

Report and Analysis

Project Name: Heroes of Pymoli

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In this report, I will show the report and analysis of the most recent fantasy game “**Heroes of Pymoli**”. The data was received in csv file named "purchase_data.csv". Here is a snapshot of what data contained in the csv file showing the top and last 5 rows:

Purchase ID	SN	Age	Gender	Item ID	Item Name	Price
0	Lisim78	20	Male	108	Extraction, Quickblade Of Trembling Hands	3.53
1	Lisovynya38	40	Male	143	Frenzied Scimitar	1.56
2	Ithergue48	24	Male	92	Final Critic	4.88
3	Chamassasya86	24	Male	100	Blindscythe	3.27
4	Iskasia90	23	Male	131	Fury	1.44
...
775	Aethedru70	21	Female	60	Wolf	3.54
776	Iral74	21	Male	164	Exiled Doomblade	1.63
777	Yathecal72	20	Male	67	Celeste, Incarnation of the Corrupted	3.46
778	Sisur91	7	Male	92	Final Critic	4.19
779	Ennrian78	24	Male	50	Dawn	4.60

a) **Total Players** - First, I got the total of players in the datafile.

Total Players
576

* Total Players is showing us the total of players that purchase in this data file. This is a good information but I will recommend add the date of the data showing in this file so this can be compared against other years and see the trend.

b) **Purchasing Analysis (Totals)** - I did the Purchasing Analysis by getting the Total of Unique Items, the Average Price, the Total Number of Purchases, and the Total Revenue.

	Number of Unique Items	Average Price	Number of Purchases	Total Revenue
0	179	\$3.05	780	\$2,379.77

* With the above data, we can also get the Average Revenue per Unique Items which comes out to be \$13.29. By adding an Item Category, we can find out what items and categories are generating more revenue so they can be promoted better, or the company can focus on these items more for the success of the business.

c) **Gender Demographics** - I got the total of players based on their "Gender" and calculated the percentage their represent from the whole total of players.

	Total Count	Percentage of Players
Female	81	14.06%
Male	484	84.03%
Other / Non-Disclosed	11	1.91%

* In the previous data we can clearly see Male players are the players who purchase more items with a percentage of 84.03%.

d) **Purchasing Analysis (Gender)** - At this point, I continue the Purchasing Analysis but now I split the data by "Gender".

	Purchase Count	Average Purchase Price	Total Purchase Value	Avg Total Purchase per Person
Gender				
Female	113	\$3.20	\$361.94	\$4.47
Male	652	\$3.02	\$1,967.64	\$4.07
Other / Non-Disclosed	15	\$3.35	\$50.19	\$4.56

* With the above data we now analyze the average purchase price, total purchase value and average purchase per gender. I will recommend adding a category or type for the Items Name so we can analyze and find out which type or category of purchases by gender.

- e) **Age Demographics** – In this section, I'm showing the total players and their percentage based on age groups.

Age Group	Total Count	Percentage of Players
<10	17	2.95%
10-14	22	3.82%
15-19	107	18.58%
20-24	258	44.79%
25-29	77	13.37%
30-34	52	9.03%
35-39	31	5.38%
40+	12	2.08%

* The previous demographic data provide before; we can see players in the range age of 20-24 are the highest group of players that purchase items for this game. Here I will also recommend analyzing the data on what items those workers in the range of 20-24 age purchase so it can be used for future business decisions.

- f) **Purchasing Analysis (Age)** – In this Purchasing Analysis, we got data based in the previous age group.

Age Group	Purchase Count	Average Purchase Price	Total Purchase Value	Avg Total Purchase per Person
<10	23	\$3.35	\$77.13	\$4.54
10-14	28	\$2.96	\$82.78	\$3.76
15-19	136	\$3.04	\$412.89	\$3.86
20-24	365	\$3.05	\$1,114.06	\$4.32
25-29	101	\$2.90	\$293.00	\$3.81
30-34	73	\$2.93	\$214.00	\$4.12
35-39	41	\$3.60	\$147.67	\$4.76
40+	13	\$2.94	\$38.24	\$3.19

* As see in the previous data group, players in the age range of 20-24 are the players that purchase more items than the other groups but now we can see item purchase for that age group is very competitive.

g) Top Spenders – Here I got the five top spenders out of all the players.

	Purchase Count	Average Purchase Price	Total Purchase Value
SN			
Lisasia93	5	\$3.79	\$18.96
Idastidru52	4	\$3.86	\$15.45
Chamjask73	3	\$4.61	\$13.83
Iral74	4	\$3.41	\$13.62
Iskadarya95	3	\$4.37	\$13.10

* Based in the previous data, the average amount of purchase items is 4 and the average purchasing amount is \$14.99 for the top players.

h) Most Popular Items – Here we have the most popular Items purchase by the players.

Item ID	Item Name	Purchase Count	Item Price	Total Purchase Value
92	Final Critic	13	\$4.61	\$59.99
178	Oathbreaker, Last Hope of the Breaking Storm	12	\$4.23	\$50.76
145	Fiery Glass Crusader	9	\$4.58	\$41.22
132	Persuasion	9	\$3.22	\$28.99
108	Extraction, Quickblade Of Trembling Hands	9	\$3.53	\$31.77

* As the data above shows, the “Final Critic” it’s the most purchased item by players, showing a good point of data that players want to get more power when they are in battle. Also, the “Oathbreaker, Last Hope of the Breaking Storm” its right behind the “Final Critic” so a good item to consider when promoting or marketing of items.

i) Most Profitable Items – And finally, another very important information, the top 5 more profitable items purchased by players.

Item ID	Item Name	Purchase Count	Item Price	Total Purchase Value
92	Final Critic	13	\$4.61	\$59.99
178	Oathbreaker, Last Hope of the Breaking Storm	12	\$4.23	\$50.76
82	Nirvana	9	\$4.90	\$44.10
145	Fiery Glass Crusader	9	\$4.58	\$41.22
103	Singed Scalpel	8	\$4.35	\$34.80

* Here we can also see that “Final Critic” and “Oathbreaker, Last Hope of the Breaking Storm” are on top but we surprisingly we can see that “Nirvana” and “Singed Scalpel” show in the top 5 generating high revenue.