/
	Aero Language	https://language.aero/en
	Embry-Riddle Aeronautic University	https://www.captainpilot.com/post/how-to-prepare-for-icao-english-exam-with-captainpilot-training-model
	Latitude Aviation English Services	https://www.latitude-aes.aero/
	Aviation English Now	https://aviationenglishnow.com/products/
	AviaSpeak	https://aviaspeak.com/
	Udemy	https://www.udemy.com/course/icao-aviation-english-proficiency-for-aviation-test-prep/?couponCode=ST8MT101424
IR English	Aero Language	https://language.aero/en/checking/ir-english
Aviation English raters	Mayflower College	https://www.maycoll.co.uk/aviation-english/aviation_english_raters-ns.htm
English for flight attendants and aviation mechanics	Aviation English Now	https://aviationenglishnow.com/products/

Although these international online training courses pose a threat to HK's aviation English training industry, their impact is likely to be limited. First, HK's aviation English training programs, which incorporate local operational knowledge and address specific student needs, offer a distinct advantage over examination-focused online courses. These programs provide a unique value proposition that online courses cannot match. Second, face-to-face aviation English training provides unique advantages such as real-time feedback, nonverbal communication practice, and authentic cockpit/tower interaction scenarios that online courses cannot fully replicate. As a result, a significant number of students in HK will probably continue to prefer in-person training programs over online alternatives for international aviation English proficiency tests. This distinct advantage not only mitigates the threats posed by international online training courses but also reinforces the effectiveness and appeal of in-person training programs offered by HK-headquartered providers.

Conclusions And Expected Contributions

The present study performed a document analysis that integrated the SWOT framework (Wheelen et al., 2017) to examine the development of HK's aviation English training industry. In addressing this research aim, the market strengths and weaknesses were identified based on the performance of relevant training programs over the past five years. Moreover, this project also showed opportunities and threats in the broader geo- and sociopolitical environment that either aided or impeded the growth of aviation English training.

HK's aviation English training industry harnessed considerable strengths and held the potential to use geo- and sociopolitical opportunities for substantial growth. Within HK's aviation English training industry, diversified training providers offered programs that catered to various aviation roles in the local market, addressed the specific needs of HK students, and complied with international standards. As for opportunities, adhering to the ICAO's language policies provided a standardized framework essential for effective teaching practices within the industry. Furthermore, the market expansion and fleet development of HK-headquartered passenger aviation companies may have significantly increased the number of students enrolling in aviation English training programs and enhanced teaching skills.

The aviation English training industry in HK faced both internal weaknesses and external threats that may impede its growth. A primary weakness was the shortage of suitable training programs that both addressed the specific needs of the local aviation industry and students and complied with international standards. This scarcity created a market gap and limited the industry's ability to adapt to new personnel needs, hindering workforce development. It also potentially undermined efforts to promote aviation careers among HK's younger generation. For external threats, the talent gap in the passenger aviation industry posed challenges for program managers, materials developers, and instructors, who were dealing with students with low motivation and limited English proficiency. Compounding this issue were the financial and operational difficulties faced by HK-headquartered aviation companies. This threat could lead to job insecurity, salary loss, and reduced teaching time for instructors, compromising the quality of aviation English education. Additionally, the emergence of examination-oriented online training courses also posed a threat to the industry, potentially diminishing the market share of HK's aviation English training providers.

Contributions To Industry Practice And Academic Research

In response to the challenges identified in the analysis, targeted suggestions are proposed to mitigate the talent shortage in the aviation industry. To attract individuals to the industry, the HK government may establish a series of support programs that would benefit not only the industry but also academic research on aviation English pedagogy in HK. As for contributions to the industry, by attracting students and motivating educators, these programs would enrich the talent pool of the industry and increase the motivation of educators. In the academic domain, government support offers an opportunity to examine the effectiveness of government intervention in aviation English education. This enables researchers to evaluate the interaction between government funds and aviation English training approaches and outcomes. In fact, the government has already allocated funds to encourage citizens to pursue careers in the aviation industry, with allocations for careers in the HK aviation industry, aviation companies, and public universities in the region (HKSAR, 2024).

To further increase student motivation, various institutes can incorporate innovative online activities, such as virtual tours (Ng et al., 2023). When developing these activities, educators and trainers should consider market needs and student characteristics to ensure a regular supply of qualified graduates that meet industry demands. These efforts not only address immediate industry needs but also have academic implications. They provide invaluable resources for researchers to gain deep insights into the students' unique requirements for learning aviation English.

One potential strategy to help HK-headquartered passenger aviation companies overcome challenges is strengthening collaborative relationships with the GBA (The Greater Bay Area of China)¹-based airports and airlines. Enhancing collaboration with regional airports through information sharing and joint flight planning could reinforce the overall competitiveness of the GBA airports in the global market (Mo et al., 2022). This collaboration can improve the financial performance of HK-headquartered passenger aviation companies while securing the jobs and benefits of aviation English providers, teachers, and trainers. In addition, collaboration with the GBA-based airports and airlines can also have academic benefits. By working with HK-headquartered educators and providers, academic researchers can compare students from various areas of the GBA. This can lead to the development of more suitable teaching methods tailored to students with different learning habits, issues, and English proficiency levels. Thus, this approach can improve aviation English teaching in HK, making it more targeted and effective.

To counter the growing popularity of online language training courses, HK-headquartered training providers could develop online virtual ICAO tests training courses tailored to the needs of students in HK. Before designing these courses, providers ideally should conduct surveys to understand the specific language proficiency requirements of test participants in HK. During the course design process, more efforts must be made to address the unique questions and learning habits of local students. By doing so, HK-headquartered training providers can create online training courses that cater to the distinct needs of their ICAO test

¹ The Greater Bay Area (The GBA) is a newly established economic zone that combines the cities of Guangdong province in mainland China with the Special Administrative Regions of HK and Macau. Spanning eleven cities and regions, the GBA comprises major urban centers such as Guangzhou, Shenzhen, Zhuhai, as well as HK and Macau.

participants, thereby maintaining their market share and competitiveness. Additionally, it could contribute to academic research by providing deeper insights into online learning for ICAO English proficiency tests in HK. Researchers could analyze participants' learning habits, motivations, common errors, and difficulties encountered during test preparation. The findings could inform improvements in course design and delivery, ultimately enhancing the quality of ICAO English language testing training programs in the region.

For all other training programs, a blended-learning approach that combines online and offline activities such as workshops, seminars, and mentoring programs should be promoted. By using this approach, HK-headquartered aviation English training providers can enhance their reputation and maintain their market position amidst growing online competition. Additionally, these blended-learning courses present opportunities for academic research, potentially contributing to the global field of aviation English pedagogy. Additionally, these blended-learning courses provide a research opportunity to explore the interplay between online and offline learning components. By investigating how different combinations of delivery modes impact learning efficiency and skill retention, researchers can gain insights into the most effective design of aviation English training programs for students in HK. This research has the potential to establish new frameworks for creating integrated aviation English programs.

Limitations And Future Studies

This study has two major limitations. First, while the current document analysis provided valuable insights into the factors influencing HK's aviation English training industry, the absence of primary data, such as interviews or surveys, limited the depth of understanding. Second, the scope of this research was limited to HK's aviation English training industry, excluding broader regional markets. To address these constraints, future studies could integrate more research methods, such as interviews and surveys, and broaden the scope of investigation by encompassing aviation English training in other geographical areas (e.g., mainland China). Such projects could help training providers, instructors, and investors understand market changes and develop timely initiatives.

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