



McDonalds Report for CEO (10-21-19)

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This website is intended for providing a detailed description of how McDonalds was affected by the release of the Impossible Burger by Burger King. In October 2018, our competitor Burger King released a new veggie burger known as the Impossible Burger. In order to gain insight and a clear understanding of how McDonalds has and will be affected by this new product, I have created this website to highlights macro, micro, and regional trends from January 2016 to September 2019.

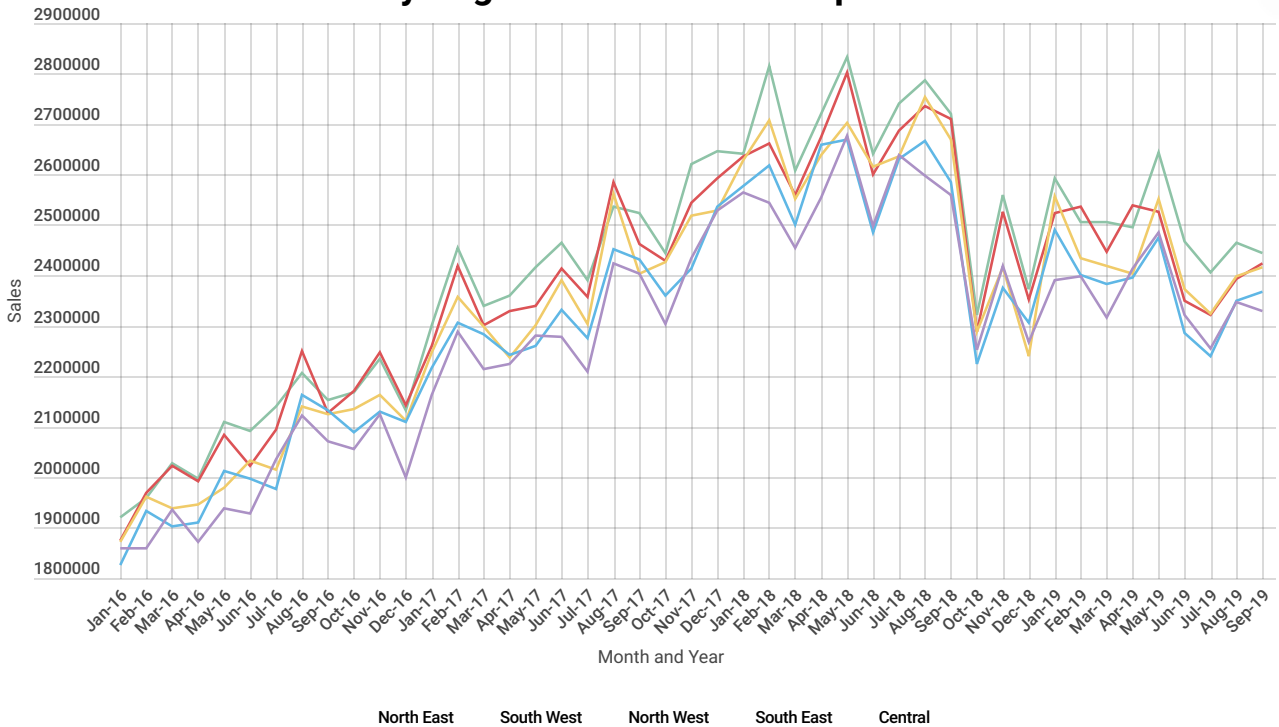
Data Sets Description

When conducting my analysis, I used 2 specific data sets supplied by the engineering team. The first data set contained monthly sales data for each menu item from January 2016 to September 2019. The data was divided into several regions as follows: NE - North East, NW - North West, SE - South East, SW - South West, and C - Central. In addition to this, the data set also contained menu items as follows: HM - Hamburger, CF - Chicken fillet, and FF - Fish fillet. The second data set was representative of the daily sales for the month of January 2016; this data set also followed the same sales conventions and features as the first data set listed above.

Total by Region and Region Market Share

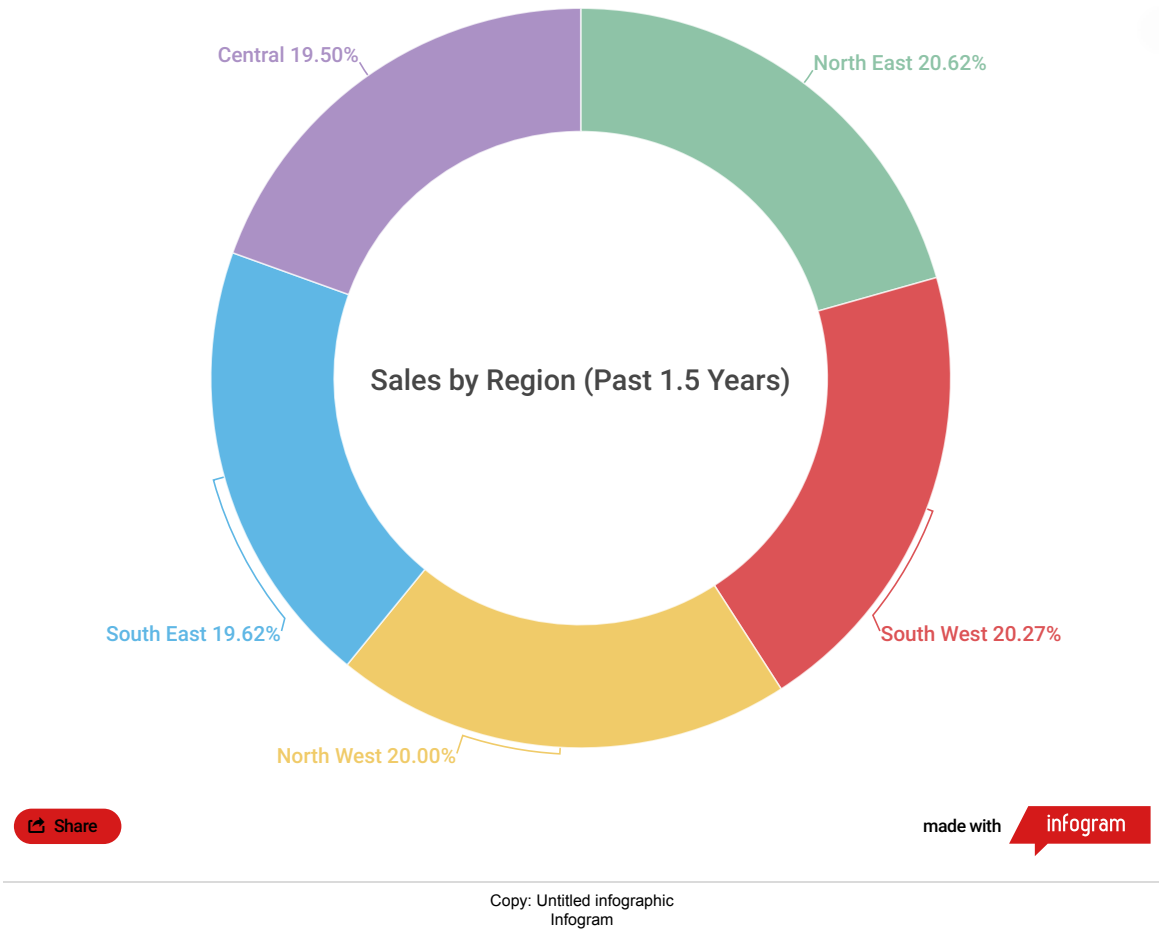
We will first start by analyzing the total sales from January 2016 to September 2019 by region. As shown in the graph below, the different regions all follow a very similar trend with one another. In other words, if the sales of one region dip or increase drastically, then the other regions are likely to follow. The data also shows that all the regions dipped drastically on the month of the release of the Impossible Burger (October 2018). To further model this point, a pie graph was constructed showing the percentage of sales in the last 1.5 years that come from each regain. The pie graph bellow shows that the sales from each region are roughly equal and account for approximately 1/5th (or 20%) of McDonalds sales in the United States. Both these two figures allowed us to see that the amount of sales per region is roughly equal across all regions as well as the trend each region follows (i.e. if sales increase or decrease in one region it is likely to do the same in all other regions).

Sales by Region of United States per Month



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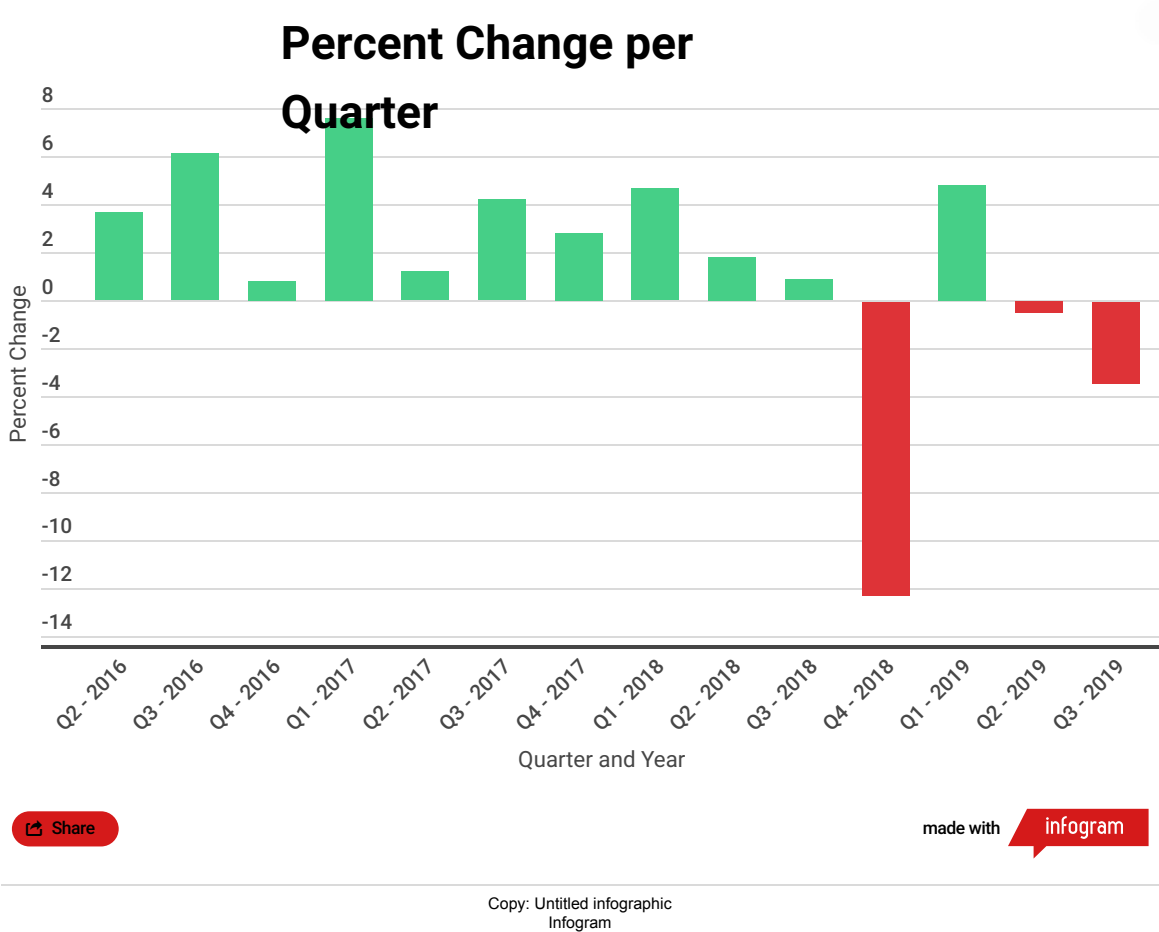
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Perecent Change Between Quarters

Combining all the sales across all regions allows us to get a more accurate picture of the total sales McDonalds has in the United States. The graph bellow shows the percent change between each quarter of the total sales McDonalds has in the United States. In Q4-2018 we can see the biggest change in the total sales of McDonalds - there is a -12.25% decrease and the Impossible Burger from Burger King was released in the beginning of Q4. The drastic percent change in Q4-2018 is likely due to some external factor that requires further investigation. Examining previous percent changes in Q4 shows that previous changes were not as drastic. In Q4-2016 there was a

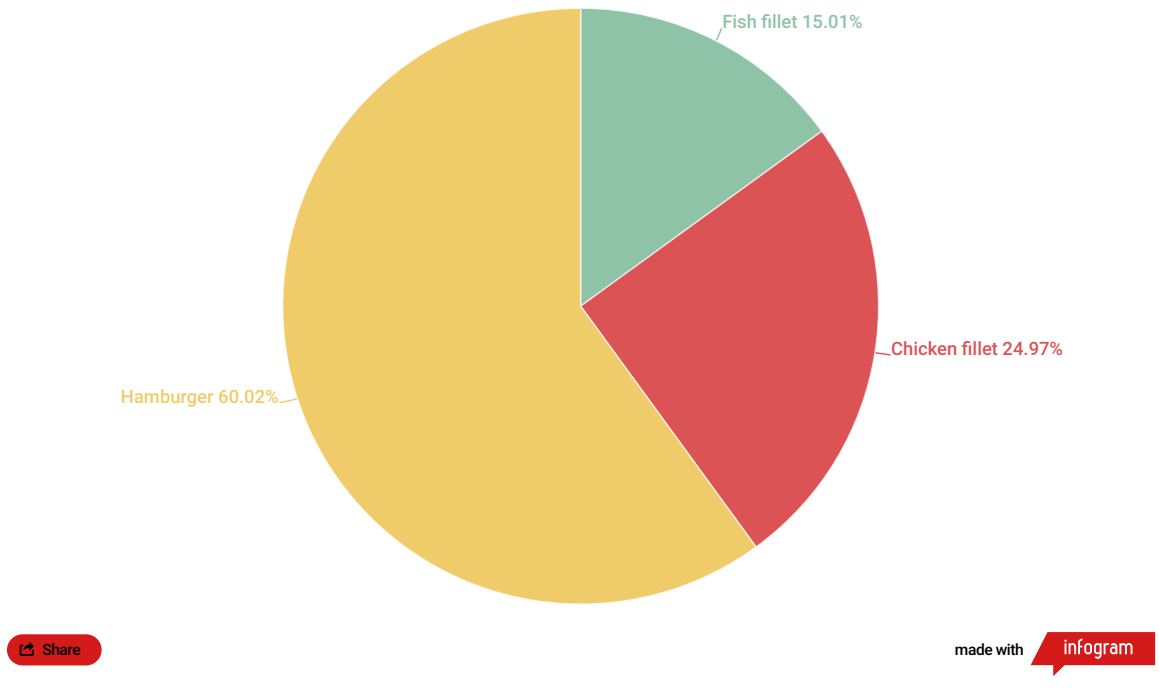
0.83% increase and in Q4-2017 there was a 2.79% increase in sales. Thus, we can see that a drastic percent change in sales in Q4 is not historically normal. We will examine our sale by item next to see if there are any specific items that are/are not selling adequately at McDonalds.



Sales Distribution by Menu Item

The pie chart below shows how McDonalds sales were distributed from January 2016 - September 2019. As shown, McDonalds hamburgers account for 60.02% of our total sales while the chicken fillet and fish fillet account for 24.97% and 15.01% respectively. This allows us to gain greater insight as to what menu items effect our total sales the least and most. Since Burger King released a new burger to compete with our McDonalds hamburger we must investigate specifically the hamburger sales right around the range of the release of the impossible burger. Additionally, it makes sense to examine the sales of our hamburger with directly competes with Burger Kings new hamburger.

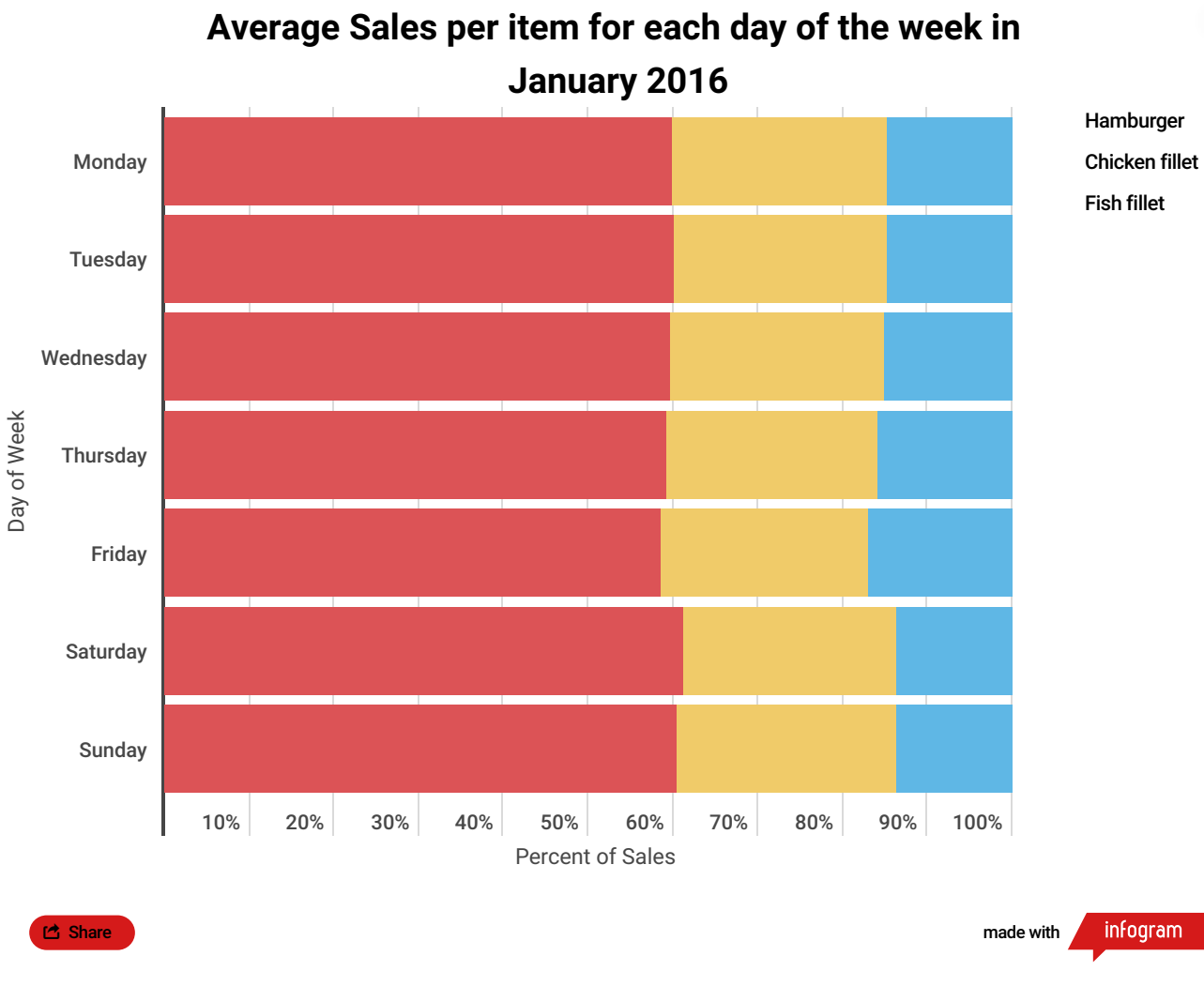
Sales by Item from Jan-16 to Sep-19



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Sales and Percent Change of Menu Item per Month

The following graph shows the sales of each menu item by month from January 2016 - September 2019. After examining the sales of each item, we can calculate the percent change of each menu items total sales. We can see that the percent change for the total amount of hamburgers sold between Oct 2018 - Sep 2018 decreased by 14.41%, the total amount of chicken fillets sold between Oct 2018 - Sep 2018 decreased by 13.98%, and the total amount of fish fillets sold between Oct 2018 - Sep 2018 decreased by 13.34%. Thus, it is conclusive that all menu item sales were affected negatively by the release of the impossible burger (almost) equally.



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Conclusion and Recommendations

After analyzing the data of McDonalds sales extensively, I have drawn the following conclusions. McDonalds has been affected by the release of our competitors (Burger King) new Impossible Burger negatively. It is clear that the total sales during Q4 (more specifically October 2018) have sharply decreased. Additionally, it is not just our burger sakes that have decreased but also our fish and chicken fillet items. At this point, it is unclear if customers just wanted to try the new Impossible Burger once because of the excitement behind a new product release but it is clear that we must act fast if we wish to regain our lost share of the fast food market. I would recommend releasing a veggie burger of our own as our menu only has 3 items - all of which are not plant based and/or vegan. If McDonalds wishes to attract vegetarian and vegan customers we must release a vegie burger.

Links to PDF, GitHub, and Website

[Link to Website \(Note: If it does not work please go to folder src and index.html on GitHub\)](#)
[Link to GitHub](#)
[Link to CEO PDF](#)