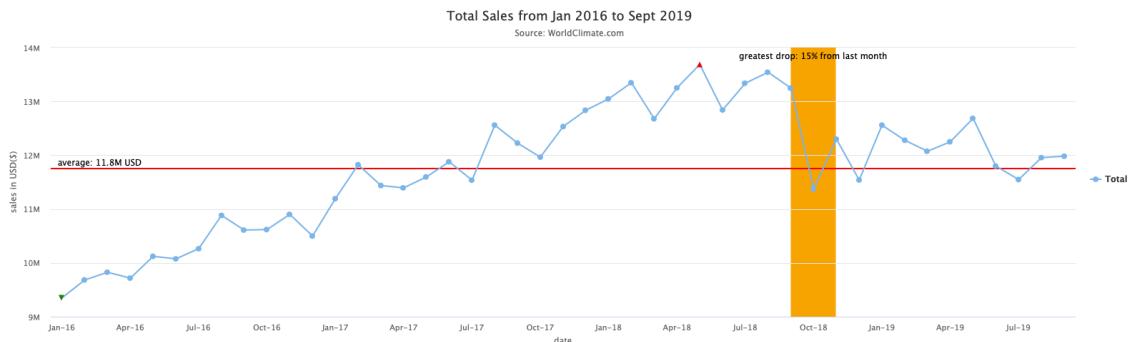




Marco Trends of McDonald's Sales from Jan 2016 to Sept 2019



In general, our company keeps a steady growth from 2016 Jan. to 2019 Sept. with minor fluctuations. During this 3-year period, our total sales of all food items from all regions increase **28%** on average. Each month, the restaurants will yield **11.8 million dollars** profit each month. However, after Burger King introduces their new product Impossible Burger in **Oct. 2018**, we unfortunately encountered the largest challenge since 2016. The sales dropped **15%** compared with the sales of last month.

To further bolster our sales and beat our competitors, this report will take a deep look by analyze the sales data accordingly to regions and the items sold and give insightful suggestions





By aggregating the monthly sales by the food items we sold: HM - hamburger, FF: fish fillet, and CF: chicken fillet, we are able to peek which item is the most popular among all the items we sell and how the sales for these items vary with dates. According to the line chart on the left, **hamburgers are the most popular food among all the items**. Also, all of the three kinds of items we sell show a **steady increase since 2016 of about 10% per year**. Although, the sales dropped on Oct 2018 right after Burger King introduced their new Impossible Burger, the data still show a very positive and robust trend — **Impossible Burger only has limited impact on our sales**.

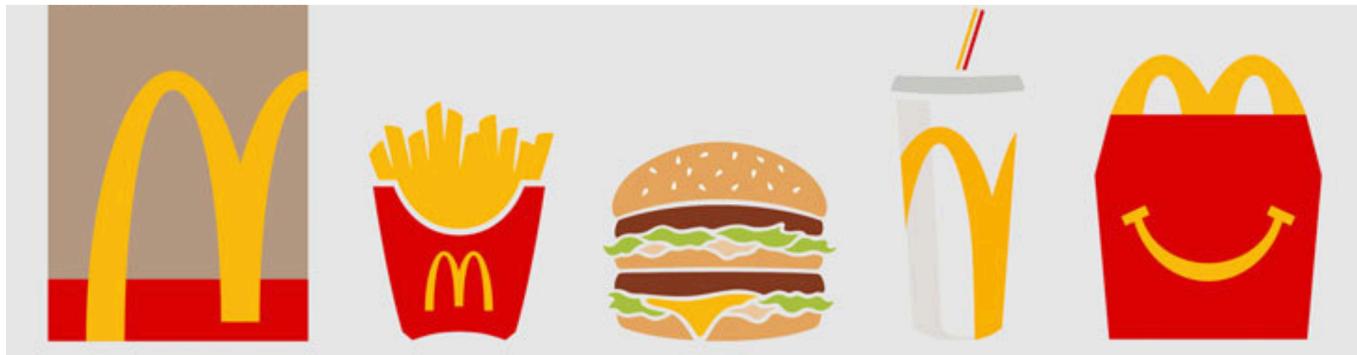
By aggregating the monthly sales by our sales regions: NE: Northeast, NW: Northwest, SE: Southeast, SW: Southwest, and C: Central Area, we are able to find the **highest profitable region is North East** and the **lowest profitable region is the Central Region**. Clearly, Burger King's impossible burger impacted all of our sales regions since they usually open their new restaurants right next to us. Also, the monthly sales regardless of classified by items or regions roughly are similar to the general growth trend.

Conclusively, burgers are the most popular item and we should keep it popular by introducing more types of burger. Introducing veggie burger could be a good option since more people switch to vegetarian diet in the modern world. We need also improve the fish fillet. In the central area, the sales data didn't look good, so we need to help this region first.

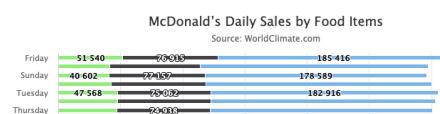
- Keep inventing new types of burgers and keep up the steady growth rate
- Improve Fish Fillet
- Should try those improvement first on Central Area
- Burger King's Impossible Burger has negatively impact on our sales, however, the impact is not large. We should implement those points to improve ourselves
- The lowest sales always occur in Jan. maybe it is because people tend to stay at home during the first month of new years. Introducing free food delivery

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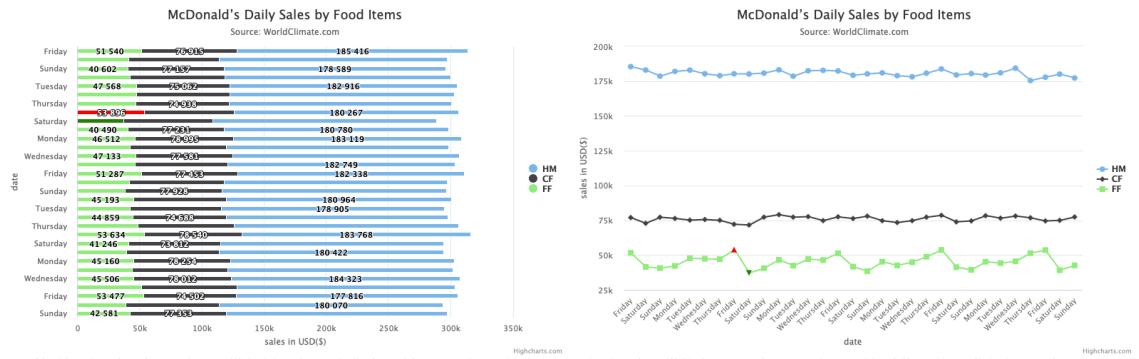
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Micro Trends of McDonald's Sales of a week

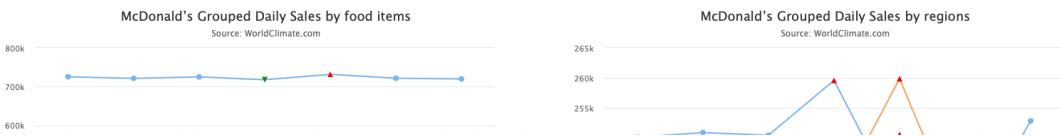


Micro Trends of McDonald's Sales of a week



If looking the sales of a month, we will find there is a periodical trend from Monday to Sunday per week. The sales will likely goes up from Monday to Friday followed by a slight drop until Sunday. Still burgers are the most popular items on the menu and are less subject to the day of the week which is saying that the sales of burger vary slightly along the week. Fish Fillet, however, varies greatest—people would like to buy fish fillet on Friday over Monday.

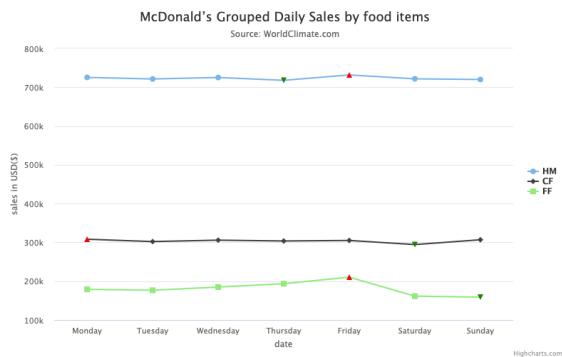
Looking directly on the sales in a month didn't give us too much useful information. Thus, I grouped the date of the daily sales data.



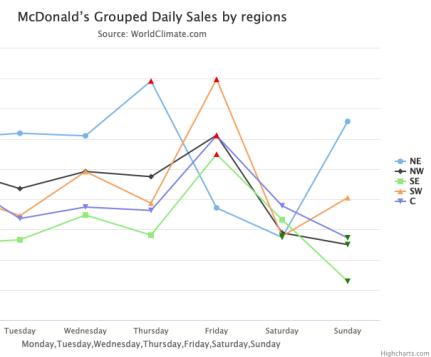
sales in USD(\$)

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Highcharts.com



Highcharts.com

Take a closer look at the sales on each day of the week. Hamburgers and Fish Fillet are most popular on Friday; Chicken fillet is most popular on Monday and least Popular on Saturday. We should adjust the sales of each item according to the triangle indicators. The red upward triangle means we have the highest sales on that day of that food item and thus should similarly increase the sales of that food items on that day. Vice versus.

Here are the take-aways:

- Increase burgers and fish sales on Firday and increase fish fillet sales on Monday. The rest should adjust according to the triangle indicators
- Fish Fillet sales are relatively elatic. We need to improve this
- we need to increase the sales on Thursday and Firday in each regions
- We need to focus on North East region which the sales are the largest