**Analytics of Key Market Areas**

**McDonalds Company**

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# SECTION A

## Overview of McDonalds

The globe’s renowned company in the2food service field is McDonald's ((McDonalds, 2022). This company's history may be directly traced to the 1930s, when it first began to operate well in the market. Upwards of nations now have McDonald's2fast food businesses, with 80% of the restaurants operating under a franchise system. Despite fierce competition and slow development in the informal eating2out segment (IEO), McDonald's is still able to draw consumers to its 36,000+ restaurants/outlets (Rodrigues et al., 2016, p. 53).

The global food retail market has to contend with a very substantial level of competitiveness. Any company must use the best marketing plan possible in order to flourish in such a setting. The goal of this approach, in the instance of McDonald's, is to boost food product sales (Primarily hamburger) (Suryavanshi, 2018, p. 181).

## Scope of the market

The following are marketing tactics at McDonald’s:

***Advertisement***

Ads are most visible of McDonald's marketing strategies. Adverts are broadcast on television, radios, newspapers, and internet. … McDonald's, for instance, gives special offers and giveaways for specific goods and package packages in order to entice more customers (Rodrigues et al., 2016, p. 53).

***Distribution***

McDonald's has a number of franchise locations set up to serve the expanding requirements of the various market sectors, which aids in their ability to thrive in a cutthroat industry. McDonald's drive-thru and counter service consumers are the main targets of their takeaways (Case\_User, 2011).

***Brand equity***

The firm has benefited from substantial branding via partnerships and endorsements with2well-known organizations like FIFA and2the Olympics, which have enabled it become more visible in the global market (Ceil, 2017, p. 81).

***Pricing***

Pricing is a crucial component of marketing strategy, as per Westwood (2005). Pricing has a significant role in determining whether the business’s marketing goals are achieved. The product2portfolio, product life phases, and the goals for total revenue and market share all have a key role in pricing.

There are three primary factors that McDonald's considers when setting the price of hamburgers2and other items. These include2cost-based pricing, prices based on competitors, and pricing based on customers.

# SECTION B

## Summarizing Marketing Data Obtained

The following section will visualize the data obtained for McDonalds as well as discussing the key variables to be discussed in this report. The data visualization will be done using Microsoft excel software.

### a) Key Variables

The key variables to be discussed in this report are Age, Brand Attachment and Adverts (independent variables) and how they affect McDonalds’ sales (dependent variable).

Adverts

McDonalds gives their experts access to the data from their advertising efforts so they can study it and determine what needs to be improved for continued prospects. Innovative marketing techniques are employed to publicize and promote the goods, which are well-known for providing excellent hamburgers at affordable prices in terms of whether spending more on adverts increases sales (Ang, 2018, p. 181).

Age

Age provides the company with data to know their If the old or new generation are the main consumers and target population as well as to know how they can improve to attract the new consumers (old/new generation) According to the surveys the respondent think the younger adults spend more on McDonalds than older adults (Vallier, 2020, p. 119).

Brand Attachment

McDonald's and2Coca-Cola have both come to represent globalization and cooperation. McDonald's food is intended to flavor the same anywhere you are2in the globe. Even though the brand's international appeal is unquestionably one of its primary success criteria, the notion that the business tailors its buffet to regional preferences has also substantially aided in its expansion (Ceil, 2017, p. 81). People who consider McDonalds to be there favorite food brand are more inclined to spend more money buying McDonalds food stuff.

### b) Data visualization

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Descriptive Statistics | | |  |  |
|  | *Sales* | *Age* | *Brand Attachment* | *Adverts* |
| Mean | 0.541667 | 23.41667 | 4.583333 | 2.625 |
| Standard Error | 0.103895 | 1.103218 | 0.306433 | 0.178688 |
| Median | 1 | 21 | 4.5 | 2.5 |
| Mode | 1 | 20 | 4 | 2 |
| Standard Deviation | 0.508977 | 5.404641 | 1.501207 | 0.875388 |
| Sample Variance | 0.259058 | 29.21014 | 2.253623 | 0.766304 |
| Kurtosis | -2.15566 | 0.610223 | -0.77239 | 1.16073 |
| Skewness | -0.17861 | 1.421231 | -0.21692 | 0.855106 |
| Range | 1 | 17 | 5 | 4 |
| Maximum | 1 | 36 | 7 | 5 |
| Minimum | 0 | 19 | 2 | 1 |
| Count | 24 | 24 | 24 | 24 |

Table 1

The table 1 above indicates the descriptive statistics of the key variables under consideration. From the table the mean of sales is 0.541667, Standard deviation of 0.508977, the maximum and minimum values are 1 and 0, tis indicates that the variable sales is binary. Age has a mean of 23.41667 and Standard deviation of 5.404641, Brand attachment has a mean of 4.583333 and Standard deviation of 1.501207, Adverts has a mean of 2.625 and Standard deviation of 0.875388.

Figure 1

Figure 1 above indicates the outlier’s points for variables Sales, Age, Brand attachment and adverts. Age has three outliers but these outliers’ points are within range (0-40) in this case we can choose not to exclude them from binary logistic regression analysis.

Customer respondent

Age

Figure 2: Scatter plot of Age of the customer respondent

From figure 2 above taking a big-picture at the plot, we can observe that the point of the cluster points do not move upwards from left to right, which indicates that there is no correlation between Age and customer responds.

Customer respondent

Brand attachment

Figure 3: Scatter plot of Brand Attachment and customer respondent

From figure 3 above taking a big-picture at the plot, we can observe that the point of the cluster points do not move upwards from left to right, which indicates that there is no correlation between brand attachment and customer responds.

Customer respondent

Adverts

Figure 4: Scatter plot of Adverts and customer respondent

From figure 4 above taking a big-picture at the plot, we can observe that the point of the cluster points move upwards from left to right, the upward trajectory is not that extreme but there is a clear picture of upward movement which indicates that there is a positive correlation between adverts and customer responds.

# SECTION C

## Binary Logistic Regression Analysis

In this section we will compute binary logistic regression of the identified key variables using and the analytic capabilities of McDonalds.

### a) Computation of Binary Logistic Regression

Binary Logistic Regression measures the relationship2between the categorical target2variable and one or more2independent variables. It is important for scenarios in which the outcome2for a target variable2can have only two2possible types (in other2words, it is2binary) (Cooper, 2015, p. 19).

The main aim of our analysis here is to clarify if Age, brand attachment and Adverts affect the Sales of products at McDonalds. In our case the categorical target variable (dependent variable) is sales and the independent variables are Age, brand attachment and Adverts. The target variable sales is coded as 0=affects; 1 =does not affect.

The following are the hypotheses that we will look to reject or fail to reject in the Discussion and evaluation section D, they will help us disccover which variables affects the sales of products at Mcdonalds:

1. H0; Age has no significant2effect on Sales

H1; Age has significant2effect on Sales

b) H0; brand attachment has no2significant effect on Sales

H1; brand attachment has significant2effect on Sales

c) H0; Adverts has no significant2effect on Sales

H1; Adverts has significant2effect on Sales

The following tables are results from the binary Logistic regression analysis of the Key variables:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Logistic Regression | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | *coeff* | *s.e.* | *Wald* | *p-value* | *exp(b)* | *lower* | *upper* |
| intercept | 0.76401 | 2.83874 | 0.0724 | 0.787823 | 2.14687 |  |  |
| Age | 0.22829 | 0.12642 | 3.2609 | 0.070946 | 1.25645 | 0.980701313 | 1.60974302 |
| Brand Attachment | -0.38407 | 0.37944 | 1.0245 | 0.311451 | 0.68108 | 0.323756133 | 1.43280055 |
| Adverts | -1.60777 | 0.850695 | 3.5718 | 0.048765 | 0.20033 | 0.03781314 | 1.06137314 |

Table 2

The Logistic regression table 2 above indicates the Values obtained of Coefficient, standard error, Wald, p-value and exp (b) for the independent variables Age, brand attachment and Adverts as well as the intercept. The P-values of Intercept, Age and Brand attachment are 0.787823, 0.070946 and 0.311451 respectively. The values are greater than 0.05 thus we conclude that they are statistically insignificant while the p-value of Adverts is 0.048765 which is less than 0.05 which makes it statistically significant. The odd-ratio of Age, brand attachment and adverts is 1.256, 0.68108 and 0.20033 respectively.

LL statistics Table

|  |  |
| --- | --- |
| LL statistics |  |
| LL | -12.8395 |
| LL0 | -16.5521 |
| Chi-sq | 7.425125 |
| df | 3 |
| p-value | 0.049514 |
| R-sq (L) | 0.224296 |
| R-sq (CS) | 0.266098 |
| R-sq (N) | 0.355625 |
| AIC | 33.67908 |
| BIC | 38.3913 |

Table 3

From table 3 above the R-sq (L) is the *R2*3value (also called3the coefficient3of determination), which is3the proportion of variance3in the dependent3variable that can3be explained3by the independent3variables (technically, it is the3proportion of variation3accounted for3by the regression3model above and3beyond the3mean model). We can3observe from our value of 0.224 that our3independent variables Age, brand attachment and adverts3explain 22.4% of the variability3of our dependent3variable which is sales. The R-sq. (CS) is the multiple3correlation3coefficients. R can be3considered to be3one measure of3the quality of the3prediction of the3dependent variable; in this instance, increase of sales. A value3of 0.266, in this question, illustrates a good level3of prediction.

### b) Analytics capabilities of the McDonalds.

McDonald's elected not to imitate their competition in an attempt to strengthen their financial2performance and re-satisfy their consumer base. Rather, they decided to leverage their established assets and competencies to uncover developing asymmetries between22003 and 2005. The executive group was equipped to seek market prospects that expanded on these leveraged skills by combining their existing framework, human resources, marketing expertise, and offering new product (Westwood (2005).

Sales

The infrastructure2of their modern restaurant platform was one of the initial resources employed to kick start their recovery. After recognizing that accelerated franchise development was resulting in stagnation yields and subpar effectiveness, as well as compromising their consumers' eatery experiences owing to subpar food quality and2service, the business resolved to concentrate on generating2sales from its established eateries and renovating the obsolete appearance of their older fast food places. McDonald's was able to be more in step with savvier customer preferences and habits by renovating and rebuilding the interior to suit within modern society (Suryavanshi, 2018, p. 181).

Additional manner McDonald's managed to enhance sales at2these newly remodeled shops was by introducing new products that corresponded to societal influences, such as2premium coffee, and also introducing numerous bakeries. While numerous previous new product presentations were indicated as customer inadequacies (Arch2Deluxe, McLean2Deluxe), McDonald's had the foresight to capitalize on the healthy trend surging across the United States (Value2Innovation - Monitoring Consumer2Value Curves) and started presenting more health conscious menu options including salad entrees, all white2chicken meat, and apple2dippers rather than French fries2in Happy Meals (Rodrigues et al., 2016, p. 53).

Brand diversity

In addition, McDonald's presented the brand "diversely in multiple places, at different2times of day, and to2target different consumer demographics." McDonald's uses this resource to develop value2innovation, which allowed them maintain a competitive advantage in the areas where they run. A further value innovation strategy adopted by McDonald's2was to concentrate on the compelling commonality in the things that customers2value rather than the disparities between them (Ceil, 2017, p. 81).

# SECTION D

## Discussion and Evaluation

In this section D we are going to discuss and evaluate the finding from the binary logistic tables in section C above.

The following hypotheses will be utilized together with the binary logistic regression results to answer if Independent variables Age, brand attachment and adverts affect the Sales of products at McDonalds.

1. H0; Age has no significant2effect on Sales

H1; Age has significant2effect on Sales

b) H0; brand attachment has no significant2effect on Sales

H1; brand attachment has significant2effect on Sales

c) H0; Adverts has no significant2effect on Sales

H1; Adverts has significant2effect on Sales

We will mainly focus on the results in table 2 labeled ‘Logistic table’ for our discussion and evaluation. From the table 2 the p-value is the probability that the null hypotheses are true. The results of p-value of Intercept, Age and Brand attachment are 0.787823, 0.070946 and 0.311451 respectively. The values are greater than 0.05 thus we conclude that they are statistically insignificant while the p-value of Adverts is 0.048765 which is less than 0.05 which makes it statistically significant. We can therefore fail to reject the following null hypothesis:

* Age has no significant effect on Sales
* brand attachment has no significant effect on Sales

This means that the younger adults do not spend more on McDonalds than older adults, thus we can state that age does not necessarily impact the sales of products at McDonalds, we therefore reject the alternative hypothesis in this instance that states that Age has significant effect on Sales. The hypothesis on brand attachment means that feeling bonded with the MacDonald’s brand does not make individuals spend more on McDonalds products than other products. Thus the null hypothesis brand attachment has no significant effect on Sales is retained but the alternative hypothesis brand attachment has significant effect on Sales is rejected.

On Adverts; the p-value is 0.048765 which is less than 0.05 which makes it statistically significant, this means that we will reject the null hypothesis stating that Adverts has no significant effect on Sales and retain the alternative hypothesis that Adverts have a significant effect on Sales. This means that the more resources McDonalds uses for advertisement in the TV, radio stations, billboards, internet and newspaper the more customers it gets and sales of products is affected (sales of product increases). This statement is supported by the McDonalds tactic we discussed in section A which stated that ‘Ads are most visible of McDonald's marketing strategies. Adverts are broadcast on television, radios, newspapers, and internet. … McDonald's, for instance, gives special offers and giveaways for specific goods and package packages in order to entice more customers.’

From the same table 2 the odd ratios for the independent variables were discussed. The odd-ratio of Age, brand attachment and adverts are 1.256, 0.68108 and 0.20033 respectively. For adverts variable 0.20033 means that for every one unit increase in adverts, the odds of sales at McDonalds changed (increased) by a factor of 0.20033. For variables Age and brand attachment the odd ratio results are discarded since it has been established that the two have no significant effects on the sales of products at McDonalds.

# SECTION E

## Conclusions and Recommendations

This section will2contain the conclusion2drawn from the results2analyzed and interpreted2for the McDonald’s Company and the recommendations2on how McDonald’s can improve the marketing2of their brand, goods and2services.

### a) Conclusion

From the discussion above we can conclude that Age and brand attachment are not significant predictor variables for the sales of products at MacDonald’s and that Adverts is significant predictor variable for the sales of products at McDonald’s. The more money McDonalds spend on adverts the more sales the company generates.

### b) Recommendation

My recommendations for the company are:

*Forecast customer churn3with Net Promoter Score3feedback to increase consumers*

McDonald's can count on long-term backing from loyal customers and brand enthusiasts (your*3*Promoters). You've worked hard to establish long-term relationships with your clients, and it shows in their higher Net*3*Promoter Ratings as well as the revenue they create. Poor NPS scores, on the other side, indicate that your customer is less likely to come back. Whereas each corporation’s marketing model and consumer’s turnover estimates are specific, ensuring that your NPS is taken into account, as it could be a beneficial tool for anticipating consumer needs which helps retention of customers and adds new customers (Khriyenko, 2015, p. 39).

*Make the brand more environments friendly to attract new consumers*

This can be done through supporting beef sustainability. To me, a well-managed3beef industry is essential to the sustainability of food supply chains for people, animals, and the environment. McDonald's must embrace a comprehensive approach to beef sustainability in order to achieve this, taking into consideration the ecosystem, the livelihoods of those who produce our food, the communities in which they inhabit, and the wellbeing of the3livestock we rely on (Gosnell et al., 2021, p. 1186).

*Create a healthy menu brand to attract consumers*

Given how many customers are aware of the movement toward healthy living, it may become riskier for consumers to dine at McDonald's. The marketing staff at McDonald's could also look into supply chain openness as a way to improve the health of its consumers. Supply chain openness gives you the tools to identify the source of any possible contamination and lessen the effects it has on your goods and customers (Denhard & Dahl, 2013, p. 22).

# SECTION F

## Reflective Account

This section discusses will address the differences and change made to this report compared to the previous one.

The main difference between the two reports is; in the first report I did not collect the data required for the company which was under consideration thus I did not answer the question which required an analysis of multinomial logistic regression analysis, instead I only answered the analytic capabilities of the company in that report. In this current report data was collected for the analyses of the McDonalds Company which I used to perform the binary logistic regression utilizing Microsoft excel software. Additionally in the previous report task/section 4 was not attempted. In this report the task 4 about the discussion and evaluation has been done according to the instructions provided. The other change I made was to present the tables and graphs in a more professional and visually appealing manner.

After working on this report I have learned a lot on how to analyze market data using the binary logistic regression, where the dependent variable is categorical (has only two outcome) in our case it was sales coded as 0=affects; 1 =does not affect. I also learned how to interpret the results obtained from the market data and how companies, business and firms can use the results to improve different department and make and implement great marketing strategy in the future.

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