

# **Sport Store Analysis: Understanding the KPIs of a sport store throughout America**

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## **Introduction:**

This project draws inspiration from Chris French's insightful tutorial, providing a comprehensive guide on how to conduct a meticulous dataset analysis and adopt a data analyst's mindset. Having observed Chris French's analysis, I embarked on conducting my own examination.

This dataset was collected from a sport store that is widely distributed in the United States and corresponds to the sales information of the year 2022. The excel spreadsheet required thorough cleaning and preparation for analysis, including the calculation of values to fill one of the columns.

## **Dataset**

Acquired from Chris French's GitHub repository, the dataset comprises two Excel spreadsheets, each serving a distinct purpose:

- The first sheet, related to customers, contains 2849 rows and 5 columns (image 1), all text datatypes:
  - "customer\_id";
  - "first\_name";
  - "last\_name";
  - "email";
  - "State".

	A	B	C	D	E
1	customer_id	first_name	last_name	email	State
2	aeertr-102278	Alica	Reary	areary0@sciencedaily.com	Florida
3	aeertr-102279	Delmor	Rubin	drubin1@yahoo.co.jp	Indiana
4	aeertr-102280	Joanie	Hoyt	jhoyt2@bloglovin.com	Pennsylvania
5	aeertr-102281	Madelena	Boat	mboat3@surveymonkey.com	Nevada
6	aeertr-102282	Sayers	Patkin	spatkin4@sogou.com	New York
7	aeertr-102283	Merwyn	Stout	mstout5@sfgate.com	Michigan
8	aeertr-102284	Prisca	Eve	peve6@wordpress.com	Idaho
9	aeertr-102285	Osborn	Bustin	obustin7@oakley.com	South Carolina
10	aeertr-102286	Abby	Sprasen	asprasen8@bizjournals.com	Texas
11	aeertr-102287	Verene	Addekin	vaddekin9@theatlantic.com	Texas
12	aeertr-102288	Rainer	Norley	rnorleya@slate.com	Virginia
13	aeertr-102289	Greta	Massard	gmassardb@naver.com	Alabama
14	aeertr-102290	Pam	Milleton	pmilletonc@independent.co.uk	Texas
15	aeertr-102291	Russell	Hyndes	rhyndesd@linkedin.com	California
16	aeertr-102292	Tedra	Cressy	tcressye@twitter.com	Texas
17	aeertr-102293	Celestina	Claw	cclawf@reddit.com	California
18	aeertr-102294	Tiffani	Taillard	ttaillardg@buzzfeed.com	Texas
19	aeertr-102295	Conroy	Coneley	cconeleyh@chicagotribune.com	California
20	aeertr-102296	Ivett	Clears	iclearsi@elegantthemes.com	New York
21	aeertr-102297	Jorey	Dore	jdorej@posterous.com	New York
22	aeertr-102298	Suki	Laetham	slaethamk@google.com.au	Indiana
23	aeertr-102299	Kristoffer	Ninnis	kninnisl@ask.com	California
24	aeertr-102300	Silvana	McCuaig	smccuaigm@hibu.com	New York
25	aeertr-102301	Modestine	Gummary	mgummaryn@gnu.org	Texas
26	aeertr-102302	Ham	Tape	htapeo@artisteer.com	Washington
27	aeertr-102303	Gunther	Stopher	gstopherp@shinystat.com	New York
28	aeertr-102304	Bev	Norfolk	bnorfolkq@tuttocitta.it	Florida
29	aeertr-102305	Antonino	Parsons	aparsonsr@jalum.net	Texas

Image 1- First spreadsheet of the original dataset.

- The second spreadsheet is about the order information (image 2) and has 2847 rows and 8 columns:
  - “date”, is a number data type, ranging from 1<sup>st</sup> of January of 2022 to the 31<sup>st</sup> of December of 2022;
  - “order\_id”, is a number data type;
  - “customer\_id”, is the same has in the first spreadsheet;
  - “sport revenue”, is a numeric data type with values ranging from 4.61 (minimum) to 474.88 (maximum), averaging 161.37.;
  - “profit”, is also a numeric data type with values ranging from 45.90 (minimum) to 411.06 (maximum), averaging 100.04;
  - “shipping\_cost”, is in blank and we have to calculate our value;
  - “rating”, is a number data type and it ranges from 1 to 5 based on the costumers’ experience.

	A	B	C	D	E	F	G	H
1	date	order_id	customer_id	sport	revenue	profit	shipping_cost	rating
2	01 January 2022	999910001	aeertr-102278	baseball	183.60	97.29		
3	01 January 2022	999910002	aeertr-102279	basketball	185.76	103.40		
4	01 January 2022	999910003	aeertr-102280	basketball	128.16	66.27		
5	01 January 2022	999910004	aeertr-102281	hockey	45.62	15.46		
6	01 January 2022	999910005	aeertr-102282	football	106.30	21.75		
7	01 January 2022	999910006	aeertr-102283	football	58.11	12.08		3
8	01 January 2022	999910007	aeertr-102284	soccer	214.04	70.41		2
9	01 January 2022	999910008	aeertr-102285	basketball	37.29	2.55		
10	01 January 2022	999910009	aeertr-102286	baseball	56.19	17.26		2
11	01 January 2022	999910010	aeertr-102287	soccer	178.28	56.29		
12	02 January 2022	999910011	aeertr-102288	football	20.94	4.71		5
13	02 January 2022	999910012	aeertr-102289	hockey	134.35	47.07		2
14	02 January 2022	999910013	aeertr-102290	football	173.17	58.25		2
15	02 January 2022	999910014	aeertr-102291	hockey	121.07	33.73		
16	02 January 2022	999910015	aeertr-102292	basketball	210.98	74.53		
17	02 January 2022	999910016	aeertr-102293	basketball	186.97	60.80		2
18	02 January 2022	999910017	aeertr-102294	baseball	57.64	10.80		
19	02 January 2022	999910018	aeertr-102295	hockey	14.61	2.82		
20	02 January 2022	999910019	aeertr-102296	soccer	19.39	1.44		
21	03 January 2022	999910020	aeertr-102297	baseball	86.60	16.26		
22	03 January 2022	999910021	aeertr-102298	football	87.93	19.14		1
23	03 January 2022	999910022	aeertr-102299	football	60.30	12.80		
24	03 January 2022	999910023	aeertr-102300	soccer	35.86	7.34		5
25	03 January 2022	999910024	aeertr-102301	baseball	72.25	16.19		
26	04 January 2022	999910025	aeertr-102302	football	82.35	18.70		
27	04 January 2022	999910026	aeertr-102303	basketball	65.61	13.05		
28	04 January 2022	999910027	aeertr-102304	football	75.97	15.06		
29	04 January 2022	999910028	aeertr-102305	hockey	82.61	16.07		
30	04 January 2022	999910029	aeertr-102306	hockey	103.86	20.33		3
31	04 January 2022	999910030	aeertr-102307	soccer	120.48	29.21		
32	04 January 2022	999910031	aeertr-102308	basketball	30.92	7.87		
33	04 January 2022	999910032	aeertr-102309	basketball	188.22	53.08		
34	04 January 2022	999910033	aeertr-102310	football	306.68	119.69		
35	04 January 2022	999910034	aeertr-102311	football	220.71	84.13		3
36	04 January 2022	999910035	aeertr-102312	football	161.24	66.38		
37	05 January 2022	999910036	aeertr-102313	football	248.62	108.12		
38	05 January 2022	999910037	aeertr-102314	hockey	136.27	45.76		
39	05 January 2022	999910038	aeertr-102315	hockey	325.60	133.27		
40	05 January 2022	999910039	aeertr-102316	baseball	117.55	47.78		
41	05 January 2022	999910040	aeertr-102317	soccer	218.45	95.05		
42	05 January 2022	999910041	aeertr-102318	hockey	156.32	60.38		4
43	05 January 2022	999910042	aeertr-102319	baseball	358.11	135.63		4
44	05 January 2022	999910043	aeertr-102320	baseball	138.23	54.25		

Image 2 - Second spreadsheet of the original dataset.

The original dataset was uploaded to my GitHub: [https://github.com/Melissa-Naldo/Sport\\_Store\\_Analysis/blob/main/Sport\\_Store\\_Data\\_Original.xlsx](https://github.com/Melissa-Naldo/Sport_Store_Analysis/blob/main/Sport_Store_Data_Original.xlsx)

However, the dataset was retrieved from Chris French's GitHub: [https://github.com/chrisfrenchjr/SQLQueries/blob/main/Sports%20Store%20Data%20\(Copy%20for%20Viewers\).xlsx](https://github.com/chrisfrenchjr/SQLQueries/blob/main/Sports%20Store%20Data%20(Copy%20for%20Viewers).xlsx).

### List of questions

This analysis seeks answers to critical questions aimed at unravelling underlying patterns in the dataset and guiding strategic decisions for the sports store:

- I. Which state has the most buyers?
- II. Which state has the most profit?
- III. What was the evolution of the profits in this year?
- IV. Which day of the week had more buyer's and profit?
- V. Which sport had more profit?
- VI. Which was the most popular?
- VII. How many costumers does the company have?

These questions will illuminate key aspects of the sports store's performance, paving the way for strategic insights and informed decision-making.

## Data Analysis:

### Data Preprocessing

After an initial examination of the dataset, several preprocessing steps were necessary to ensure its suitability for analysis.

#### Customers sheet:

The first step involved evaluating the Excel sheet. I utilized various functions and features:

- The TRIM() function to remove extra spaces in the "State" column;
- The TEXTJOIN() function to unite the names into one column;
- The text to column feature in the data tab to remove the letters and the dashes from the "customer\_id" column;
- The remove duplicates feature in the data tab, which found 2 duplicates that I proceeded to identify using conditional formatting (in image 4).

Texas
Washington
New York
Florida
Texas
Iowa
Arizona
Texas
Georgia

Image 3 - "State" column with extra spaces.

	A	B	C	D
1	customer_id	first_name last_name	email	State
36	aeertr-102312	Blair Heffy	bheffy@washington.edu	New York
37	aeertr-102313	Carlyn Weetch	cweetch@earthlink.net	Texas
38	aeertr-102312	Blair Heffy	bheffy@washington.edu	New York
39	aeertr-102313	Carlyn Weetch	cweetch@earthlink.net	Texas

Image 4 - Duplicates found in Customer sheet.

	A	B	C	D
1	customer_id	Full_name	email	State
2	102278	Alica Reary	areary0@sciencedaily.com	Florida
3	102279	Delmor Rubin	drubin1@yahoo.co.jp	Indiana
4	102280	Joanie Hoyt	jhoyt2@bloglovin.com	Pennsylvania
5	102281	Madelena Boat	mboat3@surveymonkey.com	Nevada
6	102282	Sayers Patkin	spatkin4@sogou.com	New York
7	102283	Merwyn Stout	mstout5@sfgate.com	Michigan
8	102284	Prisca Eve	peve6@wordpress.com	Idaho
9	102285	Osborn Bustin	obustin7@oakley.com	South Carolina
10	102286	Abby Sprasen	asprasen8@bizjournals.com	Texas
11	102287	Verene Addekin	vaddekin9@theatlantic.com	Texas
12	102288	Rainer Norley	rnorleya@slate.com	Virginia
13	102289	Greta Massard	gmassardb@naver.com	Alabama
14	102290	Pam Milleton	pmilletonc@independent.co.uk	Texas
15	102291	Russell Hyndes	rhyndesd@linkedin.com	California
16	102292	Tedra Cressy	tcressye@twitter.com	Texas
17	102293	Celestina Claw	cclawf@reddit.com	California
18	102294	Tiffani Taillard	ttailardg@buzzfeed.com	Texas
19	102295	Conroy Coneley	cconeleyh@chicagotribune.com	California
20	102296	Ivett Clears	iclearsi@elegantthemes.com	New York
21	102297	Jorey Dore	jdorej@posterous.com	New York
22	102298	Suki Laetham	slaethamk@google.com.au	Indiana
23	102299	Kristoffer Ninnis	kninnisl@ask.com	California
24	102300	Silvana McCuaig	smccuaigm@hibu.com	New York
25	102301	Modestine Gummary	mgummaryn@gnu.org	Texas
26	102302	Ham Tape	htapeo@artisteer.com	Washington
27	102303	Gunther Stopher	gstopherp@shinystat.com	New York
28	102304	Bev Norfolk	bnorfolkq@tuttocitta.it	Florida
29	102305	Antonino Parsons	aparsonsr@jalum.net	Texas
30	102306	Dora Adami	dadamis@washingtonpost.com	Iowa
31	102307	Beverlee O'Corrin	bocorrint@icio.us	Arizona
32	102308	Emmanuel Urry	eurryu@wikia.com	Texas
33	102309	Durand Kimberley	dkimberleyv@walmart.com	Georgia
34	102310	Humphrey Kivell	hkivellw@redcross.org	California
35	102311	Joly Strase	jstrase@creativecommons.org	New York
36	102312	Blair Heffy	bheffy@washington.edu	New York
37	102313	Carlyn Weetch	cweetch@earthlink.net	Texas
38	102314	Rachelle Danilchev	rdanilchev10@yandex.ru	Oklahoma
39	102315	Gaspard Caves	gcaves11@symantec.com	Texas
40	102316	Ode Arnaut	oarnaut12@wikimedia.org	Texas
41	102353	Darbie Fenners	dfenners23@twitter.com	Ohio
42	102354	Gloriana Stickler	gstickler24@smh.com.au	Missouri
43	102355	Gustav Powter	gpowter25@ftc.gov	Florida
44	102356	Karen Schalkers	kschalkers26@nih.gov	Texas

Image 5 - Customer sheet from the cleaned dataset.

### Orders sheet:

For this sheet, I employed different procedures to achieve a cleaned dataset:

- There were no duplicates to remove;
- The dates were shortened to a format corresponding to dd/mm/yyyy and created a new column with my week day;
- The first 4 unnecessary numbers from the "order\_id" column were removed by using the LEFT () function;
- The letters from the "costumer\_id" column were removed, mirroring the procedure applied to the Customers sheet;
- The PROPER () function was employed on the "sport" column to capitalize the first letter;
- The "shipping cost" column was calculated based on the provided information: "The shipping column is blank due to an error. The following instructions were given: if the revenue is greater than \$49, the shipping is \$0; otherwise, there is a cost of \$7." This calculation was performed using IF () functions.

1	date	Weekday	order_id	customer_id	sport	revenue	profit	shipping_c	rating
2	01/01/2022	Saturday	10001	102278	Baseball	183.60	97.29	0	
3	01/01/2022	Saturday	10002	102279	Basketball	185.76	103.40	0	
4	01/01/2022	Saturday	10003	102280	Basketball	128.16	66.27	0	
5	01/01/2022	Saturday	10004	102281	Hockey	45.62	15.46	7	
6	01/01/2022	Saturday	10005	102282	Football	106.30	21.75	0	
7	01/01/2022	Saturday	10006	102283	Football	58.11	12.08	0	3
8	01/01/2022	Saturday	10007	102284	Soccer	214.04	70.41	0	2
9	01/01/2022	Saturday	10008	102285	Basketball	37.29	2.55	7	
10	01/01/2022	Saturday	10009	102286	Baseball	56.19	17.26	0	2
11	01/01/2022	Saturday	10010	102287	Soccer	178.28	56.29	0	
12	02/01/2022	Sunday	10011	102288	Football	20.94	4.71	7	5
13	02/01/2022	Sunday	10012	102289	Hockey	134.35	47.07	0	2
14	02/01/2022	Sunday	10013	102290	Football	173.17	58.25	0	2
15	02/01/2022	Sunday	10014	102291	Hockey	121.07	33.73	0	
16	02/01/2022	Sunday	10015	102292	Basketball	210.98	74.53	0	
17	02/01/2022	Sunday	10016	102293	Basketball	186.97	60.80	0	2
18	02/01/2022	Sunday	10017	102294	Baseball	57.64	10.80	0	
19	02/01/2022	Sunday	10018	102295	Hockey	14.61	2.82	7	
20	02/01/2022	Sunday	10019	102296	Soccer	19.39	1.44	7	
21	03/01/2022	Monday	10020	102297	Baseball	86.60	16.26	0	
22	03/01/2022	Monday	10021	102298	Football	87.93	19.14	0	1
23	03/01/2022	Monday	10022	102299	Football	60.30	12.80	0	
24	03/01/2022	Monday	10023	102300	Soccer	35.86	7.34	7	5
25	03/01/2022	Monday	10024	102301	Baseball	72.25	16.19	0	
26	04/01/2022	Tuesday	10025	102302	Football	82.35	18.70	0	
27	04/01/2022	Tuesday	10026	102303	Basketball	65.61	13.05	0	
28	04/01/2022	Tuesday	10027	102304	Football	75.97	15.06	0	
29	04/01/2022	Tuesday	10028	102305	Hockey	82.61	16.07	0	
30	04/01/2022	Tuesday	10029	102306	Hockey	103.86	20.33	0	3
31	04/01/2022	Tuesday	10030	102307	Soccer	120.48	29.21	0	
32	04/01/2022	Tuesday	10031	102308	Basketball	30.92	7.87	7	
33	04/01/2022	Tuesday	10032	102309	Basketball	188.22	53.08	0	
34	04/01/2022	Tuesday	10033	102310	Football	306.68	119.69	0	
35	04/01/2022	Tuesday	10034	102311	Football	220.71	84.13	0	3
36	04/01/2022	Tuesday	10035	102312	Football	161.24	66.38	0	
37	05/01/2022	Wednesday	10036	102313	Football	248.62	108.12	0	
38	05/01/2022	Wednesday	10037	102314	Hockey	136.27	45.76	0	
39	05/01/2022	Wednesday	10038	102315	Hockey	325.60	133.27	0	
40	05/01/2022	Wednesday	10039	102316	Baseball	117.55	47.78	0	
41	05/01/2022	Wednesday	10040	102317	Soccer	218.45	95.05	0	
42	05/01/2022	Wednesday	10041	102318	Hockey	156.32	60.38	0	4
43	05/01/2022	Wednesday	10042	102319	Baseball	358.11	135.63	0	4
44	05/01/2022	Wednesday	10043	102320	Baseball	138.32	54.25	0	
45	05/01/2022	Wednesday	10044	102321	Hockey	117.47	25.38	0	3

Image 6 - Order sheet from the cleaned dataset.

These meticulous steps ensured the dataset's integrity, paving the way for a more accurate and insightful analysis.

The cleaned excel document can be found using the link: [https://github.com/Melissa-Naldo/Sport\\_Store\\_Analysis/blob/main/Sport\\_Store\\_Data\\_Cleaned.xlsx](https://github.com/Melissa-Naldo/Sport_Store_Analysis/blob/main/Sport_Store_Data_Cleaned.xlsx)

## **Exploratory Data Analysis:**

This data analysis project focuses on evaluating a sport store company and assessing its overall performance in 2022 in the United States of America. The analysis hinges on a series of SQL queries aimed at extracting key insights. The SQL queries used for this analysis are detailed in [https://github.com/Melissa-Naldo/Sport\\_Store\\_Analysis/blob/main/Sport\\_Store.sql](https://github.com/Melissa-Naldo/Sport_Store_Analysis/blob/main/Sport_Store.sql) and those queries were created with the objective of analysing:

- The total profit, total revenue, profit margin, and total number of orders for the sport store in 2022;
- The total profit, total revenue, profit margin, and total number of orders per sport for the store in 2022;
- The monthly KPIs in 2022, in which I:
  - Investigated the trends in KPIs over the course of 2022;
  - Explored changes in profit on a monthly basis;
  - Analysed variations in profit per sport per month.
- The state-wise KPIs, in which I:
  - Examined how KPIs evolve based on different states.
- The buyers and orders, in which I:
  - Assessed buyer and order distribution across different states and sports;
  - Identified the most active day of the week in terms of orders and profitability.
- The ratings, in which I:
  - Delved into the information provided by the ratings column;
  - Explored the volume of reviews in each distinct class (1-5);
  - Investigated the impact of different ratings on profit and revenue.

## **Creating Visualizations**

For the visualization phase, I adopted Chris French's methodology, creating individual visualizations before integrating them into a comprehensive dashboard. The dashboard comprises two pages:

- first page aims to offer a comprehensive understanding of the overall KPIs, with a presentation of the profit and revenues values in the different states, sports and months of 2022;
- while the second page directly addresses the analysis of the store's ratings.

## **Visualizations:**

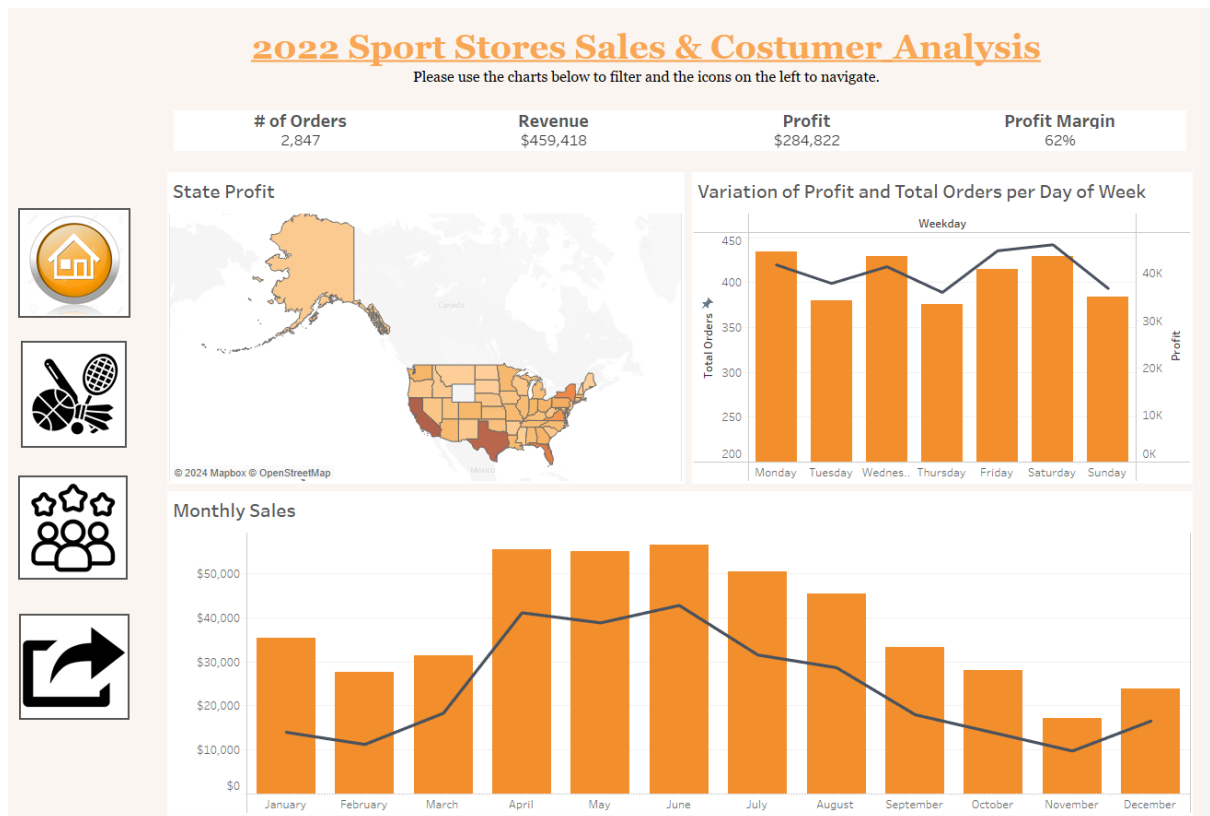
Visualizations were created using a variety of elements, such as:

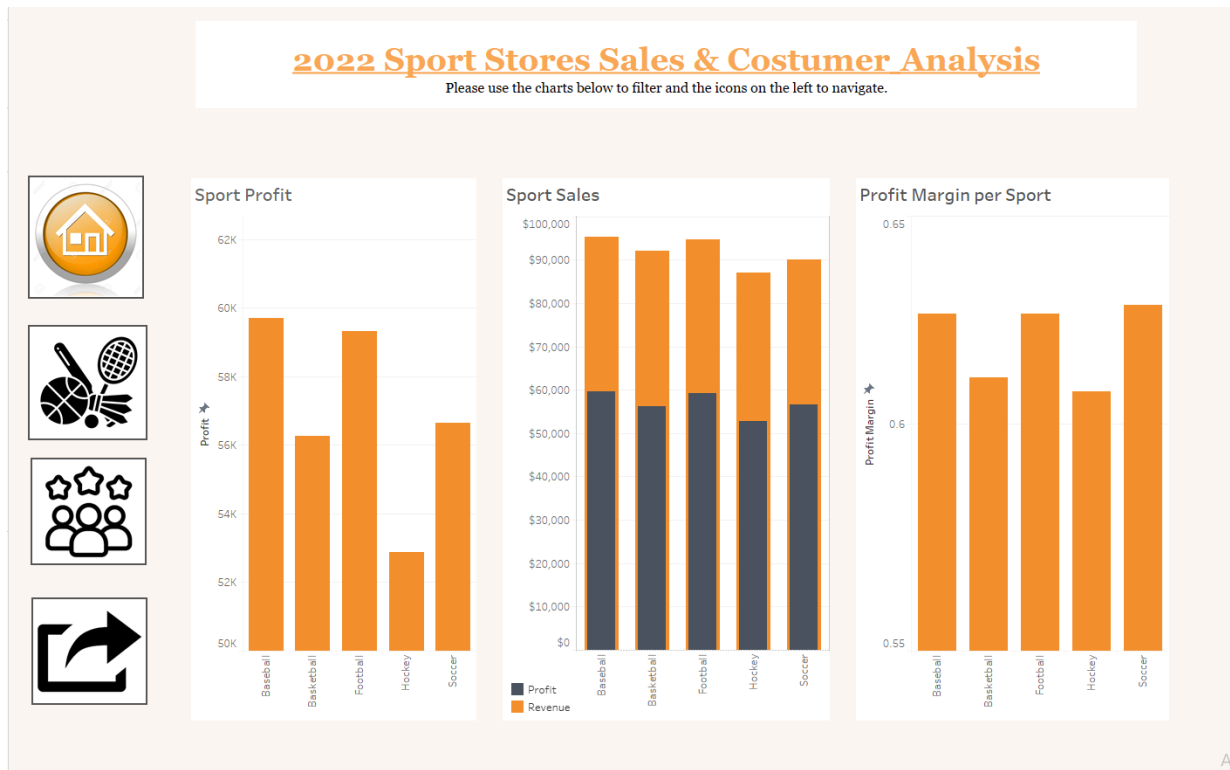
- Symbol maps;
- Text tables;
- Combination of bar charts with linear charts;
- Tables;
- Scatter plots.

## Dashboard:

[https://github.com/Melissa-Naldo/Sport\\_Store\\_Analysis/blob/main/Sport\\_Store.twbx](https://github.com/Melissa-Naldo/Sport_Store_Analysis/blob/main/Sport_Store.twbx)

[https://public.tableau.com/app/profile/melissa.naldo/viz/Sport\\_Store\\_17056903350540/HomeDashboard?publish=yes](https://public.tableau.com/app/profile/melissa.naldo/viz/Sport_Store_17056903350540/HomeDashboard?publish=yes)







## Results and Findings

In the year 2022, the sport store exhibited robust financial performance, boasting a total revenue of \$459,418.37 and a commendable total profit of \$284,821.86. This impressive financial showing translated to a remarkable profit margin of 62%, reflecting the store's profitability across the year, marked by a total of 2,864 orders.

### Profit Analysis by Sport:

	Revenue	Profit	Expenses	Nº_orders	Profit_Margin	Sport
1	90157.93	56640.64	33517.29	561	62.82	Soccer
2	94768.32	59328.9	35439.42	572	62.6	Football
3	95363.99	59698.79	35665.2	565	62.6	Baseball
4	92116.23	56275.33	35840.9	577	61.09	Basketball
5	87011.9	52878.2	34133.7	572	60.77	Hockey

Image 10 - KPI's of each type of sport.

Examining the profit per sport (image 9), soccer emerged as the most lucrative sport, commanding a profit margin of 62.82%, generating \$56,640.64 in profit against \$33,517.29 in expenses. On the other hand, hockey, while profitable, had the lowest profit margin of 60.77%, yielding \$52,878.2 in profit with expenses totalling \$34,133.7.

### Monthly Performance Overview:

	Month	Profit	Sales	Profit_Margin
1	1	14013.52	35283.43	39.72
2	2	11244.5	27718.07	40.57
3	3	18335.76	31311.25	58.56
4	4	41131	55437.76	74.19
5	5	38847.24	55082.04	70.53
6	6	42802.26	56406.87	75.88
7	7	31550.4	50390.34	62.61
8	8	28681.36	45468.72	63.08
9	9	17992	33366.54	53.92
10	10	13895.44	27995.24	49.64
11	11	9760.52	17088.32	57.12
12	12	16567.86	23869.79	69.41

Image 11 - KPI's over the different months of 2022.

Delving into the monthly KPIs (Image 10), January marked a challenging start for the store with a profit of \$14,013.52, sales of \$35,283.43, and a profit margin of 39.72%. Subsequent months witnessed a consistent uptrend until reaching a peak in June, characterized by the highest profit (\$42,802.26), sales (\$56,406.87), and profit margin (75.88%). Post-June, there was a modest decline with fluctuations until year-end. Notably, the most significant profit growth occurred between March and April.

### Geographical Profit Distribution:

	revenue_rank	state	total_revenue	total_profit	profit_margin		revenue_rank	state	total_revenue	total_profit	profit_margin
1	1	Utah	5256.8	3656.88	69.56	1	1	California	55470.47	34553.72	62.29
2	2	Massachusetts	8664.92	6023.1	69.51	2	2	Texas	52305.67	32234.74	61.63
3	3	New Mexico	2996.67	2044.45	68.22	3	3	Florida	36250.92	22398.09	61.79
4	4	Delaware	2446.65	1658.72	67.8	4	4	New York	27177.83	17331.45	63.77
5	5	New Hampshire	1497.36	1012.14	67.59	5	5	Virginia	23511.58	14694.96	62.5

Image 12 - On the left are the locations with the most profit margin. On the right, the locations with the most profit and revenue.

The previous image depicts the states with the highest profit margin (left table), led by Utah. The right table portrays the states with the highest values of profit which are correlated with the highest values of revenue and the most customer activity.

### Day-wise Order and Profit Analysis:

	n°_orders	week_day		week_day	profit	revenue
1	446	Saturday	1	Saturday	46094.2	72420.81
2	434	Monday	2	Friday	44812.77	71503.88
3	429	Wednesday	3	Monday	41830.92	67257.92
4	415	Friday	4	Wednesday	41431.04	67943.51
5	384	Sunday	5	Tuesday	37891.07	62093.25
6	380	Tuesday	6	Sunday	36783.39	59860.1
7	376	Thursday	7	Thursday	35978.47	58338.9

Image 13 - Days of the week ranked on number of orders and profit.

Image 12 categorizes the days of the week based on order volume and profit. Saturday emerges as the peak day, recording both the highest number of orders and the most substantial profit. In contrast, Thursday ranks lower on both metrics.

### Ratings Overview:

In-depth analysis of store ratings revealed a total of 1,193 ratings, averaging 3.1 ratings per customer, compared to the total number of orders of 2,864. Ratings were distributed from 1 to 5 (Image 13), with Image 14 presenting the locations with the best and worst reviews.

	rating	number_reviews
1	5	297
2	4	216
3	3	240
4	2	225
5	1	215

Image 14 - number of ratings given per distinct rating value.

	State	rating	n°_evaluatinos		State	rating	n°_evaluatinos
1	Florida	1	24	1	California	5	34
2	Texas	1	22	2	Texas	5	32
3	California	1	18	3	Florida	5	25
4	New York	1	15	4	New York	5	19
5	Virginia	1	11	5	Georgia	5	14

Image 15 - Top 5 locations with the worst and best ratings.

## Conclusions and Recommendations

The extensive evaluation of the sport store's performance in 2022 has unveiled key insights that are instrumental in shaping strategic decisions for the future. The store's robust financial standing, highlighted by a commendable profit margin of 62%, reflects a strong market presence and customer engagement. Understanding the dynamics of profitability across different sports, months, and locations provides a solid foundation for informed decision-making.

This analysis has not only provided key insights into the financial standing and market presence of this store but has also answered critical questions guiding strategic decisions:

- The analysis on customer distribution across states revealed that California leads with the highest number of buyers. As well as being the leader in profit generation. Recognizing the contribution of this state to overall profitability is crucial for strategic resource allocation and future growth plans;
- The monthly performance overview uncovered distinct trends in profit evolution throughout the year. From a challenging start in January, profits consistently grew until reaching a peak in June;
- The analysis on the days of the week based on order volume and profit revealed that Saturday stands out as the peak day for both the highest number of orders and substantial profit;
- Determining the most popular sport involved a multifaceted analysis of customer engagement, ratings, and profitability. Soccer emerged as not only the most lucrative, commanding a notable profit margin, but also as a sport with high customer engagement.

Based on the previous information, there is a high level of confidence in recommending that the company implement the following measures:

- Strategic Emphasis on Soccer: given the notable profit margins, a strategic focus on soccer is recommended. Allocating additional resources and marketing efforts toward this sport can capitalize on its profitability.
- Seasonal Marketing Initiatives: recognizing the heightened profits during summer months, the implementation of targeted marketing and sales measures during this period is advised. This proactive approach aims to maximize profitability during the peak season.
- Investment in Top-Performing Stores: directing investments towards the top five stores with the highest profit and profit margins ensures a concentrated effort to amplify success. This targeted approach acknowledges the significance of these locations in contributing to overall performance.
- Optimal Sales Days - Saturday and Friday: capitalizing on the observed trend of Saturday being the day with the highest number of orders and maximum profit, strategic planning and promotional activities on Saturdays are recommended. Additionally, Friday, being another strong day, should also be a focus for sales initiatives.

- Enhancing Rating Per Order: implementing measures to improve the rating per order, such as introducing point systems or customer benefits, can enhance customer satisfaction. This initiative not only fosters positive customer experiences but also contributes to brand loyalty.
- In-Depth Analysis of Reviews: conducting a detailed analysis of customer reviews is crucial to understanding both positive and negative aspects of the store's performance. This qualitative exploration provides insights into customer sentiments, enabling targeted improvements.

In conclusion, the sport store's performance analysis has laid the groundwork for a strategic roadmap. The recommended actions align with the identified strengths and opportunities, ensuring a proactive and data-driven approach to future endeavours. By leveraging these insights, the sport store is poised for sustained growth, increased customer satisfaction, and optimized operational efficiency.