Brand Z Value

Brand Z Value = Branded Earnings x Brand Multiple x Brand Contribution

Step 1. Branded Earnings = Corporate Earnings x Attribution Rate

Step 2. Financial Value = Branded Earnings x Brand Multiple

Step 3. Brand Value = Financial Value x Brand Contribution

1. P&G's corporate earnings in 2017 were $8,000 million. Tide generated 12% of P&G's revenue that year. Tide is expected to provide future earnings for another 25 years. If 75% of Tide's revenue can be attributed to the brand value, what is the Tide's Brand Z Value in 2017?

Brand Equity Index

Brand Equity Index (BEI) = Effective Market Share x Relative Price x Durability

Effective Market Share = Sum [(% Sales of Segment x % Market Share)]

Relative Price = Brand Price / Average Market Price

2. A clothing retailer sells jeans in three geographic markets. 60% of the retailer's sales are in Canada with a 30% market share. Another 30% of its sales are in the United States and they have a 25% market share in the region. The remaining 10% of sales are in Mexico with a 45% market share. The average price of the retailer's jeans in all three geographic segments is $25 compared to the average price of $15 for comparable brands. 85% of all customers intend to repurchase the retailer's jeans next year. Calculate the clothing retailer's Brand Equity Index.

Market Share and Relative Market Share

Unit Market Share % = Unit Sales # / Total Market Unit Sales #

Revenue Market Share % = Sales Revenue $ / Total Market Revenue $

Relative Market Share = Brand's Sales $ # / Largest Competitor's Sales $ #

3. a) What is the total market for children's cereal in terms of revenue and units sold based on the table below?

Children's Cereal Brands	Units Sold (1,000s)	Revenue $
Kellogg's	45.0	$620,000
General Mills	28.0	$470,000
Post	9.5	$170,500
Total Market	?	?

b) What is the unit market share for Kellogg's in terms of revenue and units sold?

c) What is the relative market share for General Mills compared to Kellogg's in terms of revenue?

Market Penetration

Market Penetration % = Customers Who Purchased Product in Category / Total Population

Brand Penetration % = Customers Who Purchased Brand / Total Population

Penetration Share % = Brand Penetration % / Market Penetration %

Penetration Share % = Customers Who Purchased Brand / Customers Who Purchased Product in Category

Penetration Share = Market Share % / (Heavy Usage Index x Share of Requirements %)

4. Cadbury wants to know how well their chocolate bars performed in the market in 2017. They know that 4 million Canadians purchased a chocolate bar and 2.5 million of them were Cadbury customers. From Statistics Canada they learn that there were 12 million Canadians in 2017.

a) What is the market penetration and brand penetration for Cadbury chocolate bars?

b) What is Cadbury's penetration share?

Brand Development Index, Share of Requirements, and Heavy Usage Index

Brand Development Index (BDI) = (Brand Sales to Group / Households in Group) / (Total Brand Sales / Total Households)

When BDI > 1, the brand is performing well with this segment.

Share of Requirements % = Brand Purchases / Total Category Purchases

Heavy Usage Index = Market Share % / (Penetration Share % x Share of Requirements %)

When HUI > 1, customers that purchase the brand use the category more heavily than the average customer in that category.

5. A new phone repair shop near campus wants to assess the effectiveness of a $50 discount to Ryerson students. Of 40,000 Ryerson students, 1,200 students redeemed the discount at the shop. Overall, the phone repair shop serves 100,000 customers and there are 2,000,000 people in Toronto. Calculate the Brand Development Index and interpret the result.

6. Trident wants to know if their customers buy more or less gum than the average gum customer. They have a 25% market share and a 45% penetration share. Trident sold 250,000 packs of gum last year. If their customers purchased a total of 500,000 packs of gum, calculate Trident's Heavy Usage Index and interpret the result.

Customer Lifetime Value

Customer Lifetime Value = Margin x [Retention Rate % / (1 + Discount Rate % - Retention Rate %)]

Margin $ = (Customer Revenue - Acquisition Cost) x Number of Months

7. A candy store mails flyers to houses in their neighborhood. They spend approximately $10 in marketing costs for every new customer. On average, new customers spend $30 in-store and 75% of them return every month for a year. Given a discount rate of 15%, what is the customer lifetime value of a new customer at the candy store?

Customer Acquisition

Prospect Lifetime Value = Acquisition Rate % x (Initial Margin + CLV) - Acquisition Spending

Acquisition Spending = Total Acquisition Costs / # of Customer Prospects

Break-Even Acquisition Rate % = Acquisition Spending / (Initial Margin + CLV)

8. a) A clothing retailer buys a booth at a street festival. They want to acquire new customers by offering a $20 coupon on their first online purchase. The retailer's costs to attend the event include a $250 registration fee, $400 to print the coupons, and $450 in staff salaries. 100 people pick up a coupon at the retailer's booth, but only 5% make an online purchase and redeem the coupon. If customers have an initial margin of $200 and a customer lifetime value of $2,000, what is the prospect lifetime value?

b) Based on the break-even acquisition rate, is the booth worthwhile?

Answers

1. Branded Earnings = Corporate Earnings x Attribution Rate
= $8,000 million x 0.12
= $960 million

Financial Value = Branded Earnings x Brand Multiple
= $960 million x 25
= $24,000 million

Brand Value = Financial Value x Brand Contribution
= $24,000 million x 0.75
= $18,000 million

Therefore, the Tide brand was worth approximately $18,000 million in 2017.

2. Effective Market Share = Sum [(% Sales of Segment x % Market Share)]
= (0.60 x 0.30) + (0.30 x 0.25) + (0.10 x 0.45) = 0.30

Relative Price = Brand Price / Average Market Price
= $25.00 / $15.00 = 1.67

Durability = 85%

Brand Equity Index (BEI) = Effective Market Share x Relative Price x Durability
= 0.30 x 1.67 x 0.85 = 0.43

3. a) Total Unit Market Share # = 45 + 28 + 9.5 = 82.5 thousand
Total Revenue Market Share $ = $620,000 + $470,000 + $170,500 = $1,260,500

b) Unit Market Share % = Unit Sales # / Total Market Unit Sales #
= 45 / 82.5 x 100 = 55%

Revenue Market Share % = Sales Revenue $ / Total Market Revenue $
= $620,000 / $1,260,500 x 100 = 49%

c) Relative Market Share = Brand's Sales $ # / Largest Competitor's Sales $ #
= $470,000 / $620,000 x 100 = 0.76

4. a) Market Penetration % = Customers Who Purchased Product in Category / Total Population
= 4 million / 12 million x 100 = 33%

Brand Penetration % = Customers Who Purchased Brand / Total Population
= 2.5 million / 12 million x 100 = 21%
b) Penetration Share % = Brand Penetration % / Market Penetration %
= 0.21 / 0.33 x 100 = 64%

Penetration Share % = Customers Who Purchased Brand / Customers Who Purchased Product in Category
= 2.5 million / 4 million x 100 = 63% (difference due to rounding)

5. Brand Development Index (BDI) = (Brand Sales to Group / Households in Group) / (Total Brand Sales / Total Households)
= (1,200 / 40,000) / (100,000 / 2,000,000) = 0.60

Since BDI = 0.60 < 1, the phone repair shop is not performing well among Ryerson students.

6. Share of Requirements % = Brand Purchases / Total Category Purchases
= 250,000 / 500,000 x 100 = 50%

Heavy Usage Index = Market Share % / (Penetration Share % x Share of Requirements %)
= 0.25 / (0.45 x 0.50) = 1.11

Since HUI = 1.11 > 1, Trident customers purchase more gum than the average gum customer.

7. Margin $ = (Customer Revenue - Acquisition Cost) x Number of Months
= ($30 - $10) x 12 = $240/person

Customer Lifetime Value = Margin x [Retention Rate % / (1 + Discount Rate % - Retention Rate %)]
CLV = $240 x [0.75 / (1 + 0.15 - 0.75)] = $450/person

8. a) Acquisition Spending = Total Acquisition Costs / # of Customer Prospects
= (250 + 400 + 450) / 100 = $11/person

Prospect Lifetime Value = Acquisition Rate % x (Initial Margin + CLV) - Acquisition Spending
= 0.05 x ($200 + $2,000) - $11 = $99/person

b) Break-Even Acquisition Rate % = Acquisition Spending / (Initial Margin + CLV)
= $11 / ($200 + $2,000) = 0.5%

Since the acquisition rate of 5% is higher than the break-even acquisition rate of 0.5%, the booth is worthwhile for the clothing retailer.