Investigating long haul inbound airline price competitiveness: a study of South African Airways

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Abstract

The national airline of South Africa (South African Airways), reported major losses for a number of consecutive years due to a significant fall in average fares triggered amongst others by intense global competition. This research compares fares offered on long haul direct inbound routes into South Africa. Neutral Units of Construction and Maximum Permitted Mileage values obtained from the dominant global distribution system used in South Africa were used for fare comparison purposes. Results indicate that in many instances South African Airways (SAA) was found to be highly competitive, offering the cheapest available fares in the market on the routes it served. From the research it is clear that the long haul inbound South African Airways fares are competitively priced. It is suggested that the airline uses this as a marketing tool to enhance inbound sales. As this research eliminates inbound price competitiveness as a major contributing factor to the financial losses of the airline, it is suggested that further research is conducted investigating other internal and external factors and fares that may contribute to airline profitability and sustainability for the future.

Key words: airline, price, competiveness, airfares, inbound, strategy

Introduction

Aviation plays a central role in tourism and the destinations it serves by breaking the past barriers of distance and time. Global connectivity contributes towards the growth of the tourism industry and is crucial to economic development strategies of destinations, airlines and other industry role-players. Although the tourism potential of Africa is

recognized to be very significant, it still underperforms and is often associated with high transportation costs due to its geographical location. 'A national airline is an embassy with wings – transporting culture, cuisine, commerce and goodwill around the world' (Monocle, 2012). Flag or national airlines are often seen as a destination's brand to the world, whilst stimulating trade and tourism by offering essential air transport services. Since the deregulation of airlines, international skies researchers have been seeking answers as to how airlines go about determining their fares to destinations. Vowles (2000) states that a number of factors that influence airfares have been found to be significant such as the demand, number of competitors and distances travelled. An airline profitability study conducted by the International Air Transport Association (IATA, 2008) amongst 233 major airlines indicated that profitability across the globe declined due to the recession and high fuel prices however for 2016, airline profitability is projected to improve by 5.1% (IATA, 2015). An estimated 73% of airline revenue is generated by ticket sales (Fisher, 2011) justifying the importance of investigating the price competitiveness of fares.

This research aims to compare the fares charged by South African Airways on the direct inbound routes into South Africa as one of the possible contributors or not to the airlines financial losses amidst numerous other internal and external factors which may contribute to the airline's current financial predicament. This study is however not a financial analysis of the airline's state of affairs neither does it focus on the different pricing strategies and yield management techniques commonly used by most airlines.

South African Airways (SAA), the national airline of South Africa, is a Star Alliance member that was founded in 1934 and currently operates 53 aircraft (SAA, 2014). Since 2007 the airline implemented and launched numerous programmes and strategies to become profitable. In 2013, the airline introduced its long term turnaround strategy (SAA, 2013) aimed at reaching and maintaining commercial sustainability. In 2014, the airline managed to recover some of it losses but still reported a loss of USD37 million for the year. Currently, the airline has not submitted its 2015 financial report amongst speculations of bankruptcy (Financial Mail, 2016). Multiple factors

contribute to commercial and financial sustainability, of which price competitiveness as a factor is recognized (Dwyer, Forsyth and Rao, 2000). This leads to the research question: how competitively priced are the fares offered by the national airline when compared to fares charged by competitor airlines on the direct inbound routes into Johannesburg, South Africa?

Price Competitiveness

Competitiveness

Since the Industrial Revolution era starting in the 1800s, there has been evidence of competitiveness amongst nations, individuals, products and companies. This has created a need to have a strategic competitive advantage or edge over a competitor. Words such as having an advantage, superiority, competition, performance and rivalry, are often used when describing competitiveness. Crouch and Brent Ritchie (1999) state that 'competitiveness of an industry is a critical determinant of how well it performs in world markets'. An example of such is the "Big Mac' hamburger index published by *The Economist,* (2014) which is often used to compare price competiveness of sixty different countries.

Global connectivity by means of air transport is immensely important for the tourism industry. Bauer and Zlatoper (1989) confirmed that the larger the number of airlines operating on a specific route, the lower the average airfare charged. According to Spence (1986), generally speaking, an increase in competition leads to two outcomes - namely downward pressures on output prices, and creating motivation for improving productivity and efficiency. In the case of South African Airways there is not a large number of competitors on the direct long haul inbound flights into South Africa. In the case of New York, Washington, Sao Paulo and Perth, SAA is the only airline that offers a direct flight into South Africa. Dwyer et al. (2000) however add to the factors that influence demand such as price, socio-economic, demographic and qualitative factors associated with fashions and trends.

According to Bauer and Zlatoper (1989) the theory of contestable markets states "that a market can be perfectly competitive with only a small number of carriers operating in the market". For the consumer, choosing an airline depends on timetable convenience, reliability, low fares and membership of frequent flyer programmes (Proussaloglou & Koppleman, 1995) of which the latter was identified to be the strongest motivator. Clearly, competitiveness is a holistic concept based on different factors and forces that provide opportunities or threats (Porter, 2013 and Schermerhorn & Bachrach, 2015:199). Discussions on competitiveness clearly include numerous factors of which price often appears as a highly significant motivator.

Price

Price not only plays an important role in competiveness as stated above, but also within the marketing mix. For the consumer, price represents the amount of money paid for a product to satisfy a specific need. For commerce, price relates directly to income generation and profitability of the organisation (Bennett, 1998:213). Due to the perishability of airline seats, yield management is often used by airlines to continuously assess supply and demand. This enables airlines to arrive at a price that 'yields maximum load factors and revenue' (Mancini, 2005:42). Mantin and Koo (2010) confirm that airlines use different complex pricing strategies and patterns such as the marginal seat revenue method, seat capacity prior to departure, day of the week, seasons and special date and time considerations.

Flying remains an expensive form of transport (Bennett, 1998:63) and as it is widely accepted that tourists are price sensitive (Crouch, 1992; Bureau of Transport and Communications Economics, 1995; Dwyer et al., 2000 and Haarhoff, 2007) it becomes relevant to pay specific attention to the competitiveness of a destination's tourism industry and more specifically the airline that serves the relevant destination. Gooroochurn and Sugiyarto (TTRI, 2007) state that price competitiveness may be regarded as one of the most important factors of competitiveness for any given destination". The link between competiveness and prices charged is thus clearly indicated.

Air transportation is regulated by, the International Air Transportation Association (IATA), which is 'responsible for the safe, regular and economical transport of passengers for all peoples of the world' (IATA, 2015). They act as the guardians of air commerce and manage issues and problems related to the air travel industry. Classes of travel are differentiated by price and facilities offered on board the aircraft such as the choice of menu, the size and comfortableness of seats, the staff to passenger ratio of cabin attendants, use of airport lounges, free baggage allowances and priority check-in and baggage collection. It also needs to be recognised that airlines on board services such as meals, services and entertainment are not standardised by IATA and that it may vary in quality and quantity, depending on the airline.

Airlines offer a variety of fares and classes to its passengers. These include special, promotional, market and normal fares in order to attract consumers. Special fares allow cheaper travel in exchange for minimizing the opportunities to make alterations to the passenger's reservation, requiring advance purchase and restricting travel to a specific time and selected dates and flights only. A penalty fee or cancellation fee is charged when changes are made to these air tickets once issued. Examples of such discounted special fares are the advance purchase pex fares (APEX and PEX), excursion fares (YEE), youth (YZZ), senior citizen (YCD) or inclusive tour fares (YIT) (Cooper, Fletcher, Gilber and Wanhill, 1993). Normal fares are less restrictive and allow passengers freedom to make changes within the one-year validity of the ticket at a minimal cost.

The cost of the flight to the destination contributes to the majority share of the tourist's expenses (Page, 1999:147 and MBD, 2007). This expense would to a large extent determine whether or not the tourist may afford to visit the destination or not (Haarhoff, 2007). Hence, it comes as no surprise that special fares in economy class represent the largest fare type category. Seaton and Bennett (1998:139) confirm that travel expenses should be considered as a

luxury and not a necessity, putting additional pressure on airlines to remain competitive and affordable in the market place.

Methodology

Fare data for this study was extracted from Travelport Galileo, a Global Distribution System (GDS) commonly used in the travel industry for the reservation and sales of travel products ranging from accommodation to all forms of transport, entertainment, tours, excursions and car hire. In South Africa, this is by far the dominant GDS used by travel agents. A total of 1140 fares were obtained for departure in May, June and July 2016 making provision to include advance purchase special fares during this time period. A three-month fare period is considered suitable as fare updates will occur within this time frame.

Complete sampling included all direct long haul (exceeds four hours travelling time) flights to Johannesburg, the gateway into South Africa. Currently, no inbound direct flights are operated by SAA into Cape Town. The fare types include normal and special fares in economy (Y) and business (J) class however first class fares were excluded from the study as SAA, similar to a large majority of global airlines, does not offer a first class service. Table 1 provides a summary of the different airlines serving the direct inbound routes into South Africa. On the routes originating in the Americas and Perth, SAA had no competitor airlines and was the only airline offering direct flights into Johannesburg. A city pair denotes the origin to destination of a flight segment.

Table 1: All airlines serving direct inbound routes: complete sample

ROUTE CITY PAIRS to Johannesburg	AIRLINE	AIRLINE CODE
Frankfurt FRAJNB	Lufthansa South African Airways	LH SA
Munich MUCJNB	Lufthansa South African Airways	LH SA
London LONJNB	British Airways South African Airways Virgin Atlantic	BA SA VS
Honk Kong HKGJNB	Cathay Pacific	CX

	South African Airways	SA
Perth PERJNB	South African Airways	SA
New York NYCJNB	South African Airways	SA
Sao Paulo SAOJNB	South African Airways	SA
Washington to WASJNB	South African Airways	SA

The International Air Transport Association (IATA) publishes fares in Neutral Units of Construction (NUC) making it exchange rate independent for fare calculation purposes. These fares are updated on a quarterly basis. The Maximum Permitted Mileage (MPM) is an essential reference for the distance allowed between specific city pairs and is generally used by airlines for fare calculation and ticketing purposes. The one-way and/or halved return fares as a ratio of the MPM was calculated by dividing the NUC by the MPM for a specific city pair resulting in a fare-per-mile value. By doing this, a per mile NUC value is provided, making it possible to compare all fares across all regions. IATA divides the world into three areas or regions for fare calculation purposes as listed in Table 2. In this table a summary of the MPMs and proportion of fares per routing is provided. London to Johannesburg, serviced by three airlines (BA, VS, SA) offered the largest number of 363 fare options to passengers on this route.

Table 2: Route fare information

IATA AREAS	Route (to Johannesburg)	MPM	N of fares	Percent
AREA 1: North and South American continent, Greenland and adjacent islands	NYCJNB	9571	108	7.50
	SAOJNB	5560	150	10.42
	WASJNB	9753	129	8.96
AREA 2: Europe, Middle East, Africa and adjacent islands	FRAJNB	6469	213	14.79
	LONJNB	6753	363	25.21
	MUCJNB	6286	288	20.00
AREA 3: Far East, Australia and New Zealand and adjacent islands	HKGJNB	7969	105	7.29
	PERJNB	6212	84	5.83

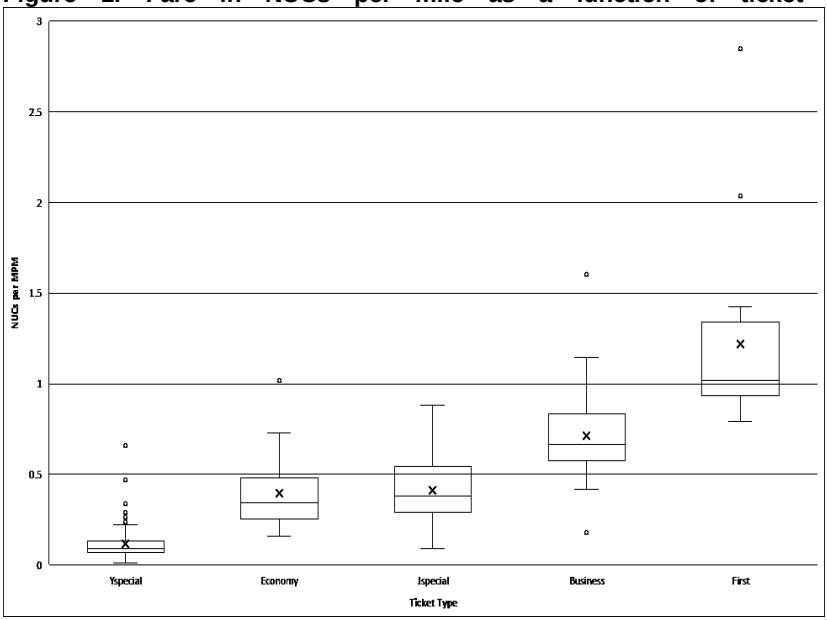
The one-way fares ranged from NUC75.00 to NUC15 847.00 with a median of NUC1 652.70 and a mean of NUC2 512.70. The fare as a function of MPM ranged from 0.012 to 2.850, with a median of 0.246 and a mean of 0.365. However, as Figure 1 indicates, both of these are very clearly influenced by the type of fare purchased: a standard economy or business class fare or special fares in the

respective classes. Normal fares are flexible, refundable, may be changed or rerouted and have a longer validity, usually one year. Special fares, the most extensive category, on the other hand are much cheaper, but restricted in terms of minimum stay, maximum stay, advance purchase, unchangeable travel dates, penalty fees, flight and route restrictions and limited validity. It was therefore sensible to group together fares in four categories: special fares in economy class, normal economy class, special fares in business class and normal business class.

For further analysis, some data were excluded. The significantly higher published YY fares, which are generic and applicable to all airlines, were removed as well as all first class fares as SAA does not offer a first class service. First class fares are considerably higher compared to economy and business class as can be seen in Figure 1, when included in average fare calculations may result in skewed results. These exclusions reduced the data to 1 311 of the initial 1 440 records.

Image 1. SAA First Class Source: FlySAA.com

Figure 1: Fare in NUCs per mile as a function of ticket type



Results

The average fare per mile values calculated (dividing the NUC by the MPM for each specific city pair) was used for analysis purposes using SAS/STAT version 9.4 for Windows®. Using fares as a function of MPMs should, in theory, eliminate the effect of the route and the route distance on the fare, but since this could not necessarily be assumed to be the only driver behind differential route pricing (e.g., airlines might decide to load the fares on routes with less competition), and since it is apparent from Figure 1 that the type of ticket also drives the fare, the data was analysed using a factorial Anova so that the variance accounted by each of these factors (type of fare, route, and airline—the actual variable of interest), could be parcelled out, and also so that any interactions between these variables could be identified. Table 3 shows that the overall model was highly significant.

Figure **2 aims to provide a holistic summary of all the average fares per region, route and class category as well as averages for competitive and non-competitive routes in order to determine if a specific trend and/or patterns could be identified. The Americas which of which all is also a non-competitive route only served by SAA showed the cheapest fare-per-mile average. Furthermore, the overall average of all classes and all airlines was fairly consistent throughout all regions varying between 0.45 and 0.49 NUCs per mile.**

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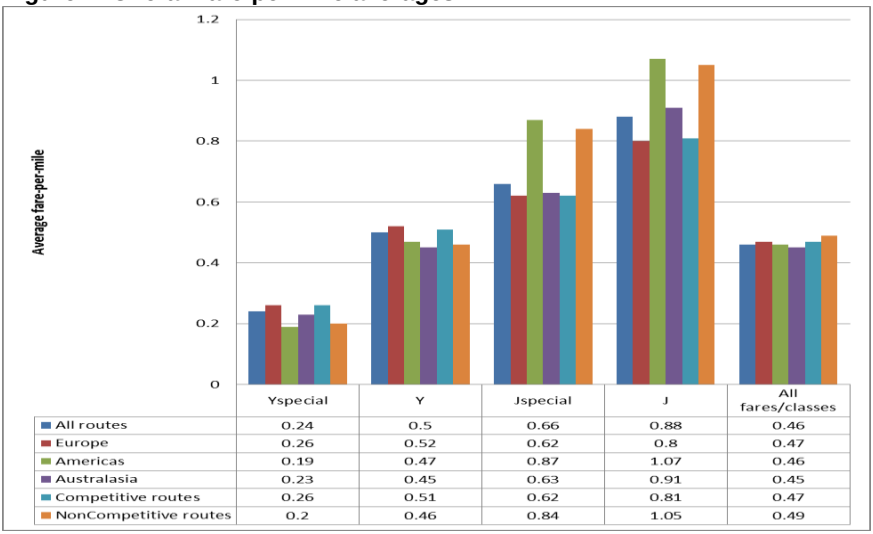
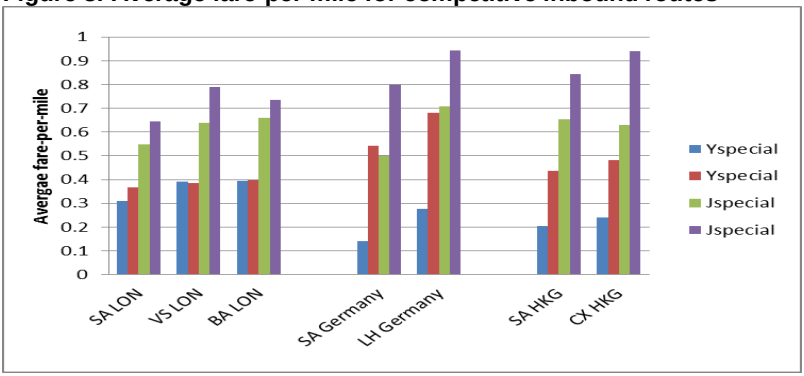
Figure 2: Overall fare-per-mile averages



	Yspecial	Y	Jspecial	J	All fares/classes
All routes	0.24	0.5	0.66	0.88	0.46
Europe	0.26	0.52	0.62	0.8	0.47
Americas	0.19	0.47	0.87	1.07	0.46
Australasia	0.23	0.45	0.63	0.91	0.45
Competitive routes	0.26	0.51	0.62	0.81	0.47
NonCompetitive routes	0.2	0.46	0.84	1.05	0.49

Figure 3 on the other hand specifically compares fare-per-mile averages for the routes on which SAA has competitor airlines. In every instance, on all routes and in all classes, SAA offers the cheapest average fare-per-mile. On the route to the Americas and Perth where SAA is the only operating airline, average fare-per-mile fares are even lower ranging between 0.16 to 0.26 for Y special fares, 0.41-0.53 for economy, 0.64 to 1.03 for J special fares and 0.87 to 1.09 in business class.

Figure 3: Average fare-per-mile for competitive inbound routes



From Table 4 it can be seen that all three independent variables showed significant effects on the fare as a function of MPM. The three-way interaction between Airline, Route, and Type of Fare was also significant, and the only one of the three two-way interactions that was significant was that between Route and Type of Fare.

Table 4: Individual Effects for Anova of Fare-by-mile with Airline, Route, and Type of Fare

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Airline	4	3.86	0.97	83.49	<.0001
Route	7	3.39	0.48	41.79	<.0001
Type of Fare	3	56.90	18.97	1639.31	<.0001
Airline*Route	1	0.00	0.00	0.00	1.0000
Airline*Type of Fare	12	0.00	0.00	0.00	1.0000
Route*Type of Fare	21	0.91	0.04	3.72	<.0001
Airline*Route*Type of Fare	3	0.29	0.10	8.45	<.0001

In order to examine the differences for each of the independent variables, post-hoc Scheffé tests were calculated. These are shown in Table 5. Since the effect of the type of fare is both expected and obvious (as already visible in Figure 1), these are not shown (every single Scheffé comparison between every pair of fare types was significant).

Looking at the airlines (Table 5), a large number of statistically significant differences can be seen. Interestingly, though, SAA was the only airline that showed significant differences with all of its other competitors, and it consistently had lower fares (also then showing the lowest mean fare of 0.27 NUCs/mile, only 57.4% of the mean fare of the most expensive airline, Cathay Pacific). Figure 4 clearly supports the latter where the most extensive category, special fares offered in economy class is compared for competitor airlines.

Table 5: Scheffé Tests for Mean Differences in Fare-by-mile between Airlines

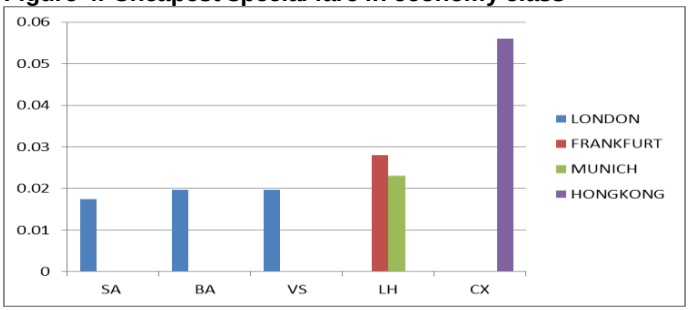
Route	Mean Fare-by-mile	Difference between means with 95% Cis*			
		BA	VS	LH	SA
CX	0.47	-0.02 0.05 0.12	**0.09** **0.16** **0.23**	**0.10** **0.17** **0.24**	**0.14** **0.20** **0.27**
BA	0.42		**0.07** **0.11** **0.15**	**0.08** **0.12** **0.15**	**0.12** **0.15** **0.18**
VS	0.31			-0.03 0.01 0.05	**0.01** **0.04** **0.08**
LH	0.30				**0.01** **0.03** **0.06**
SA	0.27				

* Comparisons significant at the 5% level indicated in bold type.

Clustering the total of 1131 fares used for this research into fare type categories, 51% of the fares published as special fares in economy class, 10% normal economy class, 22% special fares in business class and 17% for normal business class.

As special fares in economy class represents the majority of published fare available in the market place, it then becomes important to investigate SAA's competitiveness in this market (Figure 4). It is clear that in this fare type category, focused on route with competitor airlines, SAA offers the cheapest average special fare.

Figure 4: Cheapest special fare in economy class



Conclusion

Global airlines operate in a very dymanic environment where sudden and unpredicted external changes (such as fluctuating exchange rates and fuel prices) take place on a regular basis thus impacting directly on their economic sustainability and profitability. Other factors recognised which further influence the airline industry are political, social, environmental, legal, technological and economic circumstances of which operating costs, fuel inefficient aircraft, staff productivity, fleet technology and the travel preferences of passengers are some examples. It it thus not necesarrily only the price of the fares that influence airline profitability and sustainability.

This study investigated inboud price competitiveness of South African Airways on its direct long haul routes into Johannesburg. The results indicate that on average, for routes on which SAA had competitor airlines as well as the routes on which SAA was the only airline offering a direct fligt, SAA was the cheapest airline and fares were found to be cometively priced. Interestingly, when comparing the avergae fare-per-mile on the non-competitive routes to the Americas and Perth, SAA was once again the cheapest airline with fare-per-mile averages to New York and Washington as low as 0.17 and 0.16 respectively. Cathay Pacıfıc that operates on the Hong Kong route to the Far East was by far the most expensive airline but it has to be kept in mind that this airline may use different pricing strategies or yield management techniques where cheaper seats may only be released on the day or a few days prior to departure offering time of purchase discounts.

In conclusion when one takes cognisance of the results as unpacked in this article, it may be stated that the fares offered by SAA are both significantly cheaper and competitive on inbound direct long haul flights into South Africa. From the research conducted it is thus clear that the long haul inbound South African Airways fares are competitively priced and promotable as such. It is suggested therefore that the airline uses this important fact as a

marketing tool to enhance inbound sales and to allow it to become more sustainable. Given that SAA owns Mango, a low cost domestic airline, and has established links with SA Airlink and South African Express whilst also currently operating as a member of the Star Alliance, it needs to project a better image and show travelers what it is capable of and what it is doing for them.

As this research eliminates inbound price competitiveness as a major contributing factor to the financial losses of the airline, it is suggested that further research is conducted which could for example, investigate other internal and external factors and fares that may contribute to airline profitability and sustainability for the future of the company. Such research should include domestic, regional and outbound fares as well as research into the load factor. IATA (2015) reports an average of 79.7% global load factor which measures the utilization of air craft seats per flight and has a direct impact on profitability.

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