



The fast food industry in South Africa: the micro-environment and its influence

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Abstract

The purpose of this study was to determine the influence of the micro-environment on the fast food industry in South Africa. The study was mainly quantitative. Questionnaires were distributed to 227 key restaurant personnel. Factor analysis was used to identify the dimensions of micro-environmental factors influencing restaurants performances. The results indicated that three factors, namely, intense rivalry, the threat of substitute products and the bargaining power of customers significantly influenced ($p < 0.05$) negatively on restaurant performances whilst the threat of new entrants and the bargaining power of suppliers did not have any influence ($p < 0.05$) on restaurant performances. Therefore, the only opportunities for fast food restaurants in South Africa are the low threat of new entrants and the low bargaining power of suppliers, which are not enough to mitigate intense rivalry in the industry. To reduce intense rivalry, the government must restrict competition, through regulation to avoid overcapacity in the industry.

Keywords: fast food industry, entry barriers, restaurant performances, intense rivalry, South Africa

Introduction

The fast food industry is becoming increasingly multifaceted and extremely competitive. In such an environment, restaurant managers are finding themselves hard to face a two faced problem (Mhlanga, 2018). On one hand, sales are slowing down and operating costs are increasing (Maumbe, 2012). On the other hand, there is an increase of substitute products (Swart, 2017), new entrants (Veitch, 2017), cut-throat competition (Nair, 2016) and customers are becoming more demanding and increasingly selective of the types of services they receive (Bhasin, 2018). These micro-environmental factors are presenting restaurant managers with a special challenge, how to maintain profitability in a shrinking market while providing the sophisticated customers with high quality and efficient services (Mhlanga, Hattingh & Moolman, 2014). In achieving this seemingly impossible objective, fast food restaurants should clearly comprehend the influence of the micro-environment on the performance of fast food industry (Goko, 2017).

Some research endeavours (see works by Green, 2014; Henkes, 2015; Mhlanga, 2015; Goko, 2017) argue that fast food restaurants must continuously scan their micro-environment and adjust where necessary to be able to overcome the aforementioned challenges. According to Porter (2008) the micro-environment is made up of five factors, namely, the threat of new entrants, the bargaining power of customers, the bargaining power of suppliers, the threat of substitutes and intense rivalry which may positively or negatively influence restaurant performances. In order to be successful, fast food restaurants should have a clear understanding of the micro-environment and its influence on restaurant performances (Mamalis, 2009).

However, restaurateurs in South Africa have not yet understood the influence of the micro-environment on the fast food industry, resulting in high restaurant failure (Maumbe, 2012). According to Statistics South Africa (SSA, 2016), approximately sixty-two percent of fast food restaurants fail during their first year operation and eighty-seven percent fail within five years.



This, according to Mhlanga (2018), is indicative of the level of influence of the micro-environment on the fast food industry.

Despite its reputation as one of the most vibrant economic sectors in the country, not much is known about the influence of the micro-environment on the fast food industry in South Africa. The paucity of research on identifying the influence of the micro-environment on the performance of the fast food industry is a significant lacuna. There is a need to better understand the strategic responses to globalisation and domestic consumerism and their implications on the relative competitiveness of this industry.

This study is significant in several ways. First, it provides a framework for analysing the competitive market positioning of South Africa's fast food industry. Second, it identifies market intelligence for dealing with the threat from rising competition, diverse consumer preferences, and new innovations relevant for industry strategy and government policy making. Third, a better understanding of the intensity of the industry rivalry will assist fast food restaurateurs to develop proactive local and global strategies to achieve sustainable competitive advantages. In this study, the terms 'fast food' and 'fast food restaurant' are used interchangeably to mean the same.

Theoretical background

Over the last two decades, tourism has been recognised as playing a significant role in South Africa's economy (Mhlanga & Machingambi, 2016). According to the Tourism Satellite Account for South Africa, the tourism sector directly contributed 2.9% to the South African gross domestic product (GDP) in 2017 [Statistics South Africa (SSA, 2018)], making tourism a larger contributor than agriculture. The World Travel and Tourism Council (WTTC, 2018) forecasts this will rise by 2.4% in 2018 and by 3.6% per year between 2018 and 2028. Statistics South Africa (2018), further reports that in 2016, the tourism sector's 686 596 employees outnumbered the respective workforces of utilities (118 000 employees) and mining (444 000 employees). Employment figures for tourism are estimated to be well over 700 000 in 2018. According to the WTTC (2018), travel and tourism supported 1.5 million jobs in SA in 2017, which is 9.5% of total employment in the country. The WTTC estimates that by 2028 almost 2.1 million jobs in SA will depend on travel and tourism.

Restaurants are classified as one of the subsectors of the South African tourism industry [CATHSSETA (Culture, Arts, Tourism, Hospitality and Sports Sector Education and Training Authority), 2018]. The Tourism Satellite Account for 2007 [SSA (Statistics South Africa), 2007] estimated that the subsector constituted 1.79 percent of the tourism industry's contribution towards the GDP of South Africa and provided for 93 000 jobs in the tourism industry in 2007. It is therefore a small segment of the tourism industry with an economic impact comparable to that of the sport, recreation and fitness subsector (Mhlanga & Tichaawa, 2017). However, the fast food restaurant sub-sector in South Africa is full of contradictions. The rise in consumerism and a growing black middle class have increased customer demand for fast foods in South Africa (Mhlanga, Hattingh & Moolman, 2013).

Despite the increase in customer demand for fast foods (Mhlanga, Hattingh & Moolman, 2015) the failure rate for fast food restaurants in South Africa is considered to be higher than the average failure rate for small businesses, with most fast food restaurants failing in their first year of inception (SSA, 2018), which explains the contradiction. This, according to Mhlanga (2018) is due to intense industry rivalry which has influenced the performances of fast food restaurants in South Africa. Some research endeavours (Maumbe, 2012; Roberts-Lombard, 2009; Swart, 2017) argue that a better understanding of the industry's attractiveness is key to knowing how likely a particular restaurant is to succeed within the industry.



Overview of the fast food industry in South Africa

The fast food industry in South Africa was previously dominated by an oligopolistic market structure but now a new form of configuration comprising independent and chain restaurants has evolved. As such, there are a lot of independent and chain fast food restaurants in South Africa (Nair, 2016). Among the established brands is Kentucky Fried Chicken (KFC) which is the biggest player with over 771 restaurants strewn across the country (Sullivan, 2018). According to Swart (2017), because of the large number of fast food restaurants there is cut-throat competition among established fast food restaurant brands. Consequently, fast food restaurants face intense rivalry with independent and chain restaurants fiercely competing for consumers (Maumbe, 2012).

However, South Africa's fast food restaurants also face stiff competition from major supermarkets, namely, Checkers, Pick n Pay, Spar, Shoprite and Woolworths, other retail chains, convenience stores, food caterers and informal traders (Insight Survey, 2016). These major supermarkets now offer increasingly popular ready-to-eat meals in their deli section to urban consumers. Consequently, price wars have begun (Veitch, 2017).

According to Perreira (2014) the entry of many fast food restaurants has resulted in overcapacity in South Africa because the market is not large enough to support many fast food restaurants. As of 2014, there were 8661 fast food restaurants in South Africa, which is far more restaurants-per-person than there are in other BRIC (Brazil, Russia, India and China) countries (Perreira, 2014). Green (2014) claims that approximately 25 million people frequent fast food restaurants in South Africa each year, which is far more restaurants-per-person than there are in other countries of similar size. Even much larger Australia, which is about four times the size of South Africa, has fewer fast food restaurants-per-person than South Africa (Perreira, 2014).

Furthermore, there is a huge presence of food delivery companies with online apps such as Mr D Food and UberEats, which have significant power to shift demand across restaurants (Swart, 2017). These food delivery companies are not only able to offer different prices for different restaurants to customers but are also able to influence customers on the particular restaurant to visit (Richardson & Aguiar, 2003). Therefore, the presence of food delivery companies with online apps has marginally increased the influence of consumers as clearly articulated Swart (2017).

There is also a growing popularity of in-store food services either in the form of in-store cafés (at supermarkets and retailers) or convenience foods where consumers purchase ready-to-eat foods, salads or entrees (Green (2014). According to Goko (2017) these grocery chains and in-store food services are a huge substitute to the fast food restaurant industry because of the attractive price they offer to consumers. Furthermore, there are many suppliers of ingredients such as flour, meat, wild porcini mushrooms, truffles, cow tongue and organic watercress (Roberts-Lombard, 2009). This, according to Brown (2016), allows suppliers to sell lower priced ingredients to restaurants and thereby reduces input costs.

Despite stiff competition in the local market there has been an increase of international brands such as, Burger King, Domino's Pizza and Pizza Hut, Starbucks and Dunkin Donuts into the local market. However, established restaurants 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. For instance, following Burger King's entry into the South African market, the entrant experienced substantial competition from McDonalds and Steers (Nair, 2016). McDonalds and Steers dropped prices on their burgers, increased their meal portions and opened their outlets in areas where the new entrant had opened (Sharebox, 2017).

Predatory pricing is a common retaliatory strategy used by fast food restaurants in South Africa to discourage entry into the market or drive a competitor out of business (Green, 2014). Predatory pricing is a pricing strategy in which a product or service is set at a very low price with the intention to drive competitors out of the market or to create barriers to entry for potential new competitors (Sharebox, 2017). For instance, following the entry of Domino's Pizza and Pizza Hut into the South African market, Debonaires and Romans Pizza retaliated by reducing their prices by as much as 36% to dissuade new entrants into the pizza market (Sharebox, 2017).

Theoretical framework

This study draws upon Porter's (2008) Five Forces model as a basis to understand the influence of the micro-environment on fast food restaurant performances. Through his model, Porter (2008) classified five main competitive forces (the threats of new entry, the bargaining power of buyers, the bargaining power of suppliers, the threats of substitutes and intense rivalry) to gauge industry attractiveness. According to Maumbe (2012) the model has proved a veritable tool in analysing the influence of the micro-environment on organisations. As a consequence, various scholars (Royle, 2005; Sullivan, 2018; Swart, 2017) have since used Porter's (2008) model to analyse the influence of the micro-environment on organisational performances and to gauge industry attractiveness. Figure 1. identifies the theoretical framework (Porter's Five Forces model) used in this study.

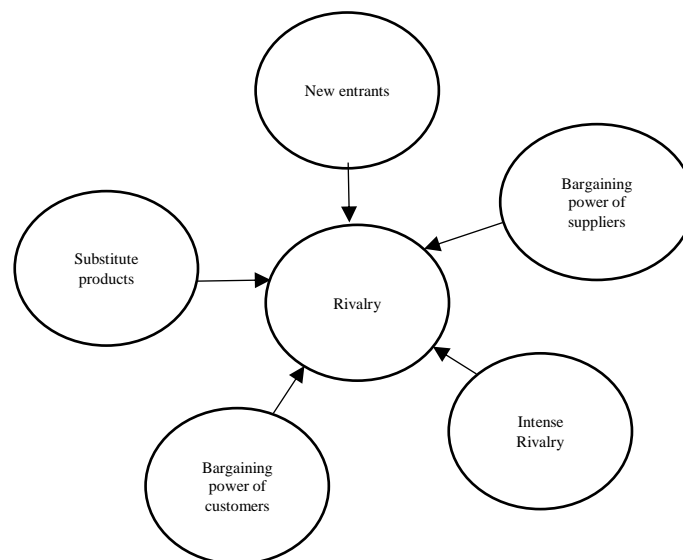


Figure 1. The theoretical framework (Porter's Five Forces model)

As depicted in Figure 1 above, the model describes five forces that influence the performance of the fast food industry, namely, *buyer bargaining power*, *supplier power*, *the threat of new entrants*, *intense rivalry* and *threat of substitute products*. The threat of new entrants refers to the threat new competitors pose to existing competitors in an industry (Bhasin, 2018). The bargaining power of suppliers refers to the pressure suppliers can exert on restaurants by raising prices, lowering quality or reducing availability of their products (Sullivan, 2018). The bargaining power of customers refers to the pressure consumers can exert on restaurants to get them to provide higher quality products, better customer service and lower prices (Pratap, 2017). The threat of substitute products refers to the extent to which the product or service offered by an industry incumbent can be replaced by another similar service (Royle, 2005). Intense rivalry refers to the extent to which restaurants within an industry put pressure on one another and limit each other's profit potential (Henkes, 2015).



Pratap (2017) used regression analysis and found that new entrants and the bargaining power of suppliers significantly affected the performances of restaurants. Burke, van Stel and Thurik (2010) used factor analysis and found a significant difference between new entrants and restaurant performances because of low switching costs. According to these authors new entrants significantly affect restaurant performances if there are low switching costs because it is easy for consumers to transfer from one restaurant to another. Dobbs (2014) found that new entrants did not have any influence on restaurant performances because of entry barriers. Bhasin (2018) also used correlation analysis to find any causal link between new entrants and restaurant performances and found that the link between the two variables is dependent on the entry barriers. Bhasin (2018), avers that as entry barriers increase so do restaurant performances and vice-versa. However, in another study, Harbott (2011) found no clear link between the two variables.

Grundy (2006) and Karagiannopoulos, Georgopoulos and Nikolopoulos (2005) investigated the influence of the bargaining power of suppliers on restaurant performances and found that the bargaining power of suppliers significantly influenced restaurant performances because of two variables namely, pricing and supply control. In another study, Sullivan (2018) performed a simple GLS regression analysis to find the relationship between the bargaining power of suppliers and restaurant performances and found that the link between the two variables is dependent on the price of suppliers.

Thompson (2007) found that the relationship between the two variables is dependent on product quality, and the efficiency of suppliers. According to Thompson (2007), because fast-food restaurants operate on high volume, so rapid replacement of supplies at a low cost can save restaurants time and money. Roy (2011) found that the relationship between the two variables is dependent on the suppliers' client base. Therefore, a supplier with a diversified client base has more bargaining power than a supplier who relies solely on one or two restaurants (Roy, 2011).

Ibrahim (2012) investigated the influence of the bargaining power of customers on restaurant performances and found that the bargaining power of customers significantly influenced on restaurant performances because of low switching costs and high substitute availability. The low switching costs correspond to the ease of transferring from one restaurant to another. This condition empowers customers to make decisions that directly affect restaurant business (Ibrahim, 2012). Pratap (2017) used regression analysis and found that the bargaining power of customers had the highest negative influence on restaurant performances.

Matthew (2017) investigated the relationship between the threat of substitute products and restaurant performances and found that substitute products significantly influenced restaurant performances because of the availability of substitutes that strengthen the threat of substitution against fast food restaurants. In another study, Kilne and Botterill (2007) investigated the relationship between the threat of substitute products and restaurant performances and found that substitute products did not have any influence on restaurant performances because of strong brand loyalty from fast food restaurants.

Richardson and Aguiar (2003) also found that substitute products did not have any influence on fast food restaurant performances because of the convenience of their location. In their study, Kerfoot, Davies and Ward (2003) found that substitute products have a strong negative influence on fast food restaurant performances because of the availability of many substitutes. However, Royle (2005) found that substitute products significantly influenced negatively the performance of fast food restaurants because of low switching costs which strengthen the threat of substitution.

Goyal and Singh (2007) used a longitudinal analysis of restaurant failures to determine the relationship between intense rivalry and the performance of fast food restaurants and found that intense rivalry significantly influenced negatively on restaurant performances because of



the large number of restaurants in the industry which gave customers a wider range of choices. In another study, Green, (2014) used regression analysis to determine the relationship between intense rivalry and the performance of fast food restaurants and found that intense rivalry significantly influenced negatively on restaurant performances because of low switching costs and low exit barriers in the fast food industry.

Henkes (2015) found that intense rivalry significantly influenced negatively on restaurant performances due to cut-throat competition in the industry whilst Maumbe (2012) found that price was significantly influenced negatively on restaurant performances. However, in a study by Veitch (2017) intense rivalry did not have any influence on fast food restaurants because of product differentiation in the industry.

Research methodology

There were 25 fast food restaurant brands in South Africa at the time of the study. Eight of the 25 restaurant brands were included in the study. These restaurants complied with the criteria set by SSA (2017:9) for classification as a fast food restaurant, namely, an enterprise that serves fast food cuisine and has minimal table service. These enterprises have a limited menu of food prepared with minimum delay and sometimes cooked in bulk, in advance and kept hot, finished and packaged to order, and usually available for take away, though seating may be provided.

This study was mainly quantitative in nature. A research instrument (questionnaire) adopted from Maumbe (2012) was modified to reach the study objectives. Porter's (2008) five forces (the threats of new entrants, the bargaining power of buyers, the bargaining power of suppliers, the threats of substitutes and intense rivalry) were used as exogenous variables since some research endeavours (see works by Maumbe, 2012; Royle, 2005; Sullivan, 2018; Swart, 2017) identify these variables as the most important micro-environmental factors that influence on restaurant performances whilst restaurant performance was treated as an independent variable. This method of testing the influence of the micro-environment on restaurant performances is comparable to the technique used by Maumbe (2012). This researcher used micro-environmental factors as exogenous variables whilst restaurant performance was treated as an independent variable.

The independent variable (restaurant performances) was tested by requesting key restaurant personnel to rate the influence of the micro-environment on restaurant performances. As in Porter's Five forces model, the questionnaire contained 32-items for measuring the influence of the micro-environment on restaurant performances. A five-point Likert scale was used. Since each point in the Likert scale had a descriptor, a fully anchored rating scale was applied. The five response alternatives for measuring the influence of the micro-environment on restaurant 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 amongst sixteen key restaurant personnel, i.e. two in each of the targeted restaurants. No changes were made to the questionnaire. The study was voluntary and verbal consent was obtained from all the restaurant managers whilst permission was obtained from the restaurants. Permission was also obtained to identify all restaurants, although, it was agreed that the names of the respondents be kept anonymous. 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 was chosen based on a table that was formulated to determine how large a

randomly chosen sample, from a given finite population, should be, as proposed by Isaac and Michael (1981). According to Isaac and Michael (1981), the sample size should be about 10% size of the population. A sample size of at least 227 key restaurant personnel was deemed appropriate and consequently used for the study.

A scanning question, on whether the respondent was a key restaurant 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 and restaurant experts before the instrument was finalised. Restaurants were visited for data collection in August and September 2017.

Factor structure for independent and dependent variables constructed separately using principal component analysis with orthogonal VARIMAX rotation, was performed to identify underlying factors. Further correlation coefficient and regression analysis was undertaken to determine the influence of micro-environmental factors on restaurant performances. The main purpose of this procedure was to group the acceptable sub-scales into meaningful distinct factor. Internal consistency reliabilities for each dimension were examined using Cronbach's alpha. Data analysis was done in SPSS Version 23.

Findings

Table 1 shows the results for micro-environmental factors influencing restaurant performances in South Africa.

Table 1: Means (M) and standard deviations (SD) for the micro-environmental factors influencing restaurant performances

	MICRO-FACTORS	Fast food restaurants															
		McDona lds		Ocean Basket		KFC		Chicken Licken		Steers		Nandos		Wimpy		Debonai rs	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
V1	Economies of scale	4.5 9	0.9 3	4.6 3	0.8 6	4.5 8	0.8 5	4.6 9	0.9 7	4.6 8	1.22	4.5 0	0.8 3	4.7 3	1.0 9	4.5 4	0.9 2
V2	Capital requirements	4.1 3	1.2 1	3.9 1	0.7 7	3.4 3	1.1 3	3.5 6	0.8 8	3.8 9	0.77	4.0 4	0.6 7	3.9 6	0.9 2	4.0 1	0.6 9
V3	Price wars	1.2 8	1.0 3	1.4 7	1.0 3	1.6 9	0.9 0	1.4 2	0.7 9	1.3 2	0.63	2.5 2	0.5 2	2.7 0	0.6 8	2.0 9	0.8 0
V4	Partnerships by competitors	2.7 6	0.7 7	2.6 2	0.9 4	3.0 8	1.0 7	2.8 5	0.5 5	2.5 6	0.86	2.9 5	0.8 6	2.6 7	0.7 6	3.2 4	0.7 1
V5	Product differences	3.9 4	0.9 8	3.4 0	0.7 6	3.9 9	0.5 6	3.6 9	0.8 5	3.8 0	0.91	3.8 7	0.9 1	3.8 9	0.8 7	3.8 3	1.0 2
V6	Brand identity	4.7 9	0.5 6	4.6 6	0.8 1	4.5 2	1.0 9	4.5 7	0.8 9	4.5 2	0.69	4.7 9	1.0 8	4.7 8	0.7 2	4.7 4	0.8 2
V7	Technology	4.6 6	0.6 3	4.5 3	0.9 3	4.5 6	0.7 8	4.5 0	0.5 7	4.4 9	0.54	4.4 3	0.8 1	4.5 6	0.9 6	4.2 1	0.6 6
V8	Expected retaliation	2.2 6	0.5 8	3.0 8	0.8 0	3.4 7	0.8 6	2.9 7	0.7 9	3.6 2	0.69	3.5 7	0.6 8	2.4 3	0.6 3	3.6 8	0.9 7
V9	Government regulation	3.0 6	0.8 0	3.8 5	0.6 8	3.5 0	1.0 8	3.4 6	0.9 7	3.1 1	0.80	3.6 8	0.6 2	3.8 0	0.5 9	3.6 9	0.5 7
V10	High operating costs	1.5 5	0.9 2	1.9 3	0.6 5	1.4 8	0.7 4	2.0 8	0.8 1	2.8 7	0.71	2.0 3	0.7 3	2.1 9	0.6 4	2.6 3	0.7 0
V11	Industry growth	3.4 1	1.2 6	3.9 6	0.7 1	3.5 8	0.5 3	3.5 9	0.6 5	3.5 7	0.60	3.8 6	1.0 5	3.4 7	0.6 9	3.6 7	0.6 9
V12	Size of restaurants	3.5 8	0.6 8	2.9 1	0.8 7	3.2 5	0.6 1	3.1 3	0.7 8	2.7 6	0.53	3.6 7	0.5 9	3.0 5	0.7 0	3.6 6	0.6 0
V13	Number of restaurants	1.7 0	0.5 9	1.9 4	0.9 1	1.4 3	0.7 3	2.1 8	0.6 2	2.8 3	0.89	2.3 8	0.5 1	2.8 0	0.6 3	2.4 0	1.1 1
V14	Switching costs	2.8 2	0.9 5	3.0 6	1.0 6	3.2 9	0.8 6	3.2 0	1.0 7	3.7 3	0.61	2.8 7	0.8 2	3.6 7	0.7 5	2.9 2	0.9 3



V 15	Exit barriers	2.6 1	1.0 7	2.9 6	0.8 2	2.5 4	0.9 3	2.4 9	0.7 1	2.9 8	0.94	3.1 9	1.0 3	3.5 9	1.1 0	2.8 8	0.8 6
V 16	Customer volume	4.1 9	0.8 3	4.2 6	0.9 7	4.4 0	0.7 1	4.1 4	0.5 4	4.2 9	0.77	4.3 6	0.6 7	4.2 7	0.7 4	4.2 6	0.6 2
V 17	Customer switching costs	1.8 7	0.6 6	2.2 2	0.7 9	2.6 1	0.6 4	2.1 1	0.8 5	2.8 2	0.81	2.0 1	0.6 3	2.3 3	0.6 6	2.7 3	0.7 8
V 18	Customer information	2.6 5	0.5 4	3.3 6	1.1 1	3.5 4	0.8 6	3.4 8	0.5 0	3.8 6	0.51	3.8 9	0.7 0	3.8 9	0.8 7	3.8 4	0.9 6
V 19	Product similarities	2.8 7	0.9 3	2.3 8	0.6 1	2.6 9	0.6 4	2.9 2	0.7 2	2.9 1	0.67	3.4 0	0.9 7	2.9 9	0.6 4	3.0 6	1.0 7
V 20	Customer concentration	4.3 6	0.5 5	4.2 0	0.7 4	4.0 9	0.6 6	4.4 7	0.6 1	4.5 6	0.83	4.3 3	0.6 6	4.4 0	0.5 9	4.3 7	0.8 1
V 21	Substitute products	1.5 5	0.7 9	1.2 1	0.6 7	1.2 4	0.9 5	1.9 5	0.6 7	1.9 0	0.73	1.4 9	0.5 9	1.8 5	0.7 3	2.6 2	0.6 5
V 22	Product differences	4.4 9	0.8 6	4.1 3	1.0 1	4.2 8	0.8 2	4.1 9	0.7 8	4.0 7	0.99	4.1 6	0.7 9	4.3 2	0.8 6	4.2 5	0.8 8
V 23	Supplier concentration	4.6 3	0.9 1	4.6 8	0.8 2	4.4 7	0.6 1	4.4 4	0.6 1	4.5 3	0.69	4.2 3	0.5 6	4.4 1	0.7 8	4.5 0	0.7 6
V 24	Supplier differences	3.9 4	1.0 5	3.2 3	0.9 6	3.8 8	0.7 1	3.9 0	0.7 0	3.8 3	0.74	3.7 3	1.0 1	3.9 7	0.9 3	3.7 4	0.5 9
V 25	Influence of supplies on costs	4.0 7	0.7 2	4.0 2	1.0 1	4.1 4	0.6 9	4.1 9	0.5 7	4.3 5	0.55	4.2 6	0.6 0	4.2 8	0.6 4	4.3 8	0.6 3
V 26	Supplier switching costs	4.2 3	0.8 7	4.1 3	0.8 5	4.3 0	0.5 2	4.4 7	0.7 9	4.2 6	0.60	4.0 6	0.7 5	4.4 2	0.7 0	4.3 4	1.0 3
V 27	Substitute suppliers	4.5 1	0.9 3	4.3 8	0.8 9	4.2 6	0.6 1	4.5 6	0.8 8	4.4 0	0.95	4.4 9	0.8 6	4.5 1	0.5 3	4.2 0	0.6 6
V 28	Relative price of substitutes	2.4 4	0.7 6	2.0 5	0.7 6	2.6 1	1.1 7	2.8 6	0.7 5	2.9 7	0.57	3.3 6	0.6 1	3.4 9	0.9 2	2.5 0	0.6 0
V 29	Customer switching costs	2.6 0	0.5 9	2.4 9	0.6 2	2.8 7	0.7 4	2.9 1	0.6 6	3.3 8	0.63	2.9 0	0.9 1	3.4 0	0.6 7	2.9 9	0.7 9
V 30	Brand equity	4.1 8	0.8 7	4.5 9	0.9 8	4.4 3	0.5 6	4.5 6	0.5 9	4.5 0	0.59	4.3 5	0.7 6	4.3 6	1.1 3	4.4 7	0.5 2
V 31	Diverse competitors	1.6 9	1.0 6	1.8 6	1.0 5	2.2 7	0.6 5	1.7 7	0.6 3	2.6 8	0.78	2.4 7	0.8 6	2.7 9	0.7 5	2.8 1	0.5 8
V 32	Propensity to substitute	2.8 2	0.6 8	2.7 0	0.7 6	3.0 3	0.5 6	3.0 8	1.0 2	3.7 4	0.91	3.1 9	0.6 8	3.3 8	0.6 4	3.1 5	0.9 0
	Overall	3.2 6	0.8 3	3.2 8	0.8 5	3.3 6	0.7 8	3.3 9	0.7 4	3.5 6	0.74	3.5 3	0.7 6	3.6 1	0.7 7	3.5 8	0.7 8

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

Table 1 depicts the results for the influence of the micro-environment on the performance of fast food restaurants. From the table it is clear that the influence of each factor varied from 1.21 for substitute products (V21) to 4.79 for brand identity (V6), with five being the highest possible score. Standard deviations between 0.50 (customer information) and 1.26 (industry growth) were calculated.

Table 1 further depicts that price wars (V3) had the highest negative influence on the performances of McDonalds (1.28), Chicken Licken (1.42), Steers (1.32) and Debonairs (2.09). These results might be attributed to the stiff competition that fast food restaurants face from supermarkets and or convenience foods where consumers purchase ready-to-eat foods (Green, 2014). This has been exacerbated by the influx of international brands in the local market (Nair, 2016). Consequently, price wars have begun (Veitch, 2017).

Table 1 further depicts that substitute products (V21) had the highest negative influence on the performances of Ocean Basket (1.21), KFC (1.24), Nandos (1.49) and Wimpy (1.85). This might be attributed to the increase in the number of grocery chains that offer in-store food services and other similar product characteristics at attractive prices (Goko, 2017). Therefore, the large number of grocery chains significantly influenced the performances of fast food restaurants.

In order to determine whether the micro-environment significantly influenced the fast food industry, 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 74 per cent of variance in the data. Table 2 illustrates the results of this VARIMAX process.

Table 2: Factor and reliability analysis results of the influence of the micro-environment in the fast food industry

ITEMS	FACTORS					COMMUNALITIES
	F1	F2	F3	F4	F5	
V1	0.735					0.647
V2	0.657					0.703
V3	0.820					0.658
V4	0.675					0.737
V5	0.836					0.816
V6	0.792					0.532
V7	0.827					0.784
V8	0.705					0.602
V9	0.688					0.700
V10	0.767					0.691
V11		0.841				0.567
V12		0.642				0.644
V13		0.539				0.893
V14		0.864				0.604
V15		0.563				0.659
V16			0.502			0.503
V17			0.685			0.619
V18			0.783			0.782
V19			0.829			0.633
V20			0.701			0.584
V21			0.584			0.699
V22			0.729			0.866
V23				0.640		0.512
V24				0.795		0.678
V25				0.831		0.782
V26				0.642		0.603
V27				0.593		0.697
V28					0.822	0.582
V29					0.618	0.817
V30					0.765	0.578
V31					0.801	0.624
V32					0.663	0.816
Eigenvalue	6.513	6.970	5.958	4.746	4.525	28.712
% of variance	25.327	20.633	14.904	9.046	4.461	74.371
Cronbach alpha	0.8025	0.8613	0.7466	0.7772	0.8501	0.8075
Number of items	10	5	7	5	5	

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 0.7466 to 0.8613. 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 restaurant performance scale is 0.8075 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 0.503 to 0.893 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 25.33% of the variance, with an Eigenvalue of 6.11 and an alpha coefficient of 0.8025. 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: Intense rivalry had five attributes which accounted for 20.63% of the variance, with an Eigenvalue of 6.97 and an alpha coefficient of 0.8613. This factor included the following attributes 'Industry growth,' 'Number of restaurants,' 'Size of restaurants,' 'Switching costs,' and 'Exit barriers'.

Factor 3: The bargaining power of customers had seven attributes which accounted for 14.90% of the variance, with an Eigenvalue of 5.96 and an alpha coefficient of 0.7466. 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 9.05% of the variance, with an Eigenvalue of 4.75 and an alpha coefficient of 0.7772. This factor included the following attributes 'Supplier concentration,' 'Supplier differences,' 'Influence 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 4.46 % of the variance, with an Eigenvalue of 4.53 and an alpha coefficient of 0.8501. 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 were used in Pearson's product-moment correlation coefficient and regression analysis to investigate the relationship between the five micro-environmental factors (independent variables) and the performance of the overall fast food industry (dependent). The results of the correlation analysis are depicted in Table 3.

Table 3: Correlation results of the relationship between micro-environmental factors and the performance of the overall fast food industry

Micro-environmental factors	Performance of the overall fast food industry	
	Correlation coefficient (r)	Significance (p-value)
Intense rivalry	-0.89	<.0001*
The threat of new entrants	0.61	0.1869
The threat of substitute products	-0.77	<.0001*
Bargaining power of suppliers	0.54	0.1725
Bargaining power of customers	-0.67	<.0001*

* indicates significant relation ($p < 0.05$)

The data revealed that three factors namely, intense rivalry, the threat of substitute products and the bargaining power of customers significantly influenced ($p < 0.05$) negatively on restaurant performances whilst the threat of new entrants and the bargaining power of



suppliers did not have any influence ($p < 0.05$) on restaurant performances. The factor with the highest negative influence on overall restaurant performances was intense rivalry ($r = -0.89$), followed by the threat of substitute products ($r = -0.77$) and the bargaining power of customers ($r = -0.67$).

The negative influence of intense rivalry on restaurant performances could be generalized to extant literature as confirmed by previous researchers (see works by Goyal & Singh, 2007; Green, 2014; Henkes, 2015; Maumbe, 2012). However, in a South African context this might be due to intense competition fast food restaurants face from major supermarkets (Insight Survey, 2016). The empirical results corroborate researchers' observations in practice, that many independent fast food restaurants in South Africa face stiff competition from chain restaurants which have powerful brand names and this has negatively influenced their performances. Furthermore, the findings on the bargaining power of customers significantly influencing negatively on restaurant performances are corroborated by Pratap (2017). However, in a South African context this might be attributed to the low switching costs in the fast food industry (Ibrahim, 2012).

The findings on the substitute products negatively influencing the performances of fast food restaurants could be generalized to previous research scholars (see works by Kerfoot, Davies & Ward, 2003; Kilne & Botterill, 2007; Matthew, 2017; Royle, 2005) who also found that substitute products significantly influenced restaurant performances. In South Africa this might be attributed to the large number of grocery chains that offer huge substitute in-store food services at attractive prices (Goko, 2017).

In a similar vein, the findings on new entrants not significantly influencing the performances of fast food restaurants are corroborated by Dobbs (2014) who found that new entrants did not have any significant influence on restaurant performances because of entry barriers and expected retaliation from established brands. In South Africa this might be attributed to predatory pricing which is normally used as a retaliatory strategy by established fast food restaurants to counter-off competition from new entrants (Green, 2014).

A full regression model was run for the influence of the micro-environment on the performance of the overall fast food industry. The model regressed the relationship between micro-environmental factors and the performance of the overall fast food industry. The regression model is depicted in Table 4.

Table 4: Regression results of the relationship between micro-environmental factors and the performance of the overall fast food industry

Independent variables	Model : Performance of the overall fast food industry	
	t-value	p-value (p)
Intense rivalry	-19.73	0.0001*
The threat of new entrants	9.41	0.4003
The threat of substitute products	-16.06	0.0268*
Bargaining power of suppliers	6.72	0.3284
Bargaining power of customers	-13.58	0.0164*

The regression model depicted in Table 4 shows that three factors, namely, intense rivalry ($p < 0.0001$), the threat of substitute products ($p < 0.0268$) and the bargaining power of customers ($p = 0.0129$) significantly influenced ($p < 0.05$) negatively on the performance of the overall fast food industry. The t-values in Table 4 indicate the relative influence of each factor on the performance of the overall fast food industry. Intense rivalry ($t = -19.73$) was rated by respondents as the factor highly influencing negatively, on the performance of the fast food industry, followed by the threat of substitute products ($t = -16.06$) and the bargaining power of customers ($t = -13.58$).



The research findings in this study where intense rivalry highly ranked amongst the factors that negatively influenced on restaurant performances deviates from the findings by Pratap (2017) who found the bargaining power of customers as the highest factor negatively influencing restaurant performances. A possible reason for the significant negative influence of intense rivalry on restaurant performances in a South African context might be due to the high number of fast food restaurants which has resulted in overcapacity in the South African domestic market (Perreira, 2014). The results suggest that the fast food industry in South Africa is too small to support and sustain many fast food restaurants.

The model F-value was calculated at 28.71 ($p < 0.0001$). The five micro-environmental factors had a coefficient determination (R^2) of 0.7437 (Table 2) and thus explained more than 74 per cent of the variability in overall restaurant performances. This explanation of the variability in overall restaurant performances is high when compared to other studies. For example, the regression results of a study performed by Sullivan (2018), identified intense rivalry, the threat of substitutes, the bargaining power of customers and the bargaining power of suppliers as significant factors ($p < 0.05$) influencing on restaurant performances, which explained only 66 per cent of restaurants' performances.

Conclusion, implications and recommendations

The purpose of this research endeavour was to determine the influence of the micro-environment on restaurant performances. The application of Porter's (2008) five forces model has shown, that three forces, namely; intense rivalry, the threat of substitute products and the bargaining power of customers significantly influenced ($p < 0.05$) negatively on restaurant performances whilst the threat of new entrants and the bargaining power of suppliers did not have any influence ($p < 0.05$) on restaurant performances. Key among the factors, that have negatively influenced the performance of the industry are, price wars, high number of fast food restaurants, low customer switching costs and high propensity to substitute. Therefore, the only opportunities for the fast food industry in South Africa are the low threat of new entrants and the low bargaining power of suppliers, which are not enough to mitigate intense rivalry, the high bargaining power of customers and the threat of substitute products.

Intense rivalry can reduce restaurant profits, and even though the threat of new entrants is low, wherever there is potential, there will be new entrants, creating overcapacity and reduce profit margins. It is for this reason that there is a higher failure rate in the fast food industry in South Africa. Since intense rivalry significantly influenced the performance of the fast food industry it is recommended that the South African government must restrict competition, through regulation to avoid overcapacity. In another vein, to reduce the bargaining power of customers, fast food restaurants must improve the service experience they deliver to customers. Satisfied customers have a very positive influence on restaurant performances. If customers are satisfied they become loyal.

To reduce the bargaining power of customers, fast food restaurants should identify market segments for customers. Various types of clientele have different ideas about what constitutes a satisfying meal experience. By studying the needs of different types of restaurant clientele, fast food restaurants will be able to rank service quality features, identify additional opportunities for improvement, create brand loyalty and increase return intentions and thereby reduce the bargaining power of customers. Independent fast food restaurants may also form franchises, which are strong, with other international brands to improve brand loyalty and thereby reduce the bargaining power of customers. In most parts of the world, independent fast food restaurants have entered into franchise agreements to enhance their competitive position.



Limitations

Although the researcher took great effort to enhance the trustworthiness and the validity and reliability of the research processes, as with any study, there remained certain limitations. Firstly, obtaining permission from the fast food restaurants was time-consuming and some managers refused to participate in this study. The viewpoints of restaurant managers who refused to participate in the study are lacking. Secondly, the research was based on the influence of the micro-environment on the performance of the fast food industry in South Africa. Caution is therefore required when generalising the findings of this study to the fast food industry in other geographic areas. The influence of the micro-environment on the fast food industry in other geographic locations might be different.

Thirdly, the assessment of the influence of the micro-environment on the fast food industry 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 influence the performance of the fast food industry. Last, the regression model failed to explain 26 per cent of the variation in the performance of the fast food industry.

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