

Meta-Forecasting

Metacritic Reviews and How They Relate to Game Sales

The Dataset

Metacritic

VGChartz

95

out of 100

79

out of 100



metacritic

Keeping score of entertainment.

56

out of 100

25

out of 100



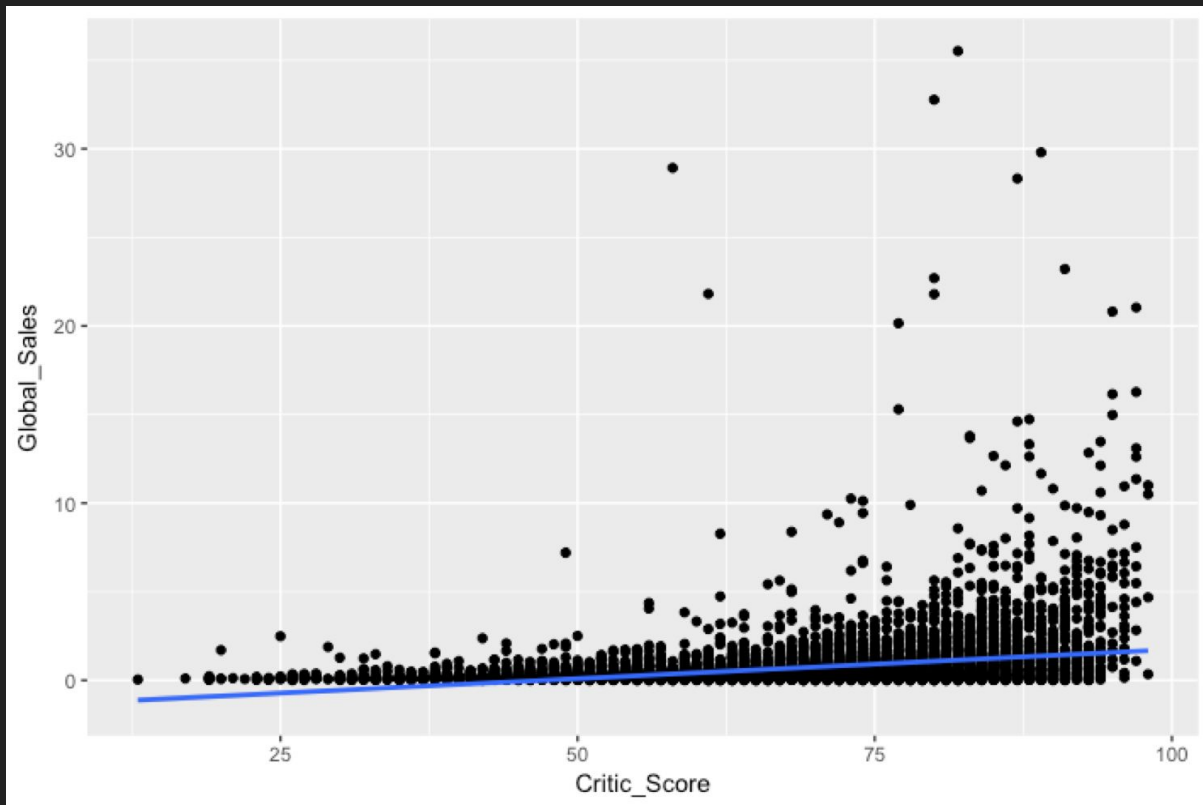
Data-cleaning

- NA values don't work well mathematically
- Deleting data vs. replacing it
- Most important: Sales data AND Scores
- From 16,719 rows to 7,016 rows

es	EU_Sales	JP_Sales	Other_Sales	Global_Sales	Critic_Score	Critic_Count	User_Score	User_Count	Dev
36	28.96	3.77	8.45	82.53	76	51	8	322	Nin
08	3.58	6.81	0.77	40.24	NA	NA	NA	NA	NA
68	12.76	3.79	3.29	35.52	82	73	8.3	709	Nin
61	10.93	3.28	2.95	32.77	80	73	8	192	Nin
27	8.89	10.22	1.00	31.37	NA	NA	NA	NA	NA
20	2.26	4.22	0.58	30.26	NA	NA	NA	NA	NA
28	9.14	6.50	2.88	29.80	89	65	8.5	431	Nin
96	9.18	2.93	2.84	28.92	58	41	6.6	129	Nin
44	6.94	4.70	2.24	28.32	87	80	8.4	594	Nin
93	0.63	0.28	0.47	28.31	NA	NA	NA	NA	NA
05	10.95	1.93	2.74	24.67	NA	NA	NA	NA	NA
71	7.47	4.13	1.90	23.21	91	64	8.6	464	Nin
00	6.18	7.20	0.71	23.10	NA	NA	NA	NA	NA
92	8.03	3.60	2.15	22.70	80	63	7.7	146	Nin
00	4.89	0.24	1.69	21.81	61	45	6.3	106	Goc
01	8.49	2.53	1.77	21.79	80	33	7.4	52	Nin

Correlation

- Average Metacritic review score: 70.249
- Average Metascore reviewer count: 28.78
- Average user review score: 7.18 (out of 10)
- Average user review count: 173.41
- Average game sales (worldwide): \$755,000
- Correlation between Metascore and worldwide sales: 0.2713066
- Games with higher review scores sell a bit better than those without!



A Prediction Model

- A linear model to predict how future games will sell based on their Metascore
- Metascore and User Scores are most valuable
- More data including weights don't help

```
Model 1: Global_Sales ~ Critic_Score
Model 2: Global_Sales ~ Critic_Score + User_Score
Model 3: Global_Sales ~ Critic_Score + User_Score + Critic_Count
+ User_Count
Model 4: Global_Sales ~ Critic_Score + User_Score + Critic_Count
+ User_Count +
Platform + Year_of_Release + Genre + Publisher
Model 5: Global_Sales ~ Critic_Score
Model 6: Global_Sales ~ Critic_Score + User_Score
```

	Res.Df	RSS	Df	Sum of Sq	F	Pr(>F)
1	7014	18276				
2	7013	18172	1	104	49.9537	1.734e-12 ***
3	7011	16504	2	1668	401.4277	< 2.2e-16 ***
4	6690	13895	321	2609	3.9134	< 2.2e-16 ***
5	7014	969029	-324	-955134	1419.3093	< 2.2e-16 ***
6	7013	14145434	1	-13176405		

Thank you and keep on playing!

