
Film Production 2024: Analysis for Planning

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On Tuesday afternoon, I received an email:

“Hello, Yuri,

how are you? Our first planning meeting for next year will be next week, and we would like you to check our hypotheses with data.

So, we want to produce more thrillers, crime and action films next year because they have become more popular. Can you test that? Maybe just actions?

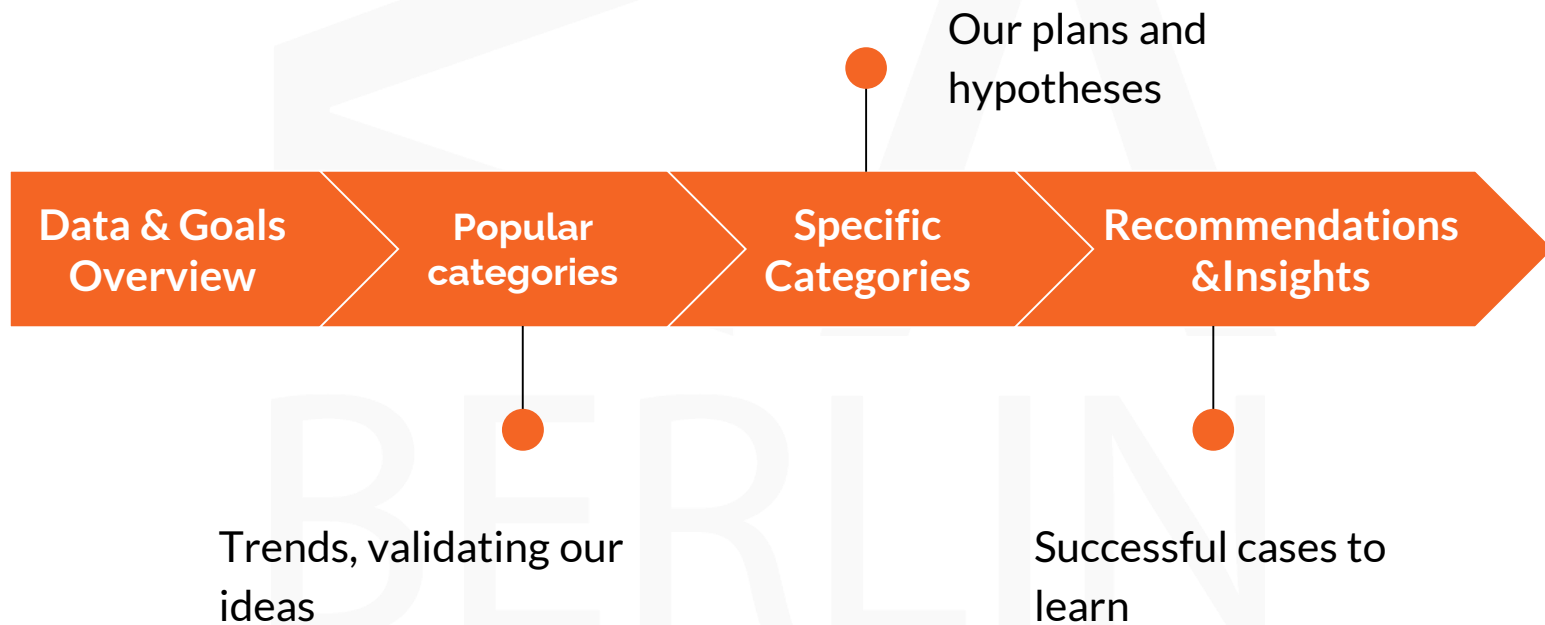
And Michael said that short films are not as popular in those categories. Is that true? We want to save a money, you know...

Is it even worth making Action films for everyone? I don't think anyone watches action films that are suitable for children.

We will have a small meeting on Friday to learn more about this. Muayad and Killian will also be coming to check out your findings.

See you on Friday!”

Agenda



What we... have

- 1 Dataset
- Time period 1989-2019
- Top-20 films for every year (selected by the Gross)
- IMDb rating

... want to check

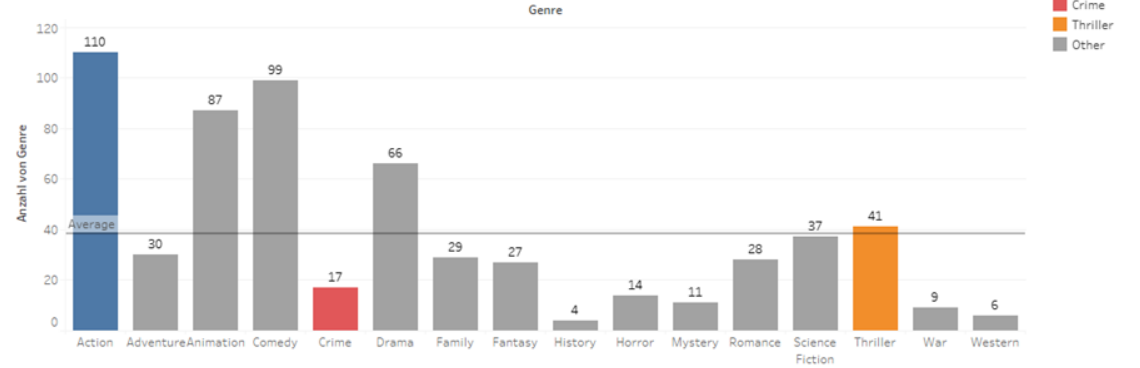
- Popularity of movies
- Film production costs
- Movie length
- MPAA rating in Top-20

Popularity of film categories

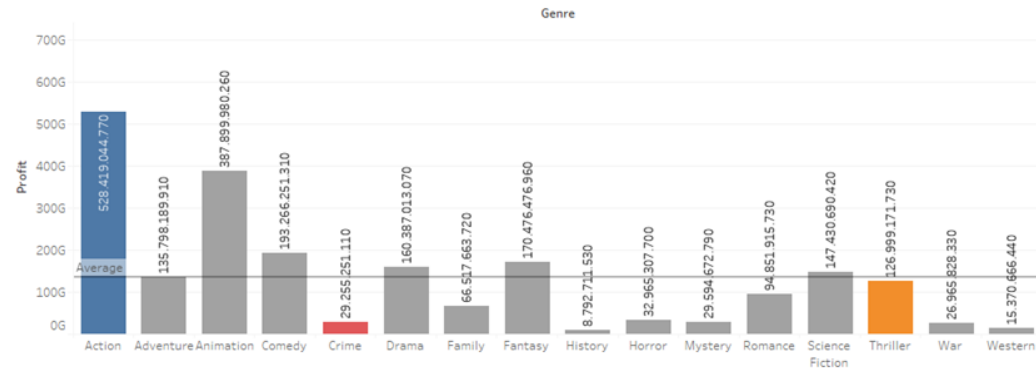


Amount of Top films and profit in every category

1.Genres in TOP20

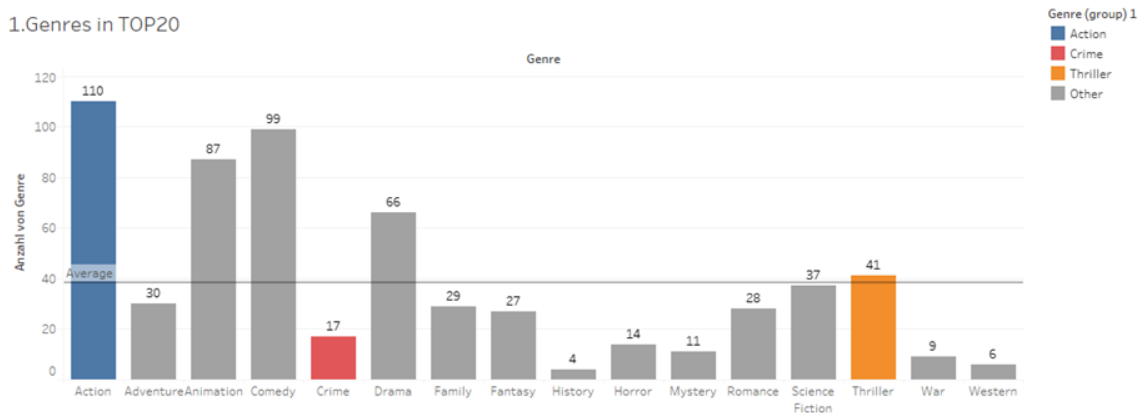


2.Genres Profit

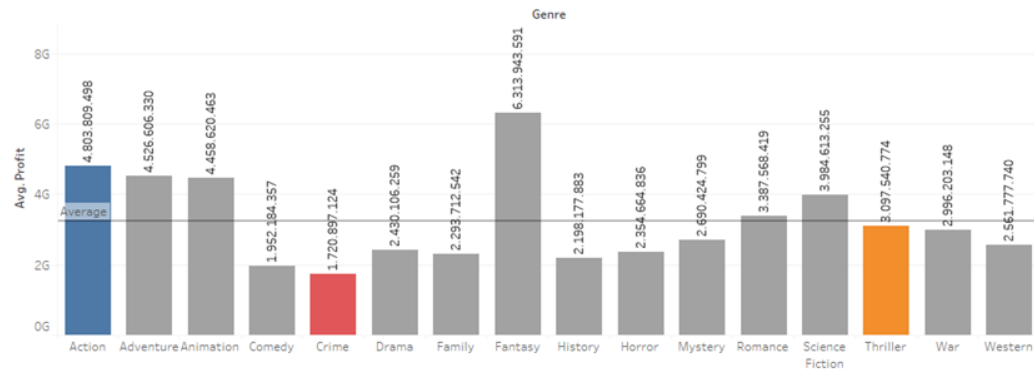


Amount of Top films and AVG profit in every category

1.Genres in TOP20

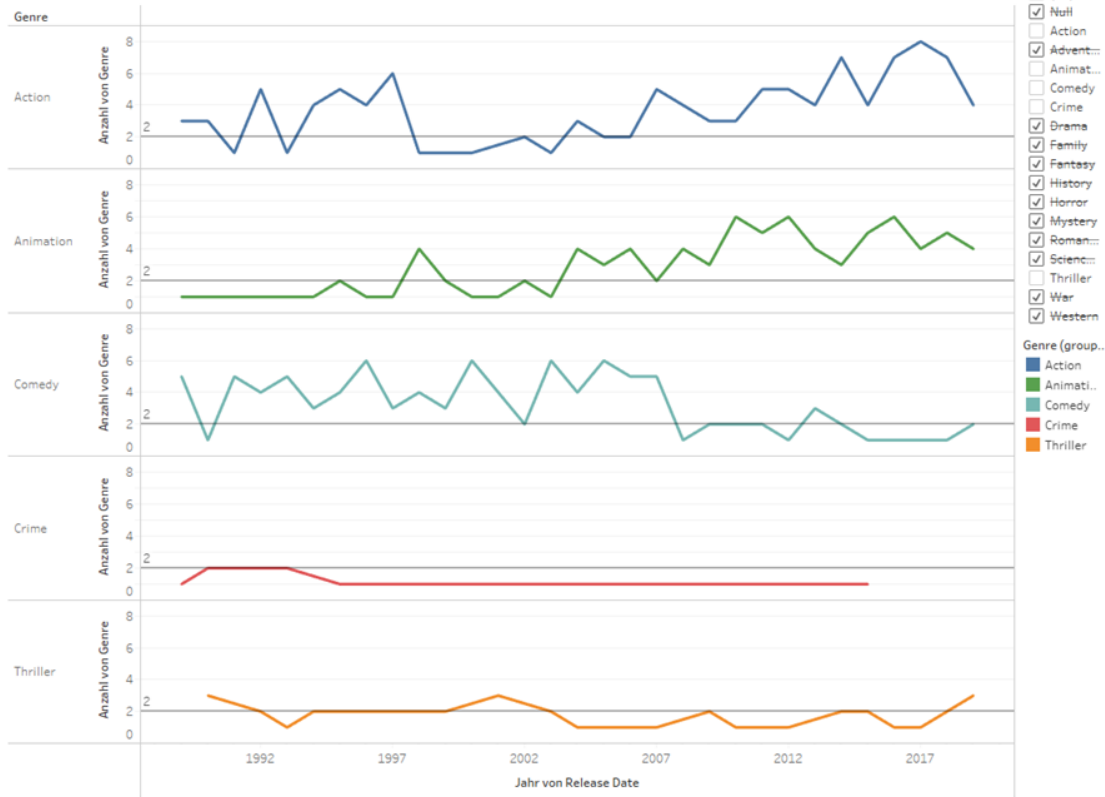


2.Genres AVG Profit



Number of film in TOP-20 by categories and years

1.GenresTendency



Key takeaways

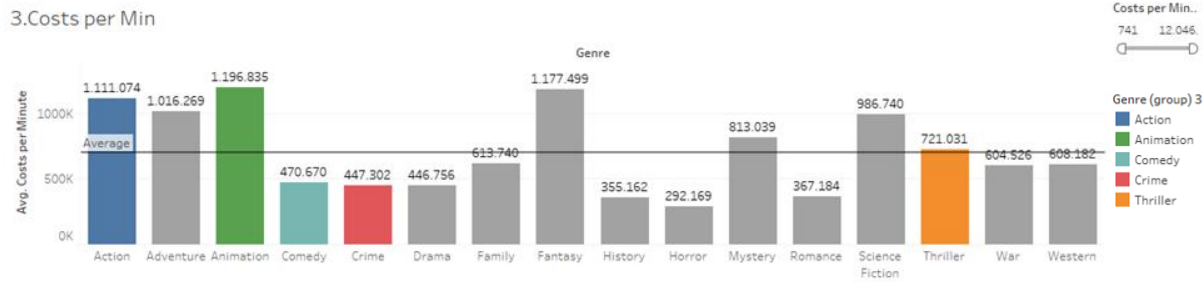
1. Action movies continue to be popular.
Animation may also be worthy of our attention
2. Crime movies are more risky. They are not often in the top 20
3. Comedies are becoming less popular than before.

Film production costs

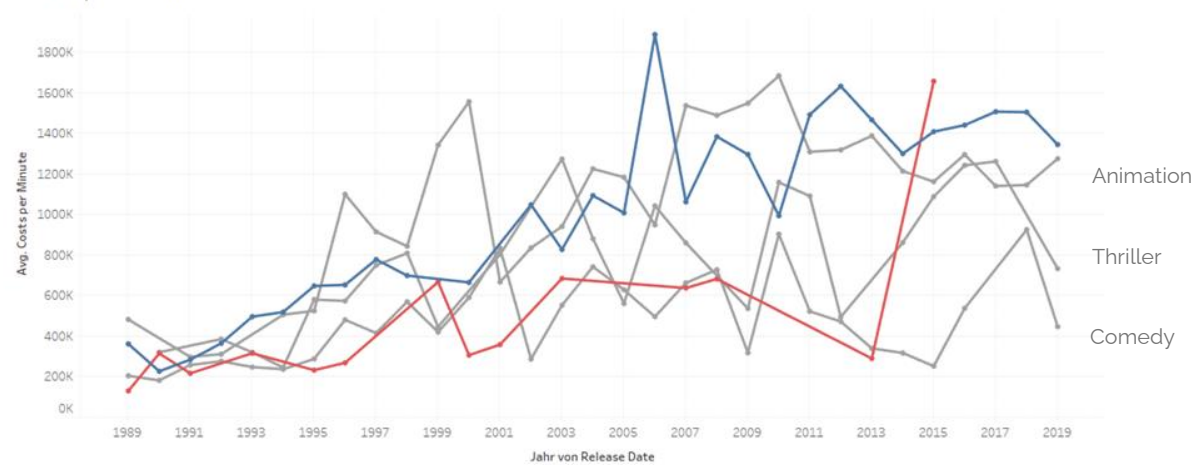


Average costs per Min in categories and years

3.Costs per Min



3.Costs per Min in Years



Key takeaways

1. The high costs of action and animated films may be an argument against focusing production budgets on these categories.

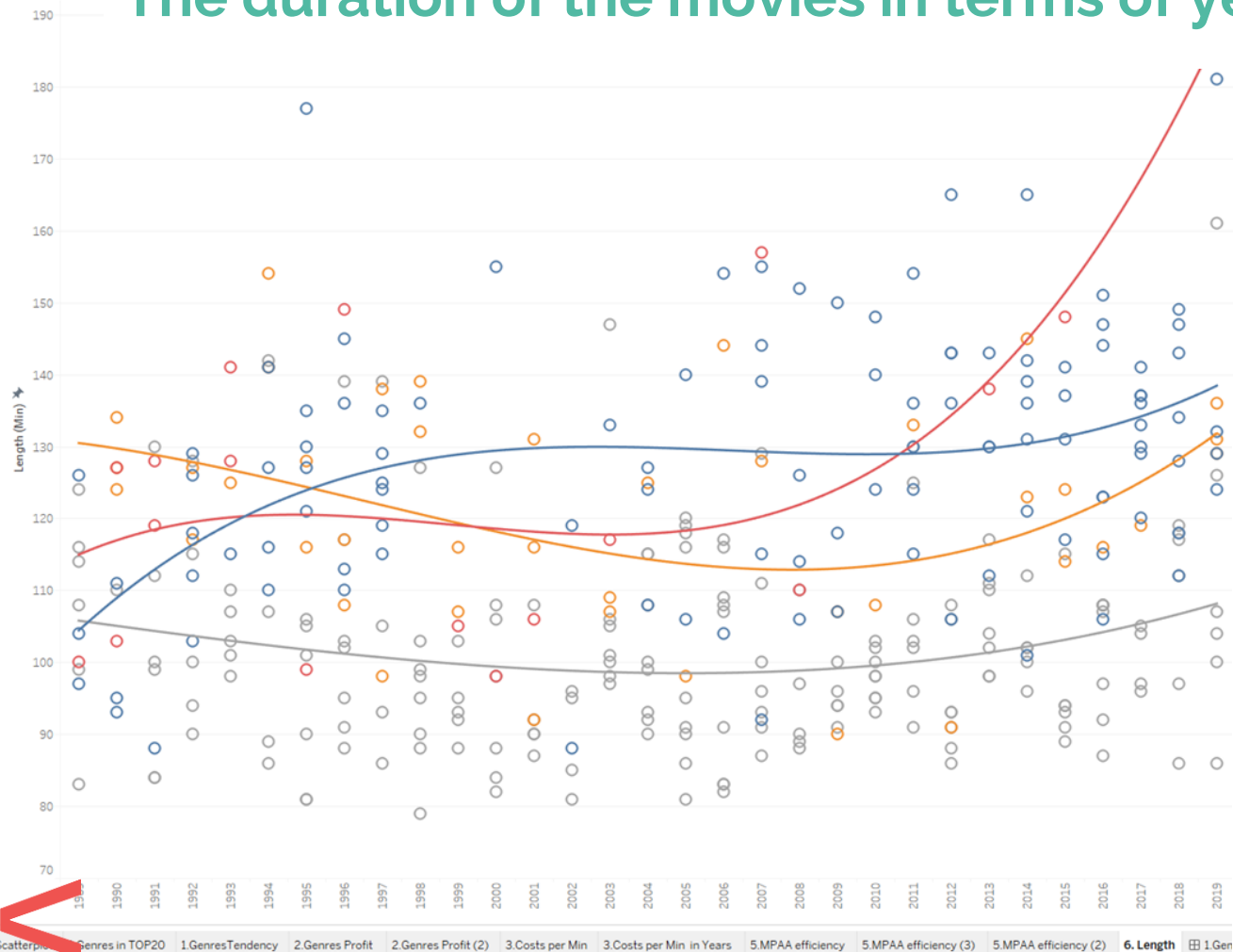
But let's look at the length of films later.

2. Science fiction, fantasy, and mystery are too resource-intensive in the case of lowering production costs.

Movies duration



The duration of the movies in terms of years



The duration of the movies in terms of genres

Film Length..	Genre					
	Action	Animation	Comedy	Crime	Drama	Thriller
<=1.5h	2	26	14		1	1
1.5-2h	35	60	72	9	24	18
2-2.5h	63	1	12	7	36	21
2.5-3h	9		1	1	4	1
>3h	1				1	



Key takeaways

1. Animation and comedies are usually shorter. Despite the high costs of producing/min for animation, they can still be profitable, because they are so popular.
2. Crime films are usually the longest, and this partially compensates for the low production costs.
3. The low average production prices of comedies and their shorter lengths may be a way to save production costs

MPAA Rating & Success

MPAA & Action films

- PG-13 & R make up the bulk of the Actions Movies
- even Comedies with G-rating are not popular any more
- PG suggested is a min for almost all categories, except animation

5.MPAA efficiency (3)



Successful cases to study

- Successful Films with minimum production/min costs
- Different Film duration
- Most likely genres

Title	Year of Rel..	Genre	⌘	Film Length..	Costs per M.
Kindergarten Cop	1990	Action		1.5-2h	135.135
Teenage Mutant Ninja Tur..	1991	Action		<=1.5h	284.091
The Bodyguard	1992	Action		2-2.5h	193.798
Beauty and the Beast	1991	Animation		<=1.5h	297.619
The Lego Movie	2014	Animation		1.5-2h	600.000
Ace Ventura: Pet Detective	1994	Comedy		<=1.5h	174.419
Fried Green Tomatoes	1991	Comedy		2-2.5h	84.615
My Big Fat Greek Wedding	2002	Comedy		1.5-2h	52.632
Presumed Innocent	1990	Crime		2-2.5h	173.228
Turner & Hooch	1989	Crime		1.5-2h	130.000
Glass	2019	Thriller		2-2.5h	155.039
Taken	2009	Thriller		<=1.5h	277.778
The Sixth Sense	1999	Thriller		1.5-2h	373.832

Why minimal production/min?

“Nobody knows anything.....
Not one person in the entire
motion picture field knows for a
certainty what's going to work.
Every time out it's a guess and, if
you're lucky, an educated one.”

— William Goldman,
Adventures in the Screen Trade

In essence, it is impossible to
predict, on a consistent and
regular basis, which of the
hundreds of annual film releases
will turn out to be profitable.

@Pokorny, Michael & Sedgwick, John. (2012). The Financial and
Economic Risks of Film Production.

Summary

1. Action movies continue to be popular.

Thrillers are stable, but do not occupy a significant part of the TOP 20.

Crime films are not included as often.

Animation and comedies also deserve our attention.

2. Although comedies are becoming less popular than before, they are shorter and cheaper to produce.

Summary

3. The high cost of action and animated films makes us not focus our production budget only on these categories.

4. Portfolio diversification is a better solution than narrow specialization

It is possible to characterise the successful film studios as constructing diversified annual portfolios of films, diversified according to production budget and genre, and allocations of stars, directors and screenwriters.

@Pokorny, Michael & Sedgwick, John. (2012). The Financial and Economic Risks of Film Production.

Recommendations

Instead of crimes or thrillers, more attention to action movies.

Include short animations and comedies into potential projects.

Differentiating the film portfolio instead of narrow specialization. Use the suggested movie recommendations as samples of a potentially finished product





Thank you for your time!

BERLIN

The project was implemented as part of the Dataanalysis & Machine Learning Bootcamp at Code Academy Berlin
1/21 week of the program