

BBE Business Report



Prepared by team T14 -3

XUAN NGUYEN TRINH

JOSH NELSON

VAN TRANG NGUYEN

HA LINH NGUYEN

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I. Introduction

BBE began operations in 2016 and has since grown into a very successful company with a positive lifetime turnover. Therefore, a thorough analysis of the company's sales performance is vital to determine its strengths and weaknesses, advancing the company's managerial decisions in the future.

II. Executive Summary

BBE's impressive growth substantialises a need for a thorough analysis of the company's performance. This report breaks down the company's Finance, Product, Customer, and Market domains, aiming to provide insights into current operations and identify future opportunities. BBE's strong performance was highlighted by its initial product offering and subsequent expansion, which drastically bolstered the company's sales and customer numbers. Despite the diversification in the product range, the company still heavily relied on Bike sales, which represented the company's most prominent and well-established products. Acquiring various customers across different continents, consumer ages mostly ranged from 30 to 45 years old. Additionally, most customers have a child or are married, making 'Families' a critical customer segment. Most of BBE's customers stem from the USA and Australia, the two largest markets. However, smaller markets such as France or Germany show remarkably strong growth potential, providing BBE opportunities to continue expanding.

III. Analysis

1. Financial Analysis

Since launching four years ago, BBE has experienced relative organisational success and upward-trending growth (*Figure 1.1*). Using data-driven analytics, we can break down and describe noticeable trends or dependencies within the business.

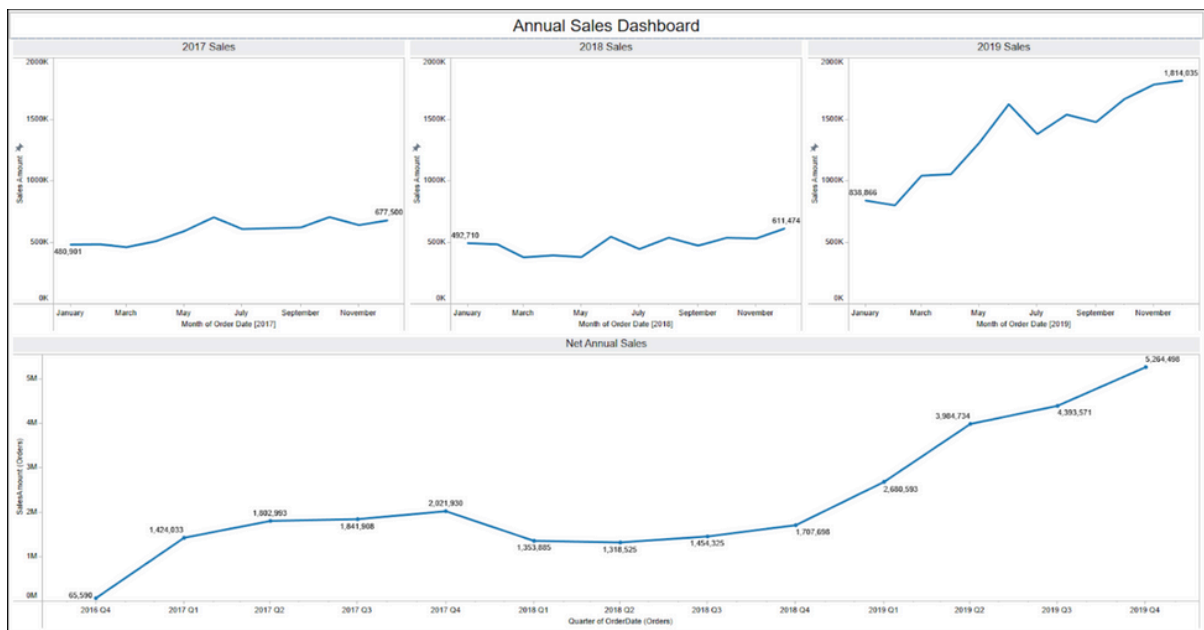


Figure 1.1 Annual Sales Dashboard

BBE's sales slightly decreased in 2018, but the same positive trending quarterly rise remained, starting at 1,353,885 and finishing at 1,707,698 in the last quarter. 2019 marked the most considerable growth period over the recorded time, with sales reaching 2,680,593 in the first quarter, double that of the previous year's first quarter, then achieving a record sales of 5,264,498. The two most important takeaways are the 2018-2019 increases and the 2019-2020 decreases in sales. (*Figure 1.2*)

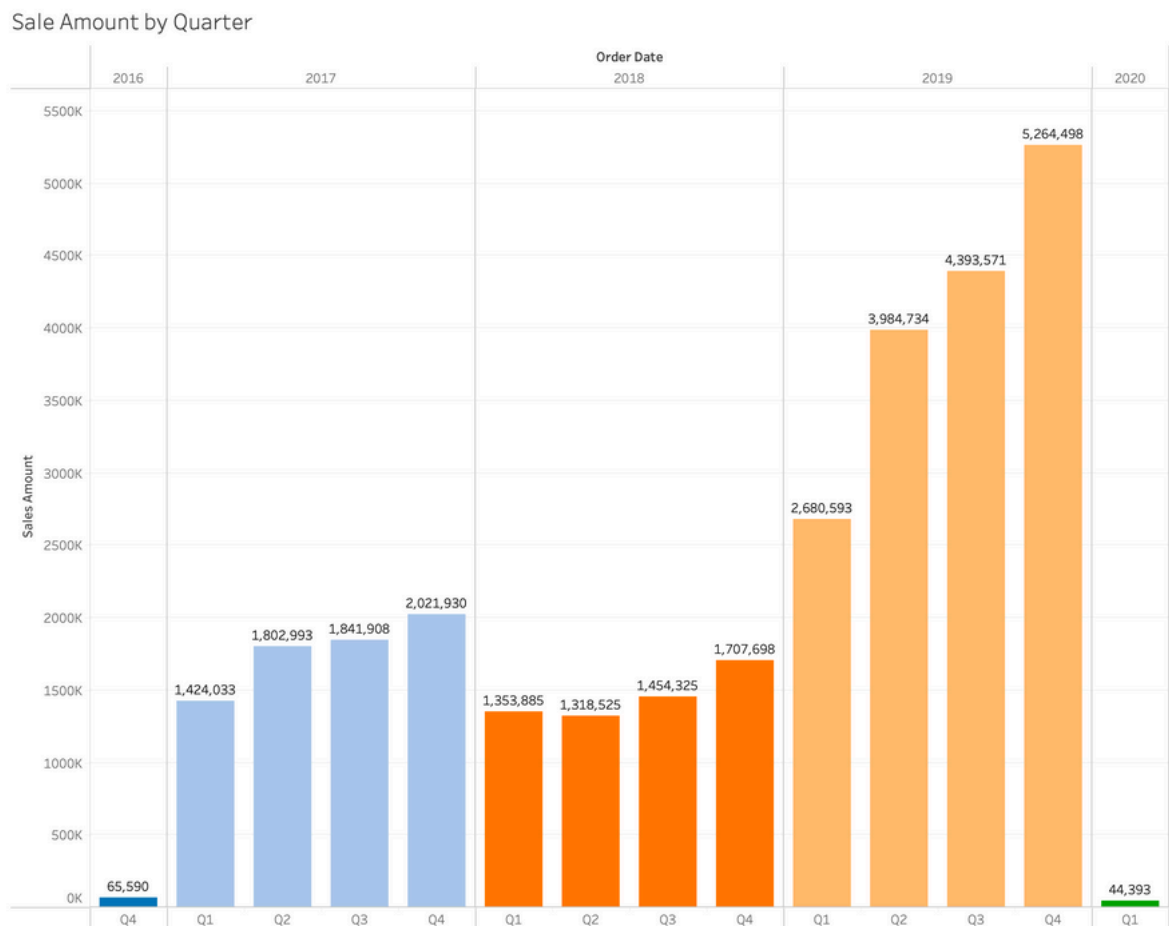


Figure 1.2 Sale Amount by Quarter

When the data series ended in the first month of 2020, the company's performance dropped to 44,393 in sales, marking a critical fall of roughly 97% from the previous month. At first glance, it is unclear whether this drop is caused by a decrease in sales, a stoppage of data collection in early January, or a stoppage of data collection in December, factoring in January pre-orders.

As mentioned, two significant changes in the company's sales occurred during 2016-2020. The inclines and declines in sales will yield valuable insights into the company's sales strategies, underscoring the interdependence among various product categories.

Monthly Performance Trend

Although BBE's products are not seasonally based, there is evidence of annual patterns in the company's monthly performance.

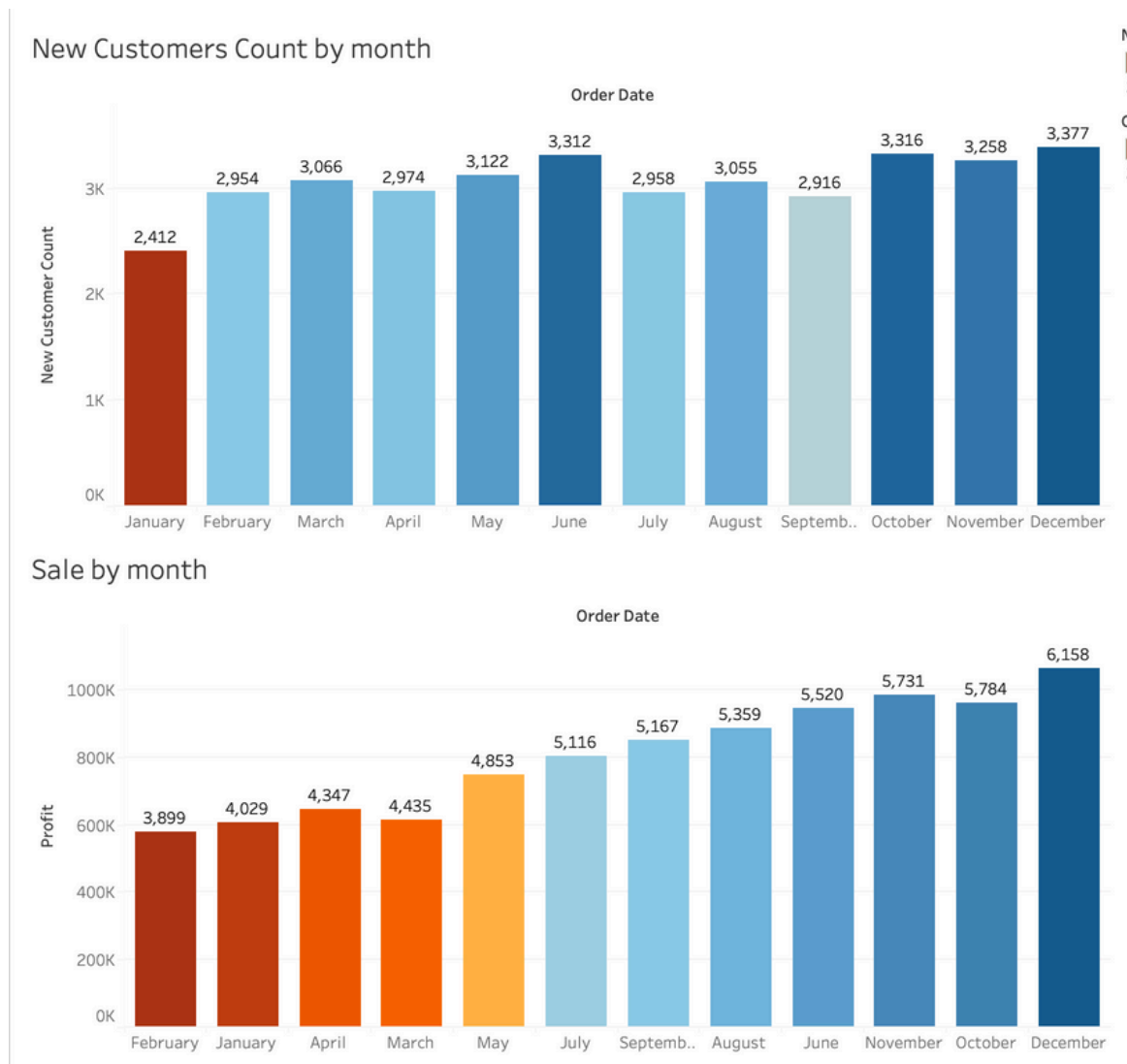


Figure 1.3 Monthly New Customer Count and Sale in Average

The closer to the end of a calendar year, the greater the revenue BBE sees. Similarly, the first graph indicates that BBE experiences more first-time customers during the later months of the year. This pattern could be partially explained by the higher density of public holidays in consumer countries, during the year-end period. (Figure 1.3)

2. Product Analysis

During the period, BBE experienced two big occasion of releasing new products and the cut in a major product. In this report, 3 intervals between the occasions will be examined.

- **Before the Product Introduction**

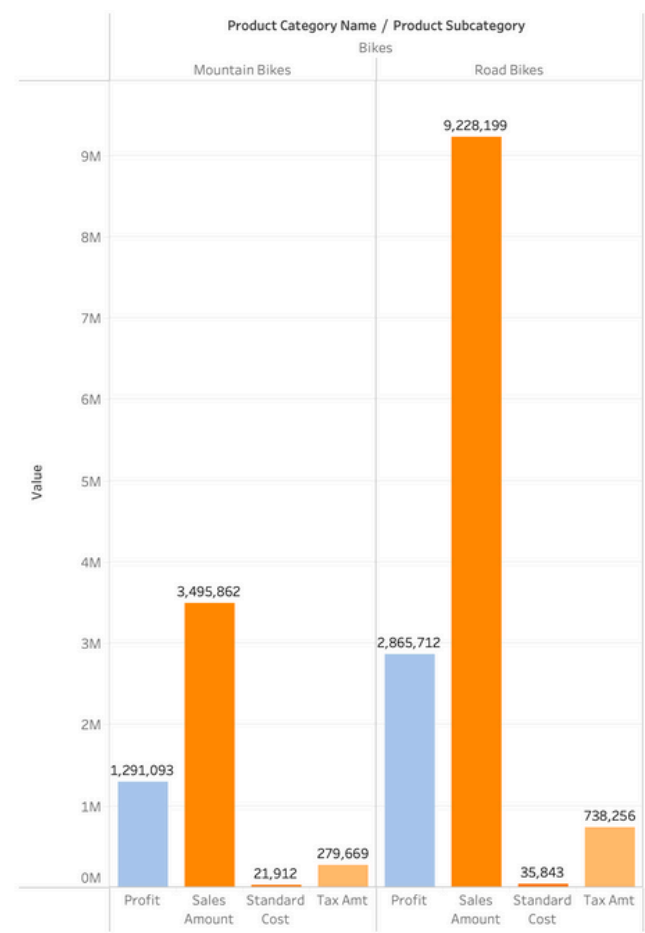


Figure 2.1 Data on Sale performance of Products before 2019

BBE saw great success from its launching date to Q4 2018 with its two main products, Road and Mountain bikes. The two bike categories generated ~\$13m, with a split of approximately 3:1. Accounting for ~7.5m net production cost and ~1.1m in net sales tax, the net profits for BBE sat at around ~\$4 million. (Figure 2.1)

- **After the Product Introduction**

In December 2018, the company introduced two new product categories comprising 15 new sub-categories. The company's product portfolio had expanded to Bikes, Accessories, and Clothing.

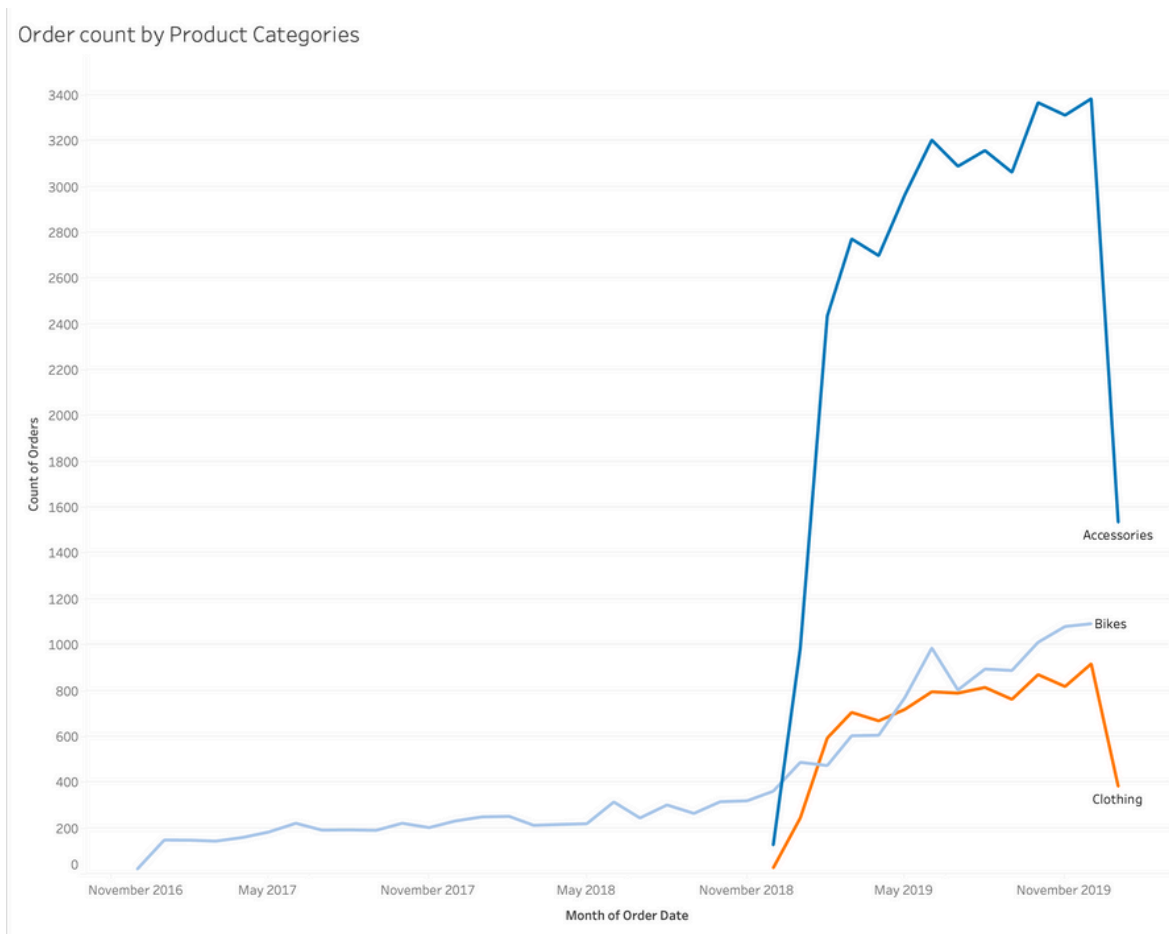


Figure 2.2 Order count by Product Categories

Along with the new categories, BBE began selling a Touring Bike, increasing the Bike categories roster to 3 and positively affecting Bike sales trends. Accessories line saw general success, with

Product Data

Product Category Na..	Product Subcategory	Profit	Sales Amount	Count of Orders
Accessories	Bike Racks	21,491	39,360	328
	Bike Stands	21,617	39,591	249
	Bottles and Cages	31,011	56,798	7,981
	Cleaners	3,941	7,219	908
	Fenders	25,454	46,620	2,121
	Helmets	123,033	225,336	6,440
	Hydration Packs	22,008	40,308	733
	Tires and Tubes	134,020	245,529	17,332
Bikes	Mountain Bikes	3,691,317	9,952,760	4,970
	Road Bikes	4,363,120	14,520,584	8,068
	Touring Bikes	1,137,543	3,844,801	2,167
Clothing	Bib-Shorts			0
	Caps	2,953	19,688	2,190
	Gloves	19,072	35,021	1,430
	Jerseys	25,873	172,951	3,332
	Shorts	38,941	71,320	1,019
	Socks	2,780	5,106	568
	Vests	19,485	35,687	562

Figure 2.3 Product Data

the most popular products being Tires/Tubes, Drink Bottles, and Helmets. These three new products have generated ~700,000 in net revenue to date. The Clothing line is the lowest grossing category, but after over 9000 orders, the products have in total generated ~\$300,000 in net profits for BBE. (Figure 2.3)

Most of BBE's turnover stems from the Bike categories; a profit margin of approximately 60% coupled with the different model's list prices means the three subcategories have generated over \$28 million. Despite this, most orders revolve around the more recently released Accessories category, with ~28% of BBE's orders being Tires/Tubes. The order percentages for Bikes, Accessories, and Clothing are 25.18, 59.2, and 15.62, respectively. (Figure 2.4)

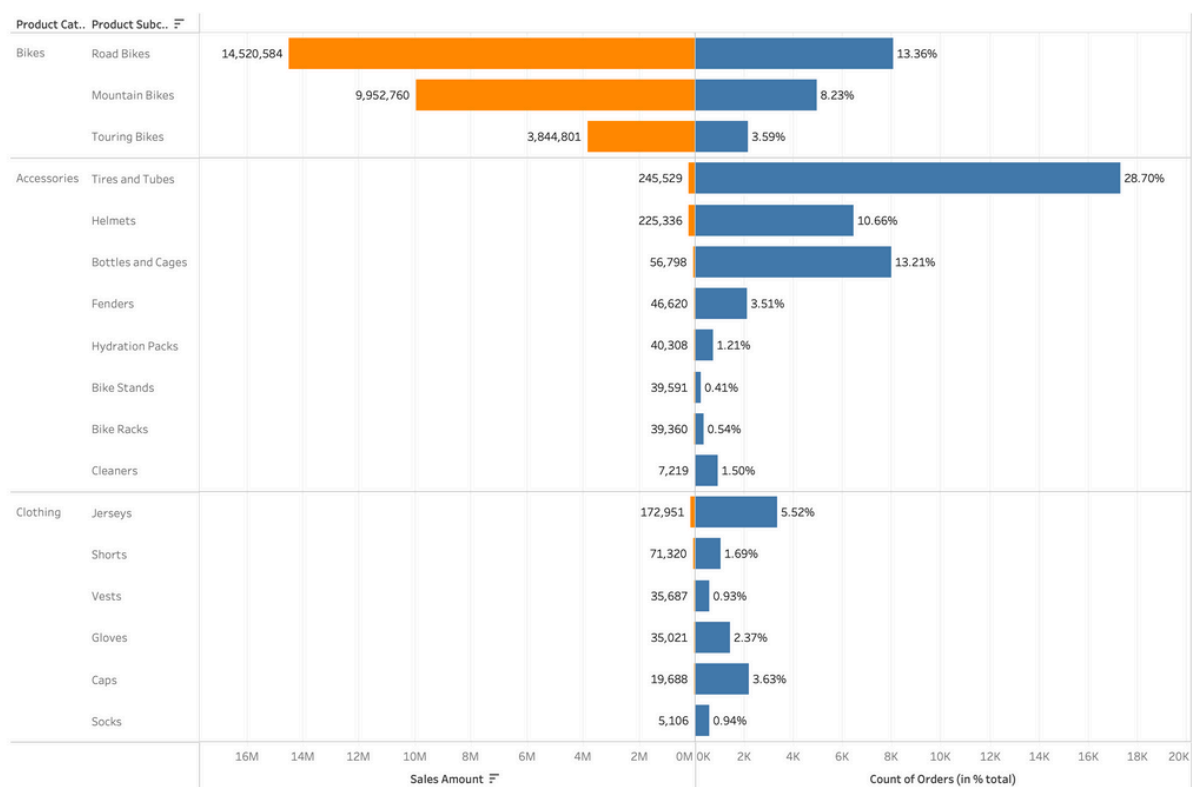


Figure 2.4 Sales and Order % by Product

Effects on performance

Introducing new products had a noticeable effect on BBE's overall sales. On 28 January 2019, roughly one month after the new product introduction, the number of orders doubled that of the last week. The graph of profits follows the growth of orders, albeit slower than the actual trend. The divergence of the two lines is expected as only in early February would the profit index begin to experience a change. (Figure 2.5)

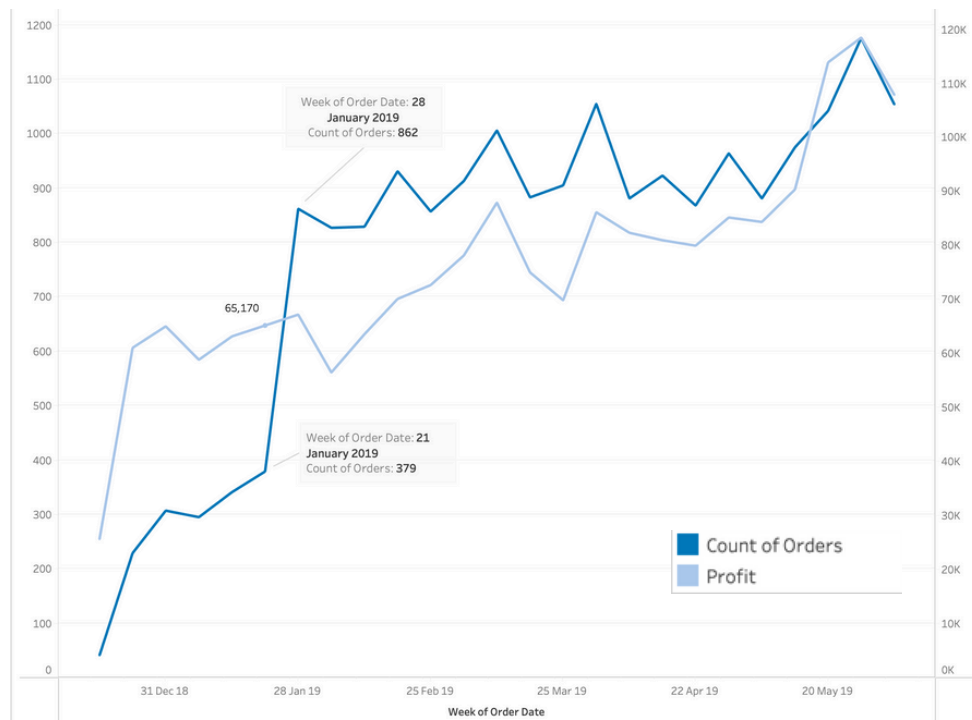


Figure 2.5 Profit & Order count Early 2019

The product launch helped BBE gain significant new customers. The monthly first-time customers of BBE skyrocketed, acquiring 2556 new customers in early February 2019, some 7x the December 2018 new-customer count. This trend will continue until the end of 2019. (Figure 2.6)

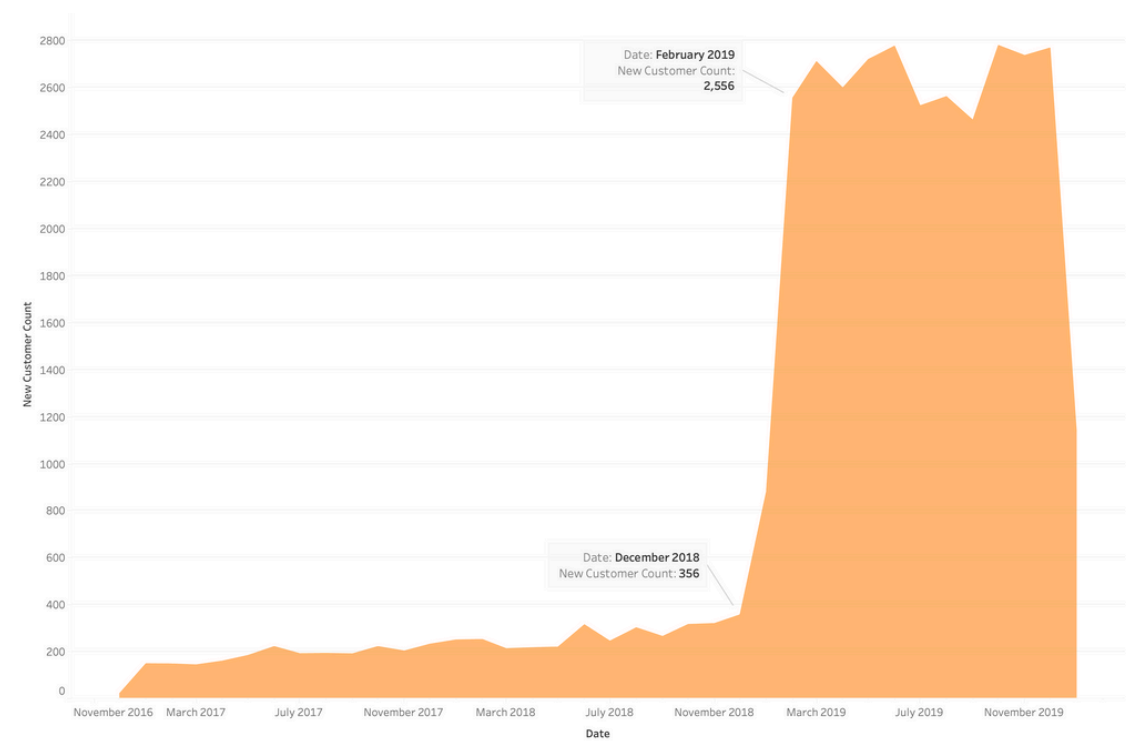


Figure 2.6 New customer count by month

- **After the Cut in Bike production**

After a year of selling complementary products, BBE stopped manufacturing Bikes in the last week of 2019. Following the occasion, the sales of the other two product categories modestly decreased, explaining the sudden lows in sales performance as of January 2020.

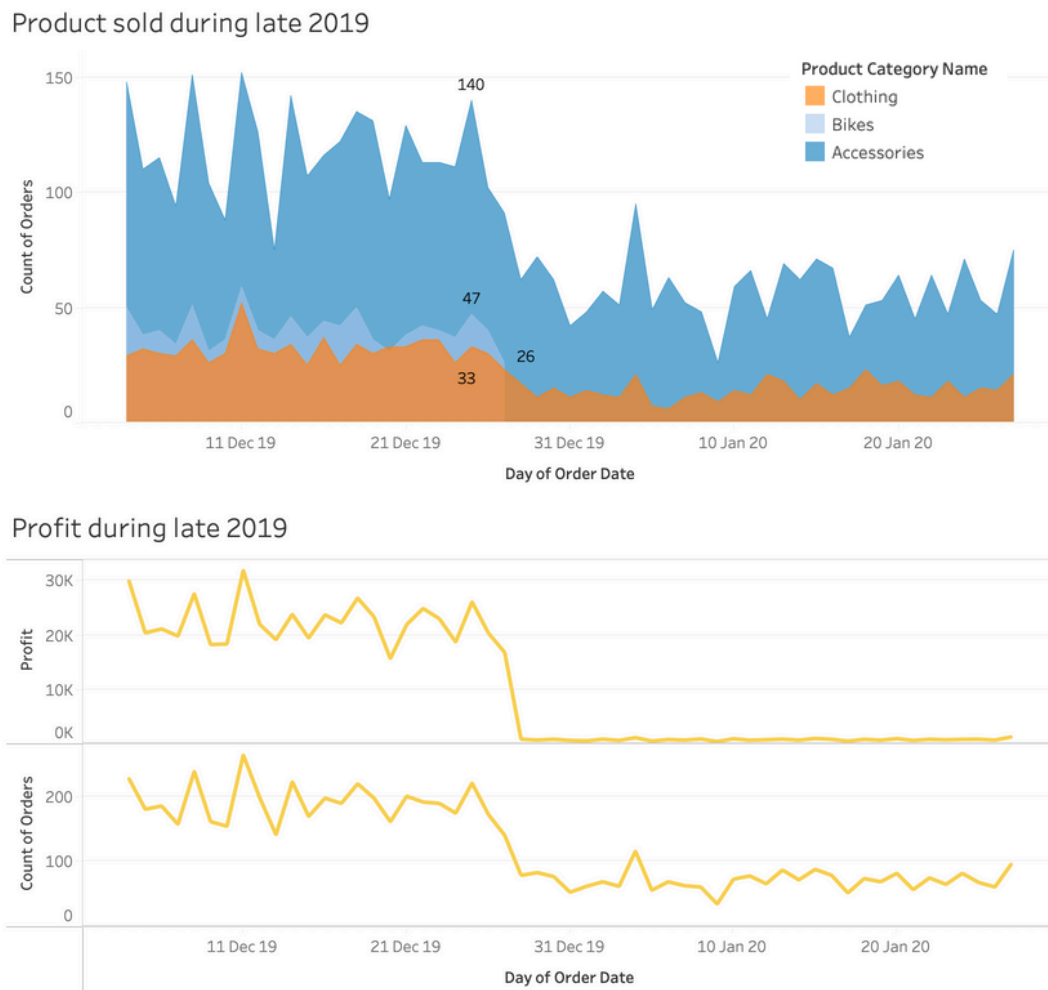


Figure 2.7 Product & Profit during Late 2019

Considering the 'Profit in late 2019' graphs, a crucial drop in both order counts and profit happened right after the decision. Whilst the variation in the price per sale of products contributes to the divergence in the declining trends of the two indices, the stoppage of Bike sales is undoubtedly the primary factor.

(Figure 2.7)



Figure 2.8 Profit margin by Product

The three highest marginal profit products are all in the 'Bikes' category, with the highest one, Mountain Bikes, of 742.7, nearly eight-fold that of the highest marginal profits in Accessories. (Figure 2.8)

3. Customer Analysis

a. Customer Age

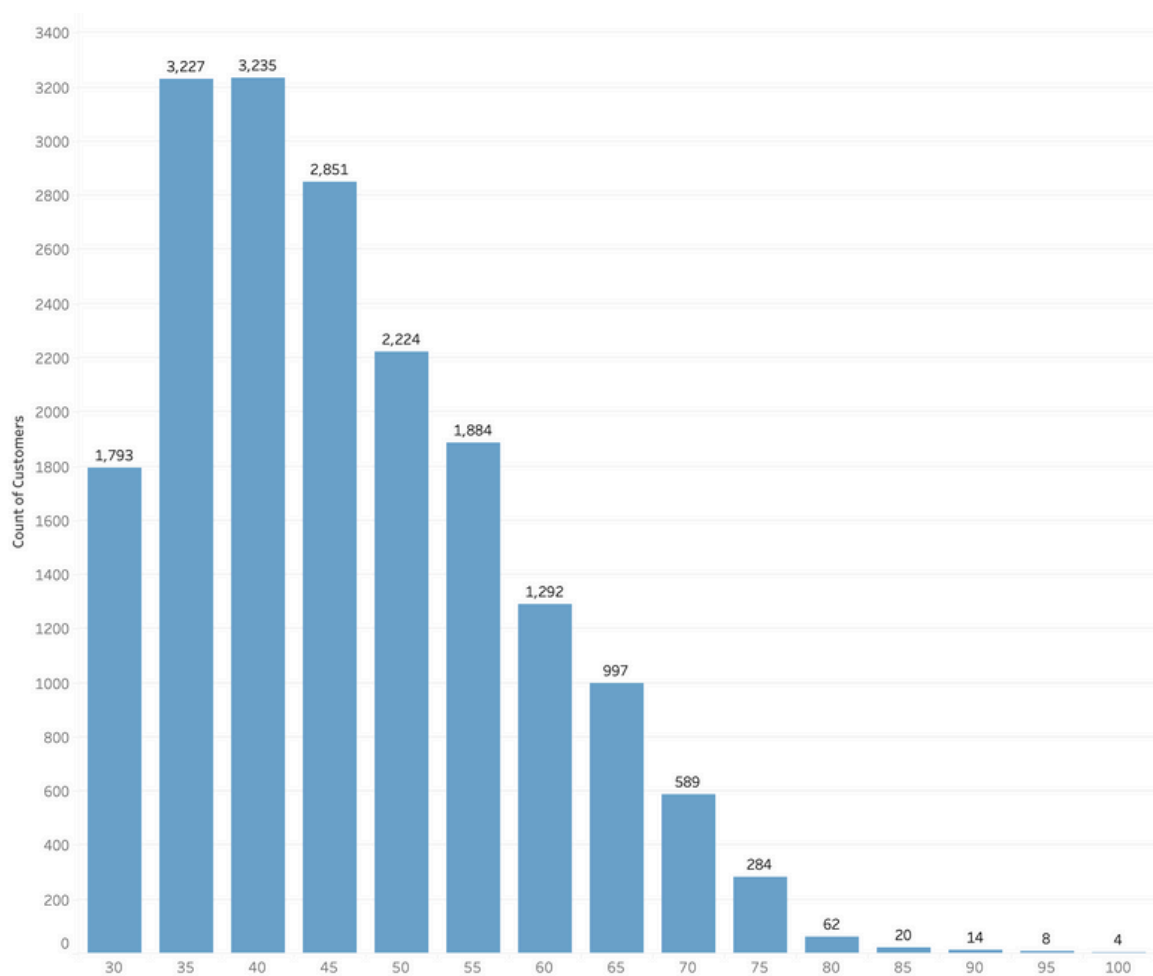


Figure 3.1 Age Histogram

Based on the histogram representation of the age distribution, most customers are between 30 and 60 years old (*Figure 3.1*), with the highest number of customers aged 40-49 (6462 customers). This pattern is inferable as the group has a higher income. Based on the age distribution, it is reasonable to divide all customers into 3 age groups:

- The Young Customer: Customers aged from 31 to 45 years old
- The Middle-Age Customer: Customers aged from 46 to 59 years old
- The High-Age Customers: Customers aged more than 60 years old.

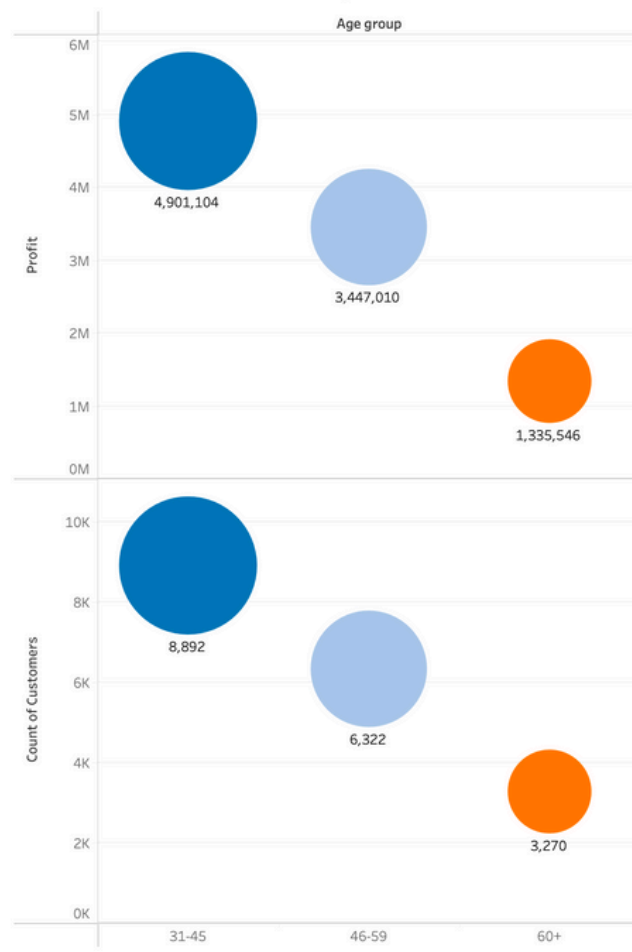


Figure 3.1 Profit and Order count by Age Groups

Figure 3.1 shows the population of each age group and their contribution to the company's profit. According to both illustrations, the “Younger Customers” group is the primary contributor of the company as it tops both categories. It is worth noting that the quantity of each age group validated this pattern. However, further analysis of the age groups' behaviour is necessary to determine the difference in sales performance fully.

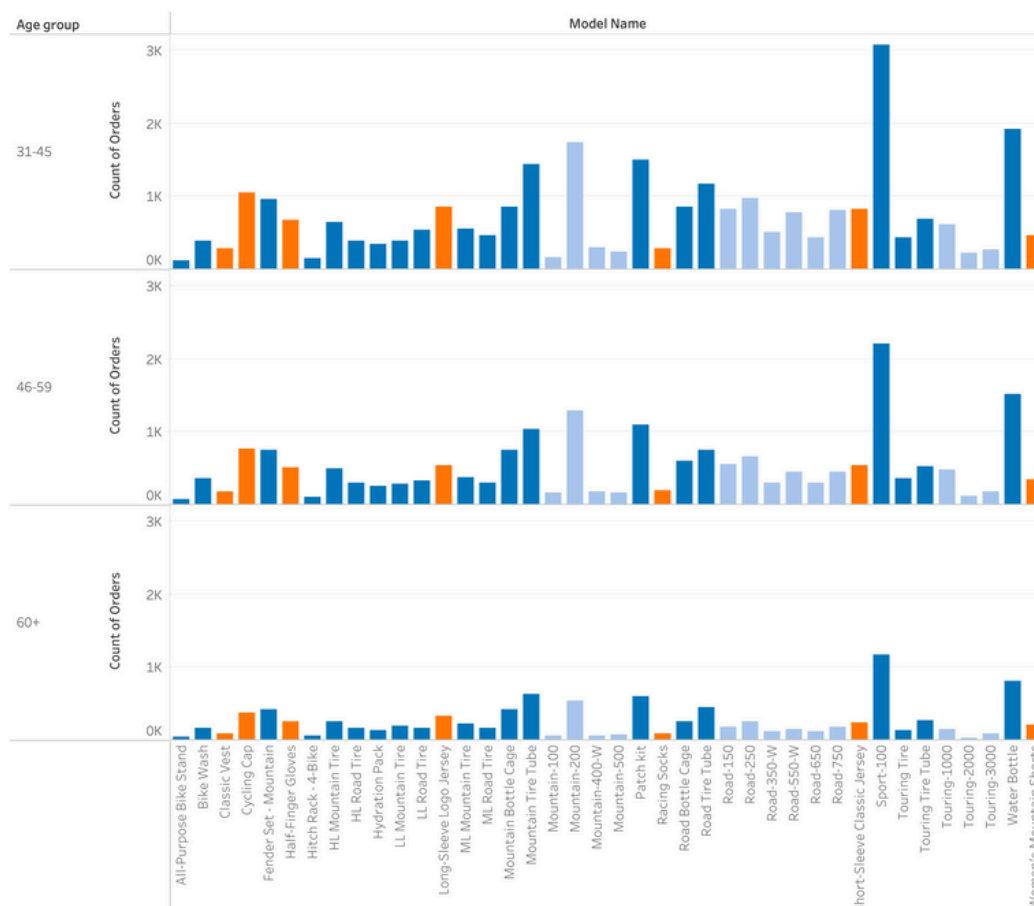


Figure 3.2 Preference by Age Group

As shown in *Figure 3.2*, there is no apparent difference in buying behaviour among age groups, proving the difference in Sale performances of those groups is merely caused by the difference in quantity.

b. Customer Demographic

Based on the information regarding customers' marriage and parental status, the company could sort all customers into two types:

- Family-Oriented Customer: Customers are either currently married or have children.
- Single Customer: Customers neither having children nor getting married.

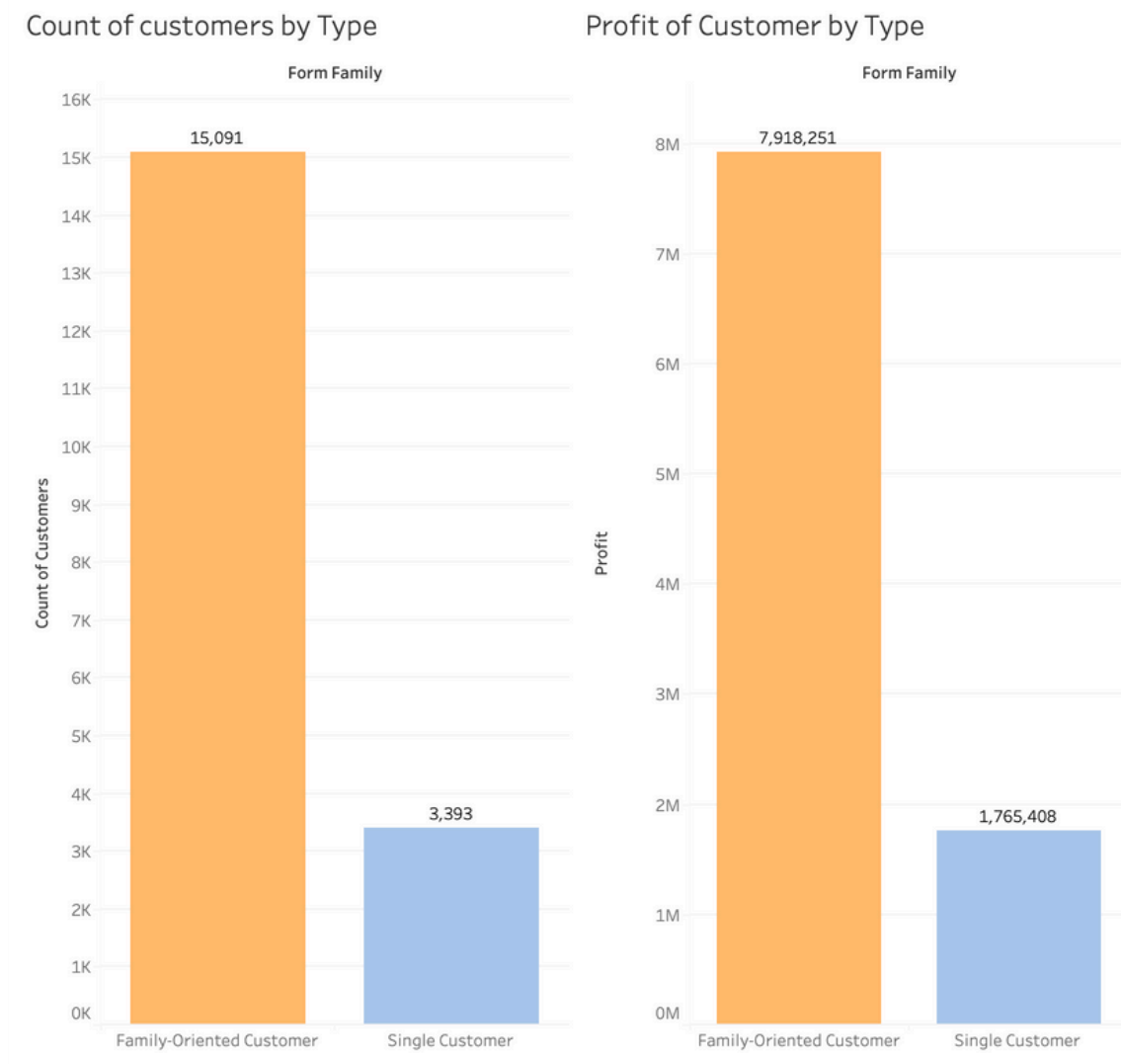


Figure 3.3 Customer Count and Profit by Demography Group

During the period, BBE's customers were primarily Family-Oriented Customers, with 15091 customers by early 2020, almost four-fold the number of Single Customers of 3,393. 82% of the company's profit comes from Family-Oriented Customers, with the number of 7,918,251. Therefore, it is clear that household customers are the company's essential type of customers. (Figure 3.3)

b. Customer Demographic

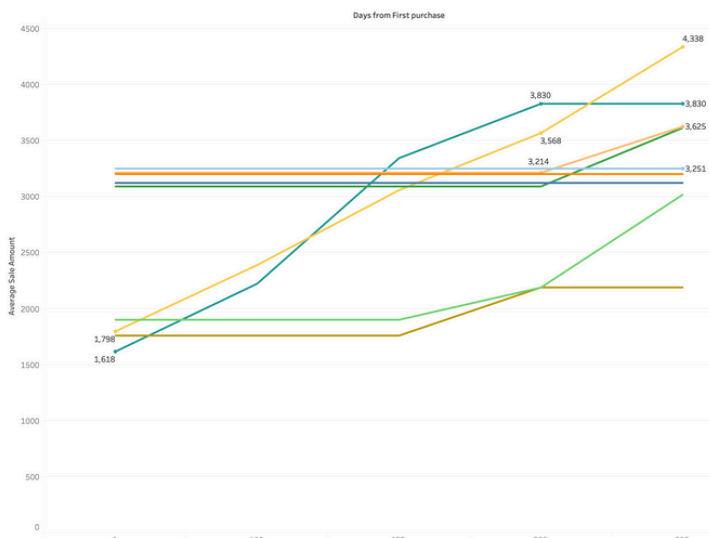


Figure 3.4 Average sale amount of customers having different start buy date from 2016 to 2018

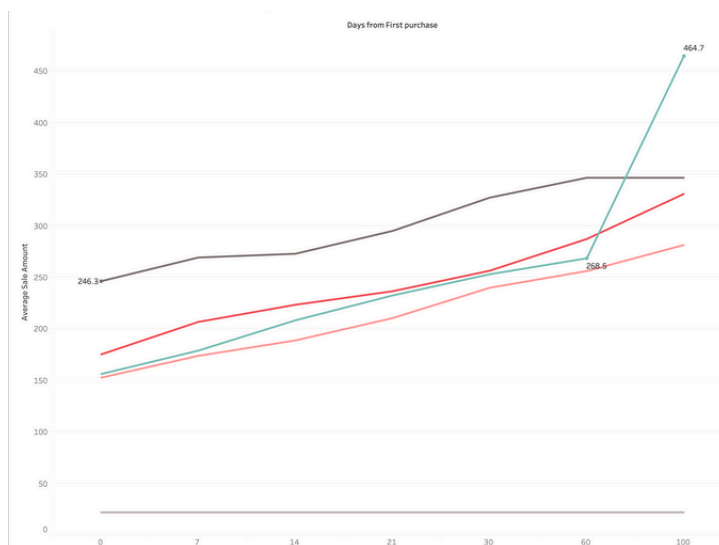


Figure 3.5 Average sale amount of customers having different start buy date from 2019 to 2020

The figures show the average sale amount of all customers having their first purchase in a particular period for a range of days. Due to data constraints, it is necessary to divide the data into two periods: 2016-2018 and 2019-2020.

From Figure 3.4, customers who made their initial purchase in the last two quarters of 2018 had the highest average sale after the specified period. The first two quarters of 2018 also saw an increase in average sale amounts, but this occurred only after six months when BBE introduced new product categories. In the company's first three quarters, the initial customers did not show a positive return rate, as their group

group's average spending remained unchanged after the period.

Meanwhile, in *Figure 3.5*, the average sales of new customers in 2019 and 2020 consistently increased. Customers who made their first purchase in the first quarter of 2019 experienced a significant rise in average sale amount approximately two months after becoming a customer.

The introduction of new product categories, specifically Accessories and Clothing, both of which are more consumable goods compared to Bikes, led to a higher return rate for new customers during that period.

4. Market Analysis

From launch to the beginning of 2020, BBE has inaugurated itself in 8 countries across three continents (*Figure 4.1*). While sales performance in each market aligned with the general trends, specific regions stand out as key markets for BBE.

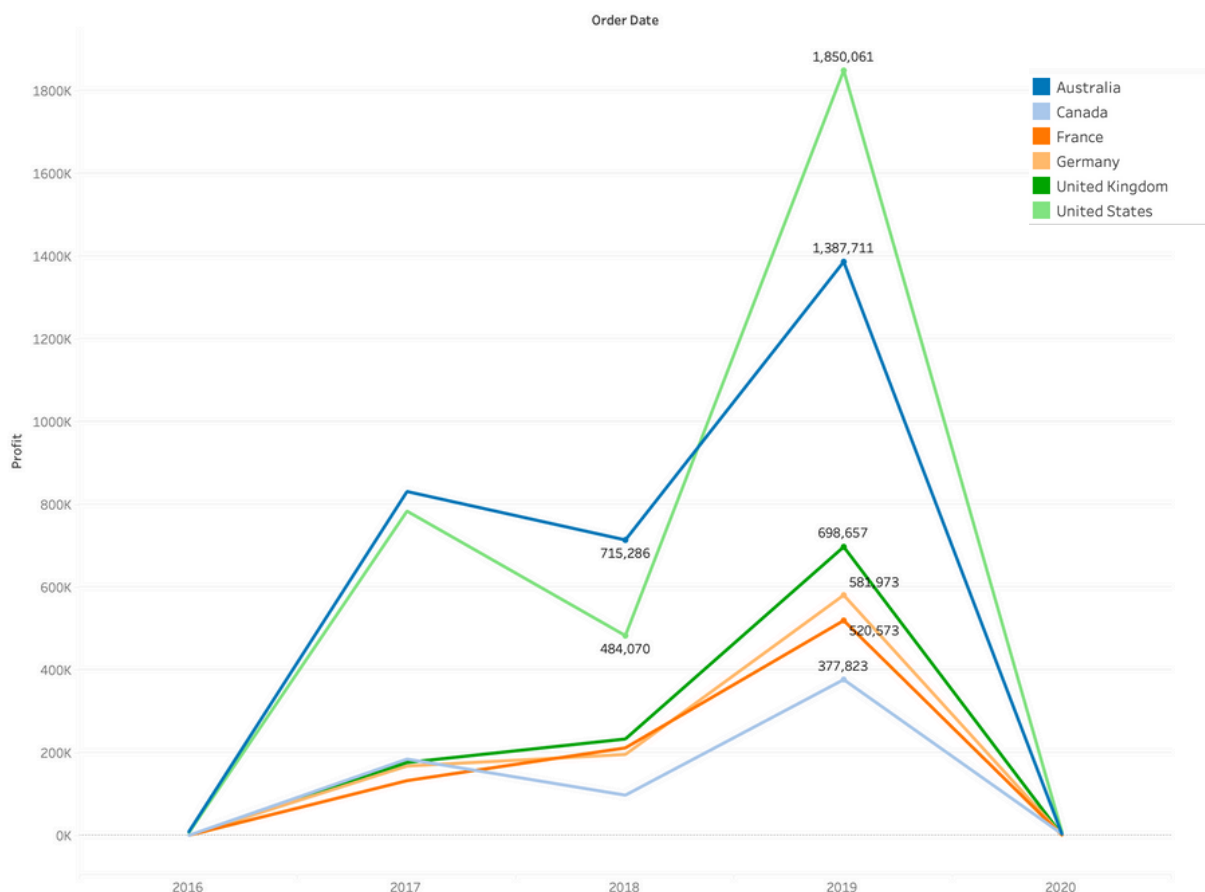


Figure 4.1 Country Sale by Year

Based on the figure, Australia was the most profitable market until the middle of 2018, when the United States took over. These two markets far outperformed the others, as the profit of Australia in 2019 doubled that of the third-highest market, the United Kingdom. (*Figure 4.1*)

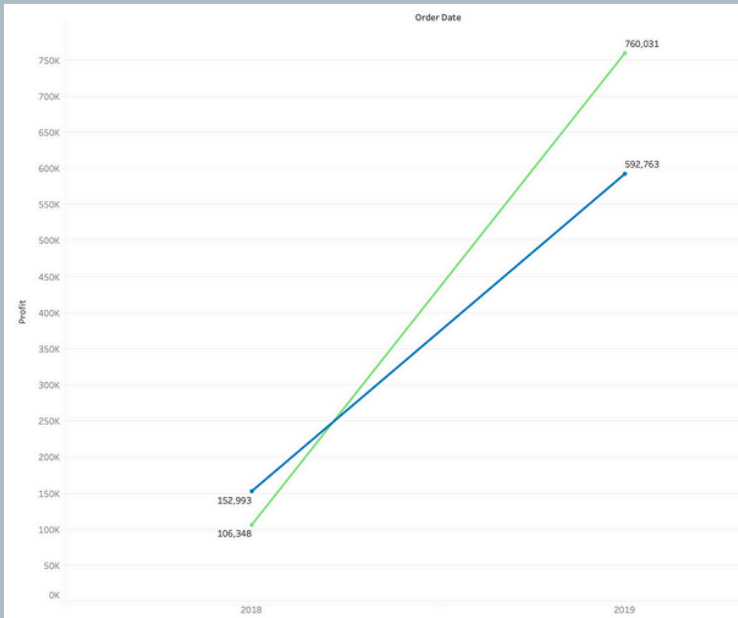


Figure 4.2 USA & Australia profit 2018 - 2019

After introducing new products, both countries experienced a rise in profit; however, the United States soon surpassed Australia in profit gained. The surge of new customers during the same period might explain the trend. (Figure 4.2)

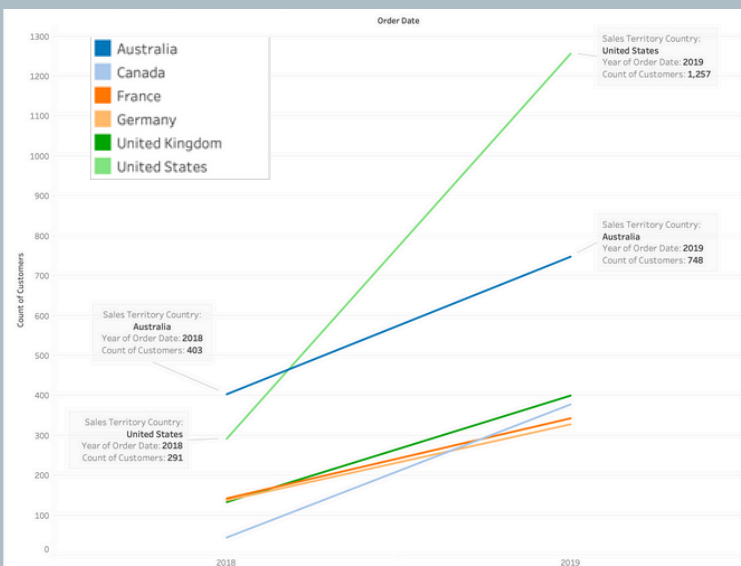


Figure 4.3 New customer count by Country 2018 - 2019

In roughly half a year since September 2018, the United States has acquired nearly 1,000 new customers, while Australia only had around 300 new customers. (Figure 4.3)

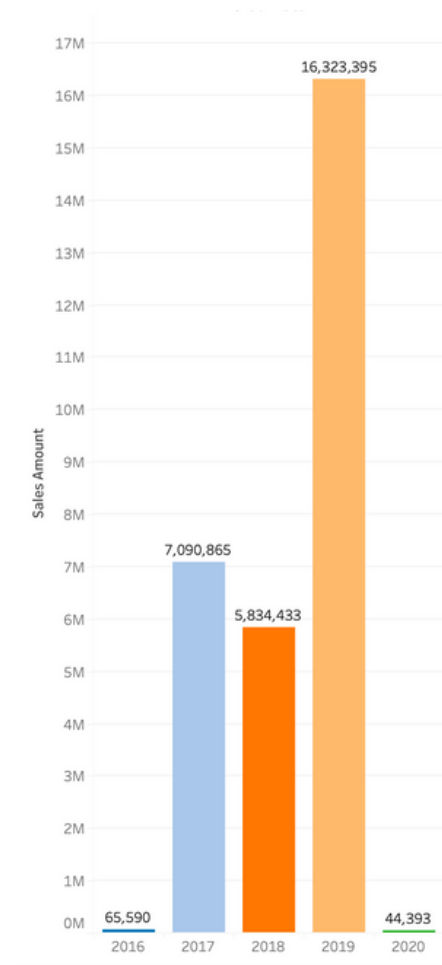


Figure 4.4 Percentage of difference in Customer count of Countries by quarters

However, when considering the percentage difference, Canada appeared to experience the highest growth percentages during the introduction of new products (Q1 2019), with an increase of 1055% compared to its customer count the previous quarter. In other examined times, though not significantly out-weighting others, smaller markets like Germany, France, or The United Kingdom showed favourable growth rates. (Figure 4.4) These indexes prove the potential developing prospect of smaller markets other than the USA or Australia, raising market expansion opportunities.

IV. External Part

Question 1: How much was the total sales amount in 2017?



The total sales amount in 2017 was 7,090,865

Figure 1* Total sale amount by years

Question 2: What was the best selling country in 2018

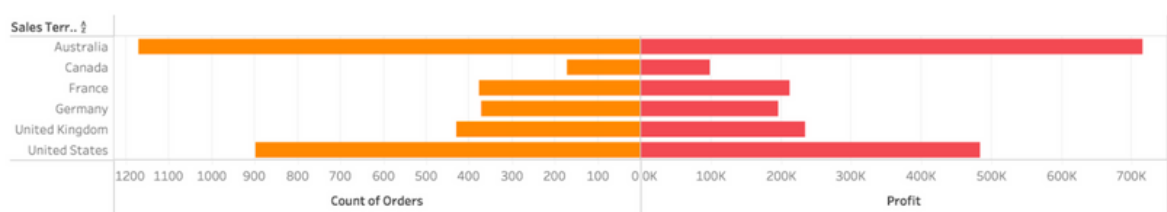


Figure 2* Order Count and Profit by countries in 2018

The best-selling country in 2018 was Australia, with the highest order counts and profits.

Question 3: What was the best selling product in 2019

The best-selling product in 2019 was Water Bottle - 30oz.

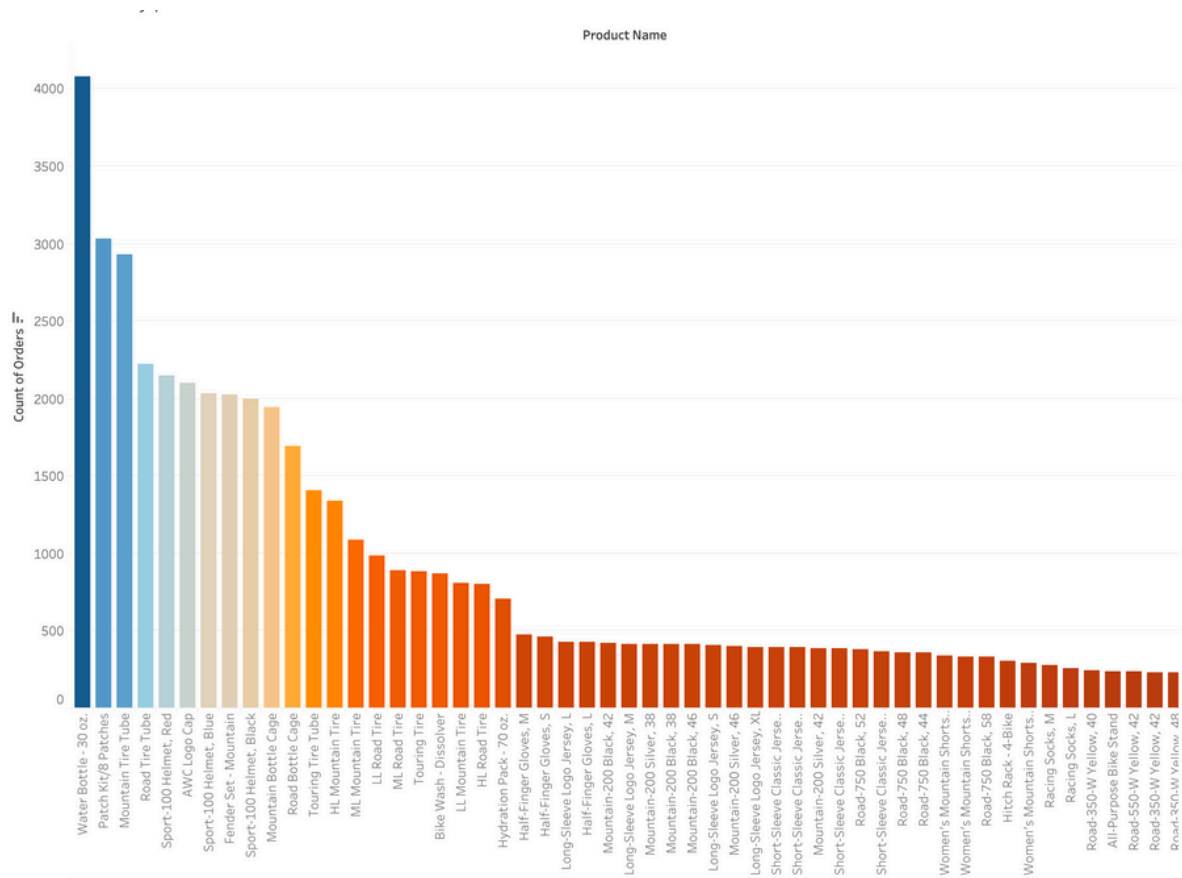


Figure 3* Order Count by Product Models

Question 4: What was the best-selling product category in 2019, and for this bestselling product category, what is the trend of Sales in 2019?

The best-selling product category in 2019 was Accessories. It is worth noting that the Accessories category was first introduced during the Q4 of 2018. After one year, it became the best-selling Category of the whole brand, out-selling the two other categories, leading the trend of sales in 2019.

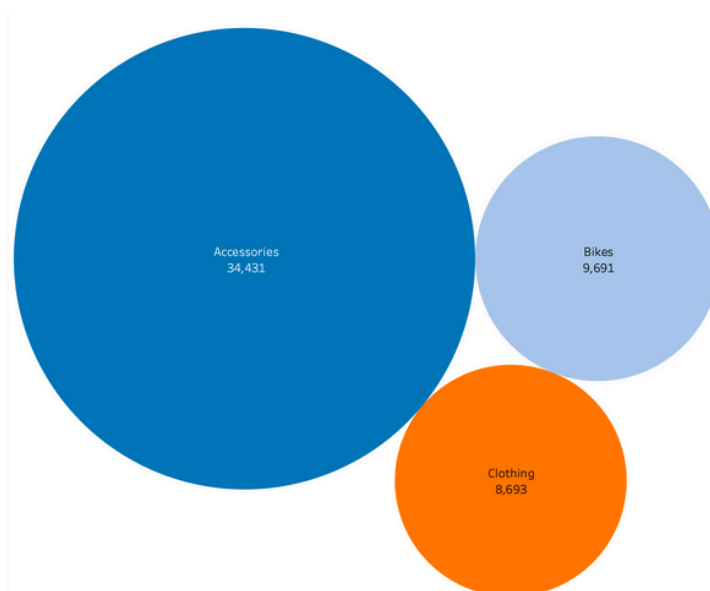


Figure 4* Order Count by Product Categories

IV. Conclusion

In general, BBE grew significantly from 2016 to 2020. The most prominent period was 2019 when the company's product list was most varied. The sales incline and decline following the specified period confirmed the vital complimentary of all product categories; thus, a bring-back of Bikes could bring the company back on its developing trajectory. Moreover, based on the Customer analysis, focusing more on the family group, especially young families, might be profitable. The USA and Australia appeared to be the two most successful markets; however, opportunities are to be seized in smaller yet potential markets.

Ultimately, this report has conducted a deep dive into BBE's data, producing informative insights regarding the effects of managerial decisions on BBE's performance from 2016 to 2020. However, potential limitations exist due to data constraints and the impact of outsider factors. A further investigation of the company's performance starting in 2020 will validate the accuracy and applicability of the report.

Dashboard

