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EXPLORATION OF ALTERNATIVE REVENUE STREAMS FOR AIRLINES IN SOUTH AFRICA

By

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DECLARATION

I hereby declare that this thesis is my original work and that no part of it has been presented for another degree in this university or elsewhere.

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I hereby declare that the preparation and presentation of this thesis was supervised in accordance with the guidelines on supervision of theses established by

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ABSTRACT

This research investigates alternative streams of income for airlines in South Africa in the absence of, or shortage of passenger travel income caused by the pandemic. The study uses content analysis and reviews news articles from March 2020 to March 2021, to discover how airlines across the world have improved on their ancillary offerings and cargo to generate revenue, and the results thereafter. The study looks for ancillary and cargo themes in each article and breaks them into categories and sub-categories for analysis. The results show that airlines have greatly benefited from maximizing both ancillary services and cargo transportation as substitutes for the traditional ticket revenue. These two streams of income play a crucial role in helping airlines survive the pandemic-induced financial losses. Ultimately, conclusions are made in the context of the South African airline industry, and we draw lessons that can be learnt from these different airlines that can equally benefit South African airlines.

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CHAPTER 1- INTRODUCTION

Background

The air transport industry is one of the most 'global' industries, bringing people from all walks of life, cultures and businesses together. Aviation has continued to expand rapidly over the years, and has historically doubled in size every 15 years, demonstrating a faster growth than several other industries (Air Transport Action Group, 2020). Notwithstanding crises including the Spanish flu, the Great depression, and occasional accidents that have occurred, the air transport industry has demonstrated resiliency in weathering through these crises, ultimately becoming a solid means of transport both nationally and internationally.

Its economic benefits cannot be overlooked, both as an enabler of other industries and through its own activities. The air transport industry contributes to the global economy directly, indirectly and through induced impacts, which are related to the total revenues of the industry. In 2016, airlines worldwide are reported to have transported close to 3.8 billion passengers annually with revenue passenger kilometers (RPKs) of 7.1 trillion, while 53 million tonnes of freight were transported by air, reaching 205 billion freight tonnes kilometers (FTKs). Before 2020, about 100,000 flights transported approximately 10 million passengers every day and around USD 18 billion worth of goods daily (Air Transport Action Group, 2020).

Aviation has proven to play a significant role in advancing the global economy, as it generates economic growth, facilitates international trade and tourism, and creates jobs. According to estimates by the Air Transport Action Group (ATAG) (2020), aviation, through its direct, indirect and induced impact, accounted for USD 2.7 trillion of the global economy, which is equivalent to 3.5 percent of the world domestic product (GDP) in 2014. It has also supported 62.7 million jobs globally, with 9.9 million of those being direct. Airlines, airports and air navigation

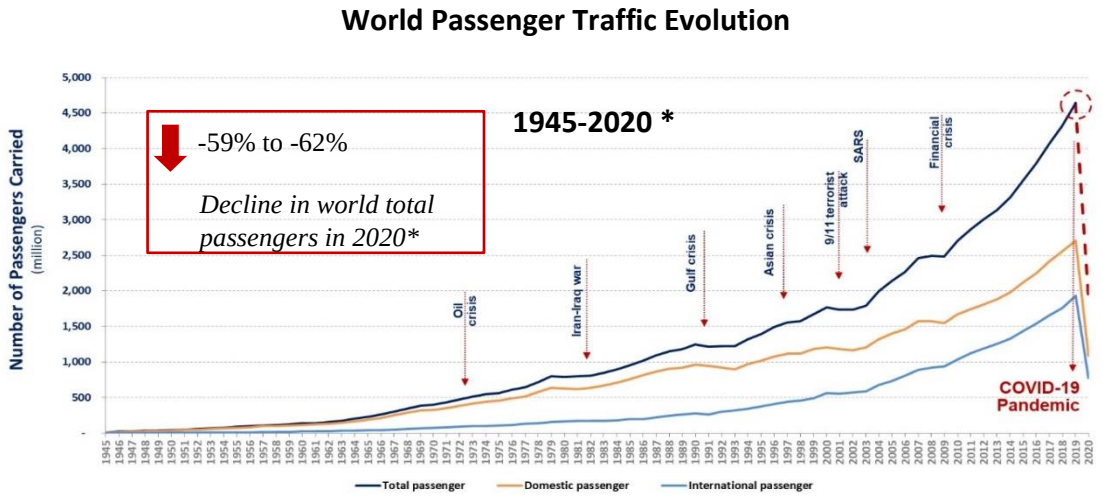
service providers directly employed over 3 million people of those total jobs provided worldwide (Air Transport Action Group, 2020). In Africa, the air transport industry generates approximately 470, 000 jobs and contributes more than USD 11.3 billion to the continent's GDP directly and indirectly.

Similarly, the air transport industry has substantially accelerated global trade and e-commerce, in turn allowing the globalization of production. The small volumes of cargo deliveries account for big values in world trade. For instance, goods worth USD 6.4 trillion were transported internationally by air, representing 35 percent of the total world trade by value, despite representing only 0.5 percent by volume (Air Transport Action Group, 2020). Industries that are heavily reliant on aviation and are part of it include Airlines and tourism.

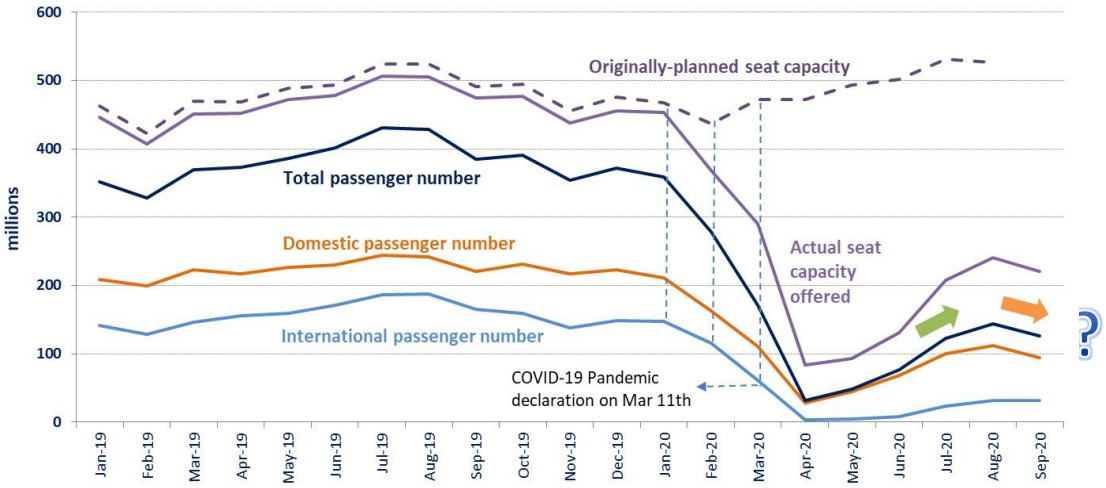
The outbreak of the Coronavirus (Covid-19 henceforth) pandemic that began in Wuhan, China has disrupted business operations in all industries. The air transport industry has observed a significant halt on international travel, with airlines coming to a complete shut down for months because the virus is easily transmitted to people. There is currently no known medication for the novel virus, causing uncertainty and fear worldwide. Therefore, international travel was strictly prohibited by governments of many countries globally, and regional and national flights were either prevented or limited to essential travel only as a way of containing the virus.

Consequently, airlines have suffered job losses, bankruptcy and revenue loss as world passenger traffic crumpled with an extraordinary decline in history. The market value of the airline industry has contracted since the travel ban, and the impact on the airline industry performance has worsened around the world. According to estimates by the International Civil Aviation Organization (ICAO) (2020), there has been a reduction of 50 percent of passenger seats offered

by airlines and this number is predicted to reduce further to a total of 52 percent by December 2020. There has also been an overall reduction of 2, 875 to 2, 978 million passengers, and approximately USD 386 to 399 billion potential loss of gross passenger revenues of airlines, predicted to last until the first quarter of 2021.



Source: ICAO Air Transport Reporting Form A and A-S plus ICAO estimates.



Source: ICAO Air Transport Reporting Form A and A-S plus ICAO estimates

LATAM, Latin America's largest airline, has succumbed to the pandemic and filed for bankruptcy in May, while Virgin Australia, the nation's second largest airline filed for voluntary operation (the equivalent of bankruptcy restructuring) after almost 20 years of operation (Forbes,2020). Similarly, Virgin Australia is the largest airline to collapse in the history of Australia and is said to be in talks of being acquired by another company. According to Forbes (2020) reports, in Africa, airlines like Air Mauritius entered into voluntary administration, a rescue mechanism for insolvent entities, while South African Airways was at risk of being liquidated after reporting zero revenue. The South African government contemplated totally shutting the airline down completely and beginning a new national airline for the country (Forbes, 2020). Ultimately, this influences my study of alternative revenue streams for airlines in South Africa to uncover how, amid crises like the current Covid-19 pandemic, the South African airline industry can generate revenue.

Problem Statement

While the closure of borders and travel restrictions were necessary to contain Covid-19 in South Africa, they have also threatened the socio-economic livelihoods of South Africans and the country's economy. South African airlines play a vital role in enabling the economy to bounce out of the recession caused by Covid-19. Prior to the pandemic, the air transport sector supported a total of 472, 000 jobs in SA, and contributed close to R180 billion to GDP annually. However, with the imposed lockdown, the International Air Transport Association (IATA) (2020) estimated that 252, 000 jobs are at risk and the contribution to the South African economy could drop to R97 billion.

There is an existing high unemployment rate in South Africa (23.3%) (Trading Economics, 2020), coupled with a loss of 2.2 million jobs -the most since the survey commenced in 2008- across various industries since the lockdown began in March this year. An estimated loss of 252, 000 aviation jobs will increase the total number of 2020 job losses to 2.75 million, as a direct result of the pandemic. Unfortunately, a further increase in unemployment, a leading factor of several crimes and discomfort in SA, is to the detriment of the nation. The increment in job losses also threatens an increase in homelessness rates, including numerous psychological consequences.

Not only does the collapse of airlines make South Africa vulnerable to higher unemployment rates but is also poses a threat to the scale of exports, investment and inbound spending in South Africa. The scale of inflowing spending and investment attract tourists into South Africa and helps the business environment to thrive as business owners trade their goods and services around the world. In 2014, foreign tourists are said to have spent USD 9.2 billion in South Africa, supporting hotels, transport providers and other tourists' caterers (IATA,2017). Correspondingly, SA exported USD 110 billion worth of goods in 2014, and has overtime accumulated USD 140 billion in foreign direct investment (IATA, 2017). This shows that a pandemic induced collapse of airlines is not only a threat to the socio-economic livelihood of South Africans, but also puts the country at risk of an economic downturn.

Against this backdrop, the questions then become; if the world is to face a pandemic like the current one in the future, or if we incur a second wave of the pandemic and air transport comes to a standstill, how else can airlines still generate enough revenue to keep up daily operations? Are there any unexplored or less harnessed uses of airplanes that can still benefit airlines amid national

and international passenger travel bans? These questions necessitated the research to explore alternative revenue streams of airlines in South Africa.

Research Relevance

Although there have been other crises before this one, the world is facing a pandemic like Covid-19 for the first time, which also implies that we may be experiencing a global air travel halt of this magnitude for the first time too. Thus, there is little to no knowledge at all for airlines on the measures they can take to weather through successfully. The findings from this research will be beneficial to the airline industry by exploring their revenue streams aside from passenger air travel, how airlines can maximize their existing streams of income, as well as how they can leverage on alternative uses of their airplanes to generate income despite passenger travel bans. Essentially, the findings from this research are meant to create airlines that are better prepared for risk.

In a similar fashion, the novelty of this pandemic means that there is less literature about it, as people continue to learn and navigate through it. Therefore, this calls for a broad research across different industries, both on the impact of the pandemic and strategies taken to combat it. This research endeavors to not only add to existing and emerging literature, but to also serve as future reference for airlines should we experience something similar in future.

Research Questions

- How can airlines maximize ancillary offerings to generate enough revenue when air transport is reduced or suspended?

- In which ways can airlines innovatively improve their cargo transportation so as to generate revenue?

Research Objectives

- To explore ways in which airlines can improve their ancillary service offerings to generate higher revenue amid the pandemic and beyond.
- To investigate how airlines can maximize cargo related revenue to improve their financial performance

Methodology

The research used a mixed method approach to collect and analyze data, and was based on content analysis. It looked for themes in the data collected, coded them, and thereafter categorized and sub-categorized them.

Outline of Dissertation

The research begins with the introduction to the problem and poses questions the research seeks to answer plus the objectives sought to be achieved. This is followed by the argument for the relevance of the study, including problem statement that validates why the research is being conducted. Following the introduction is the literature review, which analyses past literature to compare and contrast findings and methodologies used, including the identification of any gaps in the literature. The methodology will focus on the research designs to data collection processes, then the analysis and interpretation of results in chapter 4, and finally the conclusion.

CHAPTER 2-LITERATURE REVIEW

Introduction

The literature review analyzes past research done in the aviation and airline industries in order to explain important connections and set a foundational knowledge regarding the research topic. It provides information about the global airline industry and how it has evolved, in order to demonstrate the dynamic nature of the industry, as well as an overview of the South African airline industry to add to a similar perspective. The literature review does an extensive dive into alternative income generators by critically investigating how airlines have responded to environmental jolts that had negatively affected them in the past. This is done to discover relevant linkages to the current jolt of Covid-19, including what researchers believe are alternative revenue streams for airlines. In this chapter, there will be four key areas of assessment: (1) The evolution of the Global aviation industry, (2) An Overview of the South African airline industry, (3) The airline Industry and its Response to Shocks (Environmental Jolts), (4) The Theory of Innovation and its Impact on Airline Financial Performance.

Evolution of the Global (Aviation) Airline Industry

The airline industry has grown significantly over the years, surpassing its 1965 carriage of only 5 percent of the world population, to approximately 44 percent in 2014 (Fox, 2014). Groundbreaking expansions including deregulation which began domestically in the US around 1978 and expanded to Europe have enabled better practices in the industry, and have served as a gateway for equality and a more sustainable industry. Aviation has been perceived as a critical factor in the development and integration of people, governments and organizations worldwide. It

is also said to be on the frontline of ending poverty through its ability to create distributional routes.

In the United States of America, aviation is deeply connected to the nation's identity, power and world standing (Aerospace Nation, 2015). The rise of the US aerospace dates back to the second World War, where the industry emerged with high technological advancements and infrastructure (Aerospace Nation, 2015). Research demonstrates that the aerospace industry created a strong foundation upon which the US rested while also serving as a major American power source from both military and economic standpoints. Not only was it the nation's pillar in terms of strength, but aerospace is also said to have become a significant contributor of the US economic growth. Investments in the aerospace industry by the United States have gained high returns for the country. As at 2015, the aerospace industry wholly consisting of private aircraft manufactures, to general aviation and commercial space, produced $118.5 billion in export sales for the United States, and resulted in approximately $370 billion in domestic purchases. The aerospace industry as a whole provided employment for more than 1.849 million people whose spending employs 2.51 million more (Aerospace Nation, 2015).

Fox (2014)'s view is that although air transport is an inevitable part of our lives today, the evolution of the aviation industry has been a combination of pleasure and massive destruction. Since 1945, there have been several wars and unsettlement, and aviation has been utilized to take lives and cause mass destruction, at least from a military standpoint. On the upside, it has also been used to save lives and relieve war-torn areas. For instance, where war destroyed infrastructure and the places became inaccessible by land or water, aviation, through the World Food Program, has played a critical role in bringing humanitarian cargo and being at the

forefront of poverty eradication. Fox (2014) further adds that aviation has grown to be a leading factor in accelerating globalization. Having the United Nations's prediction that forces of globalization have potential to reduce or end poverty in the 21st century, the role of air transport in the achievement of this forecast has gained attention.

History of the South African Airline industry

The South African airline industry has grown from being a transport system for the elite (Ssamula, 2014) to being a key factor in the country's tourism sector and an enormous contributor to the nation's GDP. Its contribution includes direct, indirect and induced impacts, which all relate to the total revenues of the air transport industry (Mhlanga, 2016). The first airline in South Africa, Union Airways, was founded in 1929 by the then Mayor Allister Miller after being granted a contract to fly airmail between Cape Town and the major centers in South Africa (Mhlanga, 2016). Union airways began national operations in 1929, but was unfortunately hit with a crisis when two of the airline's aircrafts crashed in 1931 and were written off (Mhlanga, 2016). These events marked a start of the airline's struggles, and the final nail to its operations came in 1933 when another of its aircrafts crashed (Gavin, 2013). This was a great loss which obligated Mayor Miller to request that the South African government took over the airline's operations. Under the control of the government, Union Airways was later renamed the national carrier, South African Airways (SAA), a name it has sustained for many decades now.

In 1946, a new private airline, Comair was established and immediately commenced operations (Mhlanga, 2016). However, to protect the national carrier SAA from private airlines like Comair, the International Air Services Act 20 was introduced in

1949 which obligated all airlines wishing to compete with SAA to prove, among other things, that there was indeed a need in the aviation industry which could not be provided by SAA alone. The outlined requirements were almost impossible to meet, and hence saw SAA gaining monopoly on many aspects including landing slots and controlled airports (Mhlanga, 2016). As the industry grew however, it welcomed new entrants; Link airways (Later known as SA Airlink) and Bop Air (later known as Sun Air) in 1978 and 1979 respectively. Both airlines concentrated on secondary routes, and their entry brought the total number of domestic airlines to four.

Inspired by the American experience, there was an advocacy to deregulate the airline industry in 1987, with the aim of increasing competition and in turn leading to more efficient airlines and lower passenger fares (Mhlanga, 2016). The initial phase of deregulation attracted several new airlines, and the first one to enter the market was Fliterstar airlines in 1991. The growth of the airline industry between 1992 and 2000 was characterized by entry and exit of many airlines. For instance, Link airways which was a combination of the alliance between Magnum airlines, Border air and City air, collapsed, and paved way for SA Airlink, due to financial instabilities. In 1994 and 1995, four new domestic airlines entered the airline industry; SA Express (SAX), Sun Air, Phoenix Airways, and Nationwide Airlines. As a result, of the seven airlines that had potential to challenge SAA's national monopoly, three had failed, while two had formed an alliance with it. Ndhlovu and Ricover (2009) point out that only Comair and Nationwide Airlines remained to compete on both the domestic and international routes.

Between 2004 and 2015, several low-cost airlines including SAA's Mango airlines, 1Time airlines, CemAir, Fly Go Air and Velvet Sky had entered the market as a result of the industry deregulation. The demise of the long-standing Nationwide airlines came in 2008, while 1Time

also halted operations in 2012 (Mhlanga, 2016). Consequently, out of the 15 airlines that had entered the industry between 1991 and 2016, only seven airlines were in operation as at 2016, while the remaining 8 had exited (Mhlanga, 2016). Dating back to 1929, it is concluded that collectively, "twenty-one airlines have entered the airline industry, eleven have folded up and ten are still operational." (Mhlanga, 2016). The national carrier, SAA has also faced its fair share of financial problems, and sought government assistance on many accounts, proving the complexity of running airlines in South Africa (Mhlanga, 2016).

While the South African airline industry has been signalized by a number of failed dreams, the role of aviation in the country's economic advancement cannot be overlooked. Mhlanga (2016)'s research indicates an estimated 3.1 percent of South Africa's GDP constituted by the aviation industry. The industry is also said to have provided at least 227 000 jobs for 2.6 percent of the South African total workforce in 2014 (Mhlanga, 2016). As at 2020, the aviation industry of South Africa supports 472,000 jobs, and has contributed R180 billion to the country's GDP. StatsSA(2016) indicate that the annual value added by each employee in air transport services in SA is over 4 time higher than the south African average in 2014. Not only does aviation provide employment, but it also contributes to the economy through Tax. The airline subsector pays approximately R6 billion in tax, and the taxes paid by aviation firms and employees contribute R3.5 billion towards this figure (StatsSA, 2016). This demonstrates the profound role the airline industry plays in South Africa's socio-economic growth, and the need to preserve and improve it as an integral contributor to SA's GDP.

The Airline Industry and its Response to Shocks / Environmental Jolts

Environmental jolts are described as "significant and dramatic changes in the external environment that pose challenges for organizations and may require significant changes in the way a firm conducts business" (Goll and Rasheed, 2011). Meyer (1982) as cited in Goll and Rasheed (2011) further explains the term as "… a sudden and unprecedented event..." "...transient perturbations whose occurrences are difficult to foresee and whose impact on organizations are disruptive and potentially inimical". Many jolts have hit the airline industry over the years, and the industry has adopted several measures to weather through the crises. Shocks such as the 9/11 attack, the financial crises, Spanish flu, and the current Covid-19 pandemic have obligated airlines to change how they conduct business.

To begin with, in their article 'Determinants and recovery from system wide shocks' Mantina and Wang (2012) claim that the terrorist attacks of September 11 2001 (9/11 attacks) which caused demand to sharply decline and intensified security measures had a highly negative impact on the profitability of airlines. They argue that strategic decisions, operational performance, and quality of service bear crucial importance on airline performance and recovery from the jolts. In an equivalent manner, Rasheed and Goll (2011)' findings demonstrate that the first response of airlines to deregulation and the 9/11 attacks was an emphasis on cost control. For instance, according to their findings, the immediate response of the major air carriers was to change their strategy and to minimize all expenses except core ones that are devoted to flying and maintenance. Goll and Rasheed conclude that there exists a relationship between strategic change and firm performance, such that firms that have effectively been able to deal with these jolts are those that embraced strategic change following the crises.

Regarding the jolts of the 2001 and 2007 financial crises, Diaconu (2012) points out that many European low-cost operators put several strategies in place in order to cope with the crises. He claims that cost-cutting programs and expansions strategies were among the first responses of airlines to the shocks. For instance, Ryanair and EasyJet which are among the largest low-cost carriers in Europe, took advantage of the situation by offering many services at lower prices in order to increase their market share, which would ultimately lead to higher profits. Many small and medium-sized low-cost airlines implemented cost-reduction programs by way of a personnel and capacity reduction, while large low-cost carriers like Ryanair and Air Berlin adopted investment strategies based on creation of new routes or additional flights for existing destinations. Diaconu (2012) argues that the inability of other airlines to immediately respond to shocks through capacity reduction and taking consolidating actions pose the threat of enormous losses.

As mentioned before, the ongoing pandemic has caused a drastic decline in the financial standing of many airlines worldwide. Therefore, Albers and Rundshagen (2020) have outlined strategic responses of European airlines to the Covid-19 pandemic. Their data collection method entailed daily screening of Air Transport Digest newsletter of the Aviation Week Network from the period between January and June 2, 2020, analyzing and listening to airline announcements and actions taken regarding the spread of the virus. The two authors have found that four key strategic responses- retrenchment, perseverance, innovation and exit strategies were taken by European airlines to combat the financial impact of the pandemic.

The immediate response of almost all European airlines was retrenchment to cut costs significantly, then going into different directions (Albers and Rundshagen, 2020). According to

Wenzel et al. (2020) as cited in (Albers and Runshagen 2020), going into retrenchment mode was an inevitable move as this type of strategy highly reduces costs and keeps cash burn at a minimum. The second strategy was persevering, which aimed at weathering through the pandemic with minimal changes in business strategies so as to provide a competitive advantage for persevering firms. Thirdly, Wenzel et al (2020) as cited in (Albers and Runshagen 2020) demonstrates that other airlines found refuge in renewing their strategies during the crises. For instance, other European airlines adopted immediate tactical moves like converting passenger airplanes into cargo transporters to meet the rising demand for cargo during the pandemic as countries were in need of urgent delivery of medical protection gear. The final strategy was the discontinuation of business activities: this referred to not closing the entire business, but rather downscaling operations or pulling out of specific markets to free up committed resources' usage.

Most of the literature above focuses heavily on cost-cutting programs and quality service offerings as some of the most effective ways airlines have responded to jolts in the past. However much, there is little information about how airlines have (or can respond) responded to shocks that affected airlines so severely the industry came to a temporary, continued halt like we have observed in the current pandemic, or when the number of passengers is significantly low. While cost control has proven to be an effective way of increasing revenue, it has not been effective in handling covid-19 because the major source of airline revenue-passenger travel, was put to a stop for some time. Controlling costs through retrenchment is also counterproductive in the long run because while airlines may survive short term, the layoff of workers adds to the existing unemployment rate; something the pandemic has caused enough of. Airlines also can only lay off so many workers before needing other financially helpful strategies.

Mantina and Wang (2012)' findings of quality of service as a critical indicator of airline performance and recovery from shocks does not hold strongly regarding the current pandemic. The reason being that excellent service do not help if planes are not flying and countries are on lockdown, or if passengers travelling are remarkably few. Likewise, offering many services at lower prices does not help the grappling industry firstly because the lockdowns suspended passenger travel, and secondly because even as flying picked up, the number of passengers flying has been low as many travelers are discouraged from flying due to fear of contracting the virus. Therefore, this calls for a different way of doing things, and coming up with innovative ways to improve existing streams of income such that they can generate sufficient revenue in the complete absence of, or shortage of income from passenger tickets. Innovatively maximizing ancillary revenues seems a lucrative way of helping airlines maintain financial stability, but there is a need to approach it differently.

In a similar fashion, this research is supported by and adds more to Wenzel et al. (2020) 's findings that one of the immediate strategic moves of airlines in dealing with the pandemic was turning airplanes into cargo transporters. Leveraging on the next best alternative; cargo, seems a very practical tactic because as people cease being itinerant, there is a growing need for goods to be transported to them. The New York Times (2020) issue showed that airlines including Virgin Atlantic, American Airlines and Germany's Lufthansa loaded their planes with medical supplies at the peak of the pandemic. In Africa, one airline that has remained financially strong amid Covid-19 has been Ethiopian Airlines. According to African Business (2020), the profitable airline "has dealt with the crisis without reducing salaries or asking the government for a bailout". The report claims that leveraging on cargo transportation helped Ethiopian airlines avoid financial grapple by allowing it to maintain half of its income despite 90% of its fleet being grounded.

Theory of Innovation in the Airline Industry

This research bases itself on the theory of innovation, and how it can lead to better financial performance for airlines. Innovation is playing an important role in the growth of companies. With rising competition and the unpredictability of the market, the needs of innovation keep changing. Unlike before, companies now have access to important factors for economic growth and innovation; information, markets, and technology (Manual, 2005). The Business Council of Australia (2008) defined innovation as the "application of new ideas regarding products, processes necessary to directly or indirectly add value to a firm for its consumers.

Innovation also goes beyond the implementation of ideas and can also incorporate using existing ideas and knowledge to generate different results. This is also innovation because it yields different yet valuable results, hence making circumstances better than they were previously (Wolffsen, n.d). Improving existing business activities to cover particular needs and developing existing knowledge or developing new one is another way in which businesses can innovate. Innovation is categorized into three types namely; Incremental innovation, Radical Innovation, and Organizational Innovation.

Incremental Innovation

According to Reilly and Tushman (2004), incremental innovation refers to when companies use existing knowledge to bring about little improvements in their existing products and services, which in turn adds value to both the firm and its customers.

Radical Innovation

This type of innovation is described as intermittent improvements, which in recent times can be a consequence of planned research and developments in government laboratories or universities (AMA, 2006).

Organizational Innovation

The last type of innovation is organizational innovation, which is an improvement in how firms are managed to take advantage of business opportunities.

This research resonates with both incremental and organizational innovation. With incremental innovation, this research establishes that airlines can make changes to improve on existing services and products to meet situations they are faced with as and when needed. Organizational innovation involves a complete transformation of how airline management thinks of their revenue generators, shifting away from traditional ways of making money, to tapping into present market opportunities.

CHAPTER 3- METHODOLOGY

Introduction

The Methodology chapter investigated substitute streams of income for airlines in South Africa to find out how these airlines can remain financially strong amid crises that affect passenger air travel. The research was approached from a content analysis standpoint. Content analysis refers to a "research tool used to determine the presence of certain words, themes, or concepts within some given qualitative data (i.e. text)" (Columbia Public Health, n.d). Utilizing content analysis, researchers can quantify and examine the presence, meanings, and relationships of particular concepts, words, or themes. Among several uses of content analysis, it can be used to investigate bias, patterns, differences, or partiality in a text. Data can be collected from interviews, conversations, speeches, newspapers, media, historical documents, and any other form of communicative language.

To analyze text using content analysis, the text ought to be broken down into tractable categories, following which the codes can further be classified into 'code categories' for further analysis of the data. (Columbia Public Health, n.d) In the same way, this research paper analyzed online text to better understand airlines in South Africa and their operations and dived into discovering lucrative streams of income available to them. This chapter will describe the place of the research, its design, hypothesis, sampling techniques used, data collection and its analysis, the limitations of the research and finally how ethics were considered in the collection and analysis of the data.

Research Scope/Place of Study

This research focused on the airline industry of South Africa and drew insights from relevant strategies used by different airlines across and beyond Africa. I found it empirical to study the South African airline industry because apart from SA having had one of the highest prevalence of the Covid-19, the country's airline industry forms an integral part of its economic development, hence its stability and boom is to the benefit of the country as whole. South Africa currently struggles with high unemployment rate of 23% which has jumped to 30%+ (Trading Economics, 2020) as a result of the pandemic. Any further unemployment rates that can potentially rise from the airlines' financial ruin only add to the existing crises.

The pandemic induced collapse of airlines is not only a threat to the socio-economic livelihood of South Africans, but also puts the country at risk of an economic downturn. However, despite the intensity of the pandemic's impact on the SA airline industry, no research has been conducted to uncover alternative revenue streams of airlines due to its novelty. There was therefore a need to specifically focus on an African country that can benefit from information tailored to its airline industry, which in this case is SA.

Research Design

The study benefited from the usage of Mixed methods research in collecting and analyzing collected data. Mixed methods research is defined an emergent methodology of research that accelerates the systematic combination of quantitative and qualitative data within a single research (Wisdom and Creswell, 2013). The reason behind this is that this type of integration allows for a

thorough and united usage of data compared to pure quantitative or qualitative data. A mixed method research 'mixes' methods in data collection, analysis and interpretation (Shorten and Smith, n.d). This in turn helps researchers attain an extensive view of their research scope, as they benefit from different perspectives and research lenses. In the same way, this research collects quantitative data, codes it, and analyzes it from a qualitative standpoint.

Hypothesis

A content analysis requires that a researcher first identifies a problem, forms a hypothesis and conducts further research. The research consists of the following theorem prior to its further conduct:

- Cargo can be maximized and improved upon to generate higher income for airlines in South Africa
- Ancillary revenues can be maximized to generate revenue for airlines in South Africa

Secondary Research

This research has benefited from the usage of pure secondary data, which is defined by Hanson (2012), as data that is already in existence and is not collected by the researcher themselves. This research has reviewed several online news articles to deduce themes and patterns in the stated categories. There has also been a review of past scholarly literature to gain insights and set a foundational knowledge regarding the topic. It was necessary to understand how airlines have responded to shocks like the current pandemic in the past, and to also learn any past identified alternative sources of airline revenue. Not only has the literature review informed the topic, but it

was also beneficial in comparing the results of this research with past ones, identifying gaps this research seeks to fill, and noting opportunities for future research.

Sampling description

The sample of this research entails news reports that show how airlines have and can in the future generate income from the maximization of cargo and ancillary revenues. The news reports were chosen because they collect data from March 2020, which was the beginning of the pandemic when there was a complete stoppage of passenger travel, until March 2021, when travel picked up. They were also chosen because they curated the events of the airlines as and when they occurred, citing important steps airlines took to reduce the impact of the pandemic on their financial performance.

Sampling technique

This research used a nonprobability sampling technique, specifically purposive sampling. This type of sampling technique relies on the judgement of the researcher when it comes to selecting the units that are to be studied. Likewise, the participants of this study were determined as deemed suitable for the type of research conducted and the objectives. The research specifically looked for articles that entailed how airlines made money during the pandemic, to further search for themes of improvements on ancillaries and cargo and the role they played in enhancing airline income. Both data review and analysis were in conjunction with the data collection process in order to make purposive sampling more successful.

Data collection Instrument and Procedure

The data was collected using an online search. 50 news articles based on how airlines have weathered through the pandemic were studied to look for themes of cargo and ancillary offerings

as alternative revenue streams for airlines during the pandemic. The data was initially categorized into ‘cargo’ and ‘ancillaries. Following this was a further break down of both categories to allow for a comprehensive analysis. Ancillaries were sub-categorized into direct and indirect ancillaries, to discover what type of ancillaries contribute more to airline revenue. The second category of cargo was also sub-categorized into medical and non-medical cargo, to find out which among the two was essential for enhanced airline financial performance during the pandemic.

Research Limitations

This research based itself on results attained from airlines around the world, to establish key connections to the South African airline industry and how it could improve. However, as much as the nature of operations in the airline industry is relatively similar regardless of where the airline is situated, there are several factors that show gaps in this research. For instance, differences in technology and airline personnel competency may be different across airlines due to geographical location. This means that airlines in the West may be more capable technologically to take advantage of turning their planes into cargo freighters and enhancing ancillaries than airlines in Africa, hence making it hard for them to learn from such airlines. The research also based itself on online search, and induvial airline needs may differ.

Ethical Considerations

While the research data was purely online, integrity was maintained by looking at either airline specific sites, or reputable news report sites such as Forbes and the Wall Street Journal. All data collected has been presented as it is, and ethics were considered throughout the research process.

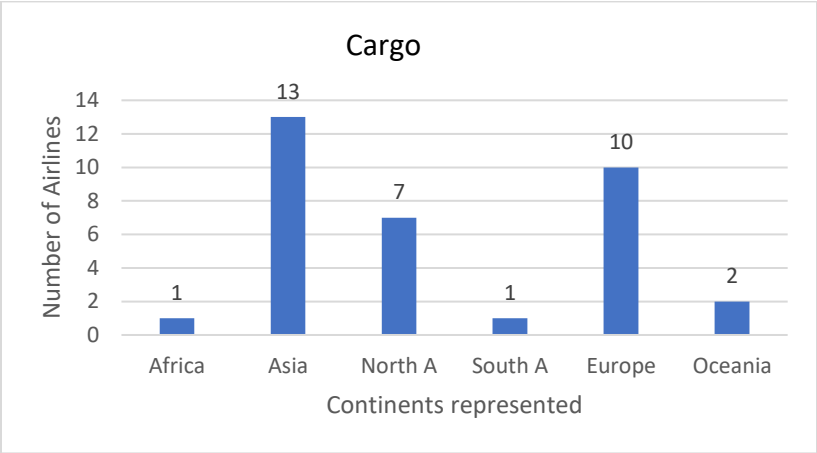
CHAPTER 4- ANALYSIS

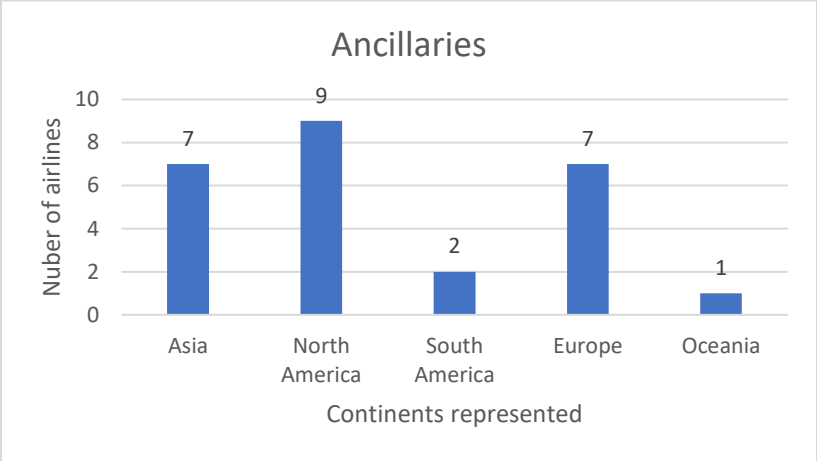
Introduction

This chapter analyzes findings on how airlines can leverage on ancillary revenues and cargo, including sub-categories under both revenue generators to show which ones airlines should focus more on. Of the 100 online news articles investigated, half of them demonstrated cargo development and maximization as a necessary and solid revenue generator to survive the pandemic, while the other half (50) showed strength on ancillary revenues. Content analysis is used to qualitatively examine the results in main and sub-categories, and we observe which categories rank high in significance, including a thorough analysis of how they add value to airline revenues. The 'Yes' responses illustrate the presence of the theme in the article, while the 'No' responses illustrated either the non-appearance of such, or the decline by the article. The analysis seeks to learn from other airlines as shown in the articles reviewed, in order to bring together lessons valuable for South African airlines.

Demographics of Results (By airlines, Countries and Continents)

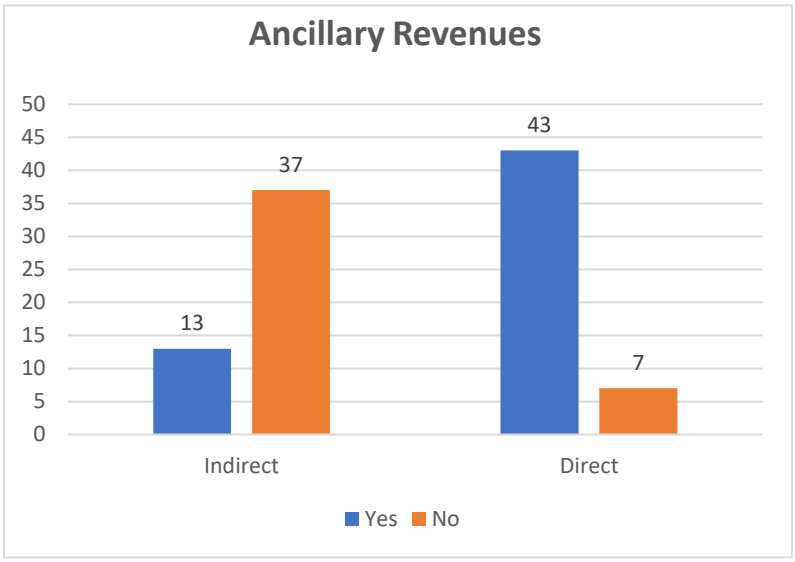
As shown in the graphs below, majority of Asian, European and North American airlines took advantage of both cargo transportation during the pandemic, as opposed to Oceania, Africa and South America.





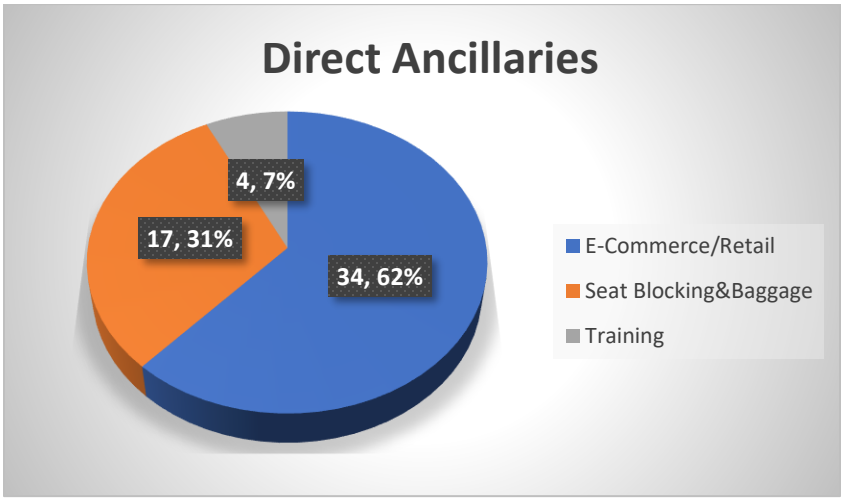
Ancillary Revenues

The first part of the analysis focuses on ancillary services as revenue generators for airlines. According to Forbes (2020), although the covid-19 pandemic led to an overall decline in ancillary revenue for airlines, its share of airline income has increased. Airlines have begun keenly looking into the expansion of ancillaries moving forward. The category was broken down into two sub-categories: Indirect ancillaries and direct ancillaries. Indirect ancillaries are those that comprise of third-party ancillaries like car rentals, hotels, and airport car parking fees. Direct ancillaries comprised of airline e-commerce, seat blocking, baggage fees, and training programs offered by airlines to individuals and organizations.



Of the 50 news reports analyzed, 13 (26%) of them demonstrated indirect ancillaries as great sources of revenue during and post the pandemic, while 43 (86%) of them demonstrated that airlines have and can in the future generate greater revenue from direct ancillaries.

Upon establishing 86% of direct ancillaries as good sources of revenue for airlines, further analysis was conducted to determine which direct ancillaries particularly accounted for the percentage. The category was further broken down into three sub-categories namely, E-commerce, Seat blocking & baggage fees, and Training programs offered by airlines.



Results show that Retail ranks at a high of 62% as an alternative airline revenue generator during and post the pandemic, with seat blocking and baggage fees following at 31%, and training programs coming last at 7%.

The growing power of Airline Retail

The reviewed news articles suggest that onboard retail is a valuable source of revenue amid and beyond the pandemic. One article recommended a "21st century in-flight shopping" experience, supported by a digital application that makes it convenient for travelers to shop for duty-free items for the few passengers in the flight. Similar 7 articles support that airlines should capitalize on content sales and in-flight products to mitigate the financial losses that have been induced by the pandemic. 2 articles suggest a "fully outsourced retail" and "the complete retailer transformation" for airlines, mentioning that by aligning technology, innovation and strategy, airlines can plan to offer off-the-shelf services to more airline customers. According to them, these offers can range from product development and digitalized sales. One article specified that airlines ought to position themselves more as lifestyle brands such that they are able to sell items to passengers other than airline tickets.

Seat blocking and baggage fees

With the pandemic came several levied restrictions, such that even after travel resumed, there still had to be social distancing in flights, proper hygiene, and less contact services, which further reduced the amount of income airlines could make. Therefore, about 5 news articles indicate that seat blocking, and baggage fees could contribute significantly to airline revenue. With seat blocking, they evince that passengers can purchase an empty seat or row beside them on a flight, at a fixed price set by the airline. This in turn ensures social distancing on a flight without

any loss in revenue. Some of the airlines that have tapped into this include Etihad Airways, Royal Jordanian Airlines and Malaysia Airlines.

Regarding baggage fees, some articles pointed to the fact that baggage revenue on a per-passenger basis increased compared to the pre-pandemic era. This was because as the world introduced lockdown, numerous passengers either rushed back to their home countries, or relocated to different places. As a result, they had more bags due to 'increased travel and more days away', hence increasing revenue collected in extra baggage fees for airlines.

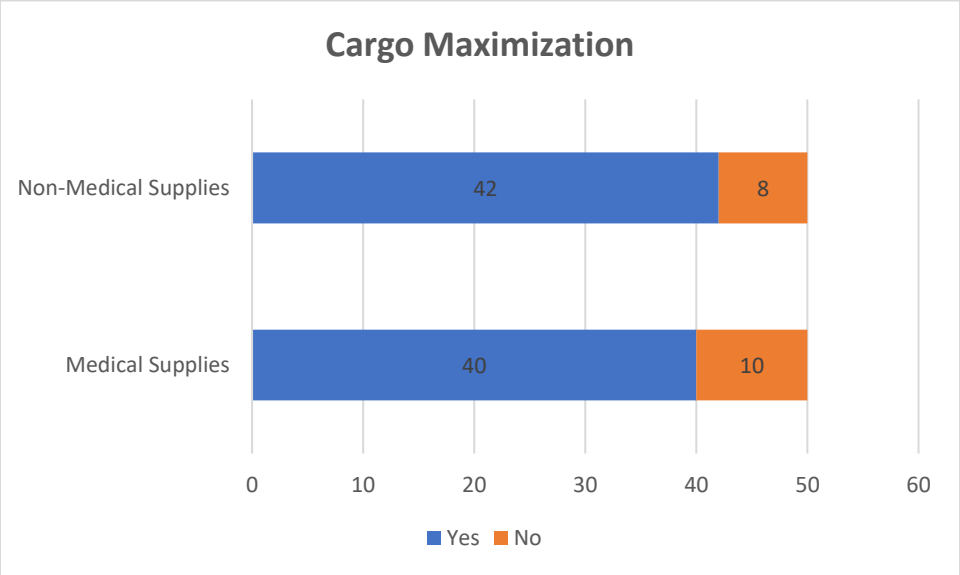
Training Programs by airlines

4 or 7 percent of the data proposes that airlines offer training programs as an alternative means of gaining income. These trainings can be in the broad areas of service excellence, organizational innovation and strategies, operational excellence, efficiency, and digital transformation. Being the industry that profits more from service excellence, efficacy and technology, the articles insinuated that airlines could further design courses for other companies in the hospitality industry.

Cargo Maximization

The second part of analysis focuses on cargo as an alternative revenue stream in the shortage or absence of passenger travel income caused by the pandemic. Data collected suggests that airlines turned to cargo due to the role it played in the delivery of just-in-time supply chain, medical equipment, industrial parts, and high-demand consumer shipments. The data was broken into two categories: medical cargo and non-medical cargo. Non-medical cargo was further broken down into Industrial and Consumer cargo. 50 articles were analyzed to reveal which cargo was a

greater revenue generator. Results show that airlines used their planes to ship both medical and non-medical cargo during the pandemic. Out of the same reviewed articles, 42 of them highlighted non-medical cargo, while 40 highlighted medical shipments.



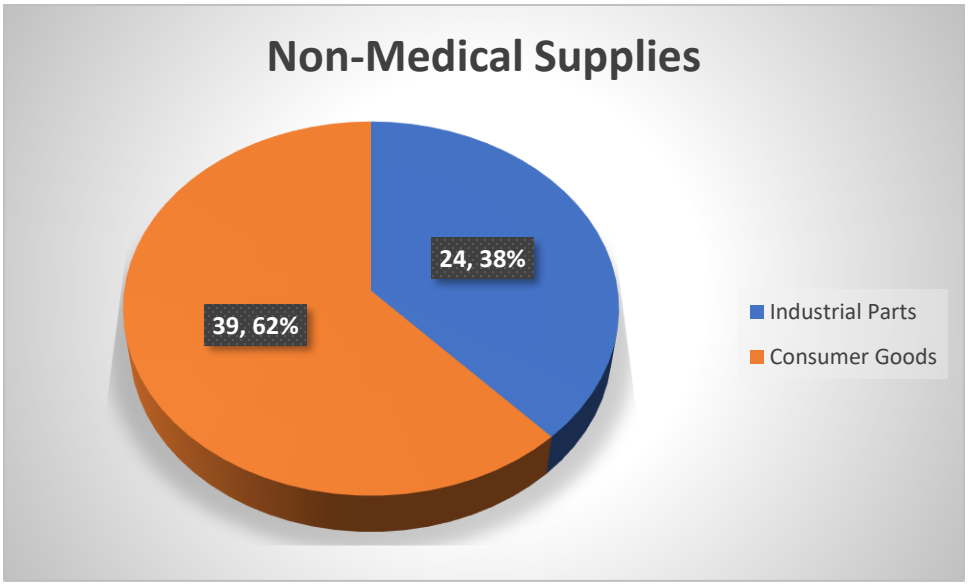
Medical Supplies

As the pandemic heightened, the need for medical equipment and personal protective equipment such as gloves and masks intensified worldwide. Some articles mention that airlines such as Icelandair transported medical supplies to Europe and the US on passenger planes with seats removed. Similarly, they point out that an aircraft manufacturer Airbus has also developed a system to increase cabin space for cargo. We also discover that United airlines operated more than 5, 000 cargo-only flights since March 2020, with the passenger freighters carrying millions of medical supplies for Covid-19 response. Two articles support a similar thought citing that Ethiopian airlines converted more aircraft to cargo operations by removing passengers' seats as they sought to take advantage of the rising need for PPE and other medical supplies. According to

the articles, this decision by Ethiopian airlines led to increased revenue for the airline and ensured financial strength amid the pandemic.

Non-Medical Supplies

The category of non-medical supplies was sub-categorized into cargo transportation of industrial parts and consumer goods. Results revealed that 38% of industrial components was carried while consumer goods accounted for 62% of cargo shipments.



Industrial Parts

Some of the industrial goods transported include electronic components to support the rising demand of electronics as people worked from home. Continuing demand for automobile components in some parts of Asia also contributed to the high export of industrial cargo during the pandemic. Data results further indicate that only 4 of 30 largest airlines reported profits for the

April to June quarter in 2020, and these airlines were based in two export heavy countries: South Korea and Taiwan, therefore greatly benefiting from the rising demand of technology components and electronic parts as the world went into lockdown.

Consumer Goods

When it comes to consumer goods, majority of the reviewed articles demonstrated that food, mail, and e-commerce packages accounted for a greater part of consumer goods transported. A few articles indicated that customers in South Korea mainly sought to access food products, especially seafood. Majority of the articles cited that airlines added new aircrafts and acquiring used ones to meet the demand from soaring sales of e-commerce. One airline, Air Canada for instance, is said to have jumped into the e-commerce market with both domestic and international services.

According to the articles, there was a surge in e-commerce as more and more consumers turned to online shopping. Similarly, with a prediction that travel will not return to pre-covid-19 levels until 2024 or beyond and the demand for air cargo remaining high, results suggest that many airlines are making permanent investments into turning new and older planes into air freighters. They also point out that the declining market value of older planes has solidified the attractiveness of freighter conversions for airlines.

One article specified that Korean airlines reported a second quarterly operating profit in 2019 despite the fall of income caused by a drop-off in passenger traffic. It further designated that this airline removed seats from its fleet to convert them into cargo carriers, transporting light but high-value products such as smartphones and semiconductors.

CHAPTER 5-CONCLUSION

Introduction

The concluding chapter puts all information into perspective. It first reinstates the rationale behind undertaking the project and summarizes all findings and implications of the research results. Correspondingly, it looks at the results in the context of the South African airline industry, and eventually provides recommendations for further research based on the limitations of the research.

Summary of Rational of Research

The rationale behind this research was to explore how airlines in South Africa can generate revenue to maintain financial stability in the absence or shortage of passenger travel income. As has been observed in previous chapters, the current covid-19 pandemic has stripped airlines around the world of revenue as lockdown was imposed and travel was halted. South African airlines in particular were affected significantly, as the country had one of the world's largest covid019 cases. South Africa highly depends on the aviation and airline industries, and since the pandemic started, the effect of their struggle on the economy was evident. It therefore became necessary to research ways in which airlines can innovate a strategize to take advantage of existing streams of income and bring new ones.

The research sought to observe what alternative revenue streams were and continue to be used by airlines as they attempt to revive their financial health. By learning the steps airlines have taken or are taking, it would be easy to bring it to the context of South Africa and learn the feasibility of implementing such strategies in the SA industry. The thought behind is that airlines worldwide faced similar pandemic induced setbacks, hence the steps they take to mitigate the

impact of the pandemic would be relatively similar across the industry. By so saying, they would equally be relevant for SA airlines due to a similar nature of operations. The results of the research serve as a foundation to not only help revive the struggling industry but add to emerging knowledge about and identify gaps for more research in the same field.

Summary of Main Findings and Implications

The results of the news reports review show that 34 airlines in 26 different countries and 6 different continents worldwide relied on Cargo and found it helpful as an alternative stream of revenue amid the pandemic. Similarly, 26 airlines in 16 countries, representative of 5 continents, demonstrate to have generated more revenue from the maximization of ancillary services. They also show that majority of airlines who benefited from cargo transportation were in Asia, Europe, and North America. These were followed by Oceania, South America, and Africa, respectively. When it comes to the development of ancillary services as a substitute income source, majority of Asian, European, and North American airlines improved their ancillary offerings to gain more income. Fewer South American and Oceania airlines took advantage of this opportunity.

A look into ancillary services revealed that a significant number of airlines generated more income from direct ancillary services while a lower percentage demonstrated indirect ancillaries as great sources of revenue. Indirect ancillaries included hotel offers, car rentals and airport shuttles. Direct offerings comprised of airline retail, seat blocking and baggage fees, and training programs. This was not surprising because the pandemic enormously reduced the number of passengers travelling, hence airport shuttles and hotels would not be very beneficial to airlines. On the contrary, selling relevant merchandise and goods to the few passengers travelling would

generate more income. Similarly, due to the need for social distancing, passengers were more inclined to seats where they would not interact with others due to fear of contracting the virus. As a result, they would pay premium for an opportunity to social distance inflight, which means paying for extra seats to 'block' nearby seats. Additionally, because more passengers relocated as the pandemic began, results showed that passengers paid more for the extra baggage. This however cannot be said to be a solid stream of income as it depends on the larger-than-usual baggage, which in this case only happened at the beginning of the pandemic.

Cargo results disclosed that airlines benefited from transporting both medical and non-medical supplies. Some airlines turned their planes into pure cargo freighters to meet the growing demand of medical equipment and personal protective equipment at the peak of the pandemic. Other airlines benefited from the growing need of e-commerce as more people turned to online shopping during lockdown.

Recommendations for SA Airlines

South African airlines can draw lessons from airlines across the world on how they can also improve upon these existing streams of income. South Africa was affected by the pandemic, hence the airlines had and still have the opportunity to turn their passenger planes into cargo planes to carry medical supplies , including vaccines . They can also patronize the growing demand of e-commerce by collaborating with online delivery companies to transport cargo both domestically and internationally.

Recommendations for Further Research

There is an evident need for urgent research of how airlines can innovate and change their traditional ways of doing things to more lucrative and dynamic ways. For instance, airlines now

have the opportunity to transform themselves as lifestyle brands instead of pure passenger transporters. More research is required to determine the feasibility of this emerging information, and the impact of it on airline profitability.

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