



Cinematic Success Criteria and Their Predictors:

The Art and Business of the Film Industry



My research background

- Since 1975: the psychology of creativity, aesthetics, and the arts
- Especially genius-grade creators and their products
- Since 2000 research expanded to include cinematic creativity and aesthetics
- Hence ...

The fundamental dilemma

- Although cinema now represents a major art form (i.e., the so-called “seventh” art),
- cinema also constitutes a major business: Blockbusters can gross hundreds of millions of dollars
- Yet these two aspects are not always compatible: Art films can lose money and blockbusters can receive negative reviews – though occasionally the two converge



How are the two types related?

- This amounts to two questions:
 - What are the main criteria of cinematic success and how are they associated?
 - What are the main predictors of these criteria and how do they differ across criteria?
- But before we can address these two questions, we first have to discuss some crucial issues



Scientific research on cinema

- Substantive issues:
 - Researchers come from many different disciplines, including economics, marketing, advertising, communication, journalism, broadcasting, management, sociology, culture studies, statistics, mathematics, and psychology
 - Hence, very different substantive goals, and often interpret their results using contrasting theoretical frameworks (e.g., contagion versus synergism in film awards)



Scientific research on cinema

- Methodological Issues: No consensus on ...
 - Sampling
 - Non-equivalent even non-overlapping periods of film history: non-replication even when methods identical
 - Inclusive versus exclusive definitions: non-English-language films, documentaries, animations, TV movies, etc.

Scientific research on cinema

- Methodological Issues: No consensus on ...
 - Sampling
 - Criteria
 - Films making up random sample of all those released
 - Films earning a set minimum box office (either relative or absolute)
 - Films receiving nominations and/or awards (Palme d'Or, Oscars, Golden Globes, BAFTA, etc.)
 - Films getting critical acclaim or a threshold number of critical reviews

The above choices have major consequences for variable distributions and hence the magnitude of observed correlations!

Scientific research on cinema

- Methodological Issues: No consensus on ...
 - Variables
 - Differences in choice of performance criteria
 - What box office indicators?
 - Which critics?
 - What awards?
 - Differences in inventory of performance predictors
 - Screenplay attributes?
 - Budget and P&A?
 - Distribution/exhibition?

Hence, all published models are technically misspecified, thereby yielding spurious conclusions! Both false negatives and false positives.

Scientific research on cinema

- Methodological Issues: No consensus on ...
 - Measurement
 - Variables assessed differently: e.g., “movie stars”
 - won best acting award
 - status in consumer surveys
 - financial performance of most recent films
 - total number of prior films
 - subjective identification based on researcher knowledge
 - industry-based most “powerful,” “bankable,” “marquee value,” or “A” and “A+” list performers

Yet there is no reason for believing that these rival indicators would correlate in the same manner with any criterion of cinematic success ! In fact, they don't!

Scientific research on cinema

- Methodological Issues: No consensus on ...
 - Analyses
 - Cross-sectional or longitudinal?
 - Additive/linear or multiplicative/nonlinear?
 - Recursive or simultaneous equations?
 - Explicit indicators or latent-variable models?
 - Impute missing values or ignore them via listwise deletion? If former, by what method?
 - Use OLS, ML, Poisson, or other estimators?

So below I'll just focus on those findings that either (a) replicate the most often or (b) are the most recent and therefore tend to use most up-to-date methods.

Cinema success criteria

- The success triad
 - Critical evaluations
 - Early critics (theatrical release)
 - Late critics (video/DVD release)
 - Financial performance
 - Box office gross
 - domestic versus world
 - initial versus later
 - Length of run

Cinema success criteria

- The success triad
 - Critical evaluations
 - Financial performance
 - Movie awards
 - Early: Film festivals
 - Middle:
 - Industry/Professional (Oscars, BAFTAs)
 - Journalistic (Golden Globes)
 - Critical (NYFCC)
 - Late: “all-time great” lists

Cinema success criteria

- A note on film awards
 - Early awards largely irrelevant!
 - Middle awards
 - exhibit high consensus for most achievement categories
 - but seem to cluster into distinct types: e.g., dramatic, visual, technical, and music (with best correlating highly with dramatic)
 - Later honors may use different information and apply distinctive criteria

Cinema success criteria

- Their intercorrelations
 - Critical evaluations and financial performance
 - Although most researchers find a positive relation, others find no association, a negative correlation, or even a nonlinear function (U curve)
 - Connection dependent on such moderator variables as
 - timing of reviews within the film's theatrical run
 - whether the reviews are positive or negative
 - whether or not the film has a marketable star
 - the specific film genre

Cinema success criteria

- Their intercorrelations
 - Critical evaluations and financial performance
 - Critical evaluations and movie awards
 - Consistently positive association
 - But higher when reviews come after awards (hindsight bias?)
 - and higher for awards in the dramatic categories (especially directing and writing)

Cinema success criteria

- Their intercorrelations
 - Critical evaluations and financial performance
 - Critical evaluations and movie awards
 - Movie awards and financial performance
 - extreme complexity of this association
 - fall release films versus summer, spring, and winter
 - nominations versus actual awards
 - specific award categories
 - gross versus first weekend
 - historical period

Criteria predictors

□ Production

■ Budget:

- Financial performance: first weekend and total (+), but not necessarily profit (1\$ → 45¢)
- Critical acclaim: both early (-) and late (-)
- Movie awards: best & dramatic (0), visual (+), technical (+), music (+)

Criteria predictors

□ Production

■ Screenplay

□ Sequels

- Financial performance: gross, especially first weeks (+)
- Critical acclaim (-)
- Movie awards: best & dramatic (-), technical (+)

□ Remakes

- Financial performance: gross, especially first weeks (+)
- Critical acclaim (-)
- Movie awards: dramatic (-)

Criteria predictors

□ Production

■ Screenplay

□ Adaptations

- Financial performance (0): plays (-)
- Critical acclaim (+)
- Movie awards: best, dramatic, visual (+), latter especially if adaptation from a “classic”

Criteria predictors

□ Production

■ Screenplay

□ True stories/biopics

- Financial performance (-) [biopics fewer screens]
- Critical acclaim (+)
- Movie awards: best, dramatic, visual (+)

□ Genre

- Financial performance: drama (- first weekend, - gross)
- Critical acclaim: drama (+)
- Movie awards: best, dramatic (+), technical (-)

Criteria predictors

□ Production

■ Screenplay

□ MPAA rating

- Financial performance: R (-), PG-13 (+)

- Critical acclaim: R (+)

- Movie awards:

- R: dramatic (+)

- R: visual, technical, music (-)

Criteria predictors

- Production

- Screenplay

- Runtime

- Financial performance (+)

- Critical acclaim (+)

- Movie awards: best, all four clusters (+)

Criteria predictors

□ Personnel

■ Cast: “Stars”

- Financial performance: inconsistent, unstable, but often not cost effective
- Critical acclaim: if prior Oscars (+)
- Movie awards: concurrent acting nods and awards (+), but males > females

Criteria predictors

□ Personnel

■ Crew

□ Producer:

- prior box office + with current box office
- prior credits - with current box office

□ Director

- Financial performance same predictors as producers; net effect of “star” directors zero
- Movie awards (+): if defined also by movie awards
- Critical acclaim (+): but inverted-U function of career age

Criteria predictors

□ Personnel

■ Crew

□ Writer

- Movie awards (+)

- Writer-directors:

 - Critical evaluations (+)

 - Financial performance (-)

□ Composer

- Financial performance (0)

- Movie awards (+)

- Critical evaluations (0/-)

Criteria predictors

□ Distribution

■ Season of release

- Financial performance: summer (+)
- Critical evaluations: winter (+)
- Movie awards: winter (+)

■ Number of screens

- Financial performance: first-weekend (+), gross (+)
- Critical evaluations (-)
- Movie awards: only technical, music (+)

Conclusion

- Hence, it's clear that there are two kinds of cinema with distinct indicators and predictors
- The next step is to development a set of structural equations that articulate the separate causal sequences as well as the places where some variables in those sequences cut across from one type to another
- I have recently published a preliminary attempt at such a system of equations ...

Table 1

Multiple Regression Analysis: Unstandardized (b) and Standardized (β) Partial Coefficients

Predictor	Final critics		Later gross	
	<i>b</i>	β	<i>b</i>	β
Dramatic honors	0.617	.09****	3.279	.22****
Technical honors	0.194	.05*		
Initial critics	0.027	.67****	0.018	.20****
Early gross			0.786	.81****
Screens	-0.024	-.09****	-0.081	-.13****
Christmas release			0.332	.08****
Budget			0.238	.18****
Timing	0.004	.10****		
MPAA rating: PG	0.138	.06**	0.241	.04**
MPAA rating: R			-0.205	-.07**
Genre: Drama	0.070	.05*		
Genre: Comedy			0.216	.07****
Adaptation: Bestseller	0.205	.05**		
2003 release			-0.152	-.03*
2005 release			-0.193	-.04**
2006 release	-0.103	-.05**	-0.267	-.06****

Note. For the first dependent variable, intercept = 1.018 and $R^2 = .70$ ($p < .001$; adjusted- $R^2 = .69$); for the second, intercept = 0.117 and $R^2 = .77$ ($p < .001$; adjusted- $R^2 = .77$).

* $p < .05$. ** $p < .01$. **** $p < .001$.

Table 2

Multiple Regression Analysis: Unstandardized (b) and Standardized (β) Partial Coefficients

Predictor	Dramatic honors		Technical honors	
	<i>b</i>	β	<i>b</i>	β
Initial critics	0.002	.39***	0.002	.22***
Early gross	-0.012	-.18***	0.014	.13***
Summer release	-0.016	-.07*		
Christmas release	0.017	.06*		
Timing	0.001	.16***	0.004	.38***
MPAA rating: R			-0.027	-.08**
Genre: Drama			-0.026	-.07*
Budget	0.008	.09*		
Adaptation: Classic	-0.033	-.06*	0.103	.11***
Adaptation: Hit	-0.305	-.09**	-0.472	-.09**
Adaptation: Broadway	0.220	.13***	0.423	.15***
Adaptation: Prizewinner			-0.108	-.07*
Author adaptation	-0.025	-.07*		
Writer-director	-0.012	-.10**		

Note. For the first dependent variable, intercept = -0.186 and $R^2 = .30$ ($p < .001$; adjusted- $R^2 = .29$); for the second, intercept = -0.459 and $R^2 = .30$ ($p < .001$; adjusted- $R^2 = .30$).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3

Multiple Regression Analysis: Unstandardized (b) and Standardized (β) Partial Coefficients

Predictor	Initial critics		Early gross	
	<i>b</i>	β	<i>b</i>	β
Early gross	6.148	.57***		
Screens	-5.028	-.75***	0.478	.77***
Summer release			0.238	.07***
Christmas release	2.413	.05*		
Timing	0.245	.25***	0.006	.06***
MPAA rating: R			-0.131	-.04**
Genre: Drama	4.119	.12***		
Genre: Romance	-2.693	-.06*	-0.178	-.05***
Genre: Musical	-6.630	-.07**		
Budget	-1.944	-.13**	0.173	.13***
Sequel	-3.504	-.05*	0.552	.09***
True story			-0.178	-.04**
Adaptation: Prizewinner	10.076	.06*		
Adaptation: Novel	4.371	.10***	-0.123	-.03*
Adaptation: Nonfiction	6.865	.07**		
Writer-director	2.237	.11***		
2003 release			0.136	.03*

Note. For the first dependent variable, intercept = 47.385 and $R^2 = .38$ ($p < .001$; adjusted- $R^2 = .37$); for the second, intercept = -2.448 and $R^2 = .84$ ($p < .001$; adjusted- $R^2 = .84$).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4

Multiple Regression Analysis: Unstandardized (b) and Standardized (β) Partial Coefficients

Predictor	Screens		Budget	
	<i>b</i>	β	<i>b</i>	β
Summer release	-0.369	-.07**		
Christmas release	-1.126	-.17***	0.173	.06*
Timing	-0.014	-.10***	0.029	.44***
MPAA rating: R	-0.484	-.09***	-0.567	-.24***
Genre: Drama	-0.872	-.17***	-0.634	-.26***
Genre: Comedy			-0.138	-.05*
Genre: Romance	0.396	.06**		
Genre: Musical	-0.907	-.06**	-0.594	-.09***
Budget	1.431	.65***		
Remake			0.300	.08**
Sequel			0.409	.09***
Adaptation: Classic	-1.011	-.07***	-0.315	-.05*
Adaptation: Novel	-0.415	-.06**	0.175	.06*
Adaptation: Nonfiction	-1.066	-.08***		
Adaptation: Miscellaneous	-0.721	-.06**	0.494	.09***
Author adaptation	-0.425	-.05*	-0.212	-.05*
Writer-director	-0.233	-.07***	-0.356	-.25***

Note. For the first dependent variable, intercept = 4.583 and $R^2 = .58$ ($p < .001$; adjusted- $R^2 = .58$); for the second, intercept = 0.756 and $R^2 = .50$ ($p < .001$; adjusted- $R^2 = .49$).

* $p < .05$. ** $p < .01$. *** $p < .001$.

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