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Barriers to entry in the Low Cost Airlines sector[1]

Anthea Paelo

antheap@uj.ac.za

Centre for Competition, Regulation and Economic Development (CCRED)

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Abstract

The deregulation of the South African airline industry in 1991 paved the way for the entry of a number of low cost carriers (LCCs). However, of the eleven airlines to enter the industry between 1991 and 2012, only one is still in operation. This suggests a harsh business environment for airlines in South Africa which does not seem to match the growth in demand and the number of participants in other countries in the region. Given this history, it is interesting that in the past two years two new LCCs, Flysafair and Skywise, entered the industry in South Africa bringing the number of low cost domestic airlines to four including Comair's Kulula and SAA affiliate Mango airlines. Skywise however exited after approximately ten months in the industry in keeping with the industrial trend. The study shows that while there might be some barriers to entry, they are not substantial enough to actually prevent entry by new entrants. However, there does appear to be barriers to sustained entry. Considering the benefits of entry to consumer welfare and the economy as a whole, this paper will thus discuss the barriers to sustained entry in the airline industry and provide some policy recommendations.

Key Words: Barriers to entry, Competition, Airlines, Predation, State aid

JEL Codes: L1, L4, O1

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1. Introduction

The South African airline industry has seen the entry of a number of airlines, most low cost carriers (LCCs) since its deregulation in 1991. Of the 11 private airlines that entered South Africa's domestic market between 1991 and 2012, only one is still operation. Despite this dismal history, between 2014 and 2015, four new low cost carriers entered the market which suggests a positive and competitive market environment. However one of the new entrants, with only approximately 10 months in operation already appears to be struggling. Skywise had its operations suspended in December 2015 due to the airline's inability to pay fees to the Airlines Company of South Africa (ACSA) (BDLive, 2016). It thus appears that while the airline industry appears to be attractive enough to continuously attract several entrants, there are certain barriers to entry and expansion that contribute to the continued exit of airlines. This certainly appears to be the case with 1Time airlines. During 1Time's period of operation between 2004 and 2012, it was the fastest growing airline with passenger volumes growing 6.7% between 2009 and 2010 (1Time Holdings, 2012). A number of reasons have been suggested for 1Time's demise including; high fuel costs due to uneconomical aircrafts, inexperienced management, airport taxes and a loss-making subsidiary (1Time Holdings, 2012; Pauw and Dommisse, 2012).

This paper seeks to determine whether in addition to the above challenges, there are barriers to entry and growth that contributed to the exit of not just 1Time airlines but other LCCs in the industry. This follows a growing realisation among the government and policy makers of the impact of barriers to entry on the overarching policy goals of increasing employment, reducing inequality and promoting inclusive growth (EDD, 2011). The National Planning Commission in particular identifies South Africa's economic structure with highly concentrated industries as one of the challenges in trying to achieve inclusive growth (NPC, 2010).

The airline industry has a number of economic and social benefits one of which is its contribution to employment. In 2012, the airline industry directly created 428 000 jobs, supported 1.1 million jobs and contributed $34.5 billion to the continent's GDP (ATAG, 2014). The travel and tourism industry for its part supported 5.8 million jobs and contributed a further $46 billion to Africa's GDP (ATAG, 2014). O.R. Tambo International Airport being the busiest airport carried the highest number of passengers, cargo and had the most aircraft movement. Given the potential of the airline industry to grow employment opportunities as well as South

Africa as Johannesburg as the busiest airport in Africa, the removal of barriers to entry in the industry is imperative to achieve targets in employment creation and inclusive growth.

The method of study used was largely quantitative. Research consisted of desktop research and in-depth interviews with key stake holders in the industry including the airline associations, low cost airlines, the largest online agent in South Africa and consultants in the field. This paper draws from a recent study carried out by the Centre for Competition, Regulation and Economic Development (CCRED) on the barriers to entry into the airline industry on the behalf of the National Treasury of South Africa. All references to industry knowledge and interviews are based on data collection and research conducted as part of the broader study.

2. Literature review

There have been several different definitions of barriers to entry posited in economic theory. O'Donghue and Padilla (2006) summarise some of these definitions. Some economists define barriers to entry as the ability of firms to raise their selling price significantly without encouraging entry from potential rival firms while other give the definition a narrower scope restricting it to the cost advantage that incumbents enjoy and that entrants would have to bear to enter the industry. Other economists still, have proposed an even narrower definition of barriers to entry by restricting it to artificial barriers such as price predation. All the definitions have had their criticisms. The general consensus however appears to be that for a market to be considered competitive, it must allow for entry at low market prices, entry and exit must be immediate and costless. Incumbent firms must also be unable to immediately respond to entry (Bishop and Walker, 2010). In general, barriers to entry can be classified into two categories: structural and strategic. Structural barriers exist because of factors inherent in the nature of the market.

2.1. Structural barriers

Structural barriers are those impediments to entry that have more to do with the conditions of the industry including cost and demand rather than any specific action from the incumbents (OECD, 2007). Below is a discussion of some of the main structural barriers.

Economies of scale: These are economies a firm enjoys by being able to produce high volumes relative to demand as its average drop as output rises. In an industry where volumes are important, entering at a small scale has little effect on price but the entrant will have higher average costs (Church and Ware, 2000; O'Donoghue and Padilla, 2006). In the airline industry,

the ability to carry more passengers, more frequently and to more destinations gives the incumbent an advantage of lower costs. It also attracts more consumers than an entrant that transports passengers on limited number of routes, less frequently. The entrant by transporting customers at such a small scale has higher average costs than the incumbent.

Sunk costs: This is investment and expenditure made during entry that the investor cannot easily recoup once exit occurs (Banda, Robb, Roberts and Vilakazi, 2015). These include technology, marketing, research and development. In the airline industry there are a large number of expenditures that need to be made prior to the launch of the airline as will be discussed below. Not all these costs can be easily recovered particularly with regards to advertising. The airline industry is one that requires a lot of visibility to encourage usage by customers.

Absolute cost advantages: An absolute cost advantage is present where an incumbent firm has a lower cost of production than an entrant, for example because it has preferential access to raw materials or technology (Church and Ware, 2000). This may be due to a historical advantage in terms of geographic location, rights to certain inputs (such as mines) or preferential contracts with input suppliers.

Switching costs: This refers to the ease with which a customer can switch from one product or service provider to another. Switching costs may be as a result of technological or commercial choices by the incumbent or the by high cost of information, learning and transactions as is the case with the airline industry (O'Donoghue and Padilla, 2006).

Network effects: Network effects occur where there are certain benefits that accrue to consumers who purchase a product with a large number of consumers. This makes the product more attractive to prospective consumers than products from rival firms (O'Donoghue and Padilla, 2006; Shapiro and Varian, 1999). An example of this in the airline industry is cell phone networks where on-net calls are priced cheaper than off net calls (Banda, Robb, Roberts and Vilakazi, 2015). In the airline industry, this occurs where consumers are more attracted to airlines that have code sharing agreements with other airlines as this gives them access to more routes and the ability to use the awards gained from one airline on another partner airline creating a barrier for entrants especially since there are strict requirements an airline must fulfill before it is allowed into a code sharing agreement.

Legal or regulatory barriers: While regulation can be important for ensuring that market operates competitively and that consumers are protected, regulation can also for a barrier

particularly with regard to licensing, permissions and environmental regulations. Some regulations put in place onerous requirements that a firm must have in place before they begin operation (O'Donoghue and Padilla, 2006).

2.2. Strategic barriers

Strategic barriers are those created or enhanced by incumbent firms expressly for the purpose of keeping potential rivals out of the market (OECD, 2007). An incumbent is likely to use strategies to either reduce the profits or raise costs or find a way to deter entry if entry is imminent (Banda, Robb, Roberts and Vilakazi, 2015).

The three main strategies incumbents take part in when trying to deter entry and expansion are: aggressive post-entry behaviour to deter entry, raising rivals' costs and reducing rivals' revenues (Church and Ware, 2000).

Aggressive post-entry behaviour: In order for entry deterrence strategy to be successful, the threat from the entrant must be credible. The entrant must believe that the incumbent will and has the ability to aggressively fight entry (Bishop and Walker, 2010; Cabral, 2000). An incumbent firm may over-invest in capacity such as capital equipment, research and development, advertising or in the case of airlines, new fleet to show potential entrants that it is prepared to aggressively fight entry (Motta, 2004; Cabral, 2000). Over-investment in capacity in addition to sunk costs and scale economies can form significant barrier to entry, allowing an incumbent to enjoy abnormal profits without performing efficiently (Banda, Robb, Roberts and Vilakazi, 2015).

Raising rival's costs/ reducing profits: Incumbent firms may also in certain instances induce customers or suppliers to not deal with the entrant. Where an incumbent firm owns an essential facility and is vertically integrated, they may restrict access to the facility or place a high premium for its usage so as to reduce rivals' profits (Banda *et al*, 2015). An incumbent may also to tie up key customers into exclusive contracts or provide incentives that an entrant cannot match thus making it less attractive to customers. The firm is then unable to produce at a scale sufficient to make profits. The firm may also bundle certain products such they can only be bought on condition the second product is also purchased forcing a customer to buy a product from the incumbent and not a competitor. A dominant incumbent thus leverages its market power in an adjacent market to protect its dominant position in the original market (Rey and Tirole, 2006).

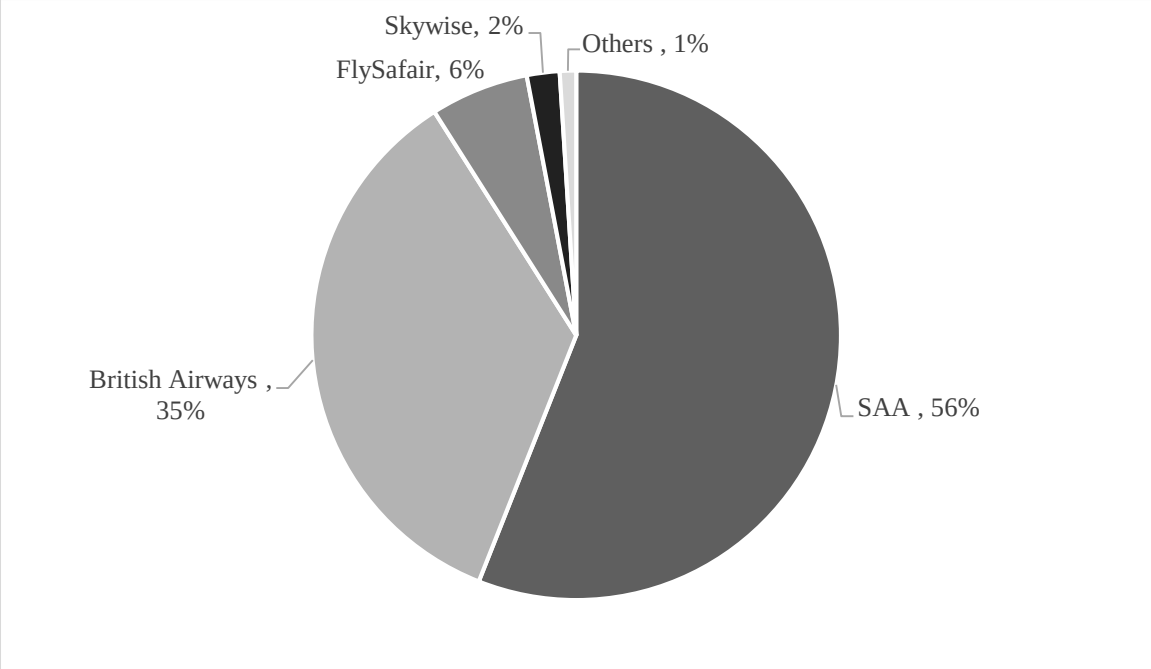
Strategic barriers to entry are considerably more difficult to evaluate or prove because effects could in fact be pro-competitive. Over-investment in capacity, technology or research and development may be done if an incumbent believes that they will be able to gain a return on these investments and not lose the returns to free-riders (Banda, Robb, Roberts and Vilakazi, 2015). The next sections will discuss the airline industry including the structure of the market, competition cases, the regulatory framework, the circumstances surrounding 1Time's exit and the drivers of demand in the industry.

3. Market structure and competition dynamics

There have been a number of entries into South Africa's airline industry since deregulation but SAA has maintained its dominance over the industry with a 46% market share in the international market in 2012 (OAG Market Intelligence, 2012). Comair and British Airways together hold 28% of the market share making them the second biggest airlines in the market. SAA flies to 38 destinations in 26 countries worldwide. It provides seats for a third of the seats to and from South Africa. The airline is part of the Star Alliance group and has code-share agreements with nine global airlines which enables it to provide access to 186 destinations in 62 countries (SAA, 2014). Its subsidiary, Mango Airlines is a low cost carrier airline established to compete in the low cost no frills segment of the market.

In South Africa's domestic market, SAA and its subsidiary Mango are the dominant players in the market with a combined market share of 56%. SAA's market share is made up of 22% of its mainline share, 18% from Mango and 16% from its regional partners, privately-owned Airlink and government-owned SA Express. British Airways and associate Kulula hold a combined market share of 35%. The remaining 9% is split between the entrants and other smaller airlines (Figure 1). The airline's strategic alliances and code sharing agreements that give it even more advantage over other airlines in terms of available destinations. It is perhaps for this reason that SAA has been involved in a number of competition cases involving abuse of dominance, conduct which may have led to the exit of at least one airline.

Figure 1: Market share of airlines in South Africa' domestic market (% of seats) by 29-Jun-2015 to 5-Jul-2015



Source: CAPA – Centre for Aviation (2015)

3.1. Competition cases in South Africa's airline industry

Most of the competition cases in the industry have involved SAA. The airline has been found guilty and penalised for abuse of dominance and cartel behaviour in a series of cases. In *SAA I and II* was found to have acted anti-competitively when the Competition Commission ruled that the two incentive schemes entered into between SAA and travel agents amounted to an inducement abuse. The scheme offered travel agents a further commission over and above their basic commission if they exceeded a target figure as stipulated in a contract. It was payable on the total of sales achieved above and below the target. The second category of commission was referred to as "incremental commission". If the travel agent achieved a certain percentage of sales above the target they qualified for this commission. The second inducement scheme was termed as the explorer scheme in which travel agents were rewarded with free international tickets for achieving sales above a set target.

The Competition Commission also fined SAA on three separate occasions for collusive conduct and/or price fixing. The first concerned an identical fuel surcharge that was levied almost simultaneously by the members of the Airlines Association of Southern Africa (AASA). The fuel surcharge was placed on the price of tickets for carriage on all legs of the routes both

domestic and international. The second fixing charge was laid against SAA and Lufthansa. The airlines were found to have using a code-sharing agreement, fixed prices on the Cape Town/Johannesburg and Frankfurt route. The third case concerned three separate allegations of price fixing. The price fixing occurred in respect of ticket prices on various outbound routes to the Far East, air cargo fuel surcharges and price fixing on domestic flights during the 2010 Soccer world cup. The anti-competitive conduct in South Africa's airline industry is imply a reflection of the international airline industry.

3.2. Competition cases in the international airline industry

Historically, the airline industry is prone to cases of anti-competitive conduct. Perhaps one of the most well-known cases is that of *U.S. V. American Airlines (1999)*. In this case, the U.S. government alleged that American airlines engaged in predatory conduct with respect to seven core routes and additionally sought to monopolize about 40 routes by developing a reputation for predatory conduct. The allegations stated that whenever American Airlines was faced by an entrant LCC, the airline aggressively matched prices and increased capacity on those routes with a view to encourage exit and recoup losses following exit of the entrant. The case was eventually dismissed due to failure on the part of the state to prove that American Airlines priced below cost, however the case succeeded in showing the impact of such aggressive strategy on the industry. It showed that exit of LCCs could be linked to predatory conduct of the incumbent airlines. It also helped outline the kind of behaviour that is evident where predation may be taking place.

A similar case was brought against Air Canada in 2001 for predatory pricing on seven city-pair routes in which entrant LCCs WestJet and CanJet operated (OECD, 2014). In order to prove anti-competitive conduct, the Competition Commission had to show that by reducing the prices of their flights to match the prices set by the entrants and by increasing capacity on those routes, Air Canada operated below avoidable costs. The investigation was conducted in two phases. In the first phase the Competition Commission sought to determine whether Air Canada did incur avoidable costs and the second to assess the anti-competitive effects. Only the first phase was completed in which it was determined that Air Canada did operate below avoidable costs. Before the second phase could be carried out, Air Canada filed for bankruptcy. Avoidable costs are those that the incumbent airline could have avoided had it not to offered the extra flight or lower price on the route for the relevant time period (OECD, 2014). In South Africa the measure for predatory conduct is whether or not the incumbent firm was operating below

Average Variable Costs in the relevant period. While the application is different for the different countries, the principle that revenues should not be below the cost related to providing the additional services is the same. What is clear here is that the airline industry is replete with cases of exclusionary conduct from incumbents when faced with entry by LCCs. It shows that incumbent industries have a significant incentive to exclude entrants from the industry.

4. Barriers to sustained entry in the airline industry

The airline industry has a number of structural barriers, primary of which are high cost of entry, access to finance, poor cash flow management and legal barriers. This at least appears to be one of the main reasons for the demise of airlines like 1Time and the recent suspension of Skywise (Pauw and Dommisse, 2012; BDLive, 2016). While these barriers are significant they do not appear to have deterred entry. Airlines such as FlySafair, Fly Go Air, Fly Blue Crane and Skywise entered the market in spite of the above barriers. Therefore although these barriers are substantial, they do not appear to have been the main barrier to growth and expansion. The challenges in this industry do not appear to prevent entry but rather to restrict sustained entry. The significant barriers to sustained entry in South Africa's airline industry appear to be related the possible exclusionary conduct of SAA bolstered by its relationships with other smaller airlines on secondary routes as well as the distortionary effect of state aid.

The South African airline industry bears evidence of exclusionary conduct on the part of the incumbent player, SAA exacerbated by SAA's relationships with various smaller players in secondary routes. SAA has relationships with three smaller airlines in South Africa. Mango Airlines is the incumbent's LCC subsidiary operating in both primary and secondary routes. It launched in 2006 following entry by Kulula and 1Time in 2001 and 2004 respectively. In *Media 24 and Natal Witness 2012*, it was found that a dominant party may enter a subsidiary market with a fighting brand with the express purpose of limiting competition or foreclosing an entrant. Mango's coincident entry into the LCC market could have been as incentivized by the opportunity to capture a new consumers, however, given SAA was already operating in many of the markets in which the entrants operated and had alliances with other airlines operating on subsidiary routes, it seems likely that SAA launched Mango as a fighting brand in an effort to undermine entry into the LCC market.

Airlink, the second airline acts as a franchisee of SAA travelling to 28 destination in Southern Africa (SAA, 2016). SA Express is another associate of SAA. The airlines coordinate voyager benefits flight schedules, ticketing, check-in facilities, the same branding and flight codes (SA

Express, 2016). These relationship gives SAA the opportunity to leverage its dominance in even the smaller feeder routes through that might see entry through its subsidiaries.

Entry by rivals into an industry is usually accompanied by reduction in prices in an effort to reduce a rival's revenues. However reduction in prices in the airline industry following entry in South Africa is significant. When 1Time entered the market, prices reduced by as much as 35% (Planting, 2012). Predation in the airline industry is characterized by a drop in price to match that of the LCC that is below Average Variable Costs and increases in capacity or flights available on the route. SAA and its subsidiaries, following entry by new airlines have similarly dropped their ticket prices in all the routes entrants have gone into. For instance, following Fly Go Air's entry into the Johannesburg – Pietermaritzburg route, the entrant experienced substantial competition from SAA associate Airlink. Airlink dropped prices on the route, increased the frequency of their flights and moved their time slots to those close to Fly Go Air. The increased capacity and competition forced Fly Go Air to reduce its total number of weekly flights on the route. Similarly, Skywise reduced its flights from 8 to 6 on the Johannesburg – Cape Town route in October 2015 and by December 2015 had its operations suspended.

The drop in price has been accompanied by a significant increase in capacity on the particular routes with entrants. In 2014, Mango grew its fleet when SAA gave up some of its routes and aircrafts to Mango. Mango took up four Boeing 737-800s when SAA replaced its fleet (SAA, 2014). By taking on SAA's old aircrafts, Mango airlines enjoys the ability to expand its fleet and routes without bearing the full costs of leasing the aircrafts giving it a significant advantage over the other entrants. This resulted in increased capacity by the state airlines just before Flysafair was to launch its flights. Expansion of capacity is one of the ways incumbents use to warn rivals to expect resistance and is a form of post-entry aggressive behaviour. The increase of aircrafts enabled Mango to increase its frequency on various routes coinciding with the routes chosen by the rivals such as Johannesburg-George and Johannesburg-Port Elizabeth. Flysafair has since reduced its frequency of flights on the Johannesburg-George route since Mango's expansion on the route at low prices has greatly reduced the profitability of the route.

This behaviour by itself is not anti-competitive unless as mentioned above, the reduction in price is below variable costs and the incumbent has the opportunity to recoup losses. The effect of these price decreases and increase in capacity are in fact beneficial to consumers. However SAA's reduction of prices to match that of a no frills low cost flier by an airline whilst providing more amenities seems to suggest that the airline is pricing below costs or incurring costs that

could easily be avoided which signals inefficiency. Mango airlines, a subsidiary of SAA appears to be able to keep on par with the low prices of the entrants, at times increasing the frequency of flights on routes with the entrants. Mango's ability to compete at this level is questionable because the airline is state funded and is able to obtain bailouts and guarantees from the State. This is especially concerning because SAA has been considered "technically insolvent" (Gedye, 2015). It is thus incurring additional costs that could easily be avoided and need to be avoided considering the airline's poor financials. In November 2015, following a loss of R648 million in the first 6 months of its financial year, SAA requested a R4-5 billion guarantee from the National Treasury (Ensor, 2015). The airline has so far received over R30 billion in guarantees and loans from the state since 1999 and is currently operating on about R14.5 billion of guarantees from the government (Maqutu, 2015). Comair challenged SAA's access to bailout in Court but the application was dismissed.

The concern is that SAA and by extension Mango, Airlink or SA Express can continuously engage in a price war beyond what would be considered profitable and for a far longer time that its rivals because it has access to state funding. It is difficult to determine whether Mango has been pricing its tickets below cost since entry by the new airlines since the 2014-2015 financial statements have not been published. Further to this, SAA's access to various routes through its associates, gives it the opportunity to cross-subsidise its costs and recoup losses made from pricing below cost in some routes from routes that have seen no new entry.

It is likely that new entrant Fly Blue Crane, in entering the airline industry chose to mainly enter feeder routes such as Kimberley and Bloemfontein to avoid such significant a response from SAA. The airline serves mostly to take passengers to where they can easily access flights from other airlines.

5. Benefits of competition in South Africa's airline industry

Having discussed the barriers to sustained entry into the South African airline industry, it is important to understand why such strategic behaviour by the incumbent matters to consumers, and the economy as a whole. Entry of LCCs into the industry has had two very important effects. Firstly, entry by LCCs has resulted in significant reduction in ticket prices and increased passenger traffic. Secondly, entry into the smaller routes such as George have contributed to the growth of tourism and the economy of the town as a whole.

As mentioned above, following 1Time's entry into the market, ticket prices dropped by as much as 35%. Similarly, following Flysafair's entry into the market in 2014, prices on all the routes the LCC entered dropped by as much as 39% (Table 1)

Table 1: Percentage price changes on domestic routes between 2014 and 2015 following Flysafair's entry

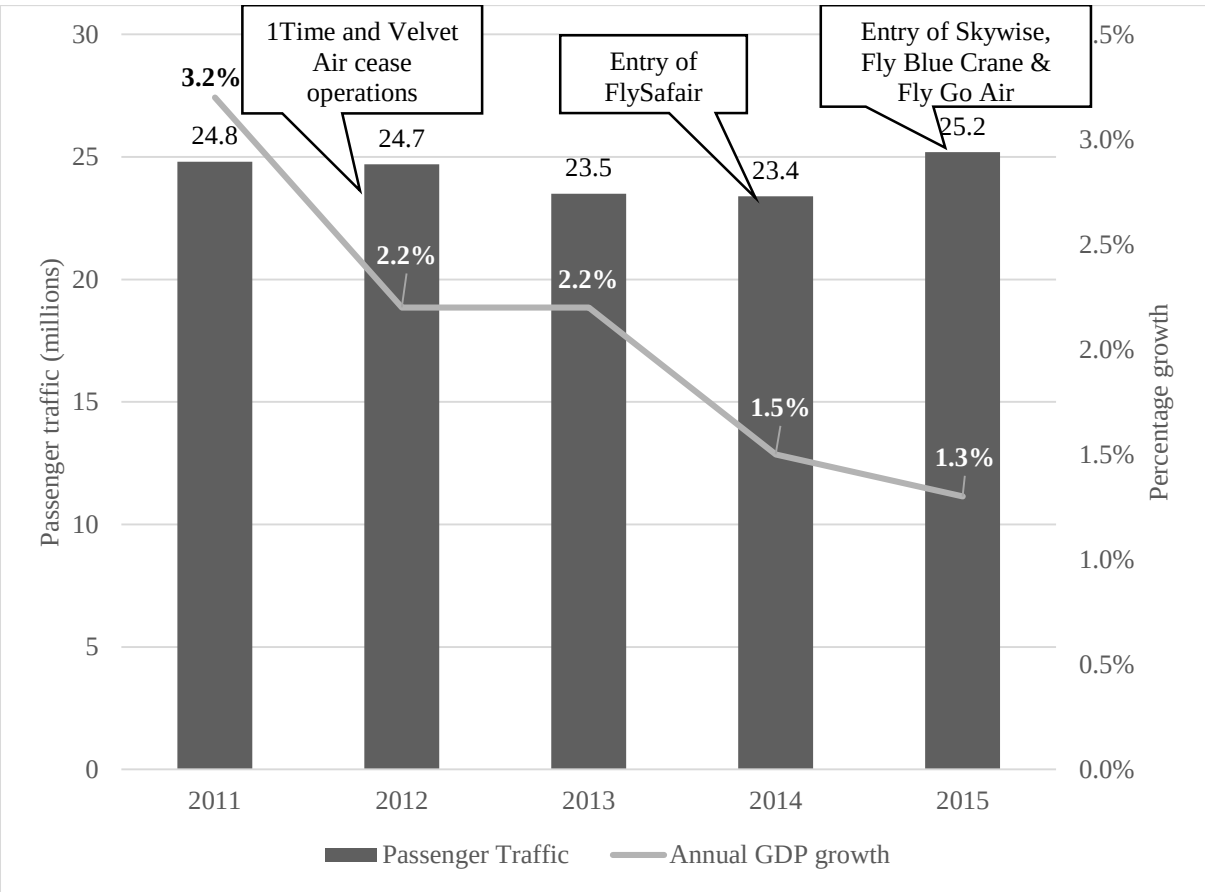
Origin	Destination	% Change	Flysafair entry route
Cape Town	George	-38.8	Y
Cape Town	Port Elizabeth	-38.1	Y
George	Cape Town	-37.1	Y
Port Elizabeth	Cape Town	-32.6	Y
Port Elizabeth	Johannesburg	-27.9	Y
Johannesburg	Port Elizabeth	-27.8	Y
Johannesburg	Cape Town	-17.8	Y
Cape Town	Johannesburg	-16.4	Y
Johannesburg	George	-12.9	Y
George	Johannesburg	-10.5	Y
Durban	Cape Town	-5.7	N
Johannesburg	Durban	-2.9	N
Cape Town	Durban	-1.5	N
Durban	Johannesburg	-0.6	N
Johannesburg	East London	1.8	N
Johannesburg	Bloemfontein	2.7	N
East London	Johannesburg	3.9	N
Bloemfontein	Johannesburg	7.4	N

Source: Travelstart (2015)

As can be seen above, entry by Flysafair resulted in price drops of as much as 39%. The routes in which Flysafair did not enter, saw increases in price rather decreases except for the routes along the golden triangle; routes between Johannesburg, Durban and Cape Town that are already saturated. Decreases in prices are not likely to attract a large enough volume of passengers to substantiate the decrease in price. While at time this data was acquired, there had been no entry by new LCCs, both Skywise and the airline had already shown intention to enter the Johannesburg – Cape Town route which could have influenced the reduction in price regardless of the saturation of the market.

Passenger traffic also appears to respond to entry and exit of LCCs in the domestic market. Between 2004 and 2006 after the launch of LCCs, South Africa experienced a 52% growth in passenger traffic (World Bank, 2015). Similarly, following the exit of 1Time and Velvet Air in 2012, domestic passenger traffic dropped from 24.8 million in 2011 to 23.5 million passengers representing a 5% decline. In contrast, entry by Flysafair in October 2014 and subsequently, Skywise, Fly Blue Crane and Fly Go Air in 2015, coincided with an increases in passenger traffic from 23.5 to 25.2 million representing a 7% growth in passenger traffic between 2013 and 2015. One of the main factors that influences passenger traffic growth is Gross Domestic Product (GDP) of a country (Smyth and Pearce, 2008). Increases in GDP often contribute to increase in demand for air travel and thus passenger traffic. However between 2013 and 2015, there was a decline in GDP growth from 2.2% to 1.3%. Growth in passenger traffic therefore took place regardless of the decline in GDP which suggests that other factors including the entry by new LCCs could have contributed to increased domestic passenger traffic.

Figure 2: Total passengers for scheduled domestic flights in South Africa, 2011-2015



Source: ACSA (2015)

The added benefit of entry in the airline industry is its contribution to the tourism industry (Olipra, 2012; European Travel Commission, 2007; Gillen, Morrison and Stewart, 2004). The 52% increase in passenger traffic between 2004 and 2006 could equate to at least 62,000 more tourists per year and contribute to substantial increases in the GDP per capita of the region seeing entry (World Bank, 2015). This corroborates interviews with several stakeholders who stated that entry of airlines into George contributed to the development of the destination's local economy and tourism in the areas.

6. Research findings and policy recommendations

Two main conclusions can be drawn from the discussion above. Firstly, entry of airlines into the industry is beneficial because it results in improved consumer welfare through the reduction of prices and increased number of flights to both primary and secondary destinations. This reduction in price and increase flight frequency contributes to the growth of the tourism industry and local economy of smaller destinations leading to job creation and economic growth. Conversely exits of airlines result in reduced passenger traffic and increases in price. This in turn negatively affects economic growth.

Secondly state aid in the form of bailouts and guarantees to SAA does not appear to have resulted in lower prices for consumers or increased passenger traffic in the long term. The subsidies instead appear to contribute to the exit of airlines. Given SAA's ability to leverage its dominance in secondary markets along with its propensity to participate in exclusionary conduct, access to state aid facilitates the airline's ability to participate in price wars that force entrants out of the market. While price wars in the short term benefit consumers, SAA's ability to participate in these wars is not a result of its ability to operate efficiently but rather a function of its access to support from the National Treasury. Once airlines exit, there is reduced capacity and ticket prices often increase.

Since entry of airlines rather than SAA's access to state aid has resulted in desired outcomes of increased consumer welfare and growth of local economies, there might be need for the government to find a competitively neutral way to support the airline industry. Policy considerations may be better directed towards supporting entry and entrants rather than on subsidies or support towards SAA. Resources currently directed towards SAA should be channeled towards supporting competitive entrants because of net gains such as price decreases and growth in the tourism rather than in simply supporting SAA. This can be done through providing access to loans, skills training such as cash flow management to the entrants' through

the Department of Trade and Industry or the Industrial Development Corporation. There might also be a need to re-evaluate the level of cooperation between SAA, Mango, Airlink and SA Express to determine whether the relationship provide more benefits than harm to the industry.

7. Conclusion

The study shows that while entry into the industry may be challenging due to some structural barriers, they are not significant enough to prevent entry. However, barriers to sustained entry do exist. These barriers culminate from SAA's position of dominance, relationship with other airlines and its access to state aid. Given the history of anti-competitive conduct in the airline industry, SAA's access to aid serves to facilitate its ability to engage in exclusionary conduct or participate in inefficient price wars aimed at driving rivals out of the market. Since entry results in reduction in price, increased passenger traffic contribution to growth in tourism and local economies, policy recommendations should be on encouraging entry rather than exit as has been occurring partly due to the influence of SAA.

Acknowledgements

This paper draws from a recent study carried out by the Centre for Competition, Regulation and Economic Development (CCRED) on the barriers to entry into the airline industry on the behalf of the National Treasury of South Africa and conducted with CCRED Senior Researcher Thando Vilakazi. All references to industry knowledge and interviews are based on data collection and research conducted as part of the broader study.

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