

The Decline of *Cinema*.

[View the Study](#)

Harmful Marketing Through “Event” and “Product” Interaction

Movie production companies communicate through multimodal marketing to engage as wide an audience as possible and make as much money as possible. They market their movie through digital marketing, events, merchandise, partnerships, and traditional methods (billboards, posters, etc.). Their audience is the general movie-goers, who are targeted to obsess over the next blockbuster.

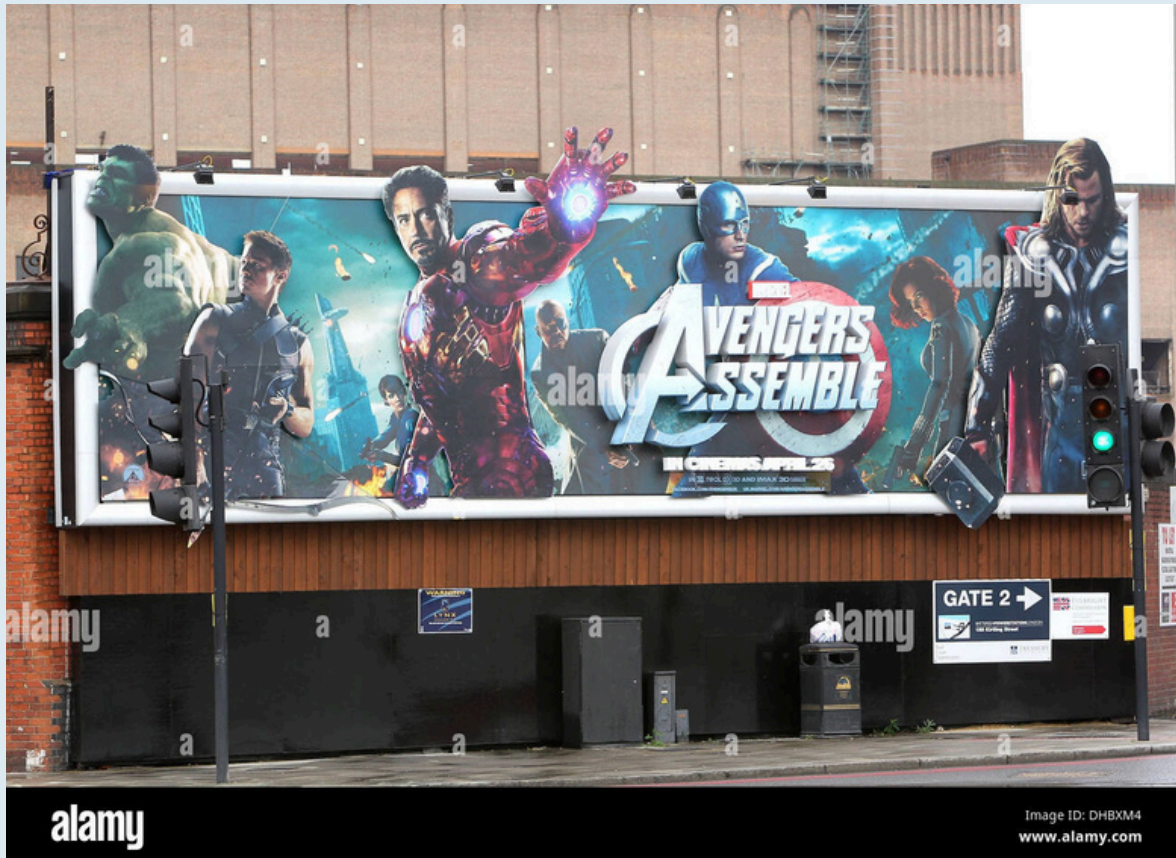




Overconsumption & Quantity > Quality



Social Media & Advertisement



“Blockbuster Fatigue”

Sequels, Prequels, Remakes, Reboots...

MARVEL STUDIOS



STAR
WARS

**FAST &
FURIOUS**

THE
CONJURING
UNIVERSE

TRANS
FORMERS

Study Description



Are movie theaters significantly dying post-pandemic? Yes, perhaps in part due to new streaming services and home-releases. The growth of the blockbuster has been a major issue these last 20 or so years. In the 90's, 80's and 70's, blockbusters were special summer events, and now they release monthly year-round. This is not an isolated issue but is indicative of the larger factors affecting the economy, such as corporate greed, dissent from creativity, mass-production, and the turn from art to "content"/products. However, good movies made by passionate filmmakers are still being made but are just becoming harder and harder to find.

Profits vs. Budgets

Is there a significant statistical difference between the profits of movies before the COVID-19 Pandemic (2018) and after (2022)?

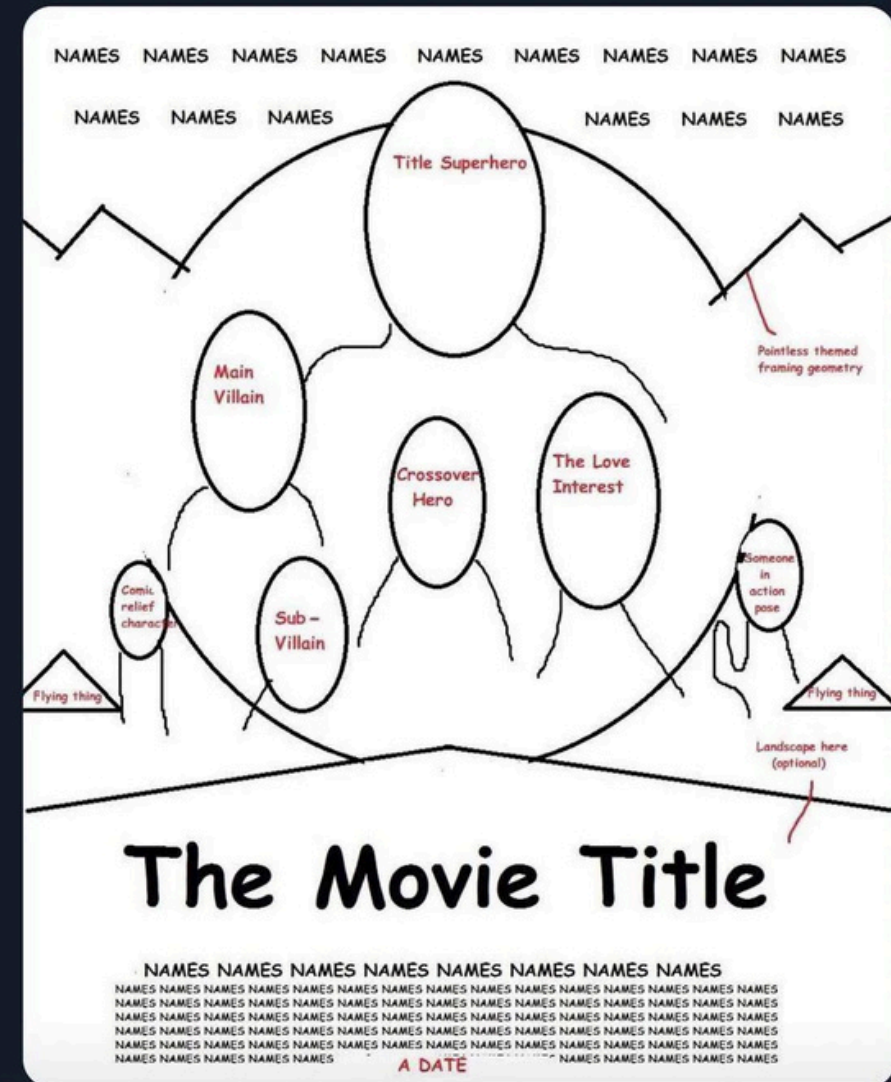
Experiment Population: All movies released in 2018 and 2022.

Sample Space: Highest profit movies (profit includes international box office and home-release sales)

- Top 35 highest profit movies from 2018
- Top 35 highest profit movies from 2022

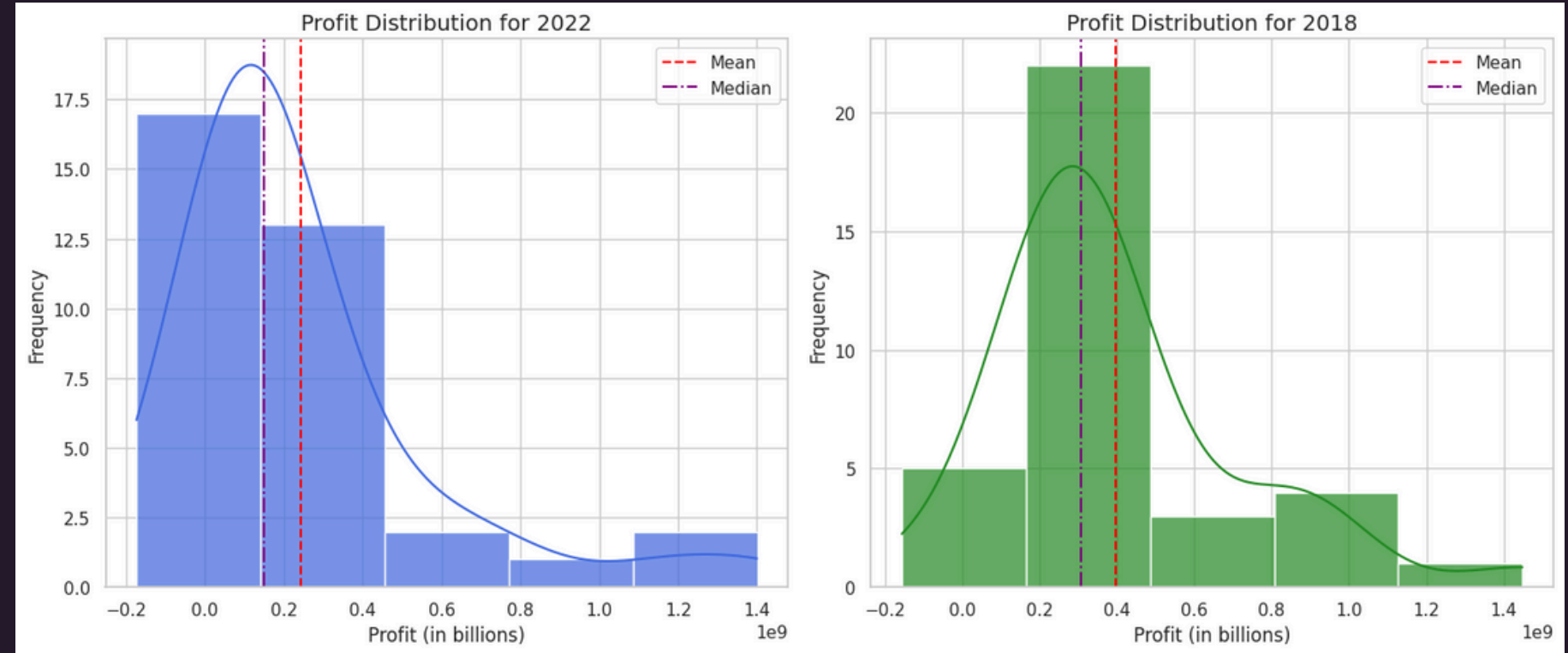
Variable: Average movie profit for 2018 and 2022.

Movie posters these days be like



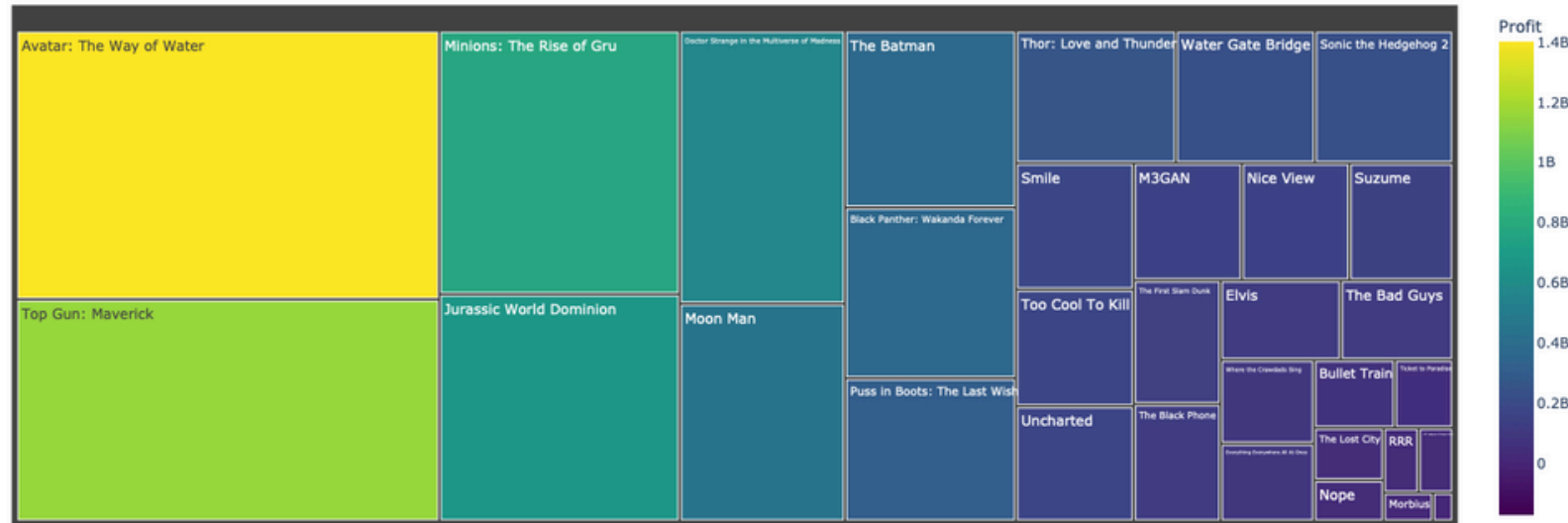
Findings

Profit 2018	Profit 2023
1,448,359,754	1,400,250,281
946,913,161	1,155,696,292
968,467,944	671,978,080
842,805,359	555,775,804
831,961,807	779,628,210
793,655,259	359,208,836
624,085,151	372,245,583
435,115,104	260,928,081
514,546,611	226,571,697
255,755,901	301,080,537
362,674,139	443,237,662
283,490,172	7,150,844
439,330,426	167,141,258
418,185,156	225,421,518
179,323,962	-6,747,889
173,243,742	117,740,048
398,583,774	110,162,278
361,595,957	67,468,602
263,989,645	-173,574,580
429,376,639	183,408,513
364,388,866	169,254,604
188,128,233	155,019,042
245,044,706	27,557,117
-157,075,193	44,907,684
195,582,637	155,973,454
261,985,018	149,492,224
270,961,907	-8,680,421
322,050,119	35,235,592
75,682,618	48,767,896
251,266,433	17,460,961
89,537,494	27,955,146
306,939,361	125,440,742
275,752,656	132,408,567
54,868,961	96,353,965
157,718,711	89,409,089



$$2\text{SampTtest: } t = \frac{(396408348.28571 - 242609351.91429) - (0 - 0)}{\sqrt{\frac{310361561.08253^2}{35} + \frac{321126040.39203^2}{35}}} = 2.008076$$

Profit Distribution for 2022 Movies

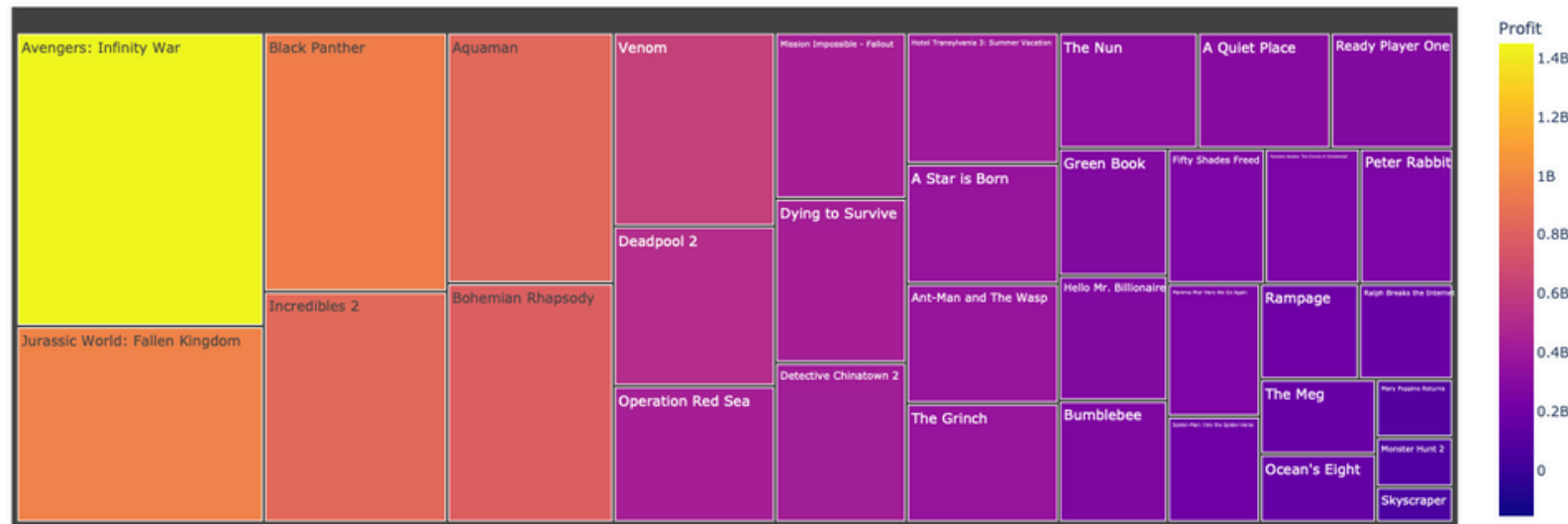


μ_1 equals movies from 2018 and μ_2 equals movies from 2022.

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$ (Claim)

Profit Distribution for 2018 Movies



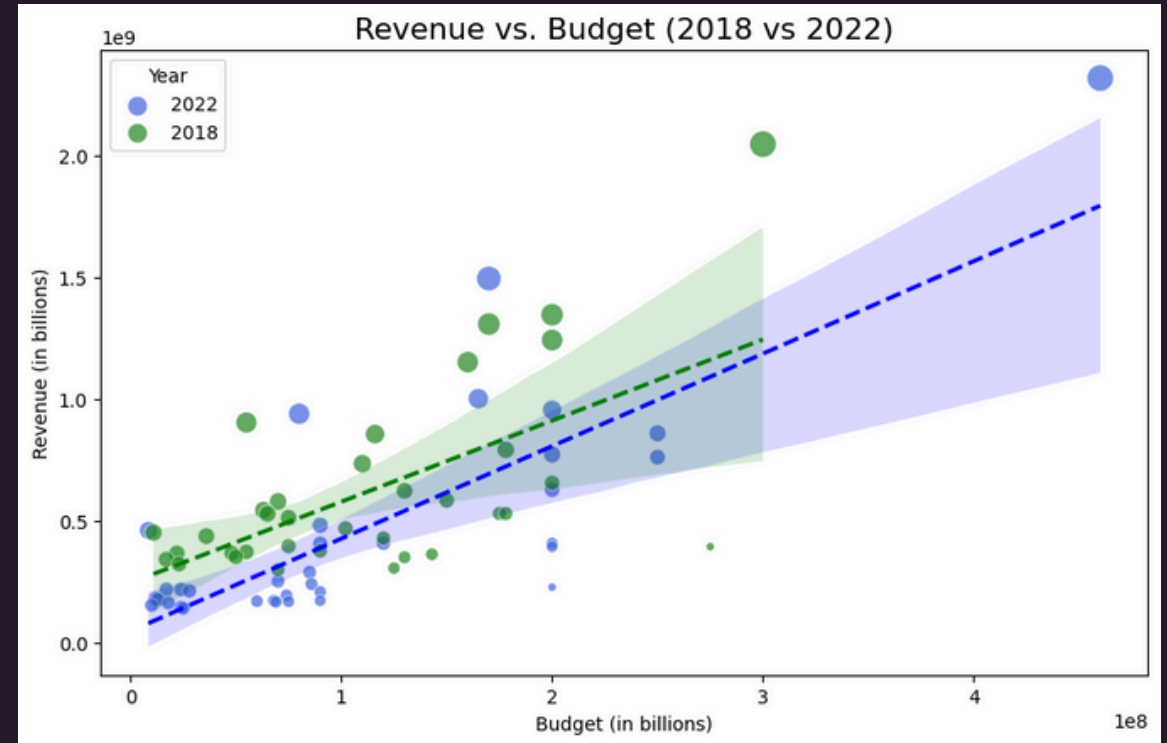
P-Value (Two-Tailed):
0.048610

P-Value (0.048610) < α
(0.05) = We Reject H_0

Conclusion

There is enough evidence to suggest a statistical difference between the average profits of movies before COVID-19 (2018) and after (2022). This supports my claim that there is a significant difference, proving that movie theaters are declining in popularity post-pandemic since the average mean of profit from 2018 movies is significantly higher than that of movies in 2022.

Some interesting findings separate to my central research question was that in 2022, there were 8 foreign films, 3 total losses (all but one was domestic), and 15 \$100+ million budgets, while in 2018, there were only 5 foreign films, only 1 total loss (domestic), but 20 \$100+ million budgets. This contrast clearly shows that the international box office is gaining attraction with foreign films over time and showing less interest in the films coming out of Hollywood. However, it is notable that 2018 had a significantly higher number of movies with \$100+ million budgets. The total profit for movies in 2018 (the sample I'm working with) was also over \$5 billion more than the total of 2022, so, movies in general just aren't drawing in the same number of people that they used to, even if it just being a few years ago.



Future Considerations

If I were to conduct this study again, I would include all years since the release of Jaws by Steven Spielberg, which is the first Hollywood blockbuster, and study how budgets and profits fluctuate over the years in accordance with the growth of the number of blockbusters. I would also want to study other previous years than just 2018 because of the interesting statistic of 2018 having more \$100+ million budgets than 2022, which is goes against the common claim that budgets are growing over time.

Perhaps 2017 or 2016 in comparison with 2022 would actually support the common claim. This also shows when you sum up the profits of the sampled movies in 2018 and 2022, where 2018 is about \$5.5 billion more profiting than 2022. Is this indicative of movies being more profitable in previous years, therefore cinema is dying, or is 2018 just a big year for movies? One other factor that I would like to include in a future study is the profit made solely from theaters vs. home-release on streaming services to see more accurately if theaters are dying due to streaming services. I could also conduct this study almost the same, but instead of only sampling the top 35 highest grossing movie in a single year, sample solely the highest profiting instead of calculating based off of total gross. Since I didn't do this because it would take a long time to decide on an appropriate sample and direct profit reports tend to be skewed, there was a major difference in profits from movies that had similar total gross but different budgets, like Fantastic Beasts: The Crimes of Grindelwald profiting \$7 million and Uncharted profiting \$167 million despite both grossing an almost identical amount in the same year.

"Can I copy your homework?"

"Yeah just change it up a bit so it doesn't look obvious you copied"

"OK"

