

Business Scenario:

A small **coffee shop chain** has 3 locations. They've been tracking their daily sales in Excel, but they don't know **which products** and **which times of day** bring the most revenue.

Your Task:

1. **Data** – Assume you have a dataset with:
 - Date
 - Time of sale (hour)
 - Product name
 - Quantity sold
 - Unit price
 - Location
2. **Goal:**
 - Identify **top 5 best-selling products** by revenue.
 - Find the **peak sales hours** for each location.
 - Recommend **one action** to increase revenue based on your findings.
3. **Tools:**
 - Use **Excel** or **Power BI** for analysis & visualization.
 - If comfortable, use **SQL** to query/filter the data.

In Bulgarian

Бизнес сценарий:

Малка верига кафенета има 3 локации. Те следят ежедневните си продажби в Excel, но не знаят кои продукти и в кои часове на деня носят най-много приходи.

Вашата задача:

1. **Данни** – Предполага се, че имате набор от данни със следните колони:
 - Дата
 - Час на продажбата (по часове)
 - Име на продукта
 - Продадено количество
 - Единична цена
 - Локация
2. **Цел:**
 - Идентифицирайте топ 5 най-продавани продукта по приходи.
 - Открийте часовете с най-много продажби за всяка локация.
 - Препоръчайте едно действие за увеличаване на приходите въз основа на анализа.
3. **Инструменти:**
 - Използвайте Excel или Power BI за анализ и визуализация.
 - Ако сте уверени, можете да използвате SQL за заявки и филтриране на данните.

TOP 5 Products (by Revenue)

	Product	Total_Quantity	Total_Revenue	Revenue_Per_Unit
►	Mocha	74	296.0	4.00
	Americano	97	271.6	2.80
	Latte	56	196.0	3.50
	Iced Coffee	59	177.0	3.00
	Espresso	65	162.5	2.50

Here are the 5 products with the biggest revenue and the total quantity sold for each product:

1. Mocha – 74 pieces – 296.0 revenue; (4.00 revenue for 1 quantity)
2. Americano – 97 pieces – 271.6 revenue; (2.80 revenue for 1 quantity)
3. Latte – 56 pieces – 196.0 revenue; (3.50 revenue for 1 quantity)
4. Iced Coffee – 59 pieces – 177.0 revenue; (3.00 revenue for 1 quantity)
5. Espresso – 65 pieces – 162.5 revenue. (2.50 revenue for 1 quantity)

PEAK SALES HOURS FOR EACH LOCATION

	Location	Hour	Total_Quantity
►	Downtown	8	21
	Mall	18	20
	Downtown	11	21
	University	14	18

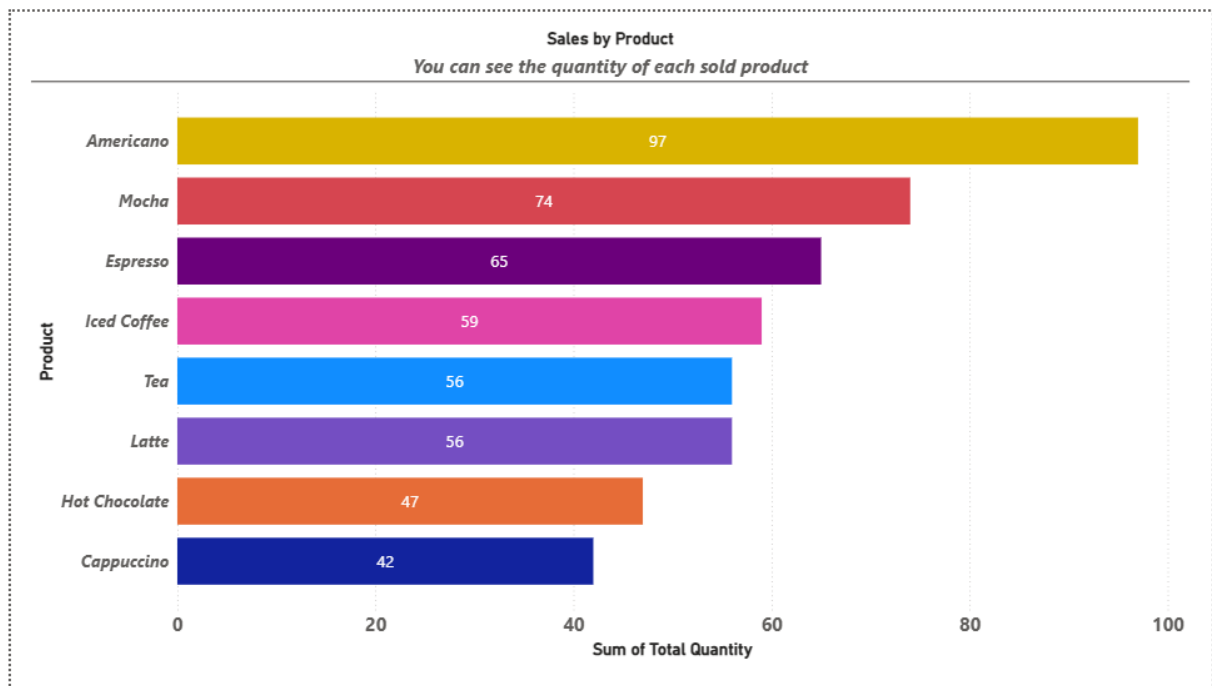
So, here are the peak sales hours:

- Downtown – at 8:00 AM – Sales Quantity is 21;
- Downtown (second time) – at 11:00 AM – Sales Quantity is 21;
- Mall – at 18:00 (6:00 PM) – Sales Quantity is 20;
- University – at 14:00 (2:00 PM) – Sales Quantity is 18.

It looks like that Downtown is the most preferred destination for the buyers, followed by the Mall and The University.

I, Nikolay Vetsov, as Data Analyst (Intern) – my recommendations are as follows:

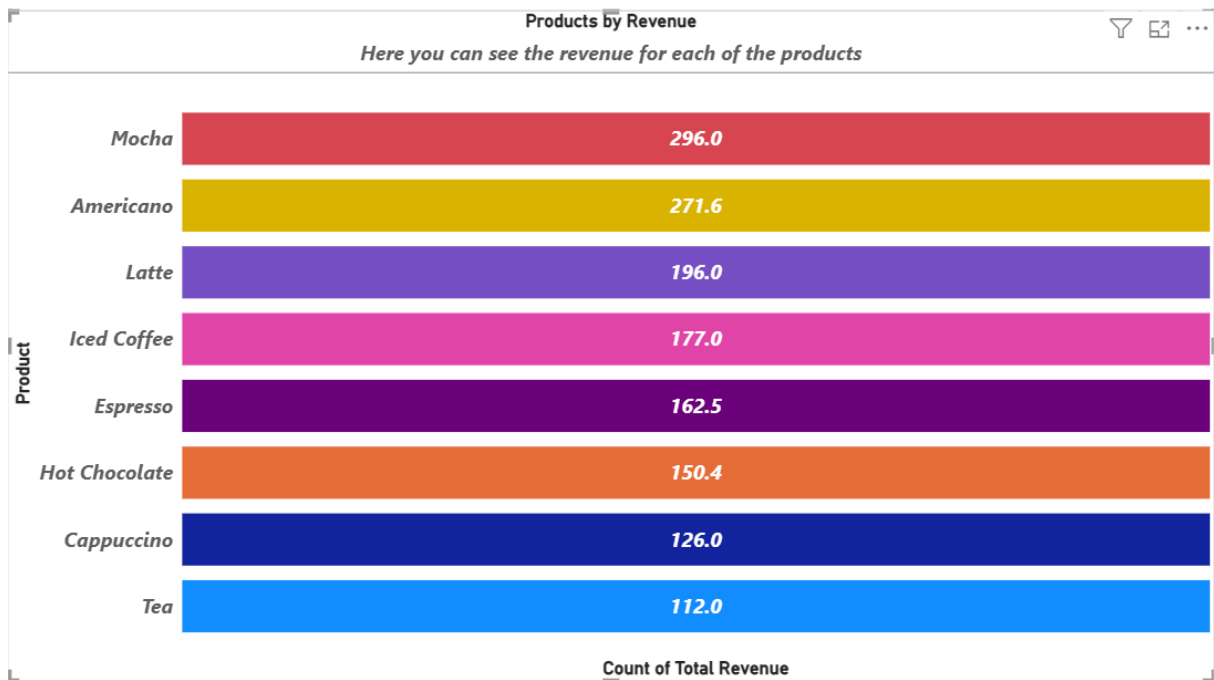
- Use mostly Downtown for selling products. It is likely that there are most people and the place may be preferred by most people for buying products;
- Also I see that there are 2 products that have great number of sold quantity – Americano (97) and Mocha (74).



Sold products (by quantity):

1. Americano - 97;
2. Mocha - 74;
3. Espresso - 65;
4. Iced Coffee - 59;
5. Tea and Latte - 56 each;
6. Hot Chocolate - 47;
7. Cappuccino - 42

It looks like that the winner (most sold product) is Americano (first place), followed by Mocha (second place) and Espresso (third place).



Revenue of products:

1. Mocha – 296.0;
2. Americano – 271.6;
3. Latte – 196.0;
4. Iced Coffee – 177.0;
5. Espresso – 162.5;
6. Hot Chocolate – 150.4;
7. Cappuccino – 126.0;
8. Tea – 112.0

According to this visualization – Mocha is leading – with the most revenue, followed by Americano in second place and in third place is the Latte.

SALES BY HOUR PER LOCATION

In this part, you will see for each of the locations the sales by hours and find out which moments are with the most sales:

QUANTITY

Location / Hour ▲	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
Downtown	9	21	9	2	21	2	20	17	19	9	5	19	5	17	175
Mall		5	12	18	8	18	19	11	8	4	14	20	9	16	162
University	16	14	12	16	7	3	16	18	4	16	12	7	10	8	159
Total	25	40	33	36	36	23	55	46	31	29	31	46	24	41	496

You can see here for the locations the product quantities for each of the hours. For example at 7:00 AM there are 9 products sold in The Downtown, in The Mall there are no sales by that time and in the University there are 16 sold products. Well, it looks like that maybe students and teachers have interest.

There are big sales in the Downtown between 13:00 and 15:00 and in The Mall between 12:00 and 13:00.

- In The University more sales are in the morning, between 13:00 and 14:00, but less sales between 11:00 and 12:00;
- In The Downtown there are not much sales in the morning but between 13:00 and 15:00 there are. Also in the evening (at 18:00 and 20:00);
- In the University there are more sales early in the morning between 7:00 and 10:00, between 13:00 and 14:00, but you can see less sales before and during lunch time (between 11:00 and 12:00). Also in the Evening, there is a small number of sales.

Recommend: In Downtown sale more after lunch time (after 12:00) and in the evening, but do not focus much in the morning. In The Mall sale more during and after lunch time until 15:00 and also in the evening, but do not focus much early in the morning. In The University focus more to sell early in the morning and after lunch time, but do not focus much to sell in the evening.

REVENUE

Location / Hour	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Downtown	30.9	67.2	28.9	5.8	68.3	5.6	56.8	42.2	55.3	31.8	19.0	64.8	15.02	47.4
Mall		19.0	36.3	50.0	24.03	43.6	54.4	36.4	26.4	14.0	44.4	59.6	29.05	49.3
University	47.6	40.8	36.7	39.5	20.06	6.0	51.5	57.0	9.0	43.3	41.0	21.06	28.05	22.0

I am showing you also sales by revenue for each location by hour. According to the data here, it almost confirms the same as I wrote before:

- In The University – focus more on sales in the morning, after lunch. Avoid focus much during lunch time;
- In The Mall – avoid selling much early in the morning, focus more during lunch and between 17:00 and 18:00;
- In The Downtown – don't focus that much in the morning, focus more after lunch time and at 18:00.

Conclusion

After the analysis I made, it is time for me to give you all the recommendations I can, after the data I saw:

- Make a focus mostly on Mocha and Americano products – both of them are most sold and the revenues are the highest;
- It looks like The Downtown is the best place for advertising and selling. Usually there are many people there and the place is good enough for visual materials (posters, brochures, business cards, etc.). The Mall is also a good place, because there you can see many people buying stuff;
- 8:00 AM and 11:00 AM are the hours with the most buyers. That means that it is good to start advertising in the morning. It is possible that the people want to have additional time for marketing before going to work;
- To choose the correct best hour to sell a product, you need to know when there are many people and when not many (depends on which product as well);
- You can use advertising booths with big posters and well designed graphicly. That can get the attention of many people;
- You can watch the people that are coming to you for more information about your products (age, gender, ethnicity...). And you will know better how to form your strategies for your business;
- It is recommended also the advertising people to be positive enough, smiled enough and even to have knowledge how to advertise (what words to use) and even to know the best outfit they can use (sometimes is good even that).

This analysis was created by:



Nikolay Vetsov

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During the analysis the following platforms and programs were used:

- Microsoft Word;
- Microsoft Excel;
- Microsoft Power BI;
- My SQL;
- AI (sometimes when I have difficulties for making a chart or go to an exact option)