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IMPACTS OF THE MICRO ENVIRONMENT ON AIRLINE PERFORMANCES IN SOUTHERN AFRICA: MANAGEMENT PERSPECTIVES

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Abstract: The purpose of this study was to determine the impacts of the micro environment on airline performances in southern Africa. A mixed method research design was followed. Questionnaires were distributed at selected airlines to 154 key airline personnel. Factor analysis was used to identify the dimensions of micro environmental factors impacting on airline performances. The results indicated that competitive rivalry, the bargaining power of suppliers and customers significantly impacted ($p<0.05$) negatively on the aviation industry. Consequently, the high number of LCCs has created overcapacity and several suppliers can squeeze airlines, something that has stifled the region's tourism prospects.

Key words: Tourism, airline performances, LCCs, aviation industry, southern Africa

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INTRODUCTION

Air transport is a fundamental driver of the tourism industry (Bieger & Wittmer, 2006). It is a precondition for travel, since it facilitates mobility and the movement of tourists from their place of origin to their destination and back (Campbell, 2014). As such, air transport and tourism are interdependent (Roese & Smith, 2015). To illustrate this interdependency, Bodocan (2008) argues that when airlines terminate their services scheduled holidays and air travel arrangements are disrupted, thereby causing a multitude of problems for travellers. Eze (2016) affirms that if tourists get to their destinations faster and more cheaply, they tend to travel more frequently. Therefore, the reliability and dependability of airlines is important to the tourism industry (Oprea, 2010). However, operating airlines in southern Africa has proved to be fraught with challenges resulting in

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several airlines terminating their services after short periods of operation (Steyn & Mhlanga, 2016). Despite air traffic growth, the failure rate for airlines in southern Africa is higher relative to other industries with private airlines operating for short periods whilst state carriers are traversing through turbulent times and fighting for survival. Consequently, various scholars (Ssamula, 2012; Roese & Smith, 2015; Eze, 2016) have long pondered the enigmatic question of why southern Africa has become an airline graveyard.

Some research endeavours (Doganis, 2013; Heinz & O'Connell, 2013; Barros & Wanke, 2015) argue that the micro environment significantly impacts on the financial performance of airlines. As such, Duvenage (2016) avers that identifying micro environmental factors impacting airline performances could be the starting point to unlock the industry's financial challenges. According to Porter (2008) the micro environment is made up of five factors, namely, the threat of new entrants, the bargaining power of buyers, the bargaining power of suppliers, the threat of substitutes and competitive rivalry which may positively or negatively impact on airline performances. Therefore, an understanding of the impacts of the micro-environment on airline performances could halt the industry's downward financial spiral. In spite of the growing international interest on the impacts of the micro environment on airline performances, limited research has been completed on this topic in southern Africa. International studies on the impacts of the micro environment on airline performances might not be applicable to the southern African context, since Heinz and O'Connell (2013) emphasise that the impacts of the micro environment on airline performances should be interpreted in the light of their geographical context and should not be generalised to other regions.

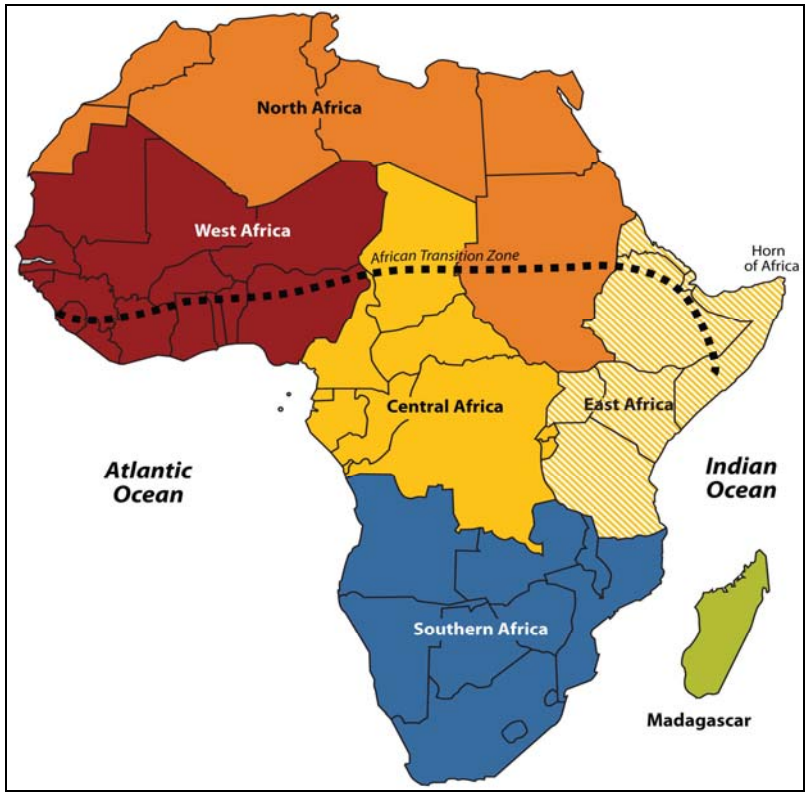

Figure 1. The geographical location of southern Africa (Source: Zimbabwe Tourism, 2016)

To the best of the researchers knowledge, this study is a first attempt to identify the impacts of the micro environment on airline performances in southern Africa. Southern Africa is geographically located on the southernmost region of the African continent (see Figure 1). Given the importance of air transport to tourism, research within this context is necessary. The theoretical contribution relates to critically articulating the impacts of the micro environment on airline performances from a developing context, where such findings could mirror similarities and differences and inform airline executives of strategic implications which could be useful for operational and management endeavours.

THEORETICAL BACKGROUND

Air transport plays a vital role in global, regional and national economies (Campbell, 2014). The World Travel and Tourism Council (WTTC, 2016) reports that air transport generates a total of 32 million jobs globally, through direct, indirect, induced and catalytic impacts. According to Price Waterhouse and Coopers (PWC, 2016) aviation's global economic impact (direct, indirect, induced and catalytic) is estimated at US$ 3.560 billion, equivalent to 7.5% of world Gross Domestic Product (GDP). The airline industry therefore plays a significant role in the economy as a modern day engine of economic growth (WTTC, 2016). The airline industry is regarded as one of the largest sectors in Western economies. It is one of the largest private sector employers in the United States of America (USA), directly employing nearly 255 000 full- and part-time workers in 2015 (IATA, 2016). Including indirect, induced, and enabled impacts, general aviation, in total, supported 1.1 million jobs and US$219 billion in output (IATA, 2016). The airline industry also generated US$69 billion in labour income (including wages and salaries and benefits as well as proprietors' income) and contributed US$109 billion to US GDP in 2015 (PWC, 2016). Overall, total GDP impact attributable to general aviation amounted to US$346 per person in the United States in 2015 (IATA, 2016).

Figure 2. Route map of regional flights in southern Africa (Source: WTTC, 2016)

According to PWC (2016) air transport plays an important role in the growth of southern African countries, whose economies are geographically isolated and sometimes

landlocked. To illustrate this, in 2015 air transport contributed 3.5% to South Africa's GDP (Statistics South Africa, 2016), 2.6% to Zimbabwe's GDP (Zimbabwe Tourism, 2016) and 3.2 % to Botswana's GDP (Statistics Botswana, 2016). The tourism spin-off is even more significant because approximately 20% of all tourism-related jobs in southern Africa are supported by international visitors arriving by air (WTTC, 2016). As a consequence, in 2015 tourism (supported by air transport) contributed 9.4 % to South Africa's GDP (Statistics South Africa, 2016), 8.5% to Botswana's GDP (Statistics Botswana, 2016) and 5.2% to Zimbabwe's GDP (Zimbabwe Tourism, 2016). Therefore, air transport is indispensable for tourism. Figure 2 illustrates the route map of regional flights in southern Africa. However, although more than 40% of international tourists now travel by air, up from 35% in 1990, the profitability of airlines in southern Africa has plummeted to unprecedented low levels with most carriers struggling with colossal losses (The Herald, 2016). According to Indetie (2015), the major problem is the poor financial performances of airlines in southern Africa, which does not seem to match the growth in demand. The collapse of carriers such as Zambian Airways, Flitestar, Phoenix, 1Time and Fly Africa underscore the grim financial reality that the industry faces in southern Africa (Smith, 2015). Therefore, to improve airline performances there is a need to scan the impacts of the micro environment on airline performances in the region.

LITERATURE REVIEW

Porter (2008) used the Five Forces model (the threats of new entry, the bargaining power of buyers, the bargaining power of suppliers, the threats of substitutes and competitive rivalry) to determine the performance of organisations and to gauge the attractiveness of the overall industry. According to Demydyuk (2011) the model has proved a veritable tool in analysing the impacts of the micro environment on organisations. As a consequence, various scholars (Oprea, 2010; Doganis, 2013; Heinz & O'Connell, 2013; Barros & Wanke, 2015) have since used Porter's (2008) model to analyse the impacts of the micro environment on organisational performances and to gauge industry attractiveness. Porter's (2008) Five Forces model is analysed below:

Competitive rivalry

Porter (2008) conceptualised rivalry within an industry as existing on a continuum from low to high. However, some research endeavours (Stonehouse & Campbell, 2004; Thompson & Martin, 2005; Oprea, 2010; Moiseiwitsch, 2014) argue that rivalry among existing competitors significantly impacts airline performances. For example, the deregulation of the South African airline industry in 1991 paved the way for the entry of a number of Low Cost Carriers (A LCC, also known as a no-frills, discount or budget carrier or airline, is an airline that offers generally low fares in exchange for eliminating many traditional passenger services) and intensified rivalry amongst existing competitors, thereby affecting airline performance (Eller & Moreira, 2014).

To illustrate this point, Ensor (2016) notes that the entry of LCCs (FlySafair and Fly Blue Crane) resulted in overcapacity in the South African domestic market because the South African market is not large enough to support three LCCs. Maqutu (2015) affirms that three LCCs are not sustainable in the long term–South Africa's domestic market is too small and too seasonal to provide the scale that an independent LCC would need to thrive over the long term in a lacklustre economic environment.

According to the Oxford Business Group (OBG, 2017) similar sized domestic airline markets to South Africa have two or fewer LCCs; for example, Vietnam has two LCCs, Saudi Arabia one and Chile does not have any. Even much larger Australia, which is about four times the size of South Africa, has only two LCCs (Maqutu, 2015). Maqutu (2015) cautions that approximately 17 million people fly in South Africa each year and the

market is served by nine domestic carriers, which is far more airlines-per-person than there are in the US, Europe or China. Mondliwa (2015) further argues that South Africa does not possess the requisite attributes of more developed markets that allow multiple LCCs to thrive. In Europe, competing LCCs such as EasyJet and Ryanair do not fly on the same routes or serve the same city pairings (Wood, 2016). However, in South Africa, LCCs cover the main domestic routes, since there are few commercially viable secondary routes to fly (Gernetzky, 2016). For instance, in South Africa, only Johannesburg has a secondary airport (Lanseria) (Wood, 2016). In Zimbabwe, the national carrier (Air Zimbabwe) faces intense rivalry after the Zimbabwean government opened the skies. According to Chipunza (2013), three South African airlines, namely SAA, Comair and Airlink, now control over 90% of the market share on the Harare to Johannesburg, Johannesburg to Victoria Falls and Johannesburg to Bulawayo routes, against Air Zimbabwe's 10% and this has significantly affected Air Zimbabwe's performance.

The threat of new entrants

Bryson (2012) claims that the threat of new entrants does not impact on airline performances. Hitt, Ireland and Hoskisson (2010) concur that in the airline industry new entrants cannot enter and compete on the same level as long established airlines. The southern African airline industry is a case in point. According to Nolutshungu (2013), in southern Africa it is difficult for new entrants to acquire peak hour landing slots at major airports because established airlines fiercely guard their landing slots and gates, and with little spare capacity in the business, it is difficult for prospective entrants to gain a foothold. Jarvis (2016) opines that new entrants face the problem of accessing effective distribution channels that tend to favour established carriers. New entrants often have to bypass distributions channels and create their own, as gaining access to the same sales channels as those used by established airlines is often costly. For instance, in South Africa new entrants (such as FlySafair) tend to avoid using travel agents who often favour established higher fare carriers such as SAA because of the rates of sales commission received (McLennan, 2015). These barriers tend to reduce the threat of new entrants and according to Young (2015) this is one of the main reasons for the demise of new entrants such as Skywise.

Furthermore, established airlines often tend to exhibit arrogance in the face of newcomers, especially when the new entrant moves into untapped and undeveloped markets on the fringe of the existing market. This is the case in South Africa where, for instance, following Fly Go Air's entry into the Johannesburg to Pietermaritzburg and Johannesburg to George routes, the entrant experienced substantial competition from SAA associates Airlink and Mango (Paelo, 2016). Airlink and Mango dropped prices on these routes, increased the frequency of their flights and moved their time slots to those close to Fly Go Air (Wood, 2016). The increased capacity and competition forced Fly Go Air to reduce its total number of weekly flights on these routes (Winsen, 2016).

According to Nolutshungu (2013), predatory pricing is a common retaliatory strategy used by airlines in South Africa to prevent new entrants from making profits. Predation is characterised by a drop in price to match that of the new entrant that is below average variable costs and increase capacity or flights on the route (Mahlaka, 2015). For instance, when 1Time entered the market in 2004, prices were reduced by as much as 35% (Spooner, 2015). Following the entry of Kulula and 1Time in 2001 and 2004 respectively, SAA retaliated by launching Mango as a fighting brand in an effort to undermine entry into the LCC market (Wood, 2016). New entrants also face a problem of competing with established brands such as Comair that have an alliance with British Airways (BA) (Speckman, 2015). Comair's passengers benefit in the form of improved service since all staff were retrained to comply with BA standards (Walters, 2010).

The threat of substitute products

Doganis (2010) posits that time, cost, personal preference and convenience determine the threat that substitute products pose to the airline industry. In some studies, Walters (2010) and Clark (2011) found that substitute products did not have any impact on airline performances because airlines outperform other forms of transportation because of convenience. In southern Africa, transportation by road and rail are forms of substitutes for air travel (Mondliwa, 2015). Potential travellers can choose other means of transportation such as cars, buses or trains to go to other destinations (Gernetzky, 2016).

Intercity train services in South Africa run between cities, for instance between Johannesburg, Cape Town, Durban and other towns (Travelstart, 2015). However, the major cost to switch is time. For instance, although travelling by train is cheaper, most journeys may go overnight (Gernetzky, 2016), whilst bus operators such as Greyhound, Translux and Intercape travel overnight and arrive at inconvenient times. In contrast, despite the time taken to reach the airport, the overall journey time by air is much shorter than other travel substitutes (Wood, 2016).

The bargaining power of suppliers

Porter (2008) argues that where suppliers have strong bargaining power, the relative position of businesses is relatively weak. However, according to Pandey (2010) suppliers in the airline industry tend to be in a relatively strong bargaining position because fleets to the industry are supplied by what is effectively a duopoly (Boeing and Airbus), while an oligopoly exists in the supply of engines (General Electric, Pratt and Whitney, and Rolls Royce). With so few suppliers in operation, manufacturers are able to unilaterally establish prices and set delivery times (Bryson, 2012). Nhuta (2012) argues that the suppliers of airline fuel have a higher bargaining power because airlines have little control over fuel prices. Eller and Moreira (2014) concur that since there is no substitute for jet fuel this further increases supplier power. In turn, this reflects a difficulty in finding substitutes for the airlines inputs (Campbell, 2014).

The bargaining power of customers

Clark (2011) found a significant difference between the bargaining power of customers and the performance of airlines. Ismael (2015) found that the bargaining power of customers significantly impacted on airline performances because airlines are very vulnerable to any price reduction measures introduced by their competitors due to the lack of brand loyalty associated with the airline industry. Therefore, customers enjoy high bargaining power because switching to another airline is simple and is not associated with additional expenses (Winsen, 2016). According to Nolutshungu (2013), there are a large number of airlines in southern Africa and hence passengers tend to be highly price-sensitive which increases buyer power. Mondliwa (2015) argues that since buyers have no switching costs when switching from one airline to another, as such they are free to compare prices at no cost, which further increases buyer power. Spooner (2015) opines that the bargaining power of consumers is marginally increased by the presence of online booking sites, allowing customers to compare prices. Furthermore, travel agencies are able to influence the travelling public not only on the mode of transport to use but also on the particular airline to use (Kamau & Stanley, 2015). Travel agents who operate a supermarket of services in the travel and transport field, have significant power to shift demand across carriers. Therefore, buyers are becoming more informed and this has given them power over the airlines (Mawson, 2015).

RESEARCH METHODOLOGY

Southern Africa harbours eighteen airlines registered by the Airline Association of Southern Africa (AASA) of which eight were used for the study. These airlines complied

with the criteria set by AASA (2017:3) for classification as a commercial airline, namely, "an airline dedicated to the transport of passengers." The other airlines could not be classified as passenger airlines but as cargo airlines and were therefore excluded. A qualitative and quantitative mixed-methods research design was followed. An exploratory discussion meeting (qualitative) was held with six of the eight airline CEOs and several key airline personnel to explore their views on the study. According to O'Reilly and Parker (2012) there is no commonly accepted sample size in qualitative research since in qualitative research the sample size depends on the concept of saturation. Therefore, a sample size of at least six CEOs was deemed appropriate for this study. The group interview was followed by the development and completion of structured questionnaires (quantitative) by senior airline managers in order to collect data for the study.

The purpose and extent of the study were discussed with the airline CEOs during the scheduled meeting. They were also given the opportunity to raise their expectations and concerns about the study. Based on the outcomes of the meeting, the research design needed to be guided by two overriding concerns. Firstly, airline CEOs stipulated that the questions had to cover the micro environmental factors that impact on airline financial performance. Secondly, the CEOs prescribed that the data collection should not have a disruptive effect on the managers' work schedule. They required that the questionnaire should not exceed one page in length, should be self-explanatory and easy to read.

Although two standard surveys, namely the Data Envelopment Analysis (DEA) (proposed by Charnes, Cooper & Rhodes, 1978 based on the earlier work of Farrell, 1957) and the Analytical Hierarchy Process (AHP) (developed by Saaty in 1980) have been applied in previous airline research, they were deemed unsuitable for this study. The Data Envelopment Analysis (DEA) was not able to address the objectives of this study since it is a non-parametric method that is used to estimate the production frontier of Decision Making Units (DMUs) with multiple inputs and multiple outputs (Rai, 2013). Although the Analytical Hierarchy Process (AHP) questionnaire could address the objectives of the study, it required subjective data on airlines based on experience, knowledge and judgment of the researcher (Yusuff & Poh Yee, 2001) and hence it had an element of bias resulting from subjective data. Consequently, a self-administered questionnaire adopted from Surovitskikh and Lubbe (2015) was customised to address the objectives and setting of the study. Airline managers were requested to rate the impacts of micro environmental factors on airline performances. Porters' (2008) five forces (the threats of new entrants, the bargaining power of buyers, the bargaining power of suppliers, the threats of substitutes and competitive rivalry) were used as exogenous variables since the extensive literature review identified these micro factors as the most obvious that impact on airline performances (Doganis, 2013; Heinz & O'Connell, 2013; Barros & Wanke, 2015) whilst airline performances was treated as an independent variable. This method of testing the relationship between micro environmental factors and airline performances is comparable to the technique used by Tesfay and Solibakke (2015). These researchers used micro-environmental factors as exogenous variables whilst airline performances was treated as an independent variable. The independent variable (airline performances) was tested by requesting key airline personnel to rate the impacts of various micro factors on airline performances. A total of 32 micro factor attributes were included in the measurement instrument. As in the study by Tesfay and Solibakke (2015) a five-point Likert scale was used. Since each point in the Likert scale had a descriptor, a fully anchored rating scale (Johnson & Christensen, 2004) was applied. The five response alternatives for measuring the impacts of the micro environment on airline performances ranged from 'very negative - (1) ', 'negatively - (2) ', 'neither negative nor positive - (3) ', 'positively - (4)' to 'and very positive - (5)'.

The clarity of the instructions, ease of completing the questionnaire and time taken to complete the questionnaire (Leedy & Ormrod, 2013) were piloted using eight airline managers in each of the targeted airlines. No changes were made to the questionnaire. The study was voluntary and verbal consent was obtained from all the airline managers whilst permission was obtained from the airlines. It was, however, agreed that the identity of all airlines be revealed but the names of respondents be kept anonymous. The population of the study was regarded as a key airline managers. Purposive sampling was therefore used (Leedy & Ormrod, 2013). Purposeful sampling is a non-probability sampling method whereby the researcher chooses the sample based on who they think would be appropriate for the study. It is used primarily when there is a limited number of people that have expertise in the area being researched. The sample size for the study was determined such that it achieved a 95% confidence level and was within a 5% sampling error (Leedy & Ormrod, 2013). Consequently, a sample size of at least 150 managers was deemed appropriate for this study.

A scanning question, on whether the respondent was a key airline manager was used to identify the target sample. In order to ensure content and face validity (Babbie & Mouton, 2001), a literature study was undertaken and the survey instrument was scrutinised by relevant academics at Cape Peninsula University of Technology (CPUT) and aviation experts before the instrument was finalised. As the research involved executives who were difficult to access, respondents were first contacted by email for consent and to schedule an appointment for data collection. Therefore, questionnaires were only distributed to those who agreed to participate in the study. The researchers explained the purpose of the survey, indicated that participation was voluntary, and requested the manager to complete the questionnaire voluntarily. Completed questionnaires were collected by the researchers, but the distribution of questionnaires continued until the number of fully completed questionnaires corresponded with the targeted sample size. Airlines were visited for data collection in June and July 2016. Factor analysis was used to identify the underlying dimensions of micro environmental factors impacting on airline performances. Further correlation coefficient and regression analysis was employed to determine the impacts of micro environmental factors (independent variables) on airline performances (dependent variable). The data was captured and analysed by means of the Statistical Package for Social Sciences (SPSS) software version 22.

FINDINGS

Accordingly, Table 1 shows the results and the variable mean scores and standard deviations for micro environmental factors impacting airline performances in southern Africa. Table 1 depicts the mean scores and standard deviations calculated for the impacts of the micro environment on the performance of airlines. An initial glance at the data reveals that the impacts of each factor varied from 1.07 for price wars (V3) to 4.56 for brand identity (V6), with five being the highest possible score. Standard deviations between 0.43 (customer concentration) and 1.32 (product similarities) were calculated.

Table 1 further depicts that price wars (V3) highly impacted negatively on the performances of Comair (1.07), Mango (1.13), SAX (1.36) and SAA (1.19) whilst the number of airlines (V13) highly impacted negatively on the performances of Air Zimbabwe (1.09), Air Namibia (1.40) and Air Botswana (1.35). High operating costs (V10) highly impacted negatively on the performance of Airlink (1.92). A possible reason for the highest negative impact of price wars on Comair, Mango, SAX and SAA might be the increase in the number of LCCs which has resulted in a reduction of airfares (Mondliwa, 2015). A possible reason for the highest negative impact of the number of airlines (V13) on Air Zimbabwe (1.09) might be the Zimbabwean Government's 'open skies' policy.

Table 1. Means (M) and standard deviations (SD) for the micro Environmental factors impacting on respective airlines

	MICRO FACTORS	Airlines															
		Comair		Mango		Airlink		SAX		Air Zim		Air Nam		Air Bots		SAA	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
V1	Economies of scale	3.94	0.67	3.68	0.79	3.73	0.89	3.18	0.73	2.87	0.92	2.69	0.79	2.90	0.93	4.18	0.83
V2	Capital requirements	3.73	0.81	4.04	0.95	3.58	0.43	3.81	0.91	3.83	1.07	4.01	1.03	3.89	1.03	4.02	0.76
V3	Price wars	1.07	1.06	1.13	1.26	4.18	0.70	1.36	0.69	1.91	0.83	1.52	0.56	1.76	0.82	1.19	0.94
V4	Partnerships by competitors	1.69	0.47	1.89	0.67	3.78	0.57	2.35	0.45	1.16	0.76	2.05	0.46	2.37	0.65	1.87	0.53
V5	Product differences	3.86	0.68	3.51	0.54	3.79	0.58	3.58	0.75	2.59	0.81	3.67	0.61	3.59	0.97	3.83	0.92
V6	Brand identity	4.56	0.71	4.24	1.14	4.07	1.03	4.04	0.99	2.97	1.29	3.29	0.68	3.42	0.62	4.36	0.62
V7	Technology	4.29	0.63	4.49	0.73	4.21	0.58	3.42	1.27	1.33	0.64	3.83	0.71	2.89	0.81	3.21	0.51
V8	Expected retaliation	2.63	0.51	3.96	0.88	4.39	0.66	3.84	0.60	3.72	0.52	3.57	0.58	3.41	0.53	4.28	0.87
V9	Government regulation	2.02	0.89	4.07	0.65	4.53	1.25	4.16	0.87	1.11	0.92	4.37	0.92	4.30	0.79	4.39	1.27
V10	High operating costs	1.78	0.96	1.53	0.68	1.92	0.64	2.07	0.61	1.67	1.31	2.13	1.21	2.39	0.88	1.63	0.58
V11	Industry growth	2.27	0.72	2.62	0.51	3.18	0.43	2.89	0.45	1.81	0.70	3.66	0.82	2.87	1.13	2.47	0.49
V12	Size of airlines	1.74	0.58	1.51	0.59	3.89	0.51	1.83	0.68	2.44	0.57	2.27	0.69	3.09	0.61	2.36	0.62
V13	Number of airlines	1.20	0.69	1.20	1.07	4.41	0.63	2.28	0.52	1.09	0.66	1.40	0.71	1.35	0.52	1.40	0.91
V14	Switching costs	3.22	0.89	3.36	0.63	3.33	0.76	3.13	1.27	3.43	0.41	3.07	0.92	3.87	0.85	3.90	0.65
V15	Exit barriers	3.71	1.03	3.86	1.31	3.31	0.83	3.50	0.61	3.17	0.92	3.19	1.23	3.39	0.45	3.58	0.76
V16	Customer volume	2.36	0.67	2.03	0.77	2.4	0.81	1.94	0.94	1.79	0.97	2.36	0.87	3.17	0.91	2.26	0.42
V17	Customer switching costs	1.94	0.86	1.62	0.58	2.56	0.74	2.31	0.65	1.81	1.21	3.01	0.53	3.25	0.56	2.61	0.68
V18	Customer information	2.25	0.52	2.78	0.71	3.74	0.96	3.58	0.42	2.66	0.61	3.88	0.62	3.59	1.33	3.44	0.89
V19	Product similarities	2.15	0.83	2.07	0.51	2.69	0.54	1.92	0.92	1.61	0.87	2.47	0.91	2.91	0.84	2.86	1.32
V20	Customer concentration	2.19	0.43	2.83	0.63	3.07	0.46	3.77	0.81	3.29	0.89	3.81	0.61	3.41	0.79	3.30	0.71
V21	Substitute products	4.29	0.71	4.28	0.48	4.36	0.65	4.25	0.47	4.31	0.75	4.28	0.49	3.85	0.53	4.12	0.55
V22	Product differences	3.84	0.87	3.92	0.91	3.58	0.52	2.17	0.68	3.27	0.91	3.39	0.69	3.82	0.56	2.09	0.93
V23	Supplier concentration	2.42	0.81	3.38	0.52	3.46	1.11	3.44	0.51	2.83	0.59	3.03	0.46	2.91	0.48	2.54	0.71
V24	Supplier differences	4.06	1.24	3.43	0.76	4.08	0.81	3.93	1.21	4.23	0.84	4.13	0.91	4.17	0.83	4.14	0.86
V25	Impact of supplies on costs	3.58	0.62	3.52	1.11	3.09	0.89	3.60	0.52	3.86	1.15	3.56	0.50	3.90	1.13	3.76	0.53
V26	Supplier switching costs	3.89	0.67	3.81	0.55	2.83	0.62	3.44	0.69	4.26	0.93	3.99	0.65	3.72	0.59	3.44	0.97
V27	Substitute suppliers	3.17	1.03	3.26	0.82	2.75	0.71	2.65	0.98	2.44	0.80	2.40	0.83	3.51	0.73	2.83	1.06
V28	Relative price of substitutes	3.24	0.92	2.09	0.60	3.61	1.07	3.72	0.64	2.87	0.45	1.86	0.77	3.18	0.64	2.50	1.10
V29	Customer switching costs	2.01	0.52	2.82	0.52	2.67	0.64	2.91	0.73	2.68	0.53	2.91	0.71	2.46	0.82	2.99	0.79
V30	Brand equity	3.68	0.47	3.90	0.93	3.83	0.76	3.96	0.56	3.50	0.59	3.05	0.91	3.87	0.97	3.47	0.72
V31	Diverse competitors	1.28	0.76	2.55	0.80	2.97	0.85	2.55	0.66	2.64	0.70	2.67	0.56	2.68	0.61	2.88	0.68
V32	Propensity to substitute	3.49	0.61	3.74	0.66	3.73	0.46	3.68	1.12	3.94	0.91	3.90	0.88	3.66	0.70	3.75	0.56
	Overall	**2.86**	**0.75**	**3.04**	**0.76**	**3.49**	**0.72**	**3.10**	**0.75**	**2.72**	**0.81**	**3.11**	**0.74**	**3.24**	**0.77**	**3.11**	**0.77**

*SD: Standard deviation $p<0.05$; 1-Very negative; 2- Negatively; 3- neither negative nor positive; 4-Positivey; 5- Very positive

As a result, the national carrier (Air Zimbabwe) has faced intense competition from foreign airlines such as SAA, Ethiopian Airlines and Kenya Airways (Chipunza, 2013). Table 1 further depicts that brand identity (V6) highly impacted positively on the performance of Comair (4.56) whilst government regulation highly impacted positively on the performance of Airlink (4.41) and SAA (4.39). A possible reason for the highest positive impact of brand identity on the performance of Comair might be attributed to the alliance that Comair has British Airways (BA) that allows Comair a 'seamless' transfer for passengers arriving on international BA flights to South Africa (Speckman, 2015). Comair's passengers also benefit in the form of improved service since all staff were retrained to comply with BA standards (Walters, 2010). Through Comair's participation in the One World Alliance, customers have access to 15 of the world's leading airlines and approximately 30 affiliates, all of which have reputations for quality service (Speckman, 2015).

Table 2. Factor and reliability analysis results of the micro environmental factors impacting on airline performances

ITEMS	FACTORS					COMMUNALITIES
	F1	F2	F3	F4	F5	
V1	0.86					0.692
V2	0.685					0.788
V3	0.885					0.613
V4	0.770					0.669
V5	0.801					0.805
V6	0.706					0.592
V7	0.835					0.724
V8	0.795					0.709
V9	0.838					0.540
V10	0.707					0.791
V11		0.807				0.665
V12		0.660				0.509
V13		0.626				0.793
V14		0.819				0.518
V15		0.595				0.754
V16			0.578			0.476
V17			0.730			0.714
V18			0.691			0.640
V19			0.802			0.716
V20			0.748			0.601
V21			0.699			0.579
V22			0.883			0.733
V23				0.568		0.526
V24				0.607		0.636
V25				0.711		0.618
V26				0.778		0.530
V27				0.543		0.712
V28					0.786	0.584
V29					0.558	0.719
V30					0.713	0.553
V31					0.603	0.610
V32					0.789	0.657
Eigenvalue	6.109	6.347	5.374	4.586	3.905	26.321
% of variance	26.959	21.701	16.835	9.987	6.863	82.345
Cronbach alpha	0.8738	0.8320	0.7641	0.7452	0.8096	0.8049
Number of items	10	5	7	5	5	

In order to determine whether the micro environment significantly impacted on airline performances, the 32 micro environmental factors were factor-analysed, using principal component analysis with orthogonal VARIMAX rotation, to identify underlying

factors. The extraction of the factors and the variables were based on the eigenvalues and the factor loadings of the variables. Only factors with an eigenvalue larger than one and attributes with loading > 0.50 were considered. The exploratory factor analysis extracted five factors, which accounted for 83 per cent of variance in the data. Table 2 illustrates the results of this VARIMAX process. Reliability analysis (Cronbach Alpha) was calculated to test the reliability and internal consistency of each factor. The results of the reliability analysis showed that Cronbach's alpha coefficients of the extracted factors ranged from 0.7452 to 0.8738. That is well above the minimum value of 0.60, which is considered acceptable as an indication of scale reliability (Leedy & Ormrod, 2013). These values suggest good internal consistency of the factors. Finally, Cronbach's alpha value for the overall airline performance scale is 0.8049 and indicates its high reliability. Most of the factor loadings were greater than 0.60, implying a reasonably high correlation between extracted factors and their individual items. The communalities of 32 items ranged from 0.476 to 0.805 indicating that a large amount of variance has been extracted by the factor solution. The five micro environmental factors identified by VARIMAX as reliable and consistent with an Eigenvalue greater than one are as follows.

Factor 1: The threats of new entrants had ten attributes which accounted for 26.96% of the variance, with an Eigenvalue of 6.11 and an alpha coefficient of 0.8738. This factor included the following attributes 'Economies of scale,' 'Capital requirements,' 'Price wars,' 'Existing partnerships by competitors,' 'Product differences,' 'Brand identity,' 'Technology,' 'Expected retaliation,' 'Government regulation' and 'High operating costs'.

Factor 2: Competitive rivalry had five attributes which accounted for 21.70% of the variance, with an Eigenvalue of 6.35 and an alpha coefficient of 0.8320. This factor included the following attributes 'Industry growth,' 'Number of airlines,' 'Size of airlines,' 'Switching costs,' and 'Exit barriers'.

Factor 3: The bargaining power of customers had seven attributes which accounted for 16.84% of the variance, with an Eigenvalue of 5.37 and an alpha coefficient of 0.7641. This factor included the following attributes 'Customer volume,' 'Customer switching costs,' 'Customer information,' 'Product similarities,' 'Customer concentration,' 'Substitute products,' and 'Product differences'.

Factor 4: The bargaining power of suppliers had five attributes which accounted for 9.99% of the variance, with an Eigenvalue of 4.59 and an alpha coefficient of 0.7452. This factor included the following attributes 'Supplier concentration,' 'Supplier differences,' 'Impact of supplies on costs,' and 'Switching costs of suppliers' and 'Presence of substitute supplies'.

Factor 5: The threats of substitute products had five attributes which accounted for 6.86 % of the variance, with an Eigenvalue of 3.91 and an alpha coefficient of 0.8096. This factor included the following attributes 'Relative price of substitutes,' 'Switching costs by customers,' 'Brand equity,' 'Diverse competitors,' and 'Customer propensity to substitute'. The five orthogonal factors (the threats of new entrants, the bargaining power of buyers, the bargaining power of suppliers, the threats of substitutes and competitive rivalry) were used in Pearson's product-moment correlation coefficient and regression analysis to investigate the relationship of overall airline performances (dependent variable) with the five micro environmental factors (independent variables). The results of the correlation analysis are depicted in Table 3. The data revealed that three factors namely, competitive rivalry, the bargaining power of customers and the bargaining power of suppliers significantly impacted ($p<0.05$) negatively on airline performances whilst the threat of new entrants and substitute products did not have any impact ($p<0.05$) on airline performances. The factor with the highest negative impact on overall airline performances was competitive rivalry ($r= -0.86$), followed by the bargaining power of customers ($r=-0.67$) and the bargaining power of suppliers ($r=-0.59$). The negative impact of competitive

rivalry on airline performances could be generalized to extant literature as confirmed by previous researchers (Stonehouse & Campbell, 2004; Thompson & Martin, 2005; Moiseiwitsch, 2014). However, a possible reason for the significant negative impact of competitive rivalry on airline performances in a southern African context might be due to the high number of LCCs which has resulted in overcapacity in the South African domestic market (Ensor, 2016). The results suggest that southern Africa's domestic market (for example, South Africa) is too small to support three LCCs (Maqutu, 2015).

Table 3. Correlation results of micro environmental factors and overall airline performances

Micro environmental factors	Overall airline performances	
	Correlation coefficient (r)	Significance (p-value)
Competitive rivalry	-0.86	<.0001*
The threat of new entrants	0.62	0.2317
The threat of substitute products	0.55	0.1604
Bargaining power of suppliers	-0.59	<.0001*
Bargaining power of customers	-0.67	<.0001*

Another possible reason for the significant negative impact of competitive rivalry on airline performances might be that Air Zimbabwe faces intense rivalry after the Zimbabwean government opened the skies. Consequently, competitors now control over 90% of market share against Air Zimbabwe's 10% and this has significantly affected Air Zimbabwe's performance (Chipunza, 2013). The findings on the bargaining power of suppliers significantly impacting negatively on airline performances could be generalized to previous research scholars (see works by Pandey, 2010; Bryson, 2012; Eller & Moreira, 2014) who also found the same results. However, in a southern African context this might be attributed to the limited number of suppliers of airline fuel rendering fuel expensive locally (Nhuta, 2012). Furthermore, the findings on the bargaining power of customers significantly impacting negatively on airline performances could be generalized to previous literature (Clark, 2011; Ismael, 2015; Spooner, 2015; Winsen, 2016) who have also found the same results. However, in southern Africa this might be attributed to the lack of a strong brand in the domestic airline industry hence there is no brand loyalty. This is further exacerbated by the absence of switching costs in southern Africa which increases buyer power as customers can easily switch between airlines as argued by Mondliwa (2015).

A possible reason for the significant negative impact of the bargaining power of customers on airline performances in southern Africa might be an increase in the number of travel agencies in supermarkets that are able to influence the travelling public not only on the mode of transport to use but also on the particular airline to use (Kamau & Stanley, 2015). Therefore, buyers are becoming more informed and this has given them power over the airlines. The findings on new entrants not impacting on airline performances are corroborated by Hitt et al. (2010) and Bryson (2012) who claim that new entrants do not impact on the performance of existing airlines because new entrants cannot enter and compete on the same level as established airlines. In a southern African context this might be attributed to the fact that it is difficult for new entrants to acquire prime time or peak hour landing slots at major airports (Nolutshungu, 2013). In the same vein, the low threat posed by new entrants to established carriers in southern Africa might be attributed to predatory pricing which is normally used as a retaliatory strategy by established airlines to counter-off competition particularly from new entrants (Nolutshungu, 2013). The findings on the substitute products not impacting on airline performances could be generalized to previous research scholars (see works by Walters, 2010; Clark, 2011) who also found that substitute products did not impact on airline performances. In southern Africa this might be attributed to the inconvenience caused by other travel substitutes compared to using air

transport (Gernetzky, 2016). For instance, although travelling by train is cheaper in southern Africa, most journeys often go overnight, whilst bus operators often travel overnight and arrive at inconvenient times. In contrast, despite the time taken to reach the airport, the overall journey time by air is much shorter than other travel substitutes (Wood, 2016). A full regression model was run for the dependent variable (airline performances). The model regressed the five micro environmental factors against overall airline performances. The regression model is depicted in Table 4.

Table 4. Regression results of micro environmental factors and overall airline performances

Independent variables	**Model : Overall airline performances**	
	t-value	**p-value (p)**
Competitive rivalry	-15.02	0.0001*
The threat of new entrants	5.30	0.4227
The threat of substitute products	3.41	0.3056
Bargaining power of suppliers	-9.37	0.0268*
Bargaining power of customers	-11.49	0.0129*

* indicates significant relation ($p<0.05$)

The regression model depicted in Table 4 shows that three factors, namely, competitive rivalry ($p<0.0001$), the bargaining power of customers ($p=0.0129$) and the bargaining power of suppliers ($p<0.0268$) significantly impacted ($p<0.05$) negatively on airline performances. The t-values in Table 4 indicate the relative impact of each factor on airline performances. Competitive rivalry ($t=-15.02$) was rated by respondents as the micro environmental factor highly impacting negatively on airline performances, followed by the bargaining power of customers ($t=-11.49$) and the bargaining power of suppliers ($t=-9.37$). The research findings in this study where competitive rivalry highly ranked amongst the factors that negatively impacted on airlines performances deviates from previous research scholars (Doganis, 2013; Heinz & O'Connell, 2013; Barros & Wanke, 2015) who found the bargaining power of customers as the highest factor negatively impacting airline performances. A possible reason for the difference in results in this study and previous research scholars might be due to the small market in southern Africa where LCCs compete on the same routes unlike research from other scholars which was conducted in large markets (such as Europe) where competing LCCs do not fly on the same routes. The model F-value was calculated at 26.32 ($p<0001$). The five micro environmental factors had a coefficient determination (R^2) of 0.8235 (Table 3) and thus explained more than 82 per cent of the variability in overall airline performances. This explanation of the variability in overall airline performances is high when compared to other studies. For example, the regression results of a study performed by Cederholm (2014), identified competitive rivalry, the threat of substitutes, the bargaining power of customers and the bargaining power of suppliers as significant factors ($p<0.05$) impacting on airline performances, which explained only 68 per cent of airlines' performances.

CONCLUSION

The purpose of this research endeavour was to determine the impacts of the micro environment on airline performances. As the literature review and the study findings have shown, competitive rivalry, the bargaining power of suppliers and customers significantly impacted negatively on airline performances thereby hindering tourism growth in southern Africa. Therefore, the only opportunities for the airline industry in southern Africa are the low threat of substitutes and new entrants, which are not enough to mitigate intense rivalry and the high bargaining power of customers and suppliers. Several suppliers can squeeze airlines, and even though the threat of new entrants is low, wherever there is potential, there

will be new entrants, creating overcapacity and reducing yields (as was the case in South Africa). It is for this reason that the potential of tourism has not been fully realised in southern Africa. Since competitive rivalry significantly impacted on airline performances it is recommended that southern African countries reduce the number of LCCs in the domestic market to avoid overcapacity something that has negatively impacted on tourism. At most two LCCs will suffice since the southern African domestic market is not large enough to support three LCCs or more. To improve tourism, policy makers should further ensure that competing LCCs do not fly on the same routes.In another vein, since the bargaining power of customers significantly impacted negatively on airline performances it is recommended that airlines form alliances, which are strong, with other international airlines to improve brand loyalty and thereby reduce the bargaining power of customers. In most parts of the world, airlines have entered into alliance agreements to strengthen and extend the scope of their business and enhance their competitive position and thereby improve tourism development. Similarly, to reduce the bargaining power of customers the researchers recommend that airlines improve the service they deliver to tourists. Satisfied tourists have a very positive effect on tourism. If tourists are satisfied they are encouraged to travel frequently. If the airline industry is to have an even greater beneficial effect on tourism growth, airlines should identify key areas of importance to tourists. Various types of tourists, ranging from leisure to business tourists, have different ideas about what constitutes a satisfying flying experience. By studying the needs of different types of tourists, airlines will be able to rank product and service features, identify additional opportunities for improvement, create brand loyalty and increase return patronage and thereby reduce the bargaining power of customers.

LIMITATIONS

Although the researchers took great effort to enhance the trustworthiness and the validity and reliability of the research processes, as with any study, there remained certain limitations. These limitations expose weaknesses of this study, which could help researchers in future to design and conduct their research on critical success factors and challenges in the airline sector more effectively. Firstly, obtaining permission from the airlines was time-consuming and some airline executives/managers refused to participate in this study. The viewpoints of airline executives/managers who refused to participate in the study are lacking. Secondly, the research was based on the micro environmental factors impacting airline performances in southern Africa. Caution is therefore required when generalising the findings of this study to other airlines in other geographic areas. The impacts of micro environmental on airline performances on airlines from other geographic locations might be different. Thirdly, the study is limited in sample size (eight airlines) as a result of the scope. A larger sample size of a greater variety of airlines could also possibly generate other insights. Fourthly, the assessment of the impact of the micro environment on airline performances was limited to 32 factor attributes. Even though these attributes were included in other studies and the content validity of these attributes tested, there could be other relevant factor attributes of the micro environment that are likely to impact on airline performances. Last, the regression model failed to explain 18 per cent of the variation in airline performances.

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