

Food franchise industry

Fast-food defying healthy lifestyle trends

Bloomberg Adria

Authors:

Ilija Nešić, Corporate Finance Analyst

Matteo Mošnja, Corporate Finance Analyst





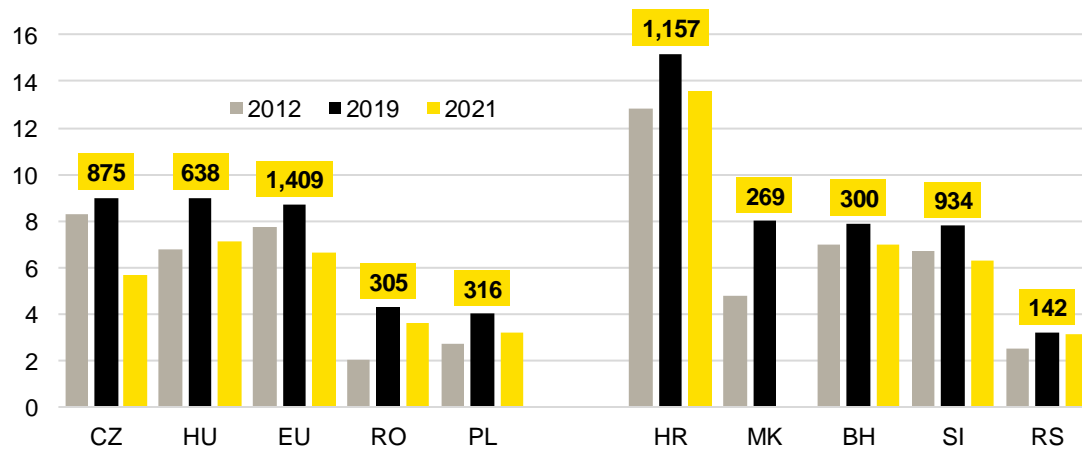
Industry highlights

The global food franchising is dominated by several globally present market players – McDonalds by number of stores and KFC by global revenue. In this report we examine how the global leaders do business in the region.

There is a strong correlation between household spending on restaurants & hotels and the development of franchise industry. In 2020-2021, household spending on restaurants & hotels was affected by COVID-19 measures, and early 2022 data show signs of outperforming the pre-pandemic levels (at least in the nominal terms). With the full data for 2022 yet to be published, we take the 2019 figures as the most relevant – in Adria region, **spending on restaurants & hotels in Croatia materially outperforms that of the EU average** and peer countries, thanks to the economy's tourism orientation. Elsewhere in the region, only **in Serbia is spending on restaurants and hotels below the EU average**, while other countries in the region are close to the EU average.

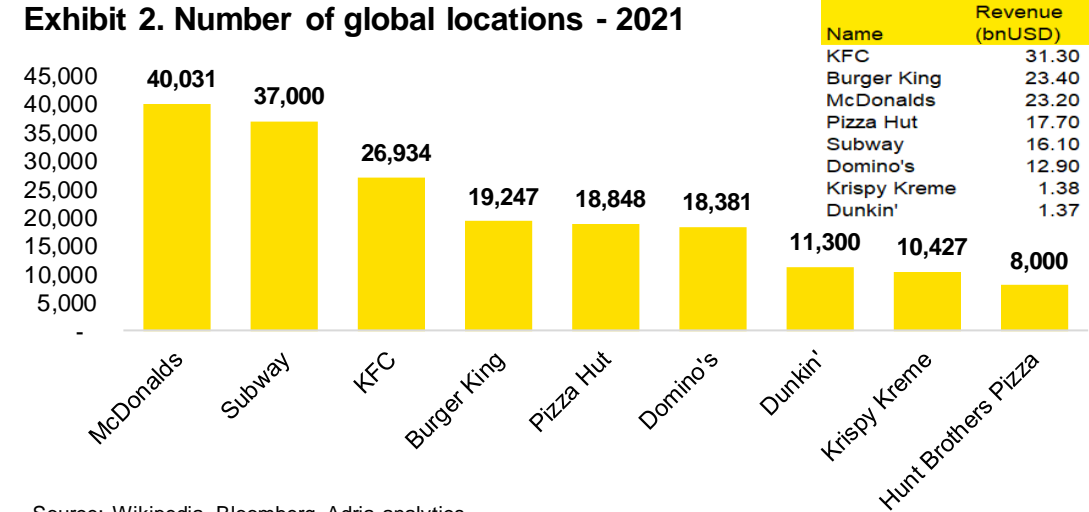
Exhibit 1. Household spending on restaurants and hotels

% of total spending; figures in callouts present EUR expenditure per capita



Above figures include spending by residents and non-residents
 *North Macedonia household spending per capita refers to 2018
 Source: Eurostat, Bloomberg Adria analytics

Exhibit 2. Number of global locations - 2021



Source: Wikipedia, Bloomberg Adria analytics

In theory, a mutually beneficial relationship arises through franchising. Benefits of franchises for franchisees include:

- **Reduced barriers to entry.** Franchising is an established and clear-cut way to get into the restaurant business, albeit with a high pay in. The restaurant industry is notorious for a brutal failure rate. On average, one in three restaurants fold within their first year of operations. **By choosing the franchising route, a potential market entrant can get instant brand recognition.** Also, fast food franchises are operationally lean, as opposed to conventional restaurants which are characterised by heavy cost structures. Franchise operations are streamlined, require less space and turnover is quicker (especially the takeout aspect – grab and go, drive throughs etc). Franchised fast food restaurants also require less staff. They do not require conventional wait staff, most only require a skeleton crew that takes orders, prepares and serves food, with one person often performing multiple duties. This gives franchises a cost advantage in a highly margin sensitive industry.



- **Support from corporate.** Franchise operations and products are meticulously standardized. Franchises offer support, training, marketing, and guidelines to facilitate successful operations. Franchisors need to maintain a relationship with the franchisee in order to maintain sales. This could be a double-edged sword, as the franchise industry changes at a fast pace, in line with consumer preferences. Franchisees need to adapt to trends (such as the chicken sandwich madness in 2021) as well as broad strategies handed down from corporate, such as the botched McDonalds „Create your taste” campaign launched in 2016 after one of the worst year for earnings in McDonalds history (the campaign aimed to upmarket McDonalds products using premium ingredients and offering customers customization options). **Regardless if these trends and strategies are successes or flops, franchisees bite the bullet in the end as they absorb most of the sunk costs arising from investing in these market swings/corporate strategies. Hidden cost of corporate level changes and innovations that franchisees must accept can quickly accumulate.**

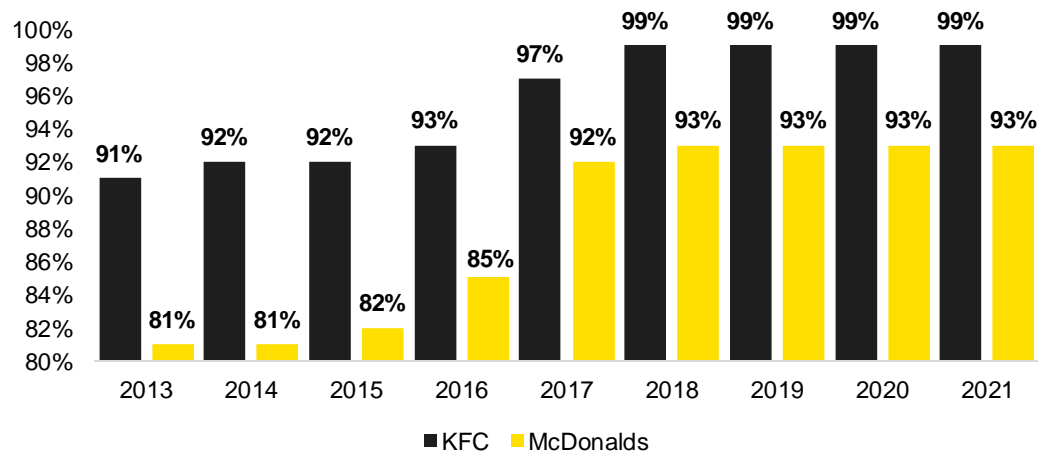
For example, touch screen self-service kiosks that McDonalds introduced cost franchisees 130.000 dollars a pop. Franchisors prefer that offerings and products of their franchises are uniform. There is no formal obligation to make changes, but franchisees resistant to change may be deemed “not up to par” and be declined renewal of their franchising rights. In other words, franchisees who do not fit the overall corporate strategy are at risk. **There is a palpable power struggle between corporate and individual franchises.** Corporate needs to balance between providing adequate support and guidance to franchisees, while maintaining appropriate levels of control over the brand and operations. Too much control and oversight can hinder innovation and growth, while too little support can leave franchisees directionless. Also, the franchisee recruitment process is an integral part of the success of these systems. Sourcing the right franchisees with a favourable location, dedication to the business is difficult, especially in a competitive market.

On the other hand, franchisors benefit from:

- **Steady income stream.** Franchisors receive an upfront initial payment from franchisees plus a royalty in the form of a percentage of gross sales (around 4-6%). This is the bread and butter for franchisors. Franchisors also generate revenue from their franchisees in many other ways, for example equipment is bought from the franchisor (often highly marked up), the same goes for inventory. Besides these apparent costs there are other costs of setting up franchises such as training costs, grand opening costs, furniture, design, architecture, various deposits, insurance costs and other costs included in setting up and running a franchise.
- **Transfer of operational risk.** By choosing to franchise, instead of operating their own restaurants, franchisors transfer the risk to franchisees. Franchisees are responsible for day-to-day decisions such as hiring employees, pricing, working hours, menus etc. This minimizes overhead for corporate. Overhead is a significant cost category, accounting for around 25% of total operating costs. **Fast food chains are progressively shifting from operating to franchising.** For example, 99% of KFC restaurants are franchised, compared to 91% in 2013. McDonalds is also shifting strategy from operating restaurants to franchising. However, McDonalds still retains more restaurants to retain control and reap their growth. **At the end of the day, these companies are trading off revenue from self-operating stores for steady, predictable royalty fees and a more hands off approach.** This is a volume-based strategy, and McDonalds and KFC are betting on selling larger amounts of volume in the future.



Exhibit 3. Percentage of franchised stores
(McDonalds and KFC)



Source: Company annual reports, Bloomberg Adria analytics

Within the franchise business, McDonalds is specific by one other element – rent being a significant revenue generator. Namely, McDonalds owns about 45% of the land and 70% of the buildings at their 39,000+ locations (the rest is leased). The rent generated through land/building ownership hedges McDonalds from potential downturns in its food operations. In most other cases the franchisee is responsible for acquiring the land and real estate. McDonalds effectively acts as the franchisor and landlord to its franchises. Therefore, McDonalds is tagged as a real estate company which sells hamburgers.

In any case, the main franchising industry drivers are:

- **Brand recognition and global presence.** Products are universally known (household names) and accepted thanks to decades of aggressive marketing. Established brands attract customers due to a carefully built reputation and have a cemented global user base.
- **Solid demand.** Due to immense brand recognition and presence these products enjoy strong underlying consumer demand.
- **Steadfast unit economics.** Franchises leverage their scale and operational leanness to keep unit costs down. Scrupulous product standardization also gives way for operational efficiency and keeps unit costs down.

Growth is limited by:

- **Rising food prices.** These pressure both market players profit margins and consumer sentiment. Food accounts for around 35% of franchises cost structure.
- **Market saturation.** The restaurant industry is highly fragmented. There are a plethora of players competing for market share. Because market players are so numerous and failure rate is high, the market can become saturated. However, franchises in the region have the advantage of brand recognition and the best locations. These are the main factors differentiating them from local fast food and restaurant market incumbents.



Peer comparison

Our peer group for Adria region franchising landscape is dominated by two players - McDonalds and KFC. McDonalds has a total of 97 restaurants in the region, while KFC has 28. Croatia has the largest number of franchised restaurants in the region. As the cost to franchise a restaurant is prohibitive for individuals in the region (unlike in the US where private individuals are often franchisees), franchises in the region are held by companies. For example, one of the requirements of McDonalds for potential franchisees is \$500k in liquid cash.

The Adria peer group performance is highlighted by strong top line, relatively high profitability, low indebtedness and superb liquidity management. In the past years, COVID-19 measures have materially affected top line in 2020 – with the abandoning of part of those measures, top line in Adria peer franchisees saw a stellar double digit growth at an average of 33.9% in 2021. What is even more important is that all companies in our peer group have seen sales figures in 2021 rising to above those in 2019 and this has also reflected in other financial result indicators. Scanning further within the details of our peer group, it is evident that McDonalds is dominant in the region, both in terms of sales, number of stores and profitability.

Exhibit 6. Adria peer group

Company name	Sales			Sales growth			EBITDA margin			EBIT margin			ROIC			Net debt/EBITDA			Cash Conversion Cycle		
	EUR in millions			%			%			%			%								
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Nicefoods (RS)	51.3	42.9	55.9	12.2	(16.4)	30.2	17.5	22.3	28.8	14.3	18.5	23.7	42.5	45.7	50.6	(0.3)	(0.8)	0.3	(11.5)	(13.4)	(15.0)
AmRest (RS)	6.7	6.5	9.5	35.4	(2.9)	46.2	7.9	(2.2)	19.1	0.6	(12.4)	11.8	1.3	(22.3)	26.7	0.8	(10.1)	0.6	(35.8)	(39.7)	(27.1)
Gliese 581g (BH)	6.5	5.9	9.1	26.3	(9.5)	54.2	26.1	23.0	27.2	15.9	10.4	17.2	12.3	5.2	11.7	4.0	6.0	2.9	(28.1)	(91.5)	(83.6)
Alpe Panon (SI)	52.5	42.6	60.1	15.9	(18.9)	41.0	13.5	11.6	15.3	8.4	5.2	10.6	13.3	6.1	15.2	1.2	2.2	0.8	(42.3)	(48.5)	(45.7)
Globalna Hrana (HR)	75.9	79.1	101.6	16.5	4.2	28.5	17.2	17.9	18.7	11.2	11.6	13.3	17.9	15.9	21.0	(0.7)	(0.6)	(0.4)	(15.1)	(19.2)	(22.5)
Amrest (HR)	6.0	6.1	8.7	24.3	1.8	43.8	(2.4)	2.3	14.0	(8.3)	(4.1)	9.3	1.3	(22.3)	26.7	(4.1)	4.4	(0.4)	(14.5)	1.4	4.5
Kraljevi Restorani (HR)	2.4	1.7	2.5	119.8	(27.5)	43.9	9.0	(1.8)	11.0	3.8	(8.8)	8.7	5.5	(6.5)	8.9	19.6	(12.3)	8.6	8.2	(61.5)	6.8
Median	6.7	6.5	9.5	n.a.	(2.9)	46.2	13.5	11.6	18.7	8.4	5.2	11.8	12.3	5.2	21.0	0.8	(0.6)	0.6	(15.1)	(39.7)	(22.5)
Average	28.8	26.4	35.3	n.a.	(8.2)	33.9	12.7	10.4	19.2	6.6	2.9	13.5	13.5	3.1	23.0	2.9	(1.6)	1.8	(19.9)	(38.9)	(26.1)

Source: Financial statements, Bloomberg Adria analytics

Exhibit 4. Number of stores per franchisor and per country

Country	McDonalds	KFC	Burger King	Total
Serbia	32	13	0	45
B&H	0	2	0	2
North Macedonia	0	4	6	10
Croatia	41	8	7	56
Slovenia	24	1	0	25
Total	97	28	13	138

Exhibit 5. Adria franchisees

Nicefoods (RS)	AmRest (RS)	Gliese 581g (BH)	Alpe Panon (SI)	Globalna Hrana (HR)	AmRest (HR)	Kraljevi Restorani (HR)

Source: Bloomberg Adria analytics



Peer comparison

The fact that Gliese has lost the franchise rights is a best illustration of rigorous standards set by McDonalds. In retrospect, an unfavourable indebtedness position reflected in a net debt to EBITDA i.e. much higher than the peer group average, was a warning signal enough. Reportedly, Gliese had a €500k outstanding debt with Raiffeisen Bank, which equates to the liquidity requirement to receive a franchise. There were also myriad of non-financial reasons for revoking franchise rights. The franchisor can cut their losses and simply revoke franchise rights for practically any reason. For example, reasons could be low demand, failing to keep the franchise standards or high indebtedness (as was the case for Gliese). Another example of a regional player losing franchise rights - McDonalds left North Macedonia in 2013 after 16 years in business, with company "SJ" being revoked franchise rights due to contract dispute with the franchisor.

Looking at profitability margins, we see an increase across the selection compared to 2019, with an average EBIT margin of 13.5%. Nicefoods stands out as the one with the highest margin, and substantially higher than its peer from Croatia under the same McDonald's umbrella, despite lower sales amount. According to our analysis, **difference in the margin profile arises from the better cost management of Nicefoods, particularly in the field of cost of employees** and other expenses not related to rent and marketing activities (which are fairly equivalent as percent of sales). Indeed, sales per employee is 14% higher for the Croatian peer, while cost per employee is 30% higher, resulting in lower impact on profitability for the Serbian peer company.

Predictably, peer group has a negative cash conversion cycle attributable to the fact that restaurant is mainly a cash business with no outstanding receivables aside from those toward card companies, which more often than not takes couple of days to settle. In addition, being a "fast-food" business implies that **inventory turnover is high**, supported by the fact that food has a relatively short shelf life. That being said, **remarkably high average ROIC of 23% in 2021** is considered reasonable as a **consequence of working capital not tying up any amount of owner's invested capital, but rather suppliers'**.

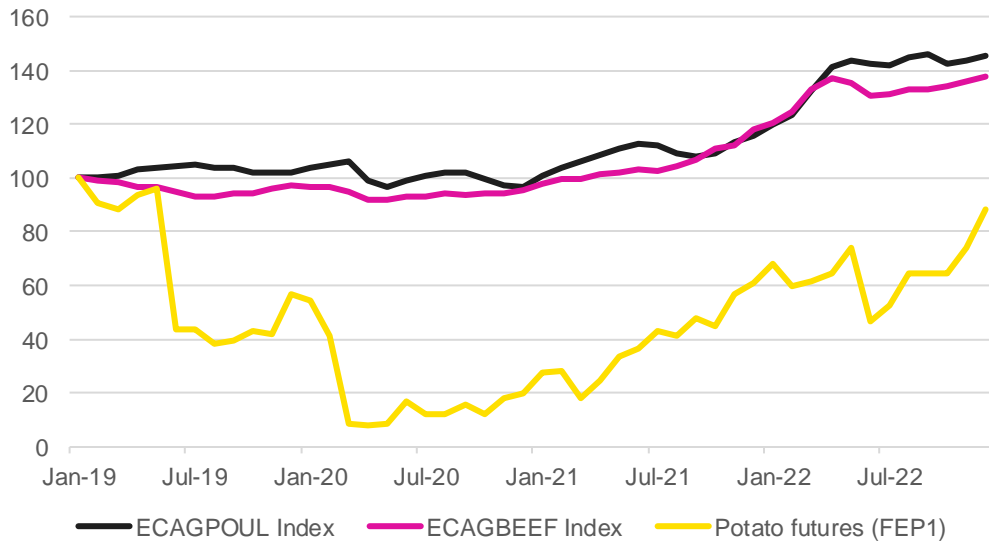
Average net debt/EBITDA of 1.8x is being distorted by excessively high ratio of Kraljevi Restorani, which indicates financial difficulties for the holder of Burger King franchise. Nevertheless, over 80% of their outstanding debt is held by an insider (in all probability from the owner), with an undisclosed maturity date as for the financial statements, hence there is presumably more flexibility embedded in the given loan, in terms of repayment date and interest payments. Indeed, given the interest expense of purely €6.2k during 2021, our best guess is that insider loan does not bear any interest or, alternatively, it is marginal. **Without Kraljevi Restorani, average net debt/EBITDA amounts to 0.6**, implying adequate financial management and capability for further restaurant expansion.



Food prices

Prices of key raw materials such as poultry, beef and potato have been relatively stable until 2021 for which the financials of peers are available. Average prices of poultry and beef in 2021 have risen 6.5% and 9.2% respectively, compared to the average price in 2019, while the average potato price has tumbled by approx. 40%. Prices went significantly uphill only in 2022, driven by the Russian aggression on Ukraine. That increase will most likely manifest in higher percentage of cost of materials in P&L of food franchises for financial year 2022 and put pressure on profitability. To some extent, rising prices will be passed on to the consumers, thus resulting in increased sales amount. However, it is implausible to think that fast-food franchises - famous for convenience and affordable pricing - will be able to fully pass on these cost escalations.

Exhibit 7. Food prices – poultry, beef and potato

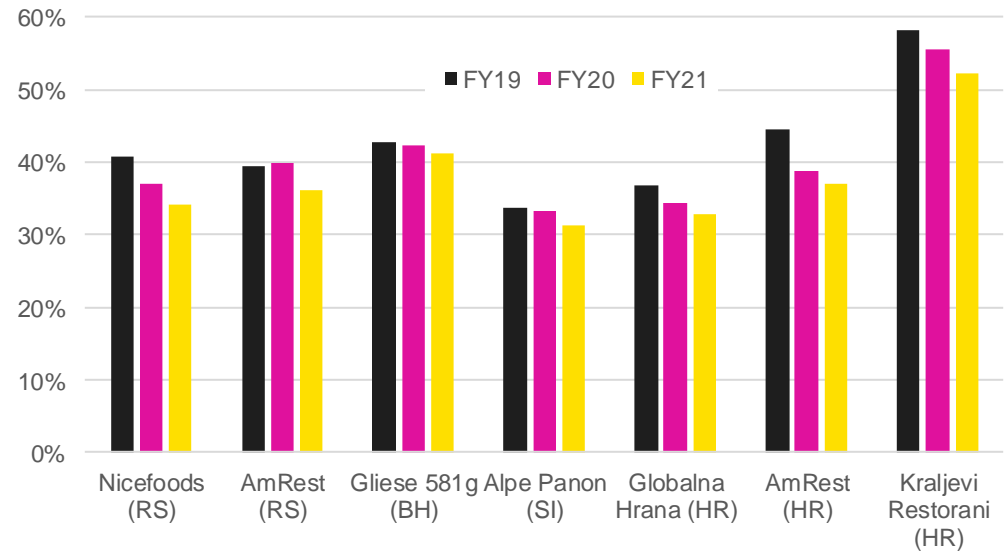


Source: Bloomberg, Bloomberg Adria analytics. ECAGPOUL Index – EU Poultry Average Price Monthly; ECAGBEEF Index – EU Beef Average Price Monthly; FEP1 – Generic 1st Processing Potato Futures

Cost of materials as % of sales

Despite the slight increase in prices of poultry and beef, **selected peers have all exhibited a decreasing percentage of cost of materials' share of sales.** This may have been caused by the significant decline in prices of potato, increase in selling prices which consequently resulted in slightly better gross margins or change in product mix in favour of products with higher margins. Majority of the companies display cost of materials in a range between 30-40% of sales, with only Kraljevi Restorani notably deviating from the peer group with approx. 50% for 2021. However, this does not come as a surprise given the lowest level of generated sales among the peer group, and thus the inability to negotiate and source better conditions with suppliers.

Exhibit 8. Cost of materials as % of sales



Source: Financial statements, Bloomberg Adria analytics

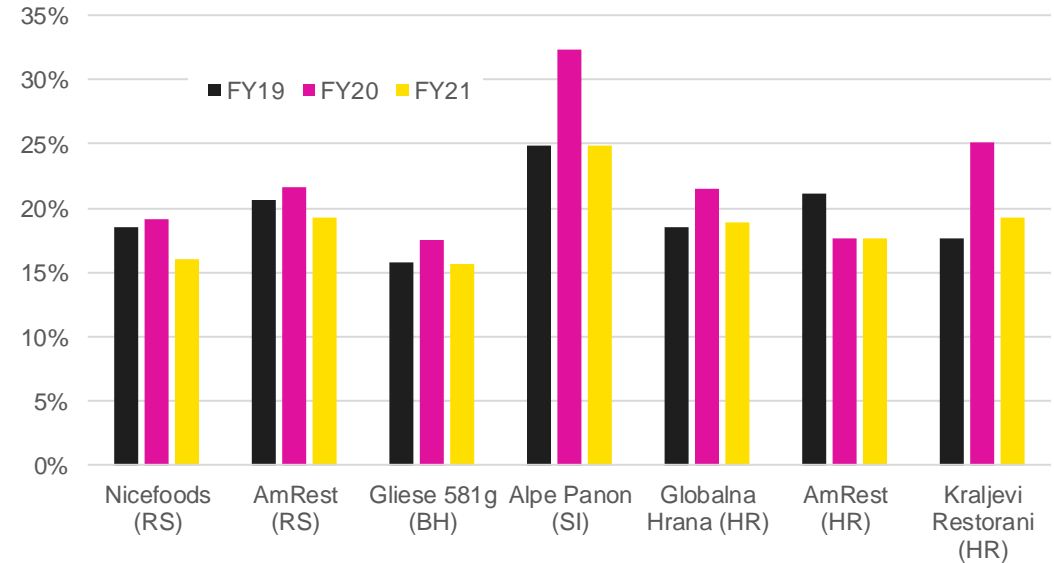


Cost of employees as % of sales

Cost of employees as % of sales does not come with any surprises. Driven by the drop of sales in 2020, the share of employee costs has risen in the P&L structure and resulted in lower profitability levels displayed by the peers, with an average decrease in EBIT margin of 3.6pp yoy. **In comparing 2021 numbers with pre-pandemic ones, we see a mixed picture.** Peers that were able to recover after the lockdown restrictions and deliver significant sales growth, managed to decrease its share of employee expenses, while others like Kraljevi Restorani have struggled with cost of employees as % of sales being higher in 2021 than in 2019.

Unexpectedly, **Globalna Hrana has experienced an increase in the cost of employees' share of sales, despite the 34% sales growth compared to 2019.** However, this can be explained by the nature of their growth, which came as a result of new store openings, and thus followed by the increase in employee count. Also, Globalna Hrana has a number of restaurants significantly exposed to tourism activity such as highway locations and popular tourist destinations with seasonal workers requirements, whose prices spiked up due to high seasonal workforce demand during summer months in Croatia. Furthermore, certain minor differences may arise from the differences in accounting treatment of subsidized public transport to employees, which is allocated to employee costs by some, while others tend to allocate it to other expenses.

Exhibit 9. Cost of employees as % of sales



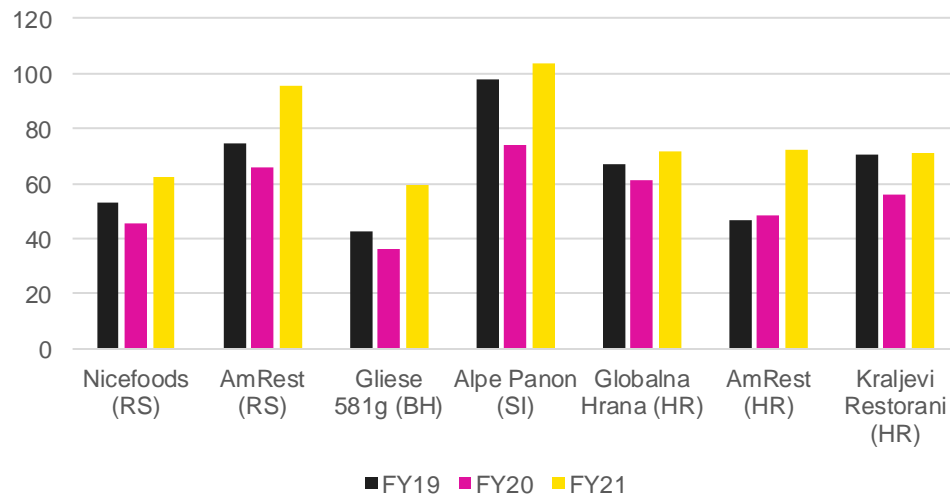
Source: Financial statements, Bloomberg Adria analytics



Unsurprisingly, **Alpe Panon displays highest sales per employee and cost per employee levels**, given Slovenia's leading position in terms of purchasing power within the Adria region. Gliese is then the exact opposite case of Alpe Panon – Gliese operated in B&H, a market with the lowest purchasing power region-wide, which resulted in lowest sales per employee but also lowest cost per employee.

Another interesting element is that **AmRest Croatia was the sole company which managed to increase sales in 2020**, thanks to their swift and successful launch of **collaboration with delivery services** such as Glovo and Bolt food, along with active promotion and discounting campaigns to boost deliveries. While **sales were very volatile in the recent years**, the same was not seen in **costs per employee**, which were **pretty much stagnant**. Indeed, only a minor drop in cost per employee probably came from cuts in the employees' variable components e.g. bonuses to Management and other employees.

Exhibit 10. Sales per employee (in € 000)

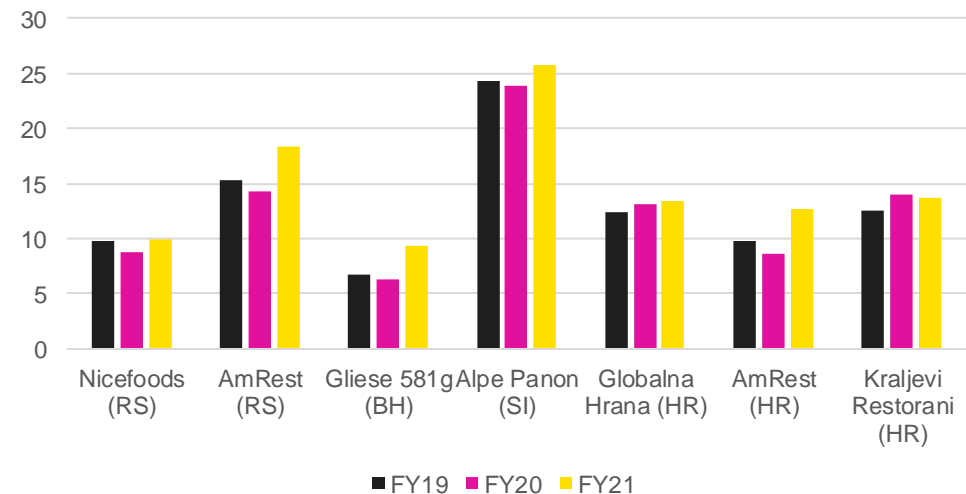


Source: Financial statements, Bloomberg Adria analytics

All peers exhibit growth in both sales per employee and cost per employee indicators in 2021, apart from Kraljevi Restorani which managed to achieve lowest sales growth compared to pre-pandemic period, while low unemployment rate in Croatia, together with "the Great Resignation" are putting upward pressure on salaries.

What comes surprising to us is a notable difference in both indicators between AmRest Croatia and AmRest Serbia. Despite greater purchasing power and higher salaries in Croatia, Serbian company exceeds its peer from Croatia in both sales per employee and cost per employee. Higher sales per employee may indicate somewhat higher productivity of Serbian workforce, which consequently allows Serbian employer to offer better terms to its employees. However, we are not aware, from the publicly available financial statements, if certain administration and/or other services are being shared, which may impact and distort the given picture.

Exhibit 11. Cost per employee (in € 000)



Source: Financial statements, Bloomberg Adria analytics



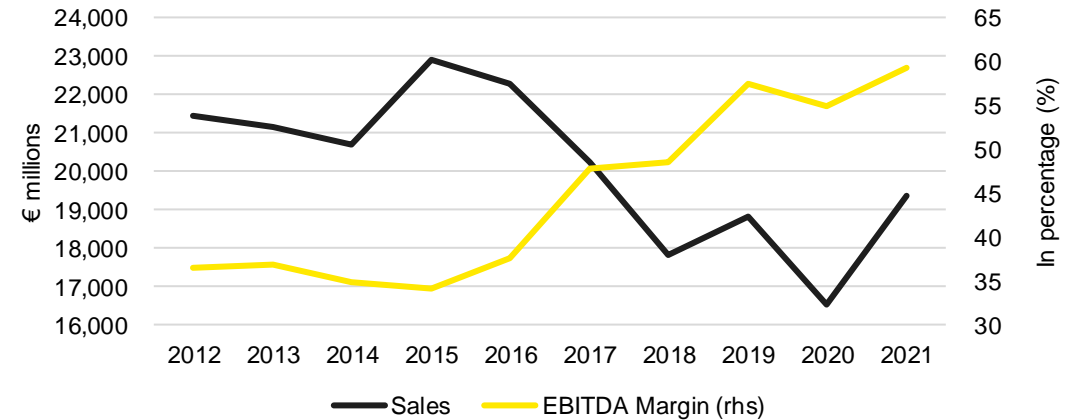
Peer comparison

Global franchisors

To better gauge the overall industry trends, we looked into the main franchisors global operations – McDonalds and KFC. Yum! Brands owns and operates KFC, Pizza Hut, Taco Bell and The Habit Burger Grill. KFC accounts for 42% of revenue of Yum! Brands in 2021, followed by Taco Bell that accounts for 34% and Pizza Hut at 16% of total revenues. Yum! Brands has over 53,000 restaurants in total, in 157 countries. **Both franchisors saw a top line increase in 2021, amounting to an average of 15.6% in 2021. This marks an underperformance vs Adria peers where sales figures have in 2021 out beaten those from 2019. However, franchisors have less upside potential in their top line because most of their revenue comes from royalties.**

McDonalds top line has been declining throughout the years (starting from 2015), however profitability is improving yoy. This fact is reflected in rising EBITDA and EBIT margins. Their strategy to switch from operating to franchising has had the effect of lowering top line (self-operated restaurants generate more revenue), while franchises generate a lower, constant trickle of revenue through royalties albeit with lower risk and lower costs like overhead. However, through the transfer of operational risk and minimized overhead, profitability and returns have been steadily improving.

Exhibit 12. McDonalds sales and EBITDA margin (2012-2021)



Source: Financial statements, Bloomberg Adria analytics

Profitability is reaped at the corporate level, with global franchisors posting higher margins than Adria region franchises. However, the indebtedness level is also higher at the top. While franchisees are financed mainly by their franchisors, rarely taking on external debt, global franchisors increased leverage and profitability took a hit (especially in 2020, when uncertainty and restaurant closures plagued the industry). Now with rising interest rates, we see profitability taking a hit going forward.

Exhibit 13. Global peer group

Company name	Sales			Sales growth			EBITDA margin			EBIT margin			ROIC			Net debt/EBITDA			Cash Conversion Cycle		
	EUR in millions			%			%			%			%								
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
McDonalds	19,087	16,849	19,646	0.5	10.1	20.9	57.5	55.0	59.4	42.5	38.1	44.6	21.4	13.7	19.3	3.8	4.5	3.2	1.5	8.9	(5.9)
Yum! Brands	5,000	4,958	5,570	(1.6)	1.0	16.5	37.3	30.5	36.3	34.5	26.6	32.5	64.9	39.5	55.6	5.1	6.3	4.9	n.a.	n.a.	n.a.
Median	12,044	10,903	12,608	n.a.	(9.5)	15.6	47.4	42.8	47.9	38.5	32.4	38.6	43.2	26.6	37.5	4.5	5.4	4.1	1.5	8.9	(5.9)
Average	12,044	10,903	12,608	n.a.	(9.5)	15.6	47.4	42.8	47.9	38.5	32.4	38.6	43.2	26.6	37.5	4.5	5.4	4.1	1.5	8.9	(5.9)

Source: Financial statements, Bloomberg Adria analytics



Going forward for Adria region franchise peers, we expect a slowdown in top line growth as well as intensifying pressures on profitability. Top line growth is mainly buffeted by high inflation and weaker purchasing power, while profitability is squeezed by rising input costs, especially foodstuffs.

Decline of disposable income could pressure regional demand for fast food products. Products offered by fast food franchises are expensive compared to domestic fast-food chains. Adria Region domestic fast-food players are decentralized and most often serve local markets, often contained to one town/municipality. Franchises are present in the largest towns with locations cherry picked in order to reap the highest level of sales possible. These include shopping malls and highway stops where consumer traffic is highest. Unlike in the US, where McDonalds are present in every town with at least a five-digit population. However, the region saw fast food franchisors come and go; therefore, the market is dynamic and apparently does not tolerate less prudent management moves. The fact that Subway and McDonalds exited (part of) the market speaks enough on how challenging is to keep a franchise in the region.

Consumers are growing more health conscious, and therefore products offered by franchises that were in business for several decades may seem antiquated. Growing concerns over health implications of red meat, sugar and carb-heavy meals loom large. Switch to healthy food may hinder fast food growth and erode an already shaky reputation. In the wake of this trend, franchises are quick to respond to consumer demand, introducing low fat, vegan or organic options. However, there is no guarantee that these products will stick with consumers. Therefore, the switch to healthier options, such as KFC's failed transition to grilled chicken (as a response to growing health concerns over fried food which baffled consumers) that was discontinued around 2011 may prove to be strategic flops. Despite market oscillations, franchises still focus on their core, legacy products. Franchises are adept at leveraging their strengths to increase sales. For example, celebrity and content creator collaborations have been instrumental to McDonalds growth in the past three years.

Franchises also leverage their knowledge and trade secrets, such as KFC's eleven herbs and spices, which is a highly protected spice blend. Seasonal offers, such as the McRib, keep consumers on the hook through hype creation. The stated factors play into the allure and brand recognition of the core products, cementing the company image.

The rising importance of delivery and online platforms is apparent. In an industry where convenience is king, offering further convenience to the customer is one of the key innovation areas. Dining spaces were rendered useless during the pandemic and the players that were early to market with proper delivery platforms and solutions reaped the advantage.

Demographical factors are in favour of franchises. This is especially true of developing economies where population is rising at a quicker rate than in developed nations and fast-food franchise products are perceived as premium products and even status symbols. McDonalds and KFC put a lot of stock in emerging, high growth markets such as China, South Korea and India. For example, China is the second largest market for McDonalds in terms of stores, after the US domestic market. We think that franchises will put even more strategic importance on these fast-growing markets in the future.

Bloomberg Adria Team Analytics

Andrej Knez, Chief Markets Analyst
andrej.knez@bloombergadria.com

Ivan Odrčić, Lead Financial Markets Analyst
ivan.odrcic@bloombergadria.com

Marina Petrov, Senior Financial Markets Analyst
marina.petrov@bloombergadria.com

Jelena Zindović, Senior Corporate Finance Analyst
jelena.zindovic@bloombergadria.com

Matteo Mošnja, Corporate Finance Analyst
matteo.mosnja@bloombergadria.com

Ilija Nešić, Corporate Finance Analyst
ilija.nesic@bloombergadria.com

Disclosures Appendix

This report is oriented for professionals and analysts that live in the country or abroad who are interested in investing and following local and regional markets. The information and opinions in this report/investment research were prepared by Bloomberg Adria and/or one or more of its subsidiaries/affiliates (collectively, "Bloomberg Adria") for information purposes only. This report is not investment advice or an offer or solicitation for the purchase or sale of any security/financial instrument or to participate in any trading strategy. Neither Bloomberg Adria nor any of its employees accept any liability for any direct or consequential loss arising from any use of this publication or its contents. Any investments referred to herein may involve significant risk, are not necessarily available in all jurisdictions, maybe illiquid and may not be suitable for all investors. The value of, or income from, any investments referred to herein may fluctuate in price and value. Past performance is not indicative of future results. Besides, the risks associated with an investment in the financial, money market or investment instrument or security under discussion are not explained in their entirety. Estimates of future performance are based on assumptions that may not be realized. Investors should make their own investment decisions without relying on this publication. Only investors with sufficient knowledge and experience in financial matters to evaluate the merits and risks should consider an investment in any issuer or market discussed herein and other persons should not take any action on the basis of this publication.

This report is based on information available to the public. While reasonable care has been taken to ensure that the information contained herein is not untrue or misleading at the time of publication, Bloomberg Adria makes no representation or guarantee with regards to the accuracy, completeness or suitability of the data. Bloomberg Adria does not undertake to advise you of changes in its opinion or information. Moreover, we reserve the right not to update this information or to discontinue it altogether without notice.

From time to time our analysts receive assistance from the issuer including, but not limited to, discussions with management of the subject company(ies). However, it should be presumed that the author(s) have communicated with the subject company to ensure factual accuracy of the (company) research report prior to publication, without mentioning recommendation and summary.

Any opinions and estimates contained herein reflect the current judgment of the author(s) and do not necessarily reflect the opinion of Bloomberg Adria or any of its subsidiaries and affiliates. This report is disseminated and available primarily electronically to professional clients and eligible counterparties, who are expected to make their own investment decision without undue reliance on this publication, and may not be sold, redistributed, reproduced or published in whole or in part for any purpose without the prior express consent of Bloomberg Adria.

Please always cite source when quoting. The content is copyrighted and cannot be quoted in a commercial setting/media outlet without prior written consent.

Additional information is available on request. Bloomberg Adria and others associated with it may be involved or seek to be involved in many businesses that may relate to companies, issuers or instruments mentioned in this report. These businesses include market making, providing liquidity and specialized trading and other proprietary trading, fund management, investment services and investment banking.

Bloomberg Adria and others associated with it including any of its employees may have positions in securities of companies or financial instruments discussed in this research, and may trade them in ways different from those discussed in this report.

This report may include research based on technical analysis. Technical analysis is generally based on the study of trading volumes and price movements in an attempt to identify and project price trends. Technical analysis does not consider the fundamentals of the underlying issuer or instrument and may offer an investment opinion that conflict with other research generated by Bloomberg Adria. Investors may consider technical research as one input in formulating an investment opinion. Additional inputs should include, but are not limited to, a review of the fundamentals of the underlying issuer/security/instrument.

The author(s) is/are named in the front page of this report. The research analyst(s) or analysts who prepared this report (see the first page) hereby certifies that: (1) the views expressed in this report accurately reflect their personal views about the subject securities or issuers and/or other subject matter as appropriate; and, (2) no part of his or her compensation was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this report. On a general basis, the efficacy of recommendations and clients' feedback are factors in the performance appraisals of analysts.