

A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from the
NOVA – School of Business and Economics.

YUM! BRANDS: AS ONE STRATEGY ENDS,
ANOTHER BEGINS

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Yum! Brands' equity report suggests a buy recommendation for the respective stock, in 2020. The report focuses in the past, present and future of the company. The company overview was presented to explain its figures and strategies. The industry in which the company operates in was equally presented, in order to observe its evolution and trends. The evolution of unit count and the sales per restaurant and average income per restaurant were the most relevant value drivers found to better forecast the company's revenues. Lastly, the discounted cash flow method was used to evaluate Yum! Brands.

Keywords: consumer foodservice industry, fast food, growth, emerging markets

YUM! BRANDS

COMPANY REPORT

“QUICK SERVICE RESTAURANTS SECTOR”

JANUARY 2020

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As one strategy ends, another begins

Different strategies, same goal: GROWTH

- The **recommendation** is to **BUY** Yum Brands’ stocks given our FY20 price target of **USD 163.42** per share. Investors will be able to, approximately, have a total return of 61.44%, when compared to current price levels.
- In the future, it is expected that Yum will no longer follow the Strategic Transformation Initiatives and therefore, it will not rebrand its last few company-owned restaurants.
- It is forecasted that Yum will consolidate its position on **emerging markets**, like East and Southeast Asia, with an average increase of **5%**, in net units, until 2023.
- Revenue CAGR is expected to be **4%** over the next five years. **Net unit growth** and **same-store growth** are key factors that influence revenues.
- The increase in **digitalization**, the effect of **competition** and the forecasted **inflation rate** for each specific region are among the factors that were taken into consideration during the forecast of Yum Brands FY20 stock price.
- The terminal growth rate assumed was 2.13%, calculated with the weighted average of the real GDP growth rate in each region.

Company description

Yum! Brands is an American fast food corporation founded in 1997. It is considered one of the world’s largest fast food restaurants. As of 2018, the company and its subsidiaries employed 34,000 people, over 48,000 restaurants, in 145 countries, approximately. Yum can be divided into 3 divisions: KFC, Pizza Hut and Taco Bell.

Recommendation: BUY

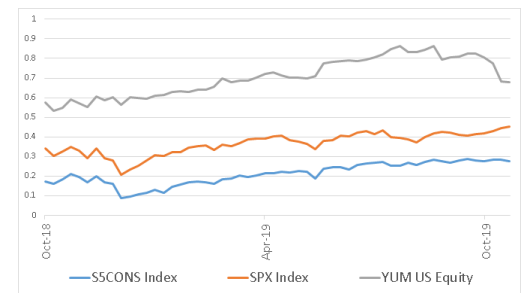
Price Target FY20: \$ 163.42

Price (as of 4-Jan-20) \$ 102.12

Bloomberg: YUM US EQUITY

52-week range (\$)	88.52-119.72
Market Cap (\$B)	30.776
Outstanding Shares	306,414,175

Source: Bloomberg



Source: Bloomberg

(Values in millions of \$)	2018	2019	2020
Revenues	5,688	5,913	6,147
Core EBIT	1,940	2020	2124
Net Income	1,542	1,021	1,089
EPS	4.80	3.33	3.55
Number of Restaurants	48,124	49,588	51,164

Source: Yum! Brands Annual Report

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY ADRIANA RODRIGUES AND JOÃO FERREIRA, MASTER’S IN FINANCE STUDENTS OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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Executive summary

Yum! Brands is an American fast food company, parent of KFC, Pizza Hut and Taco Bell. It is considered one of the world's largest fast food restaurant companies regarding system units. In 2018, Yum! Brands employed 32,076 people in its company-owned restaurants and at a corporate level. Moreover, it operated 48,124 restaurants, in more than 145 countries. Around 98% of its restaurants are franchised units, which accounts for 47,268 units (856 are company-owned units).

Yum! Brands is a constituent of the consumer foodservice industry, that characterizes itself as highly competitive with well-established competitors. The company competes with a variety of locally-owned restaurants, as well as competitive national and international chains and franchises. More detailed information on these matters and others may be found in the present report.

North America is the most developed and most mature market. In terms of the number of restaurants, this geographic segment accounts for 44% of Yum! Brands total restaurants, of which 38% are in the United States. Nevertheless, it is important to mention that, in determined markets, the company is not yet strongly developed. It was possible to observe that some of these markets have recorded considerable growth rates in recent years, and, in the future, they are expected to keep growing. For instance, the limited-service restaurant sector in the Middle East and Africa region is expected to grow at an average of 4%, annually, between 2018 and 2023.

To evaluate Yum! Brands performance, it is relevant to divide it into segments, given that those segments have distinct risks and, therefore, will have different value drivers. Concerning revenues, the value drivers chosen were Unit Count and Sales per Restaurant/Average Income per Restaurant. Unit Count was impacted by the real growth of the limited-service restaurants in each region and, in later years, by the growth of the population. Sales per Restaurant/Average Income per Restaurant depended on the forecasted inflation and real GDP growth rate.

As an endnote, the present report explains the evaluation performed on Yum! Brands, taking into consideration all its key matters. The Discounted Cash Flows Method was used, and some assumptions were made, in order to better forecast and value the company. The 2020 target Price per Share found was 163.42 dollars, which makes the company undervalued, given its current trading price ($102.12 < 163.42$). The difference between these values leads to a "Buy Recommendation".



Company overview

Company description

Yum! Brands Inc is an American fast food corporation that was founded in 1997 as a spin-off of PepsiCo. It is based in Louisville, Kentucky and it is considered one of the world's largest fast food restaurants regarding system units. Yum can be divided into 3 business units, namely KFC, Pizza Hut and Taco Bell, that can be distinguished given the type of goods produced.

Yum's mission consists of building "the world's most loved, trusted and fastest growing restaurant brands" while remaining true to its four general growth drivers, that are: distinctive, relevant and easy brands; bold restaurant development; unmatched franchise operating capability; and unrivalled culture and talent.

Business Divisions



KFC stands for Kentucky Fried Chicken and specializes in chicken fast food, is even considered a global leader in this category. It all started with Colonel Harland Sanders, who created a "Finger Lickin' Good" recipe more than 75 years ago. His recipe is still followed nowadays, making the KFC brand a mix of tradition and innovation, meaning that KFC offers traditional core menu items as well as brand new original products.



Pizza Hut is the largest pizza company in the world. Besides pizza, this brand also produces pasta, wings, and others. It is able to ally its products with a quick delivery service, ensuring that every customer around the world has a "hot, fast and reliable experience". Pizza Hut's main goal is that its meals are delicious, bold and one-of-a-kind. The brand also invests in innovation, being the first one to provide Pan Pizza in America.



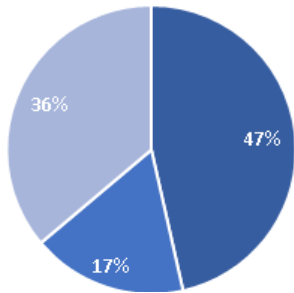
Taco Bell specializes in Mexican-inspired fast food with bold flavours. The brand distinguishes itself by offering quality ingredients and being the first QSR¹ restaurant to offer American Vegetarian Association (AVA)-certified menu items. In 2016, Taco Bell was named one of Fast Company's "Top 10 Most Innovative Companies in the World", given its digital presence through its mobile app, desktop, and partnership with Grubhub.

Revenues and Net Income

The total revenues decreased by 13% from 2015 to 2018, reaching 5,688 million dollars in 2018. Around 47% of these revenues can be attributed to the KFC unit,

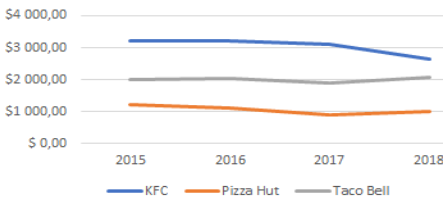
¹ QSR: Quick Service Restaurant, also known as, fast food restaurant.

Exhibit 1: Segregation of revenues in 2018



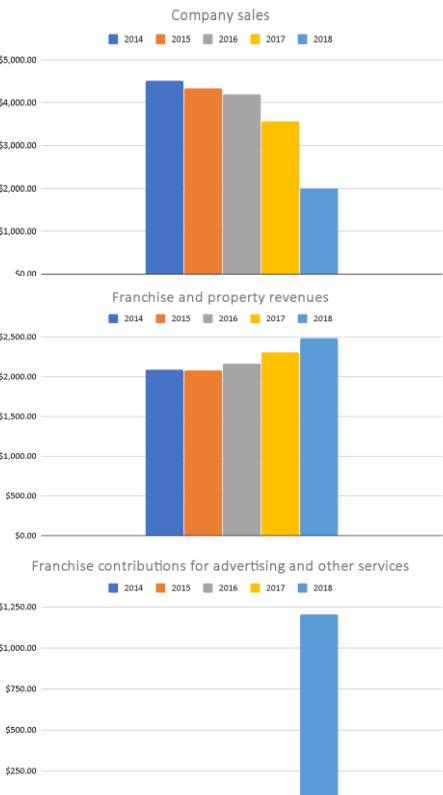
Source: Yum! Brands Annual Report

Exhibit 2: Evolution of revenues per division



Source: Yum! Brands Annual Report

Exhibit 3: Evolution of revenues per caption



Source: Yum! Brands Annual Report

17% to the Pizza Hut unit and the remaining 36% to the Taco Bell unit (Exhibit 1). In this period, KFC and Pizza Hut showed a decrease of approximately 17.94% and 18.01%, respectively. However, Taco Bell exhibited an increase of around 3.26% (Exhibit 2).

To better understand these figures, it is relevant to acknowledge that revenues arise from three different sources: Company Sales, Franchise and Property Revenues, and Franchise Contributions for Advertising and Other Services. Company Sales are related to the revenues of the company-owned restaurants in a certain period, whereas Franchise and Property Revenues and Franchise Contributions for Advertising are originated from franchise agreements that the company has with partners.

Contrary to the decrease of company sales in the past few years, franchise and property revenues have been showing a positive trend (Exhibit 3), mostly due to a set of initiatives gathered in 2016, that aimed to change the company, focusing on a new strategy to accelerate growth, reduce volatility and increase capital returns to shareholders. Franchise Contributions for Advertising is a caption that only started in 2018.

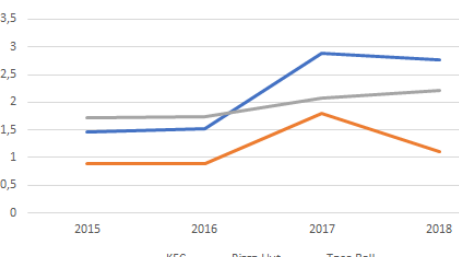
Franchisees have the right to use the same brand name as the company (KFC, Pizza Hut and Taco Bell) and perform the same service. As an obligation, franchisees pay a franchise license fee, which is a percentage of their sales, usually 4% to 6%, to the franchisor Yum! Brands. Between 2014 and 2018, the average fee for most of the franchises was around 6% for all three divisions, excluding Pizza Hut, where it was close to 5%, in 2018. In the case of the largest master franchise, Yum China, the average fee per restaurant was set to be 3% of China's system sales. Lastly, the Telepizza Master Franchise Agreement implemented in 2018 dictated that the average fee per restaurant would be 3.5% for all restaurants covered by the alliance.

Regarding company-owned restaurants, KFC is the division with the highest sales per restaurant. In 2018, the three divisions registered a higher amount of sales per restaurant than what was observed in 2015. Nevertheless, Pizza Hut's sales per restaurant decreased from 1.78 to 1.11, between 2017 and 2018 (Exhibit 4).

Concerning franchised restaurants in China, the average income per restaurant in KFC and Pizza Hut was 0.03 dollars, while in Taco Bell was 0.09 dollars, in 2018. In the restaurants covered by the Telepizza Master Franchise Agreement, the average income per restaurant was 0.02 dollars in 2018. In the rest of the world, the average income per restaurant in KFC and Taco Bell increased to 0.07

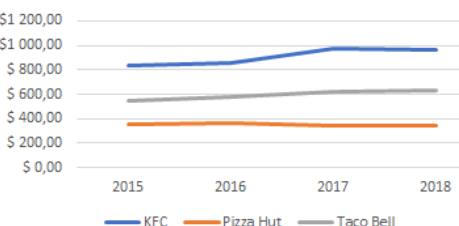
and 0.09 dollars, respectively, while in Pizza Hut, it decreased to 0.03 dollars, between 2017 and 2018.

Exhibit 4: Sales per restaurant per division



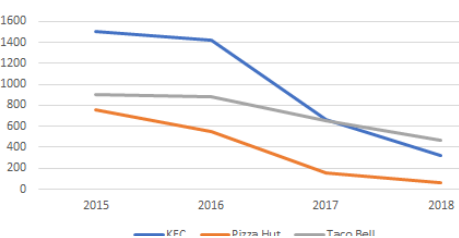
Source: Yum! Brands Annual Report

Exhibit 5: Evolution of core operating per division



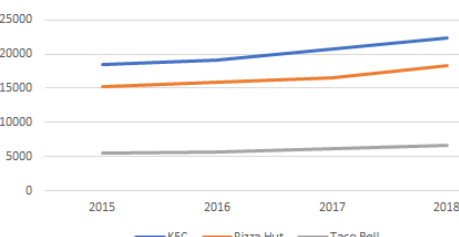
Source: Yum! Brands Annual Report

Exhibit 6: Evolution of the number of company-owned restaurants per division



Source: Yum! Brands Annual Report

Exhibit 7: Evolution of the number of franchised restaurants per division



Source: Yum! Brands Annual Report

Yum! Brands' Net Income has increased from 2017 to 2018. Although the company's revenues have decreased 190 million dollars during the same period, the costs decreased, even more, therefore the Net Income reached 1,542 million of dollars in 2018. This happened due to the Yum! Brands Strategic Transformation Initiatives explained in the following sections.

In the KFC division, the Core Operating Profit has been increasing in the period of 2015 to 2017, however, it decreased in 2018. Pizza Hut showed a rather constant Core Operating Profit in the same time-lapse. Taco Bell has been increasing the same caption over the same period (Exhibit 5).

Yum! Brands' strategy

In 2016, Yum! Brands decided to change significantly the overall strategy of the group by introducing a plan called Yum's Strategic Transformation Initiatives. The main objective of this action was to remodel the company into an almost 100% franchised business. Thus, in the past few years, the company increased its efforts to expand the number of agreements with franchisees and, at the same time, accelerated the transformation of company-owned restaurants into franchised restaurants. These efforts enable the company to achieve its 2018 goal of having less than 1,000 company-owned restaurants or at least 98% franchisees, considering that, by the end of 2018, only 856 were company-owned restaurants (324 from KFC, 62 from Pizza Hut and 470 from Taco Bell). (Exhibit 6 and 7)

These initiatives led to a considerable decrease of the overall company sales and to an increase in the franchise and property revenues from restaurants that have been franchised. Furthermore, the company was able to reduce general and administrative costs, which helped balance the overall loss of revenues in 2018.

At the end of 2019, Yum! Brands is expected to conclude its Strategic Transformation Initiatives, thus the company will no longer continue to transform its company-owned restaurants. The remaining company-owned units will be the most efficient ones, as it is possible to observe from the significant increase in the caption of Sales per Company-owned Restaurant (Exhibit 4). These restaurants will act as models to the rest of Yum's units.

Moreover, Pizza Hut entered an alliance with Telepizza Group S.A., where Telepizza would become a master franchisee of Pizza Hut in some specific regions of the world. In Latin America (excluding Brazil), Caribbean, Switzerland, Portugal and Spain, Telepizza is currently overseeing Pizza Hut units that exist in

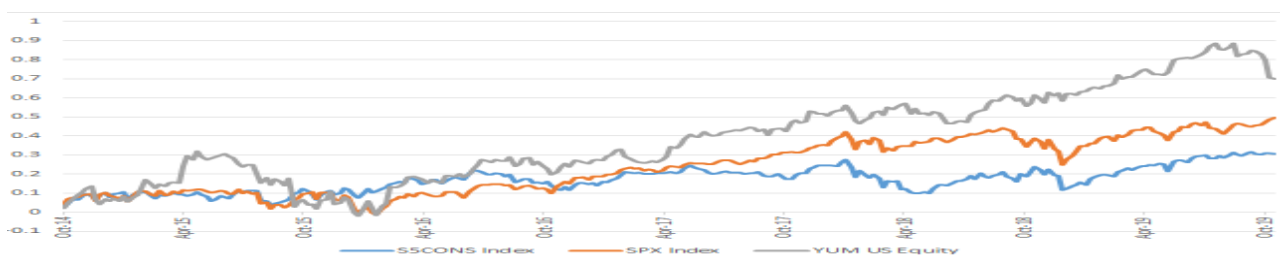
those areas and has also become a supplier and manager of the supply chain logistics. In regions covered by the Master Franchise Agreement (except in Portugal and Spain), Telepizza will not only aim to open at least 1,300 and 2,550 new restaurants in a ten- and twenty-year period, respectively, but also convert its existing Telepizza units into Pizza Hut restaurants.

From 2019 onwards, Yum! Brands will be focused on improving Same-Store Sales Growth across all its three brands. Additionally, it has announced net unit expansions in several regions, for instance, Taco Bell is expected to enter in Portugal's and Indonesia's markets. Yum has also plans to continue the digital transformation of its restaurants and to continue the sustainable path it has started with the "Recipe for Good" program. These are important topics for the valuation of the company, therefore they will be discussed in further detail throughout this report.

Shareholder structure

Yum! Brands became listed on September 17th, 1997 through its Initial Public Offering, with its common stock being traded on the NYSE under the ticker "YUM". Its IPO started with a share price of 3,47 dollars (adjusted for subsequent stock splits), which means that, during these 22 years since the IPO, if an investor had bought a share of Yum! Brands, it would have had a total return of more than 2700%, by 13th of November 2019. Currently, Yum! Brands is traded in the S&P 500 Index and the S&P 500 Consumer Discretionary. As one can observe, in Exhibit 9, it is possible to compare the stock's total return to shareholders and the total return of the two indexes, from 2014 to 2018.

Exhibit 9: Yum! Brands stock performance against S&P 500 and S&P 500 Consumer Discretionary, in accumulated returns (**Source:** Bloomberg)



Yum! Brands share price started to significantly outperform the S&P 500 and S&P 500 Consumer Discretionary at the end of 2016 and, currently, it is still following this trend, even despite the negative tendency of the last few months. The company's share price reached the highest levels in history (119.21 dollars) in June of this year, however, after both second and third quarters' earnings release, investors' reaction to Yum's underperformed financial results lead to a quick and significant decrease in the stock price.

As of the end of December 2018, there were approximately 306 million shares of the company's common stock outstanding, each share being entitled to one vote. The shareholder base is composed of both institutional owners and non-institutional ones. There are only two institutional investors with more than 5% of Yum's common stocks, The Vanguard Group with 7.39% (approximately 23 million shares) and Blackrock Inc with 6.90% (approximately 22 million shares). Additionally, directors and executive officers as a group, beneficially own roughly 0.67%.

Exhibit 10: Dividends data

	2014	2015	2016	2017	2018	Target
Dividend payout ratio	64%	57%	45%	31%	30%	45% to 50%
Dividends paid	\$669	\$730	\$744	\$416	\$462	
Shares Outstanding (millions)	\$434.00	\$420.00	\$355.00	\$332.00	\$306.00	
Dividends per Share	\$1.56	\$1.74	\$1.73	\$0.90	\$1.44	

Source: Yum Brands! Annual Report

Exhibit 11: Dividends per share of Yum! Brands and its comparables

	Dividends per Share		
	2016	2017	2018
Yum! Brands	\$1.30	\$0.90	\$1.44
Wendy's	\$0.25	\$0.28	\$0.34
McDonalds	\$3.73	\$3.89	\$4.25
Dunkin's Brand	\$1.20	\$1.29	\$1.39
Domino's	\$1.52	\$1.84	\$2.20
RBI	\$0.62	\$0.78	\$1.80

Source: Each company's annual reports

As it is possible to observe in Exhibit 10, Dividends per Share have decreased in the last two years. In 2017, that value decreased substantially since, in the third quarter of that same year, the company did not pay dividends. Additionally, the Dividend Payout Ratio has also been decreasing which can lead to a reduction in investor's trust. Yum targets an annual dividend Payout Ratio of 45% to 50% of Net Income, before Special Items. As for comparables², McDonald's is the one with the highest dividend per share, followed by Domino's Pizza and RBI, respectively (Exhibit 11).

Yum! Brands has repurchased shares on the open market in excess of the amount necessary to satisfy award exercises. The company intends to return an additional 6.5 to 7 billion dollars to shareholders through share repurchases and cash dividends, between 2017 and 2019. To fund these shareholder returns, Yum plans to use the refranchising proceeds, free cash flow generation and maintenance of the five times EBITDA leverage. In 2018, Yum! Brands repurchased 28.2 million shares, returning 2.4 billion dollars of capital to shareholders at an average share price of 85 dollars. Furthermore, the Board of Directors approved share repurchases through the end of 2019 of up to 2 billion dollars, excluding applicable transaction fees, of Yum's outstanding Common Stock.

Industry Overview

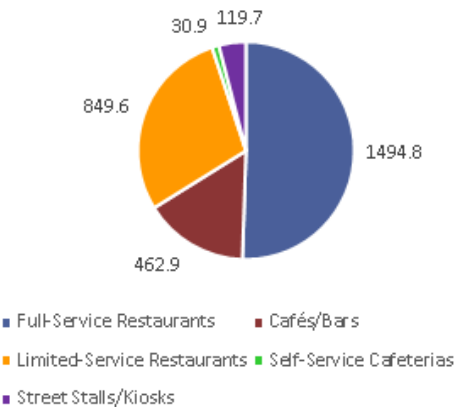
Yum! Brands operates in the consumer foodservice industry, in other words, the industry that entails all food and beverages designed for consumption on the premises, as well as ready-to-eat meals and drinks for takeaway and delivery.

The industry can be divided into five different subcategories: cafes/bars, full-service restaurants, self-service cafeterias, street stalls/kiosks, and limited-service restaurants³, in which Yum! Brands is inserted in. Overall, the consumer foodservice industry is highly fragmented and mainly dominated by independent

² Comparables were selected based on a set of factors explained in the following sections.

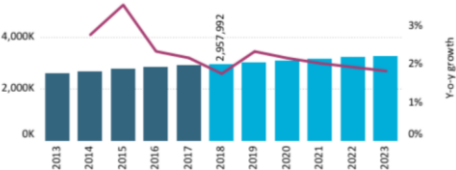
³ Limited-service restaurants are composed of quick service, fast food, delivery & takeaway, beverages, and ice cream restaurants.

Exhibit 12: Consumer Foodservice Industry in billion dollars, in 2018



Source: Euromonitor International - Passport, Consumer Foodservice Global Industry Overview

Exhibit 13: Evolution of the Global Consumer Foodservice Industry, between 2013 and 2023



Source: Euromonitor International - Passport, Consumer Foodservice Global Industry Overview

foodservice providers. Large and internationally operating corporations are relatively rare and primarily operate in the fast food category. These international companies are primarily big multinational corporations with strong brand value, such as McDonald’s, Yum! Brands, Domino’s Pizza, and others.

According to Euromonitor International, the full-service restaurant segment was the largest one, accounting for 50% of the total value of the consumer foodservice industry, which was worth 2,958 billion dollars, in 2018. It was followed by the limited-service restaurant sector, which represented almost 30% of the industry (Exhibit 12).

In the past five years, the value of the consumer foodservice industry registered growth rates that varied between 2% and 4%. The forecasted rates for the period of 2019 to 2023 were around 2.5%, yearly. Thus, analysts predict a slight decrease that can be explained by a shift in the source of global transactions. An expected increase in the portion of transactions, arising from lower-priced emerging markets such as India, would cause a negative impact on the total value of the industry (Exhibit 13).

The foodservice market is extremely dynamic, in other words, consumers’ preferences are constantly changing due to the continuous search for new flavours and tastes. Therefore, new entrants constitute a big threat to companies that were previously in the industry. Thus, these companies have a necessity to come up with new innovative ways to gain competitiveness.

Nowadays, technologies like mobile ordering and digital wallets (mobile payments) are making customers’ experience faster and more enjoyable. At the same time, customers’ preferences are shifting towards fresh and healthier products. In the company’s perspective, these trends need to be treated as key elements in the discussion of the company’s future strategies.

The overall customer satisfaction of limited-service restaurants is expected to decrease in 2019, from 80 to 79, according to the American Customer Satisfaction Index Report. Higher expectations for speed and quality of service are among the reasons that can explain this shift.

Competition overview

The consumer foodservice industry is highly competitive and includes well-established competitors. The quality, variety, convenience, price, and value perception of food products offered are factors to take into consideration regarding the assessment of the competition. Furthermore, the number and location of units, quality and speed of service, the attractiveness of facilities, the

effectiveness of marketing and new product development by Yum! Brands and its competitors are other pertinent elements.

Yum! Brands restaurants compete with a variety of locally-owned restaurants, as well as competitive regional and national chains and franchises. The company's revenues may be hurt by product and price competition since the products of the different brands act as substitutes. Having this in mind, it is important to realize that an increase in the price of Yum's goods, may result in a higher demand for its competitors' products, or vice-versa.



McDonald's operates in the industry since 1940 and it is the world's largest chain of fast food hamburger restaurants, with 37,855 restaurants in 120 countries (2018). It shows diversity when it comes to products, namely, hamburgers, french fries, breakfast items, soft drinks, and others, and it also offers healthier choices. McDonald's constitutes direct competition to Yum! Brands, particularly to KFC, not only in the US but also all over the world.



Wendy's Company was founded in 1969 and, currently, is the world's third-largest quick-service restaurant in its segment. Although the company operates worldwide, most of its restaurants are in North America. The company specializes in hamburger sandwiches and featuring a filet of chicken breast sandwiches prepared with condiments chosen by customers. Therefore, Wendy's Company is a direct competitor of KFC but only in the North American market, since it does not have a material representation outside that area.



Restaurant Brands International is a multinational holding enterprise that comprehends three fast food companies: Tim Hortons, the Canadian restaurant and coffee shop; Burger King, the American fast food restaurant group; and Popeyes Louisiana Kitchen, an American fried chicken fast food chain. It was only established in 2014, but the individual brands were already operating for a longer amount of years, more specifically, Tim Hortons since 1964, Burger King since 1953 and Popeyes since 1972. Taking into consideration these three brands, Burger King is the most relevant player, since it constitutes a direct competitor of Yum! Brands, especially of KFC, nationally and internationally.

Founded in 1960 by two brothers named Thomas and James Monaghan, **Domino's Pizza** is nowadays the largest pizza company in the world based on retail sales. It opened its first franchise store in 1967 and its first international stores in 1983, in Canada and Australia. Currently, it is one of the biggest competitors of Pizza Hut, since consumers perceive the products offered by both two companies as substitute goods. The two companies compete both nationally in the US and internationally across all continents.





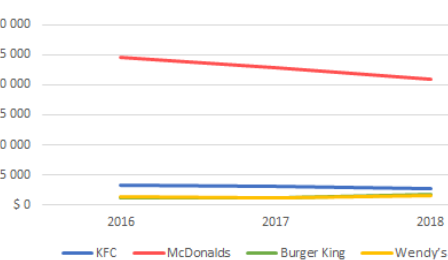
Chipotle Mexican Grill is an American fast food chain that was created by Steve Eells, in 1993, around a simple concept, "food served fast didn't have to be a typical experience", thus the company aims to serve high-quality ingredients prepared with classic cooking techniques and served in a distinctive establishment. Chipotle is a big competitor of Yum! Brands' Taco Bell division, since it also specializes in serving Mexican styled food, offering a relevant menu of burritos, burrito bowls, tacos, and salads.

Competitor analysis

Exhibit 14: Comparison between KFC, Pizza Hut, Taco Bell and its respective competitors, in 2018 (Sources: Each company's annual report, Euromonitor International and American Customer Satisfaction Index Report)

	Relative Size					American Customer Satisfaction Index (forecasted 2019)	Margins		Top 3 Markets (number of restaurants)		
	Countries	Number of Stores	Franchised (%)	Revenues (in millions)	Market Share		Company Restaurant Margin	Operating Margin			
KFC	137	22,621	99%	\$2,644	3.0%	78	13.31%	36.27%	China (5910)	USA (4074)	Japan (1139)
McDonalds	120	37,855	93%	\$21,025	10.9%	69	17.45%	41.96%	USA (13914)	China (3002)	Japan (2899)
Burger King (RBI)	100	17,796	100%	\$1,651	2.5%	76	10.67%	56.21%	USA (7277)	China (1000)	Spain (800)
Wendy's Company	32	6,711	95%	\$1,590	1.3%	77	15.81%	15.72%	USA (5810)	Canada (368)	Indonesia (80)
Pizza Hut	111	18,431	100%	\$988	0.6%	80	0.00%	35.22%	USA (7456)	China (2240)	Spain (706)
Domino's Pizza	85	15,914	98%	\$3,433	1.6%	79	22.65%	16.65%	USA (5876)	India (1195)	UK (1100)
Taco Bell	27	7,072	93%	\$2,056	1.2%	75	23.53%	30.79%	USA (6588)	Spain (52)	Guatemala (60)
Chipotle Mexican Grill	5	2,491	0%	\$4,865	0.6%	80	18.73%	5.31%	USA (2454)	Canada (23)	UK (7)

Exhibit 15: Revenues (in million dollars) of KFC, McDonalds, Burger King and Wendy's, between 2016 and 2018



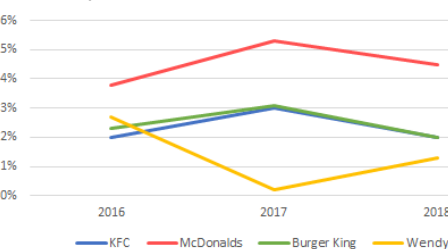
Source: Each company's annual reports

KFC

Given KFC brand main business, it was possible to identify 3 direct competitors: McDonald's, Burger King (RBI) and Wendy's.

As it is possible to notice in Exhibit 14, KFC is the most globally present brand, taking into consideration the 3 competitors into the analysis, however, McDonald's is the one with the higher number of restaurants, surpassing KFC in approximately 15,000 units. The 4 brands in the analysis show a bigger presence in North America and in Asia, with KFC having most of its restaurants in China, the US, and Japan. In the future, it is expected that KFC will invest in Brazil and Argentina and Wendy's in the UK.

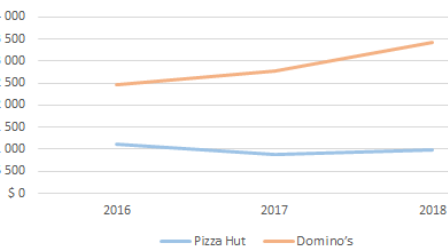
Exhibit 16: Same-store sales growth of KFC, McDonalds, Burger King and Wendy's, between 2016 and 2018



Source: Each company's annual reports

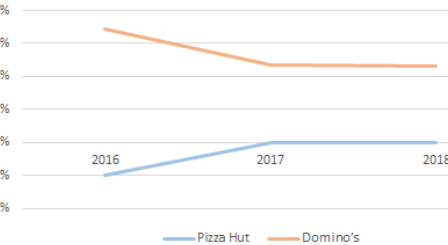
Furthermore, McDonald's is by far the brand with the highest amount of revenue and a higher market share (10,9%), followed by KFC. In terms of the Company-Owned Restaurant Margin and Operating Margin, McDonald's (17.45%) and Burger King (56.21%) reveal the best result for each respective margin. As for Same-Store Growth, McDonald's is the one that discloses the higher percentage (4.5%), followed by KFC and Burger King (2% each). Although McDonald's is the company with the highest revenue and highest same-store growth, it has shown a decreasing tendency for these 2 indicators, while Wendy's has shown an increasing tendency for the same indicators. (Exhibit 15 and 16)

Exhibit 17: Revenues (in million dollars) of Pizza Hut and Domino's, between 2016 and 2018



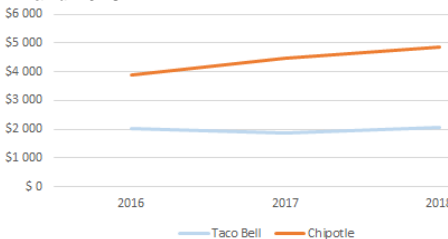
Source: Each company's annual reports

Exhibit 18: Same-store sales growth of Pizza Hut and Domino's, between 2016 and 2018



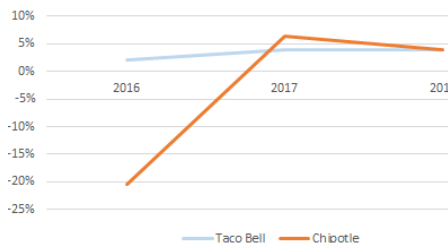
Source: Each company's annual reports

Exhibit 19: Revenues (in million dollars) of Taco Bell and Chipotle, between 2016 and 2018



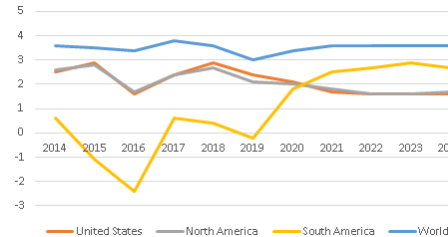
Source: Each company's annual reports

Exhibit 20: Same-store sales growth of Taco Bell and Chipotle, between 2016 and 2018



Source: Each company's annual reports

Exhibit 21: Real GDP growth in the Americas region (annual percent change) from 2014 to 2024



Source: International Monetary Fund, "World Economic Outlook (October 2019)"

Regarding customer satisfaction, the KFC brand is the one that shows a higher forecasted Customer Satisfaction Index (78) for 2019, while McDonald's shows a lower amount (69).

Pizza Hut

The direct competitor identified to the Pizza Hut brand was Domino's Pizza. Pizza Hut brand has a higher number of stores and is the most globally present (111 countries). In terms of where the restaurants are located, both brands are most developed primarily in the US, followed by China and Spain in the case of Pizza Hut, and India and the UK, in Domino's Pizza's case. In the future, Pizza Hut will be investing in the Czech Republic and Poland, and its competitor in Australia, New Zealand and some European countries. (see Exhibit 14)

Domino's Pizza is the brand with the highest revenue amount (3,433 million dollars), surpassing Pizza Hut in approximately 2,445 million dollars (Exhibit 17). Pizza Hut's competitor is also the one with the biggest market share (1,6%). In terms of the Company-Owned Restaurant Margin, Domino's Pizza shows the highest percentage (22.65%), however, Pizza Hut shows the highest percentage in Operating Margin (35.22%). Furthermore, Domino's Pizza shows the highest Same-Store Growth, however, since 2017 this indicator has become constant. (Exhibit 18)

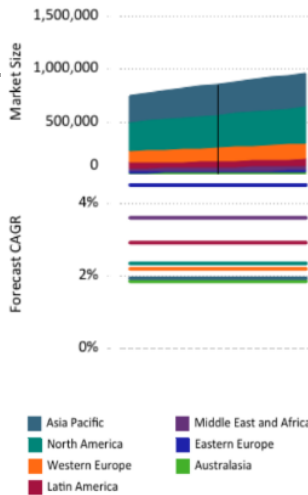
Concerning customer satisfaction, Pizza Hut is the one with a higher forecasted Customer Satisfaction Index (80) for 2019 compared to Domino's Pizza (79).

Taco Bell

Chipotle was the closest direct competitor found to the Taco Bell brand.

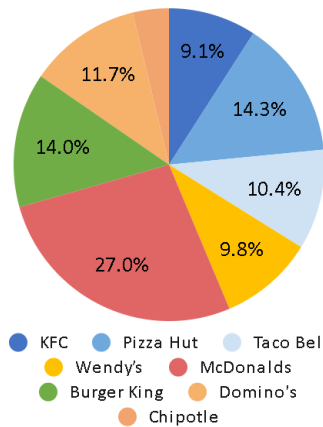
Taco Bell is the brand with a higher number of stores and is the most globally present, in 27 countries, compared to Chipotle. These two brands are extremely developed in the US, contrasting with the rest of the world. In the future, Taco Bell is expected to enter into new markets, such as Portugal and Indonesia, and invest in small markets, namely China, India, UK and Spain. As for Chipotle, the brand does not disclose any relevant investments. (see Exhibit 14)

Chipotle is the brand with the highest revenue amount (4,865 million dollars), surpassing Taco Bell in almost 2,000 million dollars (Exhibit 19). Regarding market share, Taco Bell is the one that shows a higher percentage (1.2%). Concerning the Company-Owned Restaurant Margin and Operating Margin, Taco Bell is the brand that reveals the highest results, 23.53% and 30.79%, respectively. As for Same-Store Growth, both brands display the same percentage in 2018 (4%), however, for Taco Bell this percentage has been



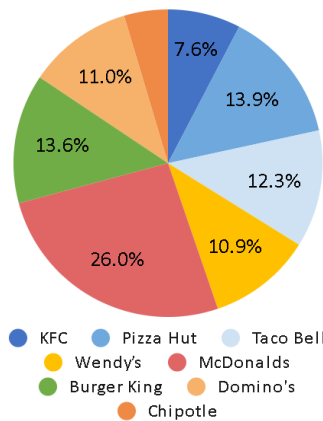
Source: Euromonitor International - Passport, Consumer Foodservice Global Industry Overview

Exhibit 23: Americas' restaurant count in 2018



Source: Each company's annual reports

Exhibit 24: US' restaurant count in 2018



Source: Each company's annual reports

increasing from 2016 to 2018, while in Chipotle case, this percentage decreased from 2017 to 2018 (Exhibit 20).

Regarding customer satisfaction, Chipotle is the one with a higher forecasted Customer Satisfaction Index (80) for 2019 compared to Taco Bell (75).

Segment analysis

The Americas

United States is the world's largest economy by nominal GDP and the second largest by Purchasing Power Parity⁴. In 2018, the real GDP growth rate was 2.9%, and it is expected to decrease to 1.83% annually, on average, in the following six years. Between 2015 and 2016, the real GDP growth rate of South America was negative, however it shows a tendency to increase significantly in the next six years (2.07%, on average). Despite the positive forecasts in the Americas region, the world economy is still expected to grow at a faster pace. (Exhibit 21)

The limited-service restaurants' sector is expected to grow at a similar rate as the forecasted GDP for the region. The forecasted Compounded Annual Growth Rate for North America is around 2%, while for Latin America is approximately 3% (Exhibit 22), between 2018 and 2023.

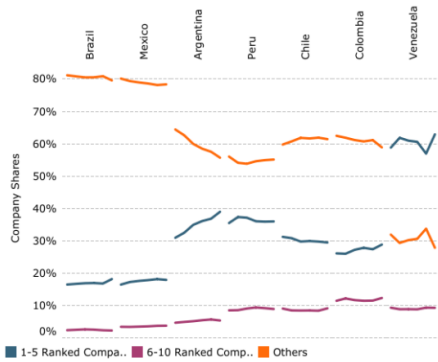
North America is the most developed and mature geographic segment of Yum! Brands, with 44% of Yum's restaurants being present there (38% of which are in the United States), in 2018. Besides the US, the more significant countries that constitute this segment are Mexico and Canada (both accounting for 6% of restaurants in North America).

The US fast food market is extremely crowded and all Yum! Brands' main competitors are present in it. (see Exhibits 24) Regarding the total number of restaurants, Yum clearly outnumbers its competitors, with McDonald's close behind. In the last three years, Yum! Brands kept its restaurant number rather constant, 18,134 in 2016 and 18,118 in 2018, while almost every other competitor is doing the opposite. For example, Domino's Pizza increased its units from 5,371 to 5,876 in the period between 2016 and 2018.

As for competitors present in the fast food market in Latin America, Brazil is mainly represented by small independent local players (around 80% in 2017), as it is possible to observe in Exhibit 25. This trend happens in most Latin America countries, except in countries like Venezuela where the top 5 leading companies have more than half of the market share (64%). Since economies in this region

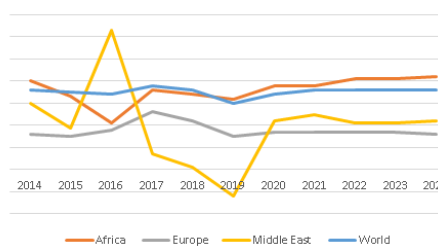
⁴ Source: International Monetary Fund database.

Exhibit 25: Fast Food in Latin America: Market Fragmentation, between 2012 and 2017



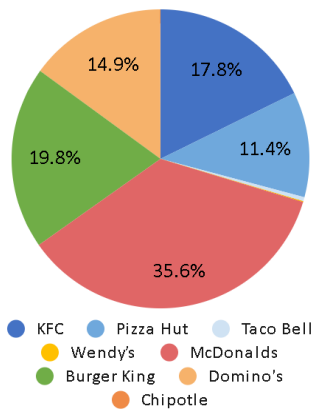
Source: Euromonitor International - Passport, "Fast Food in Latin America", November 2018

Exhibit 26: Real GDP growth in the EMEA region (annual percent change) from 2014 to 2024



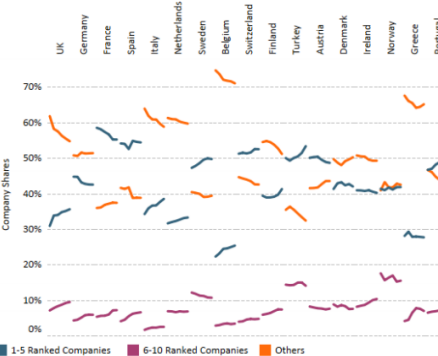
Source: International Monetary Fund, "World Economic Outlook (October 2019)"

Exhibit 27: EMEA's restaurant count in 2018



Source: Each company's annual reports

Exhibit 28: Fast Food in Western Europe: Market Fragmentation, between 2012 and 2017



Source: Euromonitor International - Passport, "Fast Food in Western Europe", August 2018

are still recuperating from the economic slowdown, the top-ranked companies are expected to invest in aggressive strategies that could give less meaning to small independent local restaurants.

EMEA

In Europe, the real GDP growth rate was 2.2% in 2018, and it is expected to decrease to 1.65% annually, on average, in the following six years. Conversely, in the Middle East, the real GDP growth rate was 0.1%, and it is forecasted to increase significantly after 2019. Furthermore, the Africa region is predicted to grow at a faster pace than the world economy. (Exhibit 26)

The Limited-Service Restaurants sector shows a forecasted CAGR of around 2% for Western Europe, almost 4% for the Middle East and Africa, and more than 4% for Eastern Europe, between 2018 and 2023 (Exhibit 22).

The EMEA region has a representation of approximately 18% of Yum! Brands total restaurants, 11% corresponding to Europe, 3% to the Middle East and 3% to Africa.

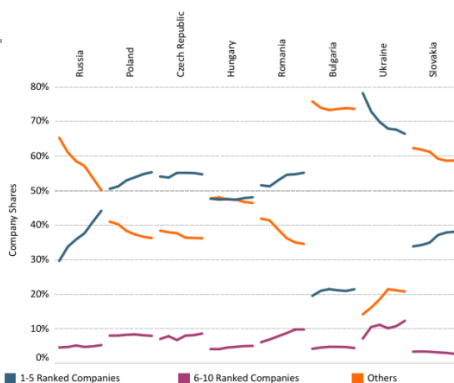
The fast food market in this region has not yet been fully explored by most of Yum competitors. This may present an advantageous opportunity for Yum. In terms of the total number of restaurants in EMEA, McDonald's clearly outnumbers its competitors. With almost half its percentage, Yum! Brands (YUM) is the second biggest player in the market. Finally, Wendy's Company, Taco Bell and Chipotle Mexican Grill barely have any representation in this region. (Exhibit 27). Last year, Yum! Brands has increased its number of restaurants from 7,157 to 8,512. Wendy's Company and Chipotle Mexican Grill followed the same trend.

The competition in the fast food market of Western Europe is highly fragmented. Countries like the UK, Germany or Italy are predominantly composed by smaller and independent companies (55%, 51% and 65%, accordingly). Conversely, countries such as France or Spain have a more significant percentage concerning the top 5 leading companies in each respective country (55% and 59% of the market share, respectively). The previous values correspond to the year of 2017 (Exhibit 28).

In Eastern Europe (Exhibit 29), countries like Russia or Bulgaria comprise mostly independent operators (50% and 72%, accordingly, in 2017). Furthermore, there are countries where the top 5 leading companies own most of the market, for instance, Poland and Czech Republic (56% and 55%, respectively, in the year previously mentioned). In these four countries, Yum! Brands is one of the most representative brands, in terms of company sales.

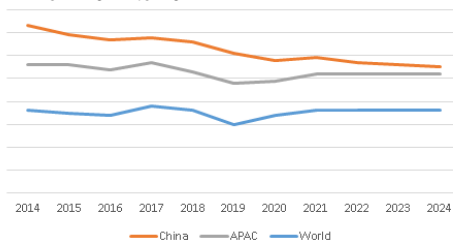
APAC

Exhibit 29: Fast Food in Eastern Europe: Market Fragmentation, between 2012 and 2017



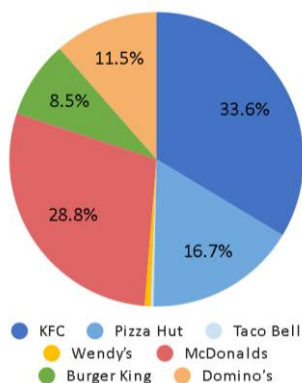
Source: Euromonitor International - Passport, "Fast Food in Eastern Europe", December 2018

Exhibit 30: Real GDP growth in the APAC region (annual percent change) from 2014 to 2024



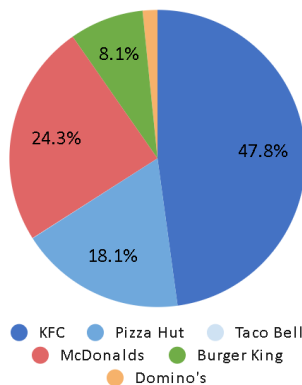
Source: International Monetary Fund, "World Economic Outlook (October 2019)"

Exhibit 31: APAC's restaurant count in 2018



Source: Each company's annual reports

Exhibit 32: China's restaurant count in 2018



Source: Each company's annual reports

China is expected to be the largest economy in the world⁵, in terms of GDP at purchasing power parity. The size of the market, an increasing population and a wealthier middle class, make China a market with a lot of growth opportunities. China is forecasted to have an average GDP growth of 5.77%, from 2019 to 2024. Moreover, the APAC region is predicted to grow at a faster pace than the world economy. (Exhibit 30)

In the Limited-Service Restaurants sector, the forecasted CAGR for Asia Pacific and Australasia is 2% each. (see Exhibit 22), between 2018 and 2023.

The development of the market in the APAC is quite like the one found in the EMEA region, a market with great growth opportunities that have not yet been fully explored by Yum and its competitors. Concerning the total number of restaurants, the market leader is currently Yum with slightly less than double the units of the second-largest player, McDonald's. (Exhibit 31) Chipotle is the only company that has no restaurants in the APAC region. The same scenario can be observed if one decides to analyse the Chinese market (Exhibit 32).

In the last two years, Yum! Brands has substantially increased its number of restaurants, both in APAC and China, from 16,361 and 7,686 in 2017 to 17,302 and 8,154 in 2018, respectively. Most of its competitors followed the same trend.

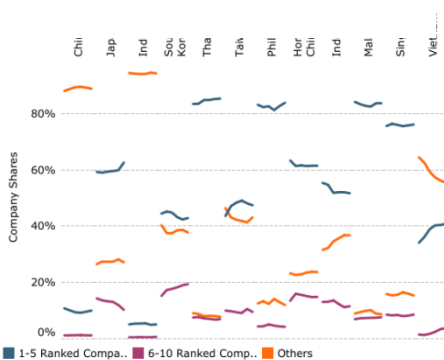
Nonetheless, China is mainly constituted by smaller operators (around 90% in 2017), as it is possible to observe in Exhibit 33. Smaller operators are composed primarily of independent and local restaurants. In the same country, Yum! Brands is the most representative player concerning company sales, however, the top 5 largest companies only account for 10% of market share. This tendency is perceived in some other countries like India, nevertheless, in countries like Japan and Thailand, the top 5 leading companies have more than half of the market share, 63% and 84%, respectively. In the future, the top-ranked companies are expected to invest in aggressive strategies that could give less meaning to independent and local brands.

Digitalization

For companies in the consumer foodservice industry, overall customer experience is key. Therefore, companies are transforming their restaurants and their online delivery platforms, by investing in new digital technologies, in order to meet customer's needs. Convenience and speed are some of the most important factors for consumers.

⁵ Source: International Monetary Fund.

Exhibit 33: Fast Food in APAC: Market Fragmentation, between 2012 and 2017



Source: Each company's annual reports

Most of the companies in the industry have already realized the importance of these trends and are currently implementing several measures to cope with them. **McDonald's** expects that, by the end of 2020, all its US restaurants will have gone through a technological modernization, which would provide customers with a new hospitality experience due to the introduction of features like Guest Experience Leaders⁶ and table service. Moreover, McDonald's is improving customer's ordering experience, making it more personalized, simpler and convenient, by updating its global mobile app and self-ordering kiosks. Online delivery services are provided in over half of its global system due to McDonalds' successful partnerships with Uber Eats, Grubhub, DoorDash and others.

Wendy's is also improving its consumer-facing digital capabilities in order to enhance customer experience and restaurant management. To do that, the company is going to invest in digital scanners for the North American system and in the mobile ordering methodology across US restaurants. In addition, Wendy's will also continue to expand its delivery to other areas of the world. Currently, in terms of delivery, Wendy's has an agreement with DoorDash, which covers around 60% of North America. In 2020, the company wants to create a partnership with Uber Eats and Grubhub, as an initial measure to try to achieve its 2024 objective of having 10% of its sales being done through digital platforms⁷.

Similarly, **Chipotle** and **Burger King** are developing their digital ordering platforms and methods of payment. Chipotle introduced a special line, only for mobile orders, called digital pick-up shelves, where customers collect their products directly from restaurant shelves. As of December 31st, 2018, digital orders represented 10.9% of their total revenues. Currently, Chipotle has agreements with DoorDash and Postmates, which cover the surrounding areas of 95% of its restaurants. As for Burger King, Uber Eats, Grubhub and Just Eat are among its food delivery partners.

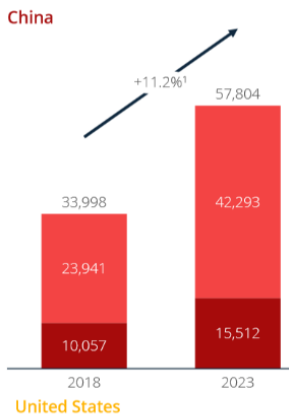
Conversely to most of its competitors, **Domino's Pizza** has its own delivery service. The company has invested in their online platforms and delivery innovation, to enable their customers to order pizza from any device or platform to their home, as well as, or non-traditional locations, like parks and beaches. Delivery tests with robots, drones and autonomous cars are also being carried out by Domino's. It is noticeable that the digital business is key for Domino's, in fact, digital orders accounted for more than half of the company's total sales.

⁶ Guest Experience Leaders are the customers' first point of contact and are responsible to ensure excellent in-store experience.

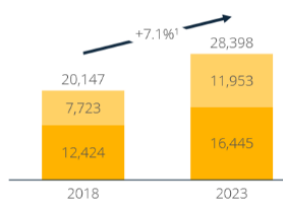
⁷ Currently, the company's digital sales amount to 2% of all orders.

Exhibit 34: Online food delivery market: revenue forecast in million dollars

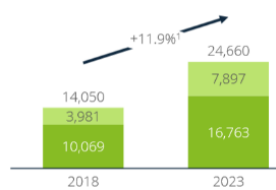
■ Restaurant-to-Consumer Delivery
■ Platform-to-Consumer Delivery



United States



Europe



Source: Statista Digital Market Outlook: "Online Food Delivery Report 2019"

Regarding online delivery services and ordering software, **Yum! Brands** has also acknowledged its importance and made some investments that have placed the company in a good position to collect future benefits.

On one hand, Yum decided to buy 200 million dollars' worth of Grubhub shares while, on the other hand, it completed the acquisition of QuikOrder. In the US, Grubhub acts as an online marketplace that connects KFC and Taco Bell customers to its closest takeout restaurants, whereas QuikOrder provides online services for the Pizza Hut brand. The fact that Grubhub services can cover over 2,400 US cities and QuikOrder has already been a service provider for Yum! Brands for almost two decades justifies the investment of Yum in these two companies.

In China, **KFC** is experimenting with a new restaurant concept named KPRO, which is focused on offering a healthier and fresher menu in a high tech and sustainable environment. The automation of the ordering and payment process is one of the focus of this new project. **Pizza Hut** is also using innovation as a way to enhance customer experience, for example, in Indonesia, the brand introduced autonomous robots that, for now, are only used for entertaining purposes, but in the future it could be useful in a wide range of tasks, like ordering and registering.

According to the Statista Digital Market Outlook 2019, the global revenues of the online food delivery market amounted to 91.4 billion dollars, in 2018. The biggest market was the Chinese one, which represented 37% of the total revenues, and was followed by the US and the European market.

It is expected that the global online food delivery market will reach 156.8 billion dollars in 2023, registering an annual average growth rate of 11.4%, in the period of 2018 to 2023. The Chinese online food delivery sector is forecasted to follow the global market trend and grow at an annual average growth rate of 11.2%, while the US sector will only grow at 7.1% annually (Exhibit 34). Moreover, the European segment is estimated to be the fastest growing of the three, with a CAGR of 11.9%. The UK will be the region with a greater increase in terms of total revenues and Spain will be the country with the highest average annual growth rate for the period of 2018 to 2023, according to Statista.

Furthermore, the online food delivery market can be separated into two different business models. The first being the Restaurant-to-Consumer Delivery, where the delivery is either done by the restaurant or it is collected by the customer. Conversely, in the Platform-to-Consumer Delivery, the delivery is performed by a specific platform. In terms of total revenues, the Platform-to-Consumer Delivery model is predicted to surpass the Restaurant-to-Consumer Delivery model, in 2019, and account for 52,4%, in 2023. The volume of revenues associated with

each business model differs from region to region, since customer preferences also change. In China, the Platform-to-Consumer Delivery model is by far the most used one, while in the US and Europe the Restaurant-to-Consumer Delivery seems to be the preferred system.

All in all, it was possible to understand that the consumer foodservice industry is facing a digital trend that is focussed on improving customer experience through the introduction of new and innovative digital technologies. After analysing the initiatives planned and implemented by Yum! Brands and its competitors, it was possible to observe that, if the company continues following this path, it will be well-positioned when compared to its competitors to capture part of the growth that is expected in this segment.

Exhibit 35: Fast food growth by type, between 2015 and 2016



Note: Other fast food is a diverse category that includes local cuisines, snack foods and dessert chains. Much of the growth seen here is being driven by independent snack outlets in Brazil.

Source: Statista Digital Market Outlook: "Online Food Delivery Report 2019"

Healthier fast food

Healthy fast food relies on the concept of "health halos" characterized by the perception that a specific food is better for a certain individual, even when there is no evidence to corroborate its veracity. Looking at Exhibit 35, it is possible to notice what consumers really value while seeking "healthier" options. Asian fast food and chicken fast food give the "health halo" perception, since the first one is distinguished for its use of simple cooking techniques and fresh ingredients and, the second one, is seen as a healthier alternative to other protein sources.

Healthy fast food is composed by 5 significant components. **High-quality** ingredients and suppliers, as well as **simplicity and authenticity** regarding cooking preparation methods, give the perception of nutrition and healthfulness. Additionally, consumers want **fresh and "good"** food, that is characterized by being unprocessed and free from features that may harm them. Furthermore, in a paradigm where consumers value **trust and transparency**, companies that rely on these pillars are seen as more reliable. It is important to understand that consumers, being more aware and insightful to make smart decisions, take time to trust, and once lost, trust is hard to restore. **Modernisation and customization** also give the consumer a sense of healthiness, since it consists of investment in technology and in the consumer's perception of having control in the ingredients of their order.

In order to take the topic of healthier fast food into consideration, the constituents of the foodservice industry have been changing their strategies. Companies like Chipotle, Yum! Brands and others, release reports with new strategies and plans of action to guide its business practices. In terms of quality of food, companies have been investing in better ingredients and suppliers, for example Taco Bell has been reducing the use of antibiotics in its beef supply. Additionally, there is a bigger awareness regarding animal welfare, for instance, Wendy's Company

started the Animal Welfare Program in which it promotes better animal care in terms of the pain experienced, balanced diet, more comfort and larger space, to protect animals from abuse, neglect or mistreatment.

At first sight, “health” and “fast food” are concepts that theoretically do not match. However, as previously mentioned, consumers search for healthy options that consider, not only the nutrition level of the products, but also a variety of other features. Having all these matters into account, it is possible to affirm that, although there has been a shift in consumer’s choices regarding health awareness, Yum! Brands and its competitors have already implemented this new trend in its strategies and products. Additionally, they will continue to work on finding new alternatives and solutions to better meet customer preferences.

Value Drivers and Forecasting

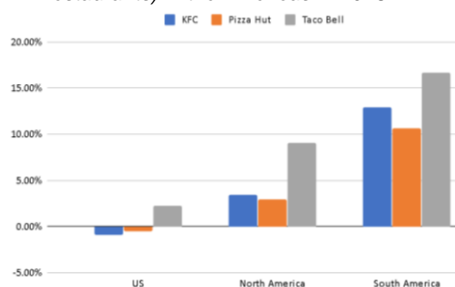
Evolution of restaurant units

To forecast the unit growth of Yum! Brands until 2030, several factors were considered. The unit growth recorded in 2018 was used as a proxy for the growth rate in 2019 and 2020. This 2018-unit growth was segregated by brand (KFC, Pizza Hut and Taco Bell), restaurant type (company-owned and franchised) and geographic region. Furthermore, all growth rates calculated were adjusted to not include the impact of Yum! Brands' refranchising strategy (since it would not impact the future) and other one-time events, such as Pizza Hut and Telepizza Alliance.

For the franchised restaurants, from 2021 until 2025, the growth rates will start to converge to the forecasted CAGR of the limited--service restaurants sector, in each region. From 2026 until 2029, the growth rates will converge to the forecasted population growth, in each region. From 2030 onwards, the growth rate will be equal to the world population growth, for all regions. Depending on the level of competition, the values for the first 6 years may be slightly adjusted. The number of direct competitors, the restaurant count of those same competitors, the market share of the top 5 ranked companies and future expansion plans are factors that were also considered. For the company-owned restaurants, the net unit development recorded in 2018 was applied for the remaining years.

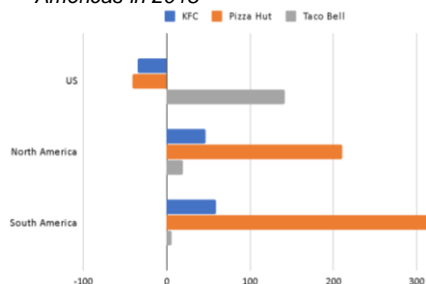
Additionally, in regions covered by the Telepizza Alliance, Telepizza will not only aim to open at least 1,300 and 2,550 restaurants in a ten- and twenty-year period, respectively, but also convert its existing Telepizza units into Pizza Hut restaurants.

Exhibit 36: Franchise Restaurants Growth (net of Refranchised & Other Restaurants) in the Americas in 2018



Source: Yum! Brands annual reports

Exhibit 37: Net Openings in the Americas in 2018



Source: Yum! Brands annual reports

The Americas

This is the geographic segment with a higher percentage of restaurant units in the three divisions of Yum! Brands. The US is the country that higher weight has in this percentage, with 38% of total units.

Between 2015 and 2018, the number of franchised restaurants in the US decreased in two divisions of Yum! Brands. The average unit growth of KFC was -1.87%, with a tendency to decrease less from year to year. As for Pizza Hut, the average was -1.70%, being 2017 the most significant year (-2.63%). Taco Bell opposed the trend, since its restaurants have been increasing, as one can notice from the average of 2.48%. If the impact of Yum's strategy based on the Strategic Transformation Agreement had not been considered, these growths would differ, especially in the case of Pizza Hut, that would show an opposite average growth of 0.32% (instead of -1.70%). For the other regions of the Americas region, the franchised restaurant growth rate in 2018 can be observed in Exhibit 36.

Yum! Brands faces the challenge of expansion in the US, since it is already a mature market and, consequently, it is hard to find space for more units. However, it has been observable a revitalization of urban areas in this country, which is how and where the company intends to grow. Beginning in 2019, KFC plans to open more restaurants than it closed⁸. Taco Bell also aspires to keep expanding its units. Conversely, Pizza Hut plans to close, temporarily, up to 500 underperforming units in the next two years. These stores will be refranchised, remodelled or rebuilt at more strategic locations, according to David Gibbs, President and COO of Yum! Brands. In Latin America, Pizza Hut intends to double its footprint⁹ over the long-term, a programme under the Telepizza Strategic Alliance.

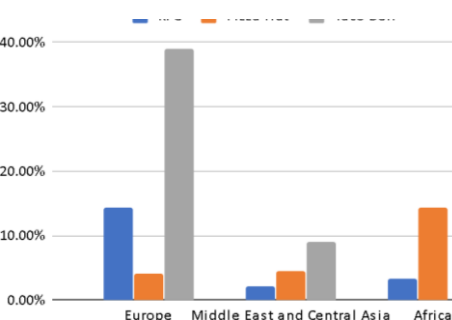
The procedure to forecast the unit growth was the one explained previously, however, in some cases, it had to be adjusted given determined factors. In the US, the market saturation problem was taken into consideration, therefore the unit growth of 2018 was used as a proxy for the 2019 one, and in 2020, a growth rate of 1% was assumed, in KFC and Taco Bell. In the Pizza Hut brand, the closures mentioned before were also considered. In the rest of Americas region, Taco Bell unit growth was assumed to only start converging to the forecasted CAGR of the sector in 2022, due to the lack of presence and competition of this brand, particularly in Latin America. In South America, KFC and Pizza Hut's unit growth were forecasted similarly, due to revealing high growth potential.

Source: Yum! Brands annual reports

⁸ Source: Restaurant Business, "KFC wants to do something it hasn't done in 15 years: grow".

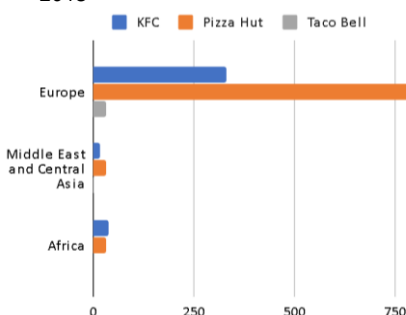
⁹ Yum! Brands Press Releases, "Pizza Hut and Telepizza Group announce landmark international growth alliance", 2018.

Exhibit 38: Franchise Restaurants Growth (net of Refranchised & Other Restaurants) in EMEA in 2018



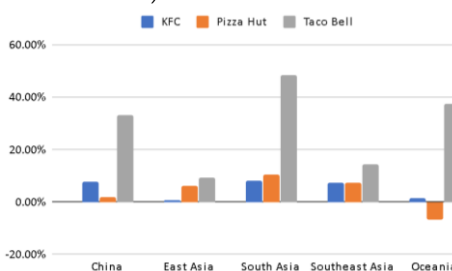
Source: Yum! Brands annual reports

Exhibit 39: Net Openings in EMEA in 2018



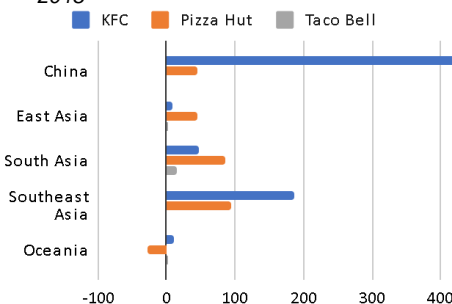
Source: Yum! Brands annual reports

Exhibit 40: Franchise Restaurants Growth (net of Refranchised & Other Restaurants) in APAC in 2018



Source: Yum! Brands annual reports

Exhibit 41: Net Openings in APAC in 2018



Source: Yum! Brands annual reports

EMEA

Regarding EMEA geographic segment, Europe is the region where Yum! Brands has the greatest number of restaurants, accounting for 11% of total units. From the three main regions, it was in Europe where the company registered more openings, in the year of 2018 (Exhibit 39). As a result of the Telepizza agreement, Pizza Hut was able to add around 830 new units to its restaurant count in Spain, Portugal and Switzerland. Moreover, KFC invested in markets like Russia and the UK, where it opened 137 and 35 new restaurants.

Although EMEA includes developed countries and great business opportunities, Yum! Brands has not yet fully explored it. Hence, a strong development in the following years is expected. KFC announced plans to expand its units in Germany, from the 173 it has today to 500 restaurants. The demand for Taco Bell products is growing in the UK, therefore the company aims to have at least 200 restaurants by 2023. In the Middle East, KFC also predicts an increase of 40 to 70 restaurants a year, according to Sabir Sami, the managing director of the region.

The procedure to predict the unit growth in this region was the same as before, however, in some cases, it had to be adjusted. Taco Bell plans to expand its business in some countries of Europe, therefore its unit growth was predicted to only start converging to the forecasted CAGR of the sector in 2022. Furthermore, Taco Bell does not have yet any restaurant in Africa, hence it was assumed that Taco Bell will invest in this market and open 5 new restaurants in 2021 and, from then onwards, it will start converging to the forecasted CAGR of the sector.

APAC

In APAC region, China is the country where Yum! Brands has the greatest number of restaurants, accounting for 17% of total units. All of China's restaurants are franchised units.

In China, the number of restaurants increased in the three divisions of Yum, during 2015 and 2018. In KFC, the average unit growth was 4.91%, given that the most significant year was 2017, with a unit growth of 7.69%. In Pizza Hut, the average was 9.29%, but the growth was more significant in 2015 (20.29%) and since then, the growth has been decreasing its intensity. Lastly, in Taco Bell, the first restaurant was opened in 2016 and the second one in 2017, which shows an average unit growth of 58.33% in the period in analysis. For the other regions of APAC, the restaurant growth rate in 2018 can be observed in Exhibit 40.

Yum! Brands has already made partnerships and plans to continue to expand its units in APAC. Since its business is not yet fully developed in this market, Yum

China expects to have at least 10,000 outlets across the three brands, by 2021. Furthermore, Yum China has partnered with two of the biggest state oil companies to open more than 100 fast food units at gas stations over the next three years. Taco Bell is also focusing in APAC region, primarily in Australia and New Zealand, where it intends to open 110 new stores by 2024. In Thailand, Taco Bell aims to open 40 stores by 2022.

The procedure to forecast the unit growth was the one explained previously, however in some areas, Taco Bell growth rates had to be adjusted given determined factors. In China, South Asia and Southeast Asia, high growth unit rates were assumed since, in these areas, the brand is still establishing itself. In East Asia, Taco Bell unit growth was assumed to only start converging to the forecasted CAGR of the sector in 2022, due to the lack of presence and competition. In Oceania, Taco Bell is expected to open 110 units by 2024, as mentioned before, and after that the unit growth will converge to the forecasted CAGR of the sector.

Sales per restaurant / Average income per restaurant

To forecast revenues, it is still relevant to take into consideration the Sales per Restaurant, that regard to company-owned restaurants; and the Average Income per Restaurant, that relates to franchised restaurants. It is also relevant to understand how these captions have been evolving in the past.

The Sales per Restaurant caption has been increasing substantially due to the decrease in the number of company-owned restaurants, particularly from 2016 to 2017. Yum was refranchising the less efficient restaurants and leaving the most efficient ones as company-owned units. Since currently, Sales per Restaurant are much higher, the company believes that it is worth it to keep them as they are. On the other hand, the Average Income per Restaurant remained roughly constant over the last few years.

To forecast Sales per Restaurant and Average Income per Restaurant some elements were considered. Between 2019 and 2020, the historical annual average of the same-store sales and quarter values of 2019 were used as a proxy. From 2021 until 2024, the growth rates were expected to start converging to the forecasted inflation rate of 2024. The inflation rate was calculated for each type of restaurant across all three brands and takes into consideration the distribution of the corresponding restaurants per region. The real growth of the economy was not yet considered due to the large forecasted increase in number of restaurants, in the same period. From 2025 until 2030, the growth rates were

assumed to converge to the average real growth rate of the economy, between 2024 and 2030. The real growth rate was calculated for each type of restaurant across all three brands and took into consideration the distribution of the corresponding restaurants per region. The inflation rate was not considered, since it was expected that the competition would intensify in all segments.

In the first 2 years, the forecasted amount of Sales per Restaurant growth and Average Income per Restaurant growth were adjusted upwards, when compared to the recorded historical same-store growth average. This change comes from the fact that Yum has been increasing its digital investments, particularly in the ordering and payment processes, due to a general change in customer behaviour.

Operating expenses

Yum's operating expenses are composed of five captions that can be allocated to three main groups of costs. Firstly, **Company Restaurant Expenses**, that are the costs related to the company-owned restaurants. Secondly, the costs concerning the franchises, in other words, **Franchise and Property Expenses** and **Franchise Advertising and Other Services Expense**. Franchise and Property Expenses include non-refundable elements provided to franchisees, such as free or subsidized equipment, in order to incentive new unit development and same-store sales. The latter caption also includes franchise support costs, for example, provisions for estimated uncollectible fees, rent or depreciation expense associated with restaurants that Yum leases or subleases to franchisees, and others. Lastly, the general costs, regarding not only company-owned restaurants but also franchised ones, namely, **General and Administrative Expenses** and **Other Expenses**.

To forecast each of the components mentioned above, the captions were divided. For instance, the Company Restaurant Expenses caption was divided also into Cost of Sales, Cost of Labour, Occupancy and Other Operating Expenses, and Depreciation. Then, suitable value drivers for each caption were founded, such as company sales for the cost of sales caption. The historical average proportion of the caption value over the driver value was used as an estimate for the future years. Additionally, it was taken into consideration gains in efficiency and the possibility of economies of scale. To do so, the percentage under which the Cost of Sales and the Franchise and Property Expenses were calculated, was adjusted downwards.

Capital Expenditure and Goodwill

The Property, Plant and Equipment caption relates to the number of company-owned restaurants opened each year, since it is composed of land, building and improvements, capital leases (primarily buildings), and machinery and equipment. In order to forecast Capital Expenditure (CAPEX), the investment in Property, Plant and Equipment was estimated per company-owned restaurant, given that its value has been constant over the last few years. Depreciation was forecasted based on the previous year PP&E value.

Cost of Equity	6.07%
Cost of Debt	3.34%
D/(D+E)	23.35%
E/(D+E)	76.65%
US Corporate Tax Rate	21%
WACC	5.27%

To do the forecast of Intangible Assets, some captions were assumed as a percentage of the total number of franchised restaurants, such as Reacquired Franchise Rights and Lease Tenancy Rights. The table below shows the past and forecasted values of CAPEX, for both PP&E and Intangible Assets. As for Goodwill, the forecasted value was kept constant for the following years in KFC and Taco Bell divisions. However, in the case of Pizza Hut division, it is expected that the partnership agreement between the latter and Telepizza becomes more relevant, so the value estimated to 2021 onwards increased slightly.

CAPEX	2019	2020	2021	2022	2023	2024	2025	2026
PP&E	\$135.29	-\$338.24	-\$341.30	-\$112.68	\$35.90	\$39.91	\$35.92	\$36.93
Intangible assets	\$121.25	\$102.31	\$120.45	\$132.75	\$146.75	\$125.51	\$116.24	\$113.96

WACC

In order to discount YUM's cash flows, the Weighted Average Cost of Capital (WACC) was computed. To do so, it was necessary to calculate the cost of equity, the cost of debt and the target Debt-to-Equity Ratio.

The **target Debt-to-Equity Ratio** was assumed to remain constant at 30.47%, since its current value is close to some of the competitors' capital structures. Dominos' Pizza, Restaurant Brands International and Yum! Brands all have D/E ratios just between 30% and 37%.

The **cost of equity** was estimated under the CAPM (Capital Asset Pricing Model) approach. Firstly, to find the risk-free rate, it was necessary that it consisted in the same currency as the company's cash flows. Therefore, the yield of a 10-year US Treasury Bond was used, given that, Yum! Brands is headquartered in Kentucky state of US. This constitutes a proxy of a rate free of default and reinvestment risk. The risk-free rate found was 1.9347%. Secondly, the market-risk premium was assumed to be 5.75%. This percentage was obtained by a KPMG Research¹⁰ for a period posterior to the 30th of June, 2019.

Finally, it was time to compute the beta. In order to determine Yum's levered beta, a regression consisting of the stock excess returns against the excess

¹⁰ Source: KPMG, "Equity Market Risk Premium – Research Summary", 30 June 2019.

returns of MSCI World Index was performed. This index was used in US dollars since most shareholders are institutional investors from North America. The levered beta obtained for Yum! Brands was 0.63 with a 95% confidence interval of [0.46;0.81].

Considering that the confidence interval is relatively large, an alternative process, that considers the comparables' beta, was used. The metrics used to find suitable comparables of Yum! Brands were franchising structure, market capitalization, operating margin and international exposure. The comparable firms chosen were Wendy's Company, McDonald's, Dunkin's Brand, Domino's Pizza and Restaurant Brands International. The process that was utilized to discover Yum's beta was performed for each comparable. Then, the current debt-to-equity ratio of each comparable was utilized to unlever each beta. By performing a weighted average of the comparables' beta regarding the current market capitalization of each one of them, it was possible to find an industry average unlevered beta of 0.58. Lastly, using Yum's assumed target Debt-to-equity ratio, a levered beta of **0.72** was obtained. This was the value applied in the calculation of the cost of equity.

The expected return for debt holders, the Loss Given Default (LGD) and Yum's annualized Probability of Default (PD) were computed, in order to find the **cost of debt**. The first one was calculated with the yield of the company's last issued bond, a 10-year old note. Yum's long-term debt is composed by several notes issued with different maturities and although the chosen bond was not the one with the longest maturity, it was the one that matched the period in analysis. Additionally, the LGD and PD were estimated taking into consideration Yum! Brands bond credit rating by Moody's (Ba2).

ROIC and RONIC

In 2019, Yum's Return on Invested Capital (ROIC) is expected to be 90.20%, which can be considered a high value. This means that the company is experiencing efficiency when allocating its money to generate returns. The company collects franchise fees from more than 98% of its total restaurants and almost does not have relevant costs or investing capital needs with these units. That can also be confirmed observing the Return on New Invested Capital (RONIC). (see table below)

In capital light businesses, for instance in franchise systems, the concept of ROIC is not that relevant, since most of the times, it is the franchisee that is responsible for the majority of the capital spending, and not the franchisor. Nonetheless, the franchisor, in this case Yum! Brands, always collects a percentage of the profits regardless of the proceeds of the investment. It would

be possible to calculate an accurate ROIC if the franchise system would be considered as just one company. However, this is rather complex, since Yum! Brands franchise system is considerably large.

Furthermore, in these types of businesses it is common to notice a negative equity value. This happens due to the reason explained above, since Yum is not responsible for the majority of the capital spending. In these businesses, cash flow grows without much capital investment, and since the business can take on more debt, the book value of equity does not increase. Facing this scenario, the balance sheet will continue to show a negative value for the total shareholders equity, which in this case can be called deficit. This is considered a limitation of the accounting standards.

Valuation

Discounted cash flow method

After the forecasting performed in the previous sections, the Core Free Cash Flows (FCF) were found. Observing them, it was possible to identify three phases. From 2020 to 2024, its growth rate was significantly high (around 4%). This happens because the company will explore and invest in emerging markets, of which, most of its competitors have not been able to establish. In the next phase, that is, between 2025 and 2030, a decrease in the growth rate to around 3% is observable. This is due to the entrance of new competitors, which leads to a decrease in the opening of new restaurants. From 2030 onwards (perpetuity), the market is saturated and characterized by price competition, which makes it very difficult for the company to increase prices. Given these factors, it is difficult to efficiently open new restaurants, and consequently, the growth rate assumed was close to 2%. This last phase is distinguished as the stable growth phase.

The stable growth rate (2.13%) was found by calculating the average of the long-term real GDP growth rate in the regions that Yum operates. The average was computed taking into consideration the total number of restaurants in each region. After that, the value of Core Business for 2020 was calculated, as well as, the Enterprise Value (summing the first mentioned to the Non-Core Book Value). To reach the Equity value, the Debt and debt equivalents were subtracted from the Enterprise Value. Having the Equity, it was possible to find a Price per Share of 163.42 dollars, given Yum's Shares Outstanding.

On the 02nd of January 2020, Yum! Brands was trading at a stock price of 102.12 dollars. From now until the end of 2020, it was assumed that the company will pay a constant 0.36 dollars per share per quarter. Taking into consideration

the Price per Stock estimated previously, this leads to a total shareholder return of 61.44%, of which 1.41% relates to the dividend and 60.03% is the capital gain. Having these in mind, the purchase of the share is suggested (**Buy Recommendation**), since the share is under-priced ($102.12 < 163.42$).

The discount rate and terminal growth rate are two key inputs in a DCF analysis, therefore uncertainty regarding their values will impact the company’s estimated stock price. Having this in mind, a sensitivity analysis was performed in order to understand exactly the effect that changes in these inputs may cause.

Sensitivity Analysis		WACC				
		4.00%	5.00%	5.00%	6.00%	7.00%
Terminal Growth Rate	1.50%	\$223.58	\$151.77	\$138.90	\$111.82	\$86.36
	2%	\$274.57	\$174.15	\$157.55	\$123.87	\$93.64
	2.13%	\$292.29	\$181.25	\$163.38	\$127.51	\$95.78
	2.50%	\$359.55	\$205.49	\$182.94	\$139.36	\$102.54
	3%	\$529.52	\$252.50	\$219.51	\$160.01	\$113.66

Relative Valuation

Peer Multiple			
Low	Mean	Median	High
15.97	17.64	16.78	22.09

Estimated Price per Share			
Low	Mean	Median	High
\$94.06	\$140.24	\$133.45	\$175.62

In order to better understand how the market perceives the value of the comparables in relation to Yum! Brands, the EV/EBITDA multiple valuation was performed. The comparables group selected was the one already mentioned in the WACC section. From the data collected from Bloomberg, the low, mean, median and high values of EV/EBITDA ratio were summarized in the side table. Then, for each of the values, a different estimate of Yum! Brand’s stock price was obtained. Both the mean (\$140.24) and the median (\$133.45) stock prices corroborate the results obtained in the DCF model, since both valuations suggest that Yum! Brands’ stock is undervalued.

Final considerations

Yum! Brands went through a transition period that consisted of the refranchising of several restaurants. This led to a decrease in revenues that is still being observed in present years, and will likely be observed, at least, in 2019. Having this in mind, it is relevant to say that this transition period may have different unpredicted outcomes in the future and, therefore, the market may act rather conscious about it. The recent investments in Grubhub and Quikorder have brought more uncertainty to the environment surrounding Yum’s stock, since those companies’ risks are now Yum’s risks. Furthermore, the topic of “health concerns” is one that may influence market’s opinion on Yum! Brands’ stock. However, as previously explained, consumers do not look only at the nutrition level of a given product, instead, they look at a group of other factors, such as trust and transparency. All in all, it is suggested a buy recommendation, for Yum! Brands shares.

Appendix

Financial Statements

Income Statement

		(in millions)					
		2016	2017	2018	2019P	2020P	2021P
CORE	KFC						
	Company sales	\$2,156.00	\$1,928.00	\$184.00	\$538.00	\$558.52	\$588.33
	Franchise and property revenues	\$1,865.00	\$1,482.00	\$1,294.00	\$1,483.32	\$1,544.14	\$1,678.12
	Franchise contributions for advertising and other	\$0.00	\$0.00	\$456.00	\$477.34	\$584.47	\$523.35
	Pizza Hut						
	Company sales	\$433.00	\$285.00	\$63.00	\$48.00	\$48.00	\$48.23
	Franchise and property revenues	\$615.00	\$688.00	\$538.00	\$623.38	\$648.00	\$684.63
	Franchise contributions for advertising and other	\$0.00	\$0.00	\$321.00	\$323.42	\$326.63	\$333.33
	Taco Bell						
	Company sales	\$1,248.00	\$1,353.00	\$1,837.00	\$842.00	\$562.41	\$284.41
	Franchise and property revenues	\$485.00	\$521.00	\$538.00	\$636.15	\$682.26	\$723.88
	Franchise contributions for advertising and other	\$0.00	\$0.00	\$423.00	\$444.78	\$458.58	\$473.73
Total Revenues		\$5,356.00	\$5,089.00	\$5,588.00	\$5,391.42	\$5,325.73	\$5,356.00
CORE	KFC						
	Company restaurant expenses	\$1,833.00	\$1,633.00	\$775.00	\$443.34	\$464.64	\$487.88
	General and administrative expenses	\$336.00	\$378.00	\$358.00	\$427.58	\$443.67	\$482.64
	Franchise and property expenses	\$188.00	\$147.00	\$187.00	\$182.81	\$142.81	\$158.44
	Franchise advertising and other expense	\$0.00	\$0.00	\$452.00	\$473.75	\$588.85	\$524.74
	Other (income) expense	\$11.00	\$3.00	\$1.00	\$5.00	\$5.53	\$5.28
	Pizza Hut						
	Company restaurant expenses	\$452.00	\$271.00	\$63.00	\$44.73	\$44.56	\$44.63
	General and administrative expenses	\$242.00	\$211.00	\$157.00	\$234.37	\$223.33	\$245.82
	Franchise and property expenses	\$48.00	\$68.00	\$45.00	\$56.28	\$53.67	\$53.48
	Franchise advertising and other expense	\$0.00	\$0.00	\$328.00	\$338.47	\$333.75	\$347.48
	Other (income) expense	-\$1.00	\$2.00	\$1.00	\$8.64	\$8.61	\$8.78
Taco Bell							
Company restaurant expenses	\$1,138.00	\$1,854.00	\$733.00	\$652.85	\$423.38	\$216.54	
General and administrative expenses	\$211.00	\$488.00	\$477.00	\$214.33	\$212.61	\$213.44	
Franchise and property expenses	\$21.00	\$22.00	\$28.00	\$28.28	\$38.48	\$33.28	
Franchise advertising and other expense	\$0.00	\$0.00	\$428.00	\$443.66	\$457.43	\$472.63	
Other (income) expense	\$0.00	-\$3.00	-\$3.00	-\$8.36	-\$8.33	-\$1.13	
Total Core Expenses		\$4,525.00	\$5,342.00	\$5,748.00	\$5,489.72	\$5,353.38	\$5,288.89
COOP Operating Profit		\$1,831.00	\$1,347.00	\$1,340.00	\$1,851.71	\$1,866.35	\$2,067.11
Operating lease		\$511.25	\$337.68	\$232.65	\$315.88	\$338.66	\$346.32
EBELET		\$1,299.74	\$1,609.32	\$1,607.34	\$1,535.83	\$1,527.69	\$1,720.79
NON-CORE	Refranchising gain (loss)	\$163.00	\$1,883.00	\$548.00	-\$5.68	\$8.00	\$8.00
	Unallocated expenses	-\$314.00	-\$263.00	-\$484.00	-\$268.28	-\$287.73	-\$287.73
	Intangible income (expense), net	\$2.00	\$5.00	\$3.00	\$3.00	\$3.00	\$3.00
	Other gain/loss (expense)	-\$32.00	-\$47.00	-\$14.00	-\$18.78	-\$18.38	-\$18.38
	Non-Core Expenses	-\$181.00	\$278.00	\$359.00	-\$276.58	-\$289.11	-\$289.11
	Non-core lease	-\$72.11	\$752.00	\$188.45	-\$32.28	-\$31.73	-\$31.73
Non-Core Profit (Loss)	-\$183.00	\$266.00	\$242.54	-\$244.97	-\$257.38	-\$257.38	
Income from discontinued operations, net of tax	\$525.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Non-Core Profit - Discontinued Opers	\$525.00	\$266.00	\$242.54	-\$244.97	-\$257.38	-\$257.38	
FINANCIAL	Interest paid	\$387.88	\$445.88	\$452.88	\$533.43	\$533.43	\$516.36
	Tax shield	\$482.45	\$455.75	\$484.42	\$413.28	\$413.28	\$423.26
	Financial Benefit	-\$195.43	-\$289.13	-\$347.89	-\$426.15	-\$426.15	-\$463.78
NET INCOME		\$1,643.30	\$1,340.87	\$1,542.00	\$885.10	\$852.16	\$1,000.00

Balance Sheet

(in millions)		2016	2017	2018	2019F	2020F	2021F
CORE	Operating cash	\$63.56	\$58.78	\$56.88	\$53.40	\$53.24	\$53.55
	Accounts and notes receivable, net	\$368.00	\$397.00	\$556.00	\$522.12	\$520.59	\$523.63
	Prepaid expenses and other current assets	\$210.00	\$333.00	\$304.00	\$332.30	\$308.92	\$309.60
	Advertising cooperative assets, restricted	\$137.00	\$201.00	\$0.00	\$0.00	\$0.00	\$0.00
	PP&E, net	\$2,081.00	\$1,563.00	\$1,205.00	\$1,225.37	\$778.31	\$368.41
	Goodwill	\$536.00	\$512.00	\$525.00	\$525.00	\$525.00	\$559.00
	Intangible assets	\$151.00	\$214.00	\$242.00	\$321.41	\$368.15	\$424.95
	Other assets	\$80.00	\$55.00	\$448.00	\$439.37	\$465.24	\$494.28
	Deferred income taxes	\$621.00	\$205.00	\$80.00	\$0.00	\$81.09	\$85.28
Total Operating Assets	\$4,247.56	\$3,538.78	\$3,416.88	\$3,418.97	\$3,100.54	\$2,818.70	
NON-CORE	Accounts and notes receivable, net	\$2.00	\$3.00	\$5.00	\$5.00	\$5.00	\$5.00
	Prepaid expenses and other current assets	\$57.00	\$37.00	\$24.00	\$24.00	\$24.00	\$24.00
	PP&E, net	\$32.00	\$31.00	\$32.00	\$33.62	\$27.12	\$21.95
	Other assets	\$249.00	\$250.00	\$247.00	\$247.00	\$247.00	\$247.00
Total Non-Core Assets	\$340.00	\$321.00	\$308.00	\$309.62	\$303.12	\$297.95	
FINANCIAL	Prepaid expenses and other current assets	\$6.00	\$14.00	\$26.00	\$26.00	\$26.00	\$26.00
	Other assets	\$47.00	\$40.00	\$29.00	\$29.00	\$29.00	\$29.00
	Excess of cash	\$661.44	\$1,463.22	\$235.12	\$235.12	\$235.12	\$235.12
Total Financial Assets	\$714.44	\$1,517.22	\$290.12	\$290.12	\$290.12	\$290.12	
CORE	Accounts payable and other current liabilities	\$958.00	\$813.00	\$888.00	\$728.84	\$704.86	\$675.81
	Income taxes payable	\$36.00	\$123.00	\$69.00	\$65.86	\$69.94	\$73.55
	Advertising cooperative liabilities	\$137.00	\$201.00	\$0.00	\$0.00	\$0.00	\$0.00
	Other liabilities and deferred credits	\$703.00	\$658.00	\$980.00	\$979.06	\$1,049.26	\$1,131.77
Total Operating Liabilities	\$1,834.00	\$1,795.00	\$1,937.00	\$1,773.76	\$1,824.06	\$1,881.13	
FINANCIAL	Accounts payable and other current liabilities	\$109.00	\$0.00	\$23.00	\$23.00	\$23.00	\$23.00
	Other liabilities and deferred credits	\$0.00	\$46.00	\$24.00	\$24.00	\$24.00	\$24.00
	Debt	\$9,125.00	\$9,804.00	\$10,072.00	\$10,072.00	\$10,512.18	\$10,942.62
Total Financial Liabilities	\$9,234.00	\$9,850.00	\$10,119.00	\$10,119.00	\$10,559.18	\$10,989.62	
Net Operating Assets	\$2,413.56	\$1,743.78	\$1,479.88	\$1,645.21	\$1,276.48	\$937.57	
Net Financial Assets	-\$8,519.56	-\$8,332.78	-\$9,828.88	-\$9,828.88	-\$10,269.06	-\$10,699.50	
Total Shareholders' Equity (Deficit)	-\$6,615.00	-\$6,334.00	-\$7,926.00	-\$7,907.67	-\$8,716.58	-\$9,485.93	

Cash Flows Statement

(in millions)		2016	2017	2018	2019F	2020F	2021F
CORE	NOPLAT	\$1,293.74	\$1,603.32	\$1,646.34	\$1,536.43	\$1,635.45	\$1,720.78
	Depreciation	\$298.00	\$246.00	\$129.00	\$76.14	\$60.86	\$45.56
	Operational Cash Flow	\$1,591.74	\$1,849.32	\$1,775.34	\$1,612.57	\$1,696.31	\$1,766.34
	Invested Capital - Fixed Assets	\$2,768.00	\$2,289.00	\$1,972.00	\$2,071.78	\$1,671.46	\$1,352.36
	Gross CAPEX Investment	\$225.00	\$479.00	\$317.00	-\$99.78	\$400.33	\$319.10
	Net CAPEX	-\$73.00	\$233.00	\$188.00	-\$175.92	\$339.47	\$273.54
	Invested Capital - NWC and Others	-\$354.44	-\$545.22	-\$490.19	-\$426.57	-\$394.98	-\$414.79
	Investment in NWC and Others	-\$1,114.38	\$190.78	-\$55.03	-\$63.62	-\$31.60	\$19.82
	Investment Cash Flow	-\$1,187.38	\$423.78	\$132.97	-\$239.54	\$307.87	\$293.36
Core Business Free Cash Flow	\$404.36	\$2,273.10	\$1,908.31	\$1,373.03	\$2,004.18	\$2,059.70	
CHINA (discontinued operations) • INDIA	Operational Cash Flow	\$625.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Invested Capital	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Investment Cash Flow	\$2,004.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Free Cash Flow China • India	\$2,629.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
NON-CORE	Operational Cash Flow	-\$281.89	\$209.00	\$191.54	-\$295.37	-\$308.38	-\$308.38
	Invested Capital	\$491.00	\$255.00	\$423.00	\$276.00	\$276.00	\$276.00
	Investment Cash Flow	\$391.00	\$236.00	-\$168.00	\$147.00	\$0.00	\$0.00
Free Cash Flow Non Core Business	\$109.11	\$445.00	\$23.54	-\$148.37	-\$308.38	-\$308.38	
FREE CASH FLOW	\$3,170.47	\$2,718.10	\$1,932.86	\$1,224.85	\$1,696.04	\$1,751.61	
FINANCIAL	Financial Result	-\$180.55	-\$285.25	-\$361.89	-\$440.15	-\$440.15	-\$477.70
	Net Financial Assets	-\$8,519.56	-\$8,332.78	-\$9,828.88	-\$9,828.88	-\$10,269.06	-\$10,699.50
	Investment in Net Financial Assets	\$5,020.38	-\$186.78	\$1,496.10	\$0.00	\$440.18	\$430.44
	Net Cash Transactions with Shareholders	-\$8,010.30	-\$2,246.07	-\$3,069.00	-\$782.77	-\$1,696.07	-\$1,704.35
FINANCING CASH FLOW	-\$3,170.47	-\$2,718.10	-\$1,934.79	-\$1,222.92	-\$1,696.04	-\$1,751.61	

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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FUTURE OF THE TELEPIZZA STRATEGIC
ALLIANCE

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A Project carried out on the Master in Finance Program, under the supervision of:

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FRIDAY, JANUARY 3RD, 2020

Telepizza Strategic Alliance's report presents and explains the agreement between Pizza Hut and Telepizza, in terms of the latter becoming the largest master franchise for the former. Number of restaurants, fees, countries and stores involved in the alliance, are some of the matters discussed. Furthermore, potential future scenarios are examined, namely, the full completion of the agreement with no further alliances, 50% of the alliance goals are achieved, one or both parties failed to meet their obligation and the agreement ceases to exist, and the master franchise contract is fully completed and extended to all regions in which Telepizza operates.

Keywords: Pizza Hut, Telepizza, alliance, scenarios

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Companies Overview

Pizza Hut is an American brand of Yum! Brands, and it is considered the largest pizza company in the world. By 2018, Pizza Hut operated more than 18,000 restaurants in more than 100 countries all around the world. Additionally, the North American market is the one with a bigger representation, especially in the US with a total of 7,456 units. Furthermore, Pizza Hut is 99% franchised.

Telepizza was founded in Madrid and it is the largest non-US based pizza delivery company in the world. It is a pioneer in terms of pizza delivery. In 2018, Telepizza had 1,620 restaurants in 20 countries on 4 continents. Spain is the country where Telepizza is more significant, accounting for 720 restaurants, in 2018. Moreover, Telepizza is 76% of franchised.

Telepizza Strategic Alliance Overview

On December 30th, 2018, Pizza Hut entered a landmark international growth alliance with Telepizza Group, where the latter would become the largest master franchisee of Pizza Hut globally, regarding unit count. The alliance covers some specific regions of the world, namely Latin America and parts of Europe. Furthermore, it is a long-term initiative of at least 30 years, and it is expected to accelerate unit development, as well as, operating profit growth. The contract can be extended twice for 10 years each time, in Spain, Portugal and Chile, and for 5 years plus in the other markets.

The Telepizza Strategic Alliance constitutes an ideal project for future growth opportunities. According to Milind Pant, the president of Pizza Hut International, Telepizza is a very fitting partner to help speed up the growth and expansion of Pizza Hut in certain regions, since the company has the capabilities, commitment, and capital required to do so. Telepizza has a depth understanding when it comes to franchise operations and supply chain management.

Number of Restaurants:

In order to analyse this alliance, it is important to understand its crucial features. As of 31st of December of 2018, Pizza Hut incorporated 1,282 Telepizza units into its division. These units correspond to all the restaurants of Telepizza in the Iberian Peninsula, Switzerland, Latin America and the Caribbean. Moreover, all the Telepizza units present in Latin America, the Caribbean, and Switzerland, will progressively be converted into Pizza Hut restaurants, during the 5 five to 10 years. To further accelerate growth in these regions, the alliance aims to open 250 new units between 2019 and 2021, at least 1,300 in the next 10 years and, as a long-term objective, 2,550 total stores over 20 years. The entire new openings in Latin America and the Caribbean will be Pizza Hut restaurants, while in the other regions covered by the master franchise agreement, most of them will also be Pizza Hut, however not necessarily all.

Another component of this alliance is that Telepizza is now responsible to monitor a total of 2,631 stores, of which 1,620 are Telepizza stores and 1,011 Pizza Hut units. Telepizza is operating in new markets, such as Mexico and Costa Rica, which enables the company to establish contacts with suppliers and to better understand the specification of each market. Knowing this, in the future, it would be less complex to expand Telepizza's own restaurants to those regions.

In Poland and the Czech Republic, regions not covered by the master franchise contract, Telepizza will discontinue its operations in the next few years, as it was one of the obligations agreed by the alliance. Therefore, Telepizza will sell the assets to the AmRest group, which is a master franchisee of Pizza Hut in those countries.

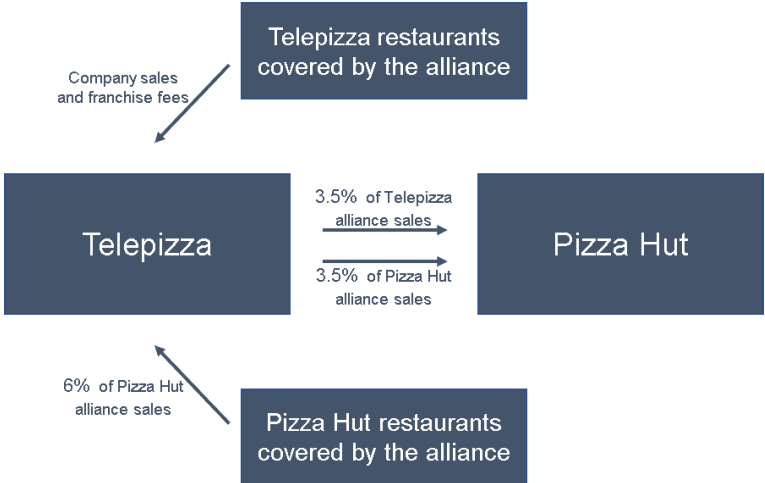
Franchising fees and Incentives:

In order to acquire the franchising rights, Telepizza will have to pay an initial fee to Pizza Hut of 11.850 million euros (13.145 million dollars). This payment is due until the end of the third year of the alliance contract. Furthermore, if the units' opening and restaurant conversion goals

are met in the three following years of the alliance, Telepizza will be awarded an incentive fee worth 25 million dollars.

Regarding royalties, Telepizza will receive 6% of the Pizza Hut’s chain sales from the regions under the alliance. From this 6% received, Telepizza will have to pay 3.5% of the total sales to Pizza Hut. Moreover, Telepizza will have to pay 3.5% of Telepizza sales as an alliance fee.

Exhibit 1: Telepizza and Pizza Hut agreement on franchising fees



Sources: Yum! Brands Press Release and Telepizza annual report (2018)

Alliance Impact

The aspirations of Pizza Hut and Telepizza are complementary, which means that the partnership may provide considerable value for customers, employees, franchisees, and shareholders.

Pizza Hut is already considered the world’s largest pizza restaurant company and operates in 100 countries all over the world. However, with this alliance, Pizza Hut is able to, not only reaffirm that position but also reinforce its presence over the regions included. For instance, in Latin America and the Caribbean, Pizza Hut will become the leading restaurant in its category in terms of unit count. As a result, in the long-term, Pizza Huts expects an accelerated restaurant development, as well as, an operating profit growth.

Telepizza, that is already the largest non-US based pizza delivery company in the world, will be able to become the main multi-country pizza operator. It will be able to explore new markets and better develop the ones in which it is already operating, accelerating its international expansion. With the alliance, Telepizza will become represented in more than 39 markets with more than 500 million potential consumers.

Given that Telepizza will be in charge, not only of its own business but also of some Pizza Hut restaurant businesses, this alliance will significantly change its supply dynamic. The supply chain will enlarge, which means that Telepizza will have to make new types of agreements with suppliers and possibly get better purchase arrangements. As for synergies, this alliance may introduce corporate structure integration, as well as industrial synergies and supply chain integration, which is expected to reduce Telepizza's overall costs. Telepizza will develop and enhance its capacities in terms of running networks and its ingredients supply, namely concerning pizza dough and others.

Scenario Analysis

The 1st Scenario reflects the full completion of this agreement and no further alliances in the future. Telepizza will also be able to meet its yearly unit opening and restaurant conversion goals, previously stated in the "Telepizza Strategic Alliance Overview" section. The outlined goals of this agreement were established at the beginning of this agreement and took into consideration the state of the market at that time. Over the last year, there were no recently discovered obstacles that could affect those projections. Thus, this scenario is the most likely to happen and because of that, it was the one implemented in the valuation model.

Regarding the 2nd Scenario, the agreement is still effective for the same number of years, however, the alliance faced unexpected barriers, resulting in underachievement in terms of net unit openings. Thus, it was assumed that only 50% of the alliance goals were accomplished.

Funding problems, shortage of suitable franchisee partners, unforeseen aggressive competition, are potential factors that could lead to this hypothesis.

In the 3rd Scenario, one or both parties of the alliance failed to meet their obligations and the agreement ceases to exist. Pizza Hut will no longer have Telepizza as a supplier or as a manager of its units in the regions previously covered by the agreement. Pizza Hut will also stop receiving the franchise fee that corresponds to the Telepizza units and, therefore, will exclude the corresponding units from its division unit count.

Finally, the 4th Scenario demonstrates a reality in which the master franchise contract would be fully completed and extended to all regions in which Telepizza operates.

Additionally, as future possible research, Yum! Brands could also explore the feasibility that other of its divisions could follow Pizza Hut’s footsteps. For instance, an alliance between Taco Bell and a European Mexican-styled fast food company could potentially be an option, since Taco Bell lacks presence in Europe and that hypothetical European Mexican-styled fast food company would lack presence in the US.

Exhibit 2: Scenario analysis

Telepizza Strategic Alliance Scenario Summary														
	Telepizza Franchise and Property Revenues (million of dollars)				Telepizza Number of Restaurants				Initial fee + Incentive fee (million of dollars)				Initial fee	Incentive fee
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	\$13,15	\$25,00
2019	\$49,14	\$48,25	\$0,00	\$60,90	1412	1352	0	1750						
2020	\$54,66	\$52,12	\$0,00	\$65,43	1542	1422	0	1880						
2021	\$30,51	\$56,12	\$0,00	\$82,37	1672	1492	0	2010	\$11,86	-\$13,15	-\$13,15	\$11,86		
2022	\$64,22	\$60,30	\$0,00	\$76,27	1802	1562	0	2140						
2023	\$70,51	\$64,60	\$0,00	\$82,85	1932	1632	0	2270						
2024	\$77,74	\$69,09	\$0,00	\$90,48	2062	1702	0	2400						
2025	\$85,12	\$73,77	\$0,00	\$98,24	2192	1772	0	2530						
2026	\$92,65	\$78,26	\$0,00	\$106,13	2322	1842	0	2660						
2027	\$100,28	\$82,69	\$0,00	\$114,10	2452	1912	0	2790						
2028	\$107,97	\$87,05	\$0,00	\$122,11	2582	1982	0	2920						
2029	\$115,68	\$91,52	\$0,00	\$130,09	2712	2052	0	3050						
2030	\$123,46	\$96,11	\$0,00	\$138,14	2842	2122	0	3180						

Stock Price	\$163,42	\$162,60	\$160,30	\$163,78
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