22/25

ASSIGNMENT 4

MKT 441 – 75 | Due: 9-18-17

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All worked equally on this assignment

These in-class exercises should be completed during computer lab (please show me your work during lab).

Also, please show your calculations from the in-class exercise when you turn in your homework

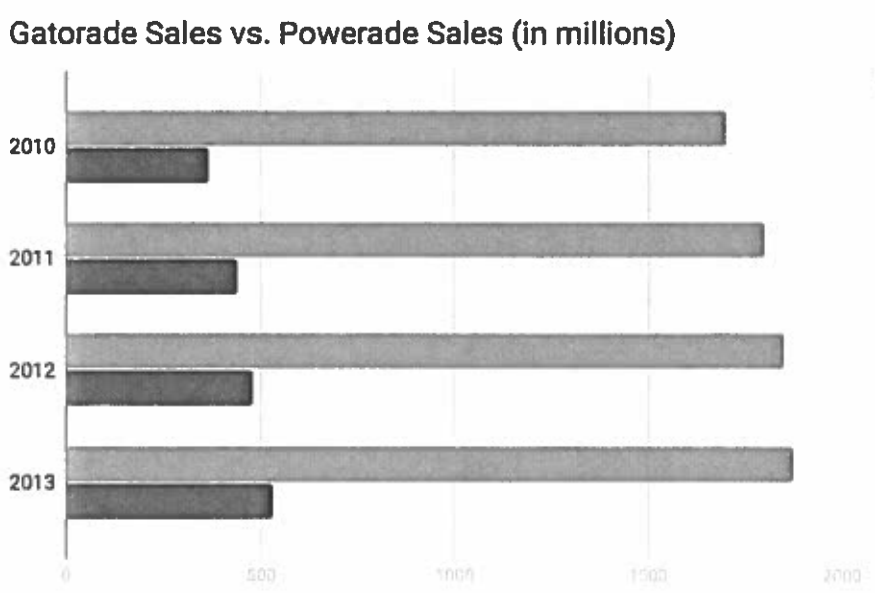
1a. **In-class exercise A:** Complete the qualtrics survey exercise during in class lab time (exercise is posted on blackboard under Course Documents/ Assignments – scroll down until you see it). This usually only takes about 10 to15 minutes to complete. **Please call me over so that I can insure that your group has completed this part during computer lab.** For this question, there is nothing to turn in. **This should be completed during computer lab.**

Completed in class.

1b. **In class exercise B:** Think of the secondary data you collected on the sales for the sports drink category. If you collected data from only one source in the prior assignment, please find two additional sources for the sales for the sports drink category. What is the average sales for the category across your different sources? **This should be completed during computer lab.**

$$\frac{8.48B + 10.4B + 8.0B}{3} = 8.96 \text{ Billion}$$

1c. **In Class exercise C:** Create a simple chart or graph that clearly shows that "Powerade's sales are lower than desired" based on secondary data. **This will be critically important for you to quickly and easily communicate the overall issue during your upcoming presentation. This should be completed during computer lab.**



This should be completed during computer lab.

Note: the questions below are a partial repeat of the prior assignment, but are repeated here to help reinforce the learning from these sorts of financial calculations.

2a. If a company increases advertising from $10M to $15M per year, by what percent would you forecast sales to increase? Please clearly show your calculation and logic. Assume that the product is a sports drink like Powerade. **And, don't forget to use the information you already gathered in prior assignments.**

Percent increase in advertising is:
Assume an AED of 0.25
5/10 = 50% (percent increase of advertising)
.25 * 50% = 12.5%

Use the AED from your prior homework -1/2

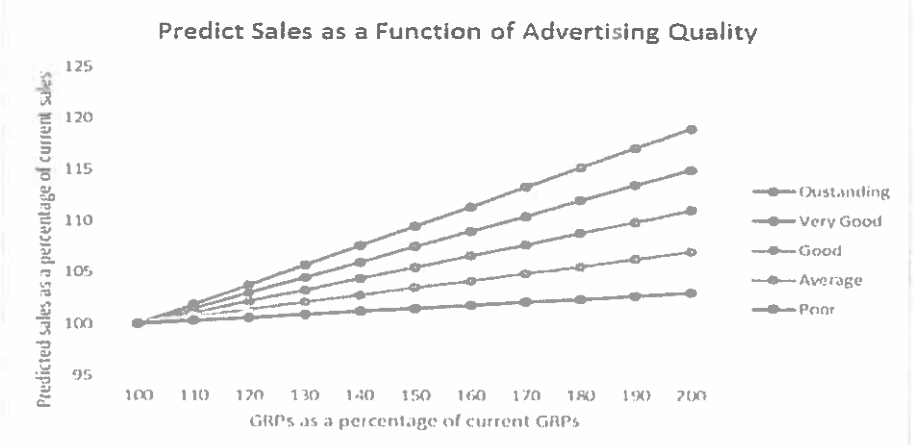
2b. If a company has current sales of $100M, what is the ROI for the prior question? Don't forget to use information that you gathered on prior homework assignments.

ROI = (Inc G. Margin - Inc Cost) / (Inc Cost)

Incremental Revenue: 112.5 - 100 = 12.5
Gross margin % = 50% from prior research
Inc gm - 12.5 * 50% - 6.25 M
Inc Costs = 5 million

ROI = ($6.25 M - $5M) / $5M) - .25 = 25%

2c. Please calculate the AED from the graph below for an "outstanding" commercial. Please show your work, and state any assumptions.



AED= % change in quantity demanded / % change in spending on advertising
Outstanding:119-100 /200-100=0.19 or 19%

3. The advertising agency is meeting with the brand manager to suggest an increase in advertising as a way to increase sluggish sales for popsicles. However, the brand manager believes that couponing is a better way to increase sales.

- What is/are the dependent variable: **sales**
- What is/are the independent variable: **advertising/ couponing**
- What is the conceptual model: **sales= *f*(advertising/ couponing)**
- Will this model answer the brand manager's question? If not , why not? → **No, this model will not answer the manager's question, because it does not compare the impact of advertising in comparison to the impact of couponing.**

-1/2 → seasonality

4. Answer the following questions on the table below. Please show your work!

		Age	
		Under 30 Years	30 Years or Older
Powerade Trier/Buyer	No	40	100
	Yes	70	90

- What is the total number of respondents in this analysis? → **40+100 +70 +90= 300**
- What percent of the total sample is under 30 years old? → **(40+70)/300= 36.7%**
- What percent of the total sample is a Powerade trier (i.e. trial rate on Powerade)? → **(70+90)/300= 53.3%**
- What is the trial rate on Powerade among under 30 respondents? → **70+40= 110 (total number of respondents under 30) → 70/110= 63.6%**
- What is the trial rate on Powerade among 30+ years respondents? → **100+90= 190 (total number of respondents over 30) → 90/190= 47.4%**
- Among non triers of Powerade, what percent is under 30 years? → **Total number of non triers: 40+100= 140 → 40 individuals under 30 are non triers → 40/140= 28.6%**
- Among triers of Powerade, what percent is 30+ years? → **Total number of triers: 70+90= 160 → 90 individuals over 30 are triers → 90/160= 56.3%**

For the next several questions, use the "Powerade Mini" Mini data set which is posted on blackboard. This data file has the purchasing information on 20 customers and their demographics.

5. Assume that each customer makes two purchases per year as shown in the data file, and there are only two products in the market: Powerade and Gatorade. What are the possible combinations of purchasing of Powerade and Gatorade for these customers? What is the probability that each of these alternative combinations occurs in the data set?

There are four possible combinations for each customer when choosing between Powerade and Gatorade twice a year.
The combinations include:
Powerade/Powerade, Powerade/Gatorade, Gatorade/Gatorade, and Gatorade/Powerade.
When looking at the data set, the probability of each of these combinations occurring goes as follows:

Powerade/Powerade: 3/20= 15%
Powerade/Gatorade: 7/20= 35%
Gatorade/Gatorade: 4/20= 20%
Gatorade/Powerade: 6/20= 30%

6a. What is the trial rate on Powerade?

Out of the 20 respondents, 10 have tried Powerade the first time. 10/20= .5 = 50%

6b. What is the repeat rate on Powerade?

Out of the 20 respondents, 3 purchased Powerade a second time after purchasing Powerade the first time. 3/20= .15 = 15%

7. Based on secondary data from the library, what is the marketing spending (and/or the advertising spending) for Powerade and Gatorade? What is the share of voice for each brand? Note: you may not be able to find the exact amount in the secondary data, so use a range of resources – and logical assumptions – to calculate your estimate of marketing spending.

Total marketing spending for these brands: 4,655,000	**Share of Voice:**
Gatorade Perform: $3.3 million	**71%**
Powerade Ion4: $860,000	**18%**
Gatorade G2 Perform: $495,000	**11%**

Source: xInformation Resources Inc.

For the following questions, please use the pivot table below that shows the purchasing of Powerade and Gatorade on the first and second purchase, respectively (you may need to review pivot tables from your CIS 300 class).

The values below come from the "mini" dataset on Powerade and Gatorade purchases that you used in the prior assignment.

		Store Visit #1		
Store Visit #2	Values	Gatorade	Powerade	Grand Total
Gatorade	Count of RespNUMBER	4	a1	11
	Average of Age50Under	1.00	a2	0.55
	Average of Male	0.75	0.29	0.45
	Average of Income	$ 73,738	$ 94,189	$ 86,752
Powerade	Count of RespNUMBER	6	3	b1
	Average of Age50Under	1.00	0.00	b2
	Average of Male	0.67	0.00	0.44
	Average of Income	$ 68,634	$ 175,878	$ 104,382
Total Count of RespNUMBER		10	10	20
Total Average of Age50Under		1.00	0.20	c1
Total Average of Male		0.70	0.20	c2
Total Average of Income		$ 70,676	$ 118,695	$ 94,685

8a. In the pivot table above, please interpret a1. That is, *if* there were a value for a1 in the table above, what would it mean?

Based off the pivot table, a1 can be interpreted as the "Count of RespNUMBER", number of responses) for Powerade in visit #1, and Gatorade in visit #2.

8b. Please also provide an interpretation for a2, b1, b2, c1, and c2.

a2 can be interpreted as the "Average of Age50Under", average age of responder under 50 for Powerade in visit #1, and Gatorade in visit #2.

b1 can be interpreted as the Grand Total "Count of RespNUMBER", number of responses) for either Gatorade or Powerade during their visits #1, or Powerade on during their visit #2.

b2 can be interpreted as the Grand Total "Average of Age50Under", average age of responder under 50 for Powerade visits #1 and Visit #2.

c1 can be interpreted as Total "Average of Age50Under", weighted average age of responder under 50 for both Powerade and Gatorade during visit #1 or Powerade during visit #2.

c2 can be interpreted as Total "Average of Male", total weighted average Male responders that bought either Powerade and Gatorade during visits #1 and #2.

9. Please calculate the values **by hand** for a1, a2, b1, b2, c1, c2 in the pivot table above using only the values in the table above and **show your detailed work** (this part of the assignment can be handwritten). *Hint: think about the weighted averages that you calculated in Assignment #1.*

a1 : Two Methods

1) Horizontal - Gatorade

4 + a1 = 11

a1 = 11 - 4

a1 = 7

2) Vertically - Powerade

a1 + 3 = 10

a1 = 10 - 3

a1 = 7

a2 :

4(1.0) + 7x = 11(.55)

4+7x = 6

7x = 2

x = 2/7 (2 out of 7 people were under 50)

x = 0.29 (approximate)

b1 : Two Methods

1) Horizontal – Gatorade + Powerade

b1 = 6 + 3 = 9

2) Vertical –Grand total Count of RespNUMBER (6) + Powerade Count of RespNUMBER (3)

b1 = 20 – 11 = 9

b2:

6(1.0) + 3 (0.0) = 9(x)

6 + 0 = 9x

6 = 9x

x = 6/9 (6 of 9 people are under 50)

x = 0.67 (Approximate)

c1:

10(1.0) + 10(0.2) = 20(x)

10 + 2 = 20x

12 = 20x

x = 12/20 (12 of the 20 people are under 50)

x = 0.6

c2:

10(0.7) + 10(0.2) = 20x

7+2 = 20x

9 = 20x

x = 9/20 (9 out of 20 people are male)

x = 0.45