

PROJECT ANALYSIS ON BREWERIES DATA FROM 2017-2019

CONTENTS

SECTION A	6
PROFIT ANALYSIS	6
1. Within the space of the last three years, what was the profit worth of the breweries, inclusive of the anglophone and the francophone territories?	6
2. Compare the total profit between these two territories in order for the territory manager, Mr. Stone make strategic decision that will aid profit maximization in 2020.	7
3. Country that generated the highest profit in 2019	8
4. Help him find the year with the highest profit.	9
5. Which month in the three years were the least profit generated?	9
6. What was the minimum profit in the month of December 2018?	10
7. Compare the profit in percentage for each of the month in 2019	10
8. Which particular brand generated the highest profit in Senegal?	11
SECTION B	12
BRAND ANALYSIS	12
1. Within the last two years, the brand manager wants to know the top three brands consumed in the francophone countries	12
2. Find out the top two choice of consumer brands in Ghana	12
3. Find out the details of beers consumed in the past three years in the most oil rich country in West Africa.	13
4. Favourites malt brand in Anglophone region between 2018 and 2019	15
5. Which brands sold the highest in 2019 in Nigeria?	15
6. Favourite brand in South_South region in Nigeria	17

7. Beer consumption in Nigeria	17
8. Level of consumption of Budweiser in the regions in Nigeria	18
9. Level of consumption of Budweiser in the regions in Nigeria in 2019 (Decision on Promo)	19
SECTION C	20
COUNTRIES ANALYSIS	20
1. Country with the highest consumption of beer.	20
2. Highest sales personnel of Budweiser in Senegal	20
3. Country with the highest profit of the fourth quarter in 2019	21

LIST OF FIGURES

FIGURE 1: TP_ANGLO_FRANCO	6
FIGURE 2: COMPARE TP_ANGLO_FRANCO	7
FIGURE 3: PROFIRMAX2019	9
FIGURE 4: PROFITMIN DEC2018	10
FIGURE 5: PROFITPERCENT2019 JAN-DEC ORDER	11
FIGURE 6: PROFITMAXBRAND_SENEGAL	11
FIGURE 7: TOP3 FRANCO_BRANDS	12
FIGURE 8: TOP2 CHOICE_GHANA	13
FIGURE 9: BEER DETAIL IN OIL RICH COUNTRY	14
FIGURE 10: HIGHESTQTYNIG	16
FIGURE 11: HIGHESTPROFITNIG	17
FIGURE 12: BUDWEISERNIG CONSUMPTION TREND	19
FIGURE 13: COUNTRIES BEER CONSUMPTION	20
FIGURE 14: HIGHESTSALESREP SENEGAL	20
FIGURE 15: COUNTRY HIGH Q4PROFIT	21

LIST OF TABLES

TABLE 1:TP_ANGLO_FRANCO.....	6
TABLE 2: COMPARE TP_ANGLO_FRANCO.....	7
TABLE 3: PROFIT SUMMARY 2017-2019	8
TABLE 4: PROFITMAX2019.....	8
TABLE 5: YEARPROFITMAX	9
TABLE 6: MONTHPROFITMIN	9
TABLE 7: PROFITPERCENT2019	TABLE 8:
PROFITPERCENT2019.....	10
TABLE 9: PROFITMAXBRAND_SENEGAL.....	11
TABLE 10: SUMMARY BEER CONSUMPTION NIG.....	14
TABLE 11: COMPARISON QTYCONSUMEDNIG & PROFITBEERNIG.....	15
TABLE 12:SUMMARY COUNT OF ACTIVE CONSUMPTION REGIONS	15
TABLE 13: MALTCHOICE_ANGLO.....	15
TABLE 14:HIGHESTQTYNIG	16
TABLE 15: HIGHESTPROFITNIG	16
TABLE 16: TOPCHOICE_SS_NIG	17
TABLE 17:TOPBEERNIG.....	18
TABLE 18:BUDWEISERNIG CONSUMPTION	18
TABLE 19: BUDWEISERNIG 2019.....	19

SECTION A

PROFIT ANALYSIS

1. Within the space of the last three years, what was the profit worth of the breweries, inclusive of the anglophone and the francophone territories?

```
alter table internationalBreweries.Pabod
add territories varchar
```

```
update internationalBreweries.Pabod-----UPDATED VALUES FOR THE DIFFERENT COUNTRIES TO THE
ALREADY NEWLY CREATED COLUMN CALLED Territories-----
set territories = 'Francophone'
where countries = 'Togo'
```

-----QUESTION 1-----

```
select TERRITORIES, sum(profit) as TPANGLO_FRANCO from internationalBreweries.Pabod
WHERE YEARS IN (2017,2018,2019)
GROUP BY CUBE(TERRITORIES)
```

territories	tpanglo_franco
Anglophone	42389260
Francophone	63198160
NULL	105587420

Table 1: TP_ANGLO_FRANCO

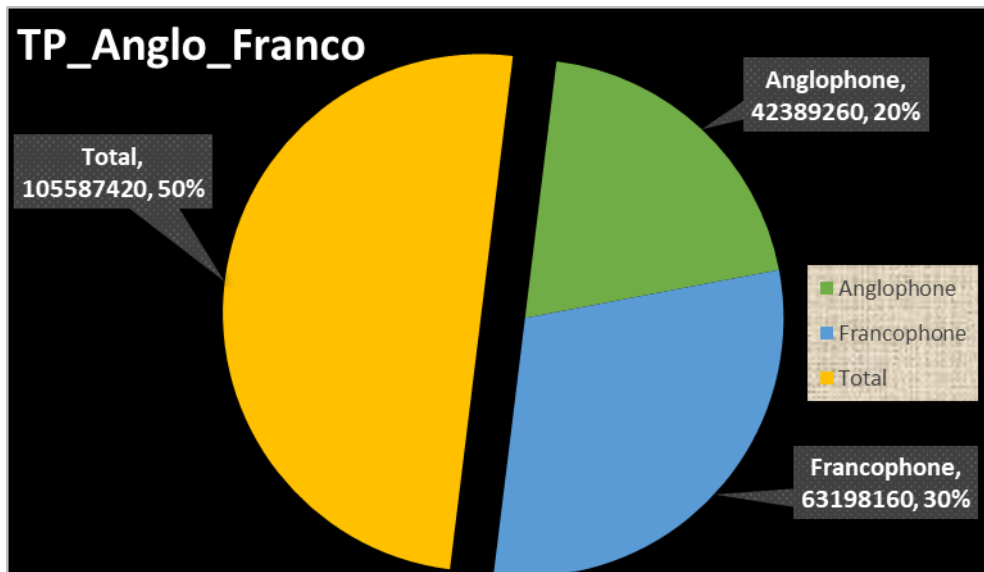


Figure 1: TP_ANGLO_FRANCO

2. Compare the total profit between these two territories in order for the territory manager, Mr. Stone make strategic decision that will aid profit maximization in 2020.

-----QUESTION 2-----

```
select territories,countries,sum(profit) as TPANGLO_FRANCO from internationalBreweries.Pabod
group by cube (COUNTRIES),TERRITORIES
order by territories,TPANGLO_FRANCO desc
```

countries	territories	tpanglo_franco
Ghana	Anglophone	21013050
Nigeria	Anglophone	21376210
SUM_A	Anglophone	42389260
Togo	Francophone	20751000
Benin	Francophone	20961970
Senegal	Francophone	21485190
SUM_F	Francophone	63198160

Table 2: COMPARE TP_ANGLO_FRANCO

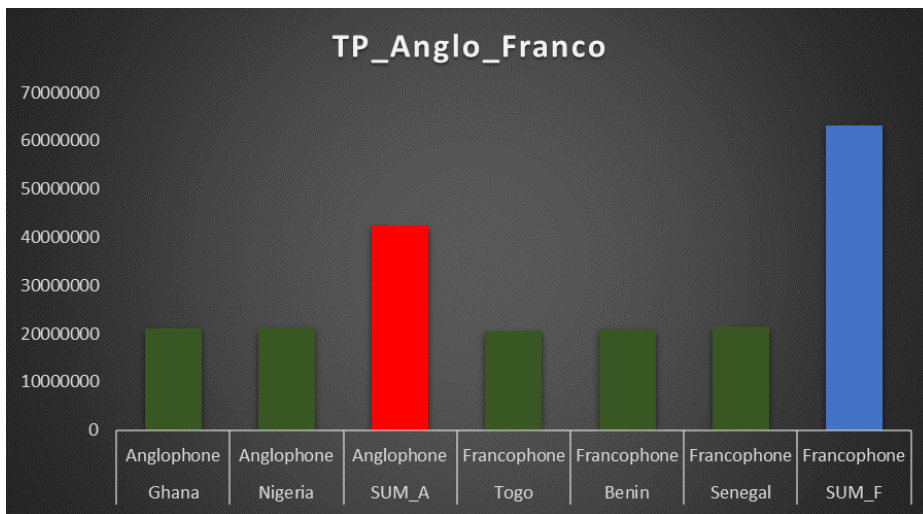


Figure 2: COMPARE TP_ANGLO_FRANCO

From Table 2 and the graphic representation in Figure 2, the anglophone territory comprising only two countries made fewer overall profit than the francophone territory of three countries. Although the total individual profit of each country in millions was around the same range, the francophone territory could have an edge because there are more routes for revenue generation (3 countries i.e. One additional sale route more than the anglophone territory). This establishes need for additional market and geographical research into the anglophone territory to either improve sales in Ghana and Nigeria for the already developed market or open a new market (country/countries) for the territory. To better understand patterns in the last years, other data analysis must also be considered since profit analysis cannot be independent, as additional variables such as total cost and total quantity sold are required.

Now look at table 3, over the years, cost has been reduced, logically to increase profit but the opposite is seen as profit does not increase. It could be the defective priority of cost reduction, i.e. if the quantity of goods produced is reduced to minimize the cost and if not then increase in sales across both territories should be prioritized in 2020 because if there is no increase in expense/costs, this indicates a decrease in sales, as shown in Table 3 for the French-speaking territory in particular, but it does not show too much compared to the anglophone territory as there are more countries in the francophone territory (Check table 2, figure 3 for more understanding). Moreover, an increase in sales does not guarantee an increase in profit because if the increase in sales is due to low margin products the company may still suffer a decrease in profits. Therefore, priority should be given to high-margin products with an improvement in marketing through the promotion of sales. It will be more addressed in brand analysis.

COST		2019		2018		2017	
	Anglophone	28,756,700.00	Anglophone	32,901,550.00	Anglophone	35,429,050.00	
	Francophone	41,568,650.00	Francophone	51,584,650.00	Francophone	51,652,050.00	
		70,325,350.00		84,486,200.00		87,081,100.00	
PROFIT		2019		2018		2017	
	Anglophone	11,949,390.00	Anglophone	14,690,320.00	Anglophone	15,749,550.00	
	Francophone	18,070,860.00	Francophone	22,373,530.00	Francophone	22,753,770.00	
		30,020,250.00		37,063,850.00		38,503,320.00	
PROFIT %		2019		2018		2017	
			42.69%		43.87%		44.22%
QTY		2019		2018		2017	
	Anglophone	115,062.00	Anglophone	114,746.00	Anglophone	127,754.00	
	Francophone	152,688.00	Francophone	190,663.00	Francophone	189,809.00	
		267,750.00		305,409.00		317,563.00	

Table 3: PROFIT SUMMARY 2017-2019

3. Country that generated the highest profit in 2019

select countries, sum (profit) as Profitmax2019 from internationalBreweries.Pabod
 where years = 2019
 group by countries
 order by Profitmax2019 desc
 FETCH FIRST 1 ROWS ONLY

country	profitmax2019
Ghana	7144070

Table 4: PROFITMAX2019

Looking at the Figure 3 this further explains why the Anglophone territory had a reduced profit regardless of Ghana, a Country in the anglophone territory generating the highest profit in 2019. Nigeria generated the lowest profit in 2019.

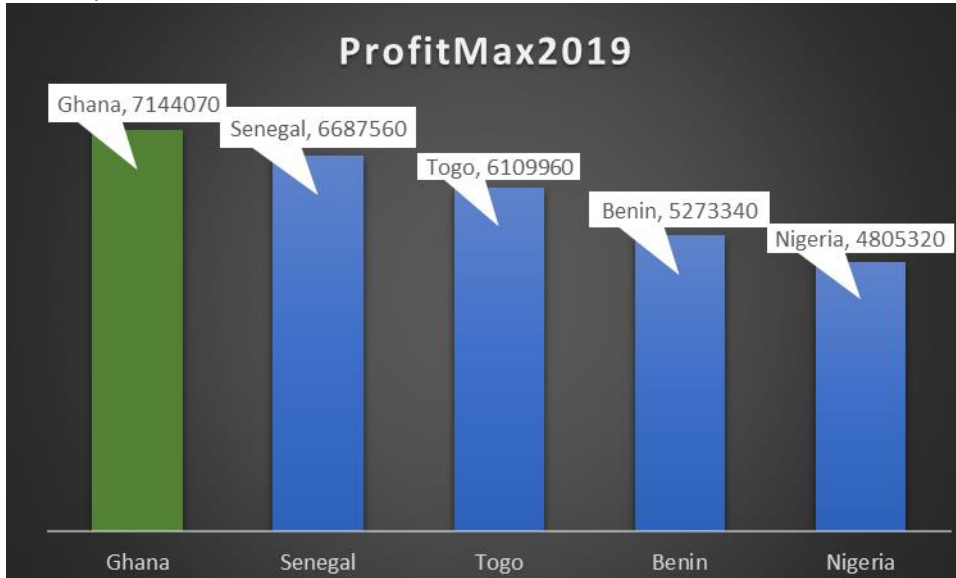


Figure 3: PROFIRMAX2019

4. Help him find the year with the highest profit.

```
select years, sum (profit) as YEARprofitmax from internationalBreweries.Pabod
group by years
order by YEARprofitmax desc
```

years	yearprofitm
2017	38503320

Table 5: YearProfitMAX

Profit has decreased over the years; this is shown in table 3

5. Which month in the three years were the least profit generated?

```
select years,months, min (profit) as MONTHprofitmin from internationalBreweries.Pabod
group by years,months
order by MONTHprofitmin asc
limit 1
```

years	months	monthprofitmin
2017	December	35000

Table 6: MONTHProfitMIN

6. What was the minimum profit in the month of December 2018?

select min (profit) as profitminDEC2018 from internationalBreweries.Pabod
 where years = 2018 and months ='December'

	profitmindec2018
1	38150

Figure 4: Profitmin DEC2018

7. Compare the profit in percentage for each of the month in 2019

-----percentage profit formula Profit*100/cost(i used sum in (profit,cost) because they are multiple different months)-----

select months, round ((sum (profit *100))/ sum (cost) , 2)as ProfitPERCENT2019 from
 internationalBreweries.Pabod
 where years = 2019
 group by months
 order by ProfitPERCENT2019 desc

months	profitpercent2019
August	46.19
July	46.05
April	45.79
May	43.37
October	43.26
March	42.72
January	42.66
December	41.74
November	41.31
June	39.74
February	38.43
September	38.25

Table 7: ProfitPERCENT2019

months	profitpercent2019
January	42.66
February	38.43
March	42.72
April	45.79
May	43.37
June	39.74
July	46.05
August	46.19
September	38.25
October	43.26
November	41.31
December	41.74

Table 8: ProfitPERCENT2019

Table 7 shows the profit percentage in descending order with August and July having the highest profit percentage in 2019 and September having the least profit percentage. Figure 5 profit percentage trend represents the graphical representation of table 8 in chronological order of the months.

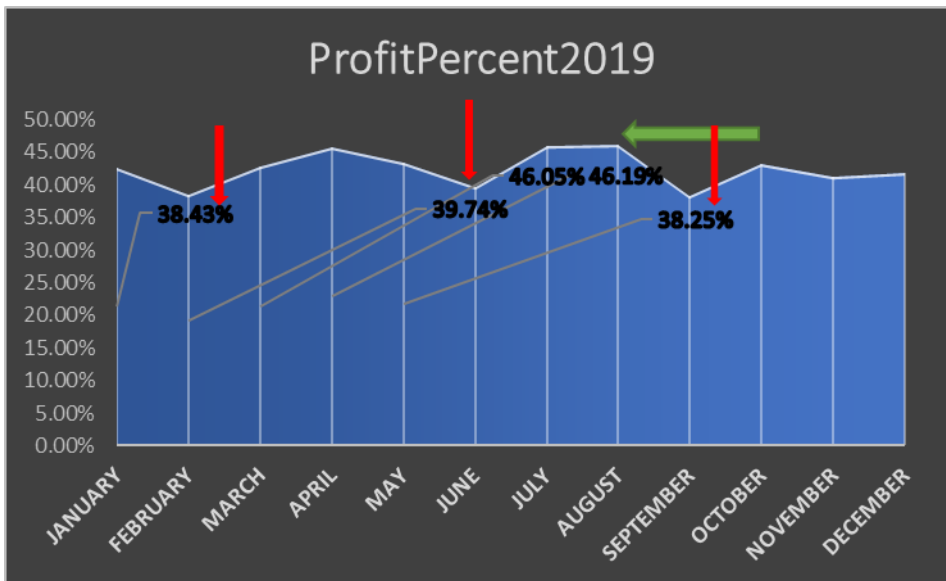


Figure 5: ProfitPercent2019 JAN-DEC Order

8. Which particular brand generated the highest profit in Senegal?

```

select brands, max (profit) as ProfitMaxBrand_Senegal from internationalBreweries.Pabod
where countries = 'Senegal'
group by brands
order by ProfitMaxBrand_Senegal desc
limit 1

```

brands	profitmaxbrand_senegal
castle lite	269190

Table 9: ProfitMaxBrand_Senegal

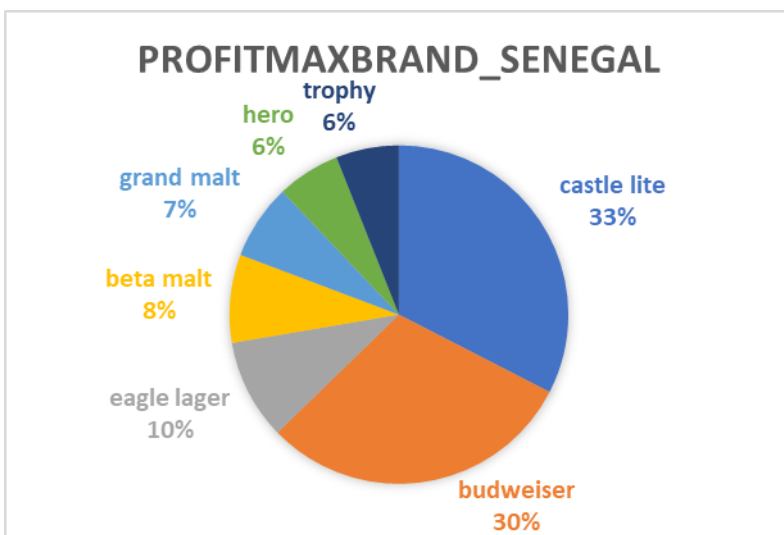


Figure 6: ProfitMaxBrand_Senegal

SECTION B

BRAND ANALYSIS

1. Within the last two years, the brand manager wants to know the top three brands consumed in the francophone countries

```
select brands, sum(quantity) as TOP3FRANCO_Brands from internationalBreweries.Pabod
where territories = 'Francophone' and (years between 2018 and 2019)
group by brands
order by TOP3FRANCO_Brands desc
fetch first 3 rows only
```

brands	top3franco_brands
trophy	52899
hero	50846
eagle lager	50630



Figure 7: Top3 Franco_Brands

2. Find out the top two choice of consumer brands in Ghana

```
select brands, sum(quantity) as Top2Choice_GHANA from internationalBreweries.Pabod
where countries ='Ghana'
group by brands
order by Top2Choice_GHANA desc
fetch first 2 rows only
```

Brands	Top2choice_ghana
eagle lager	25829
castle lite	25806

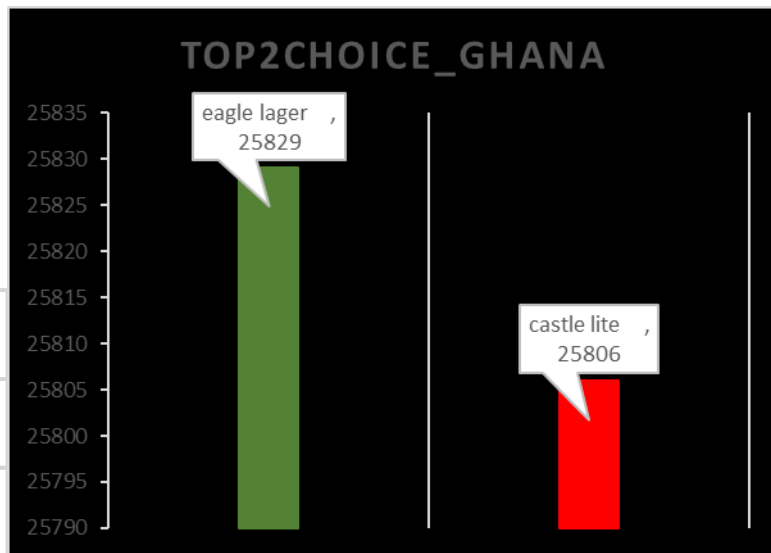


Figure 8: Top2 Choice_GHANA

3. Find out the details of beers consumed in the past three years in the most oil rich country in West Africa.

In West Africa, the most oil rich country is stated to be Nigeria.

Therefore, information on consumption is as follows;

1) select years,brands,unit_price, sum(quantity)as QtyConsumedNIG ,sum (profit) as ProfitBeerNIG from internationalBreweries.Pabod

where brands not in ('beta malt', 'grand malt') and countries = 'Nigeria'

group by brands ,unit_price,rollup(years)

order by brands, years,QtyConsumedNIG desc, ProfitBeerNIG

2) select region,years,brands,unit_price, sum(quantity)as QtyConsumedNIG ,sum (profit) as ProfitBeerNIG from internationalBreweries.Pabod

where brands not in ('beta malt', 'grand malt') and countries = 'Nigeria'

group by region,brands ,unit_price,years

order by brands, years, QtyConsumedNIG desc, ProfitBeerNIG

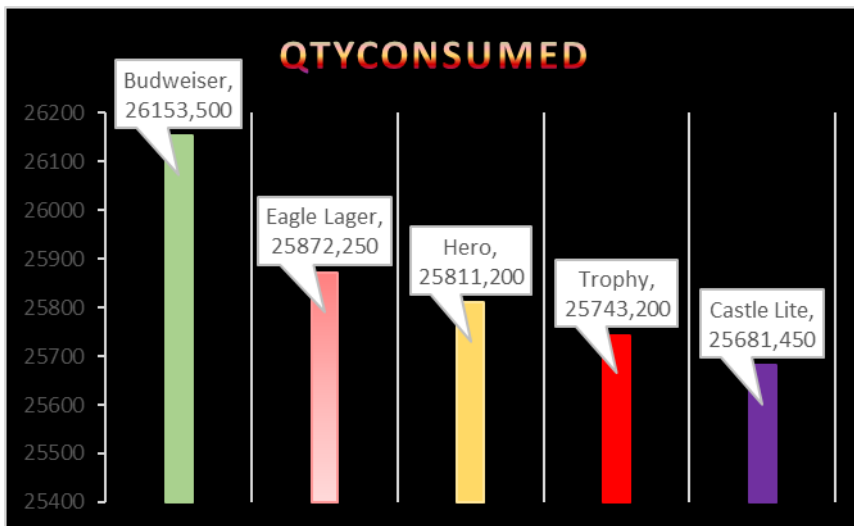


Figure 9: Beer Detail in Oil Rich country

years	brands	unit_pri	qtyconsum	profitbeernig
2017	budweiser	500	12027	3006750
2018	budweiser	500	8636	2159000
2019	budweiser	500	5490	1372500
NULL	budweiser	500	26153	6538250
2017	castle lite	450	9458	2553660
2018	castle lite	450	12835	3465450
2019	castle lite	450	3388	914760
NULL	castle lite	450	25681	6933870
2017	eagle lager	250	11968	957440
2018	eagle lager	250	5503	440240
2019	eagle lager	250	8401	672080
NULL	eagle lager	250	25872	2069760
2017	hero	200	9513	475650
2018	hero	200	6676	333800
2019	hero	200	9622	481100
NULL	hero	200	25811	1290550
2017	trophy	200	8536	426800
2018	trophy	200	11404	570200
2019	trophy	200	5803	290150
NULL	trophy	200	25743	1287150

Table 10: Summary Beer Consumption NIG

In the past three years, as shown graphically in Figure 9 Budweiser beer was the most consumed beer, followed by Eagle Lager, Hero, Trophy then Castle Lite. It is interesting that Budweiser is a high profit margin product yet Nigeria did not make up for it as she had low profit because sales experienced a great decrease in 2019 (Check table 10). Also, interesting phenomenon to observe in table 11 as Castle lite had the least consumption in Nigeria but generated the highest profit. This designates Castle lite as a high profit margin product and Eagle lager as an average profit margin product. However, looking at table 12 it gives reason to

the trend of beer consumption in Nigeria. Table 12 explains the summary count of active consumption regions from North-West

South-South, North-Central, North-East, South-East, West across Nigeria. Castle Lite had the lowest count of active consumption region which explains its low consumption quantity trend.

Brands	QtYConsumedNIG	Brands	ProfitBeerNIG
Budweiser	26153	Castle lite	6933870
Eagle lager	25872	Budweiser	6538250
Hero	25811	Eagle lager	2069760
Trophy	25743	Hero	1290550
Castle lite	25681	Trophy	1287150

Table 11: Comparison QtYConsumedNIG & ProfitBeerNIG

COUNT OF ACTIVE CONSUMPTION REGIONS IN NIGERIA					
YEARS	Budweiser	Eagle Lager	Hero	Trophy	Castle Lite
2017	6	6	5	4	4
2018	5	4	5	5	6
2019	5	6	6	5	3
Total	16	16	16	14	13

Table 12: Summary count of active consumption regions

4. Favourites malt brand in Anglophone region between 2018 and 2019

```
select brands, sum(quantity) AS MaltChoice_ANGLO from internationalBreweries.Pabod
where brands in ('beta malt', 'grand malt') and territories ='Anglophone' and (years between 2018 and 2019)
group by brands
order by MaltChoice_ANGLO desc
fetch first rows only
```

	brands	maltchoice_anglo
	character (15)	bigint
1	grand malt	33221

Table 13: MaltChoice_ANGLO

5. Which brands sold the highest in 2019 in Nigeria?

```
select unit_price,brands , sum(quantity)as HighestqtyNIG ,sum(profit) as HighestProfitNIG from
internationalBreweries.Pabod
where years =2019 and countries ='Nigeria'
group by unit_price,brands
order by HighestqtyNIG desc , HighestProfitNIG
fetch first 4 rows only-----omitted for the table to analyse all the brands-----
```

unit_pric	brands	highestqty	highestprofit
200	hero	9622	481100
250	eagle lager	8401	672080
150	beta malt	8389	587230
150	grand malt	8125	487500
200	trophy	5803	290150
500	budweiser	5490	1372500
450	castle lite	3388	914760

Table 14: HighestQtyNIG

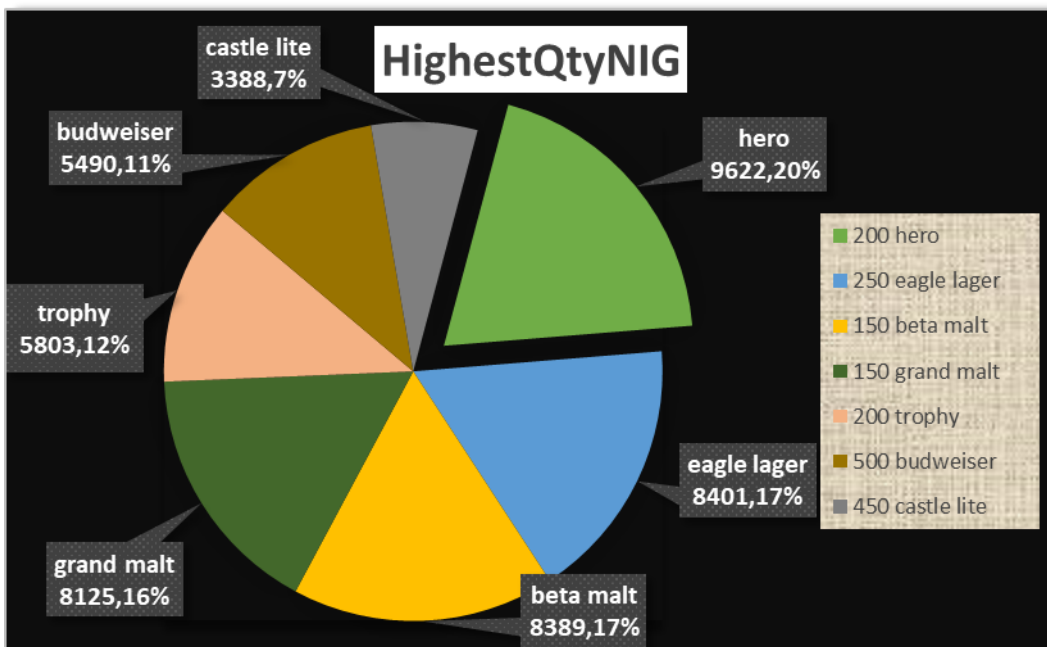


Figure 10: HighestQtyNIG

The special phenomenon explained in question 3 and table 11 is observed here also.

unit_pric	brands	highestqty	highestprofit
500	budweiser	5490	1372500
450	castle lite	3388	914760
250	eagle lager	8401	672080
150	beta malt	8389	587230
150	grand malt	8125	487500
200	hero	9622	481100
200	trophy	5803	290150

Table 15: HighestProfitNIG

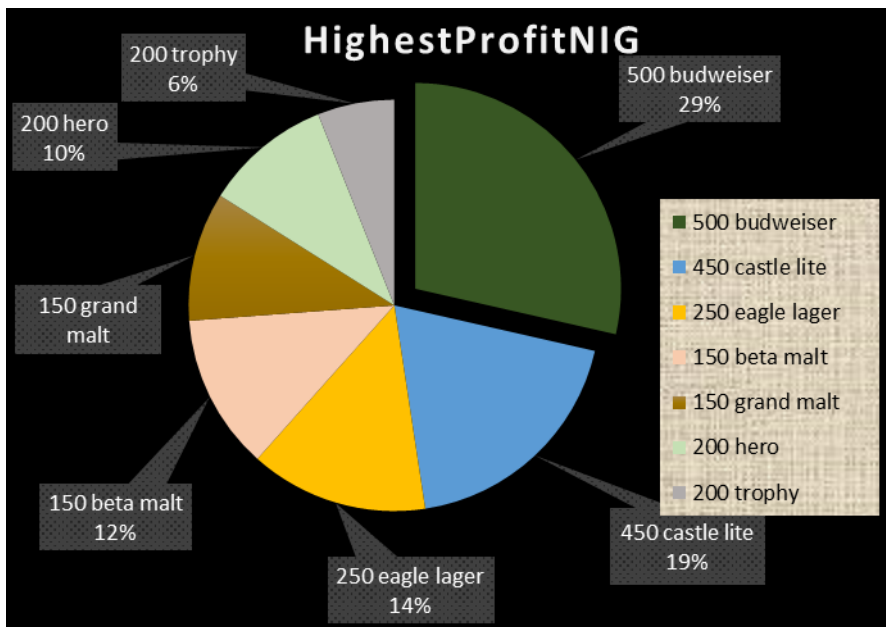


Figure 11: HighestProfitNIG

6. Favourite brand in South_South region in Nigeria

```
select brands , sum(quantity ) AS TOPCHOICE_SS_NIG from internationalBreweries.Pabod
```

```
where region ='southsouth' and countries ='Nigeria'
```

```
group by brands
```

```
order by TOPCHOICE_SS_NIG desc
```

```
fetch first rows only
```

	Data Output	Explain	Notifications	Messages
	brands character (15)		topchoice_ss_nig bigint	
1	eagle lager		4551	

Table 16: TOPCHOICE_SS_NIG

7. Beer consumption in Nigeria

```
select brands, sum(quantity) TopBeerNIG from internationalBreweries.Pabod
```

```
where brands not in ('beta malt', 'grand malt') and countries = 'Nigeria'
```

```
group by brands
```

order by TopBeerNIG desc

Data Output Explain Notifications

	brands character (15)	topbeernig bigint
1	budweiser	26153
2	eagle lager	25872
3	hero	25811
4	trophy	25743
5	castle lite	25681

Refer to Question 3 For a detailed summary.

Table 17:TopBeerNIG

8. Level of consumption of Budweiser in the regions in Nigeria

select years,region, sum(quantity) as BudweiserNIG from internationalBreweries.Pabod
where brands ='budweiser' and countries = 'Nigeria'

group by years,cube(region)

order by years, BudweiserNIG desc

Years	Region	Budweisernig
2017	SUM	12027
2017	northwest	3326
2017	southsouth	2603
2017	northcentral	1829
2017	northeast	1681
2017	Southeast	1590
2017	west	998
2018	SUM	8636
2018	west	2738
2018	northcentral	2669
2018	northeast	1649
2018	southsouth	878
2018	Southeast	702
2019	SUM	5490
2019	Southeast	1821
2019	northeast	990
2019	northwest	948
2019	west	884
2019	southsouth	847

Table 18: BudweiserNIG Consumption

-----Information on table 11, table 12 explains and further validates this trend as shown in figure 12-----

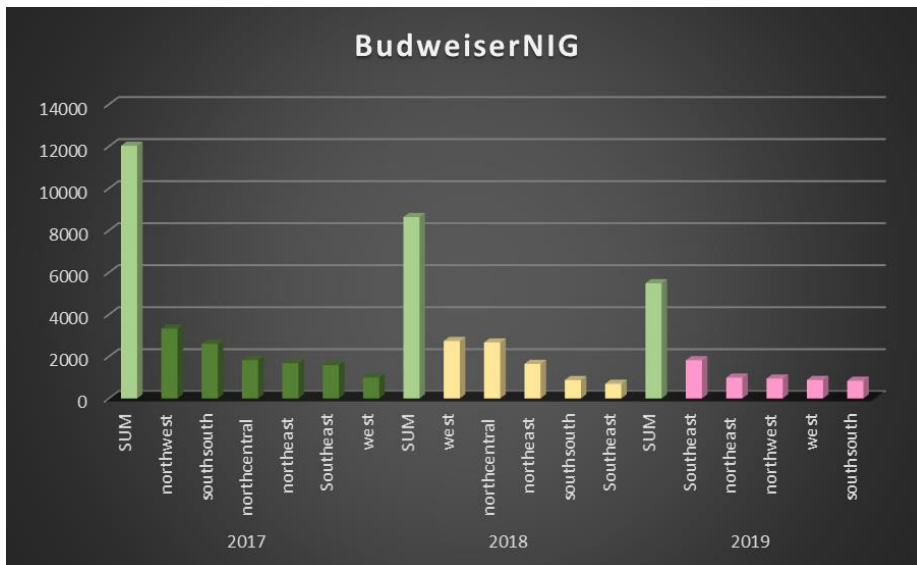


Figure 12: BudweiserNIG Consumption Trend

9. Level of consumption of Budweiser in the regions in Nigeria in 2019 (Decision on Promo)

select region,brands, sum(quantity) as BudweiserNIG from internationalBreweries.Pabod
 where brands ='budweiser' and countries = 'Nigeria' AND YEARS =2019
 group by brands,region
 order by BudweiserNIG desc

Years	Region	Budweisernig
2019	SUM	5490
2019	Southeast	1821
2019	northeast	990
2019	northwest	948
2019	west	884
2019	southsouth	847

Table 19: BudweiserNIG 2019

From previous years as shown in table 18, Budweiser has experienced a decline in sales due to exclusion happening in some regions in the North particularly the Northwest in 2018 and NorthCentral in 2019. This indicates no consumption level in these regions. This also explains the reason for the drop in sales observed in 2019 across Nigeria. Generally, over the years Budweiser consumption has declined and just as discussed in Section A(Question 3) on profit, sales promo might be a strategic decision to explore in this region.

SECTION C

COUNTRIES ANALYSIS

1. Country with the highest consumption of beer.

select countries , sum(quantity) CountryBeerConsumption from internationalBreweries.Pabod

where brands not in ('beta malt', 'grand malt')

group by countries

order by CountryBeerConsumption desc

fetch first row only

Data Output Explain Notifications Messages

	countries character varying (10)	countrybeerconsumption bigint
1	Senegal	129875

Figure 13: Countries Beer Consumption

2. Highest sales personnel of Budweiser in Senegal

select sales_rep,brands,sum(quantity) as highestsalesREP from internationalBreweries.Pabod

where brands ='budweiser' and countries ='Senegal'

group by sales_rep,brands

order by highestsalesREP desc

fetch first row only

	sales_rep character varying (10)	brands character (15)	highestsalesrep bigint
1	Jones	budweiser	5917

Figure 14: HighestSalesREP Senegal

3. Country with the highest profit of the fourth quarter in 2019

select countries, sum(profit) as Q4PROFIT from internationalBreweries.Pabod

WHERE months in ('October','November','December') and (years= 2019)

group by countries

order by Q4PROFIT desc

fetch first row only

	countries character varying (10)	q4profit numeric
1	Ghana	2045230

Figure 15: Country High Q4PROFIT