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Behind the Scenes: Economic Drivers and Box Office Success in South Indian Cinema

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ABSTRACT

The research explores the economic success of regional cinema by analysing box office collections and various influencing factors. Factors such as production budgets, genres, release dates, critical reviews, star power, and awards are examined to uncover regional variations in movie success determinants. Using descriptive statistics and Multiple Linear Regression, the study investigates the relationship between independent variables and box office revenue across Malayalam, Tamil, Telugu, and Kannada film industries. Despite market uncertainties, the film industry shows resilience and expansion potential. The findings provide insights for stakeholders, including filmmakers and policymakers, to enhance the sustainability and profitability of regional cinema.

Keywords: Regional cinema , Box office revenue, Budget

INTRODUCTION

Cinema, being an immersive and influential form of entertainment, holds a significant position within society, captivating audiences globally and contributing substantially to the economy. Beyond its cultural value, the film industry serves as a robust economic powerhouse, creating jobs, stimulating economic activity, and boosting tourism. India's film industry stands out as a global leader in production, with a diverse range of over 1,000 films made annually in more than 20 languages, boasting unparalleled scale and diversity. With a market value of 220 billion Indian rupees, India's film industry is a crucial export, reaching audiences in over 100 countries worldwide. Recent scholarly attention has been devoted to analysing the economic performance of films, considering various factors such as production budgets, audience reception, cultural contexts, genres, critical acclaim, and studio affiliations (Pangarker, N.A. & Smit, Eon.2013) .Despite challenges like market uncertainties and global competition, the industry is expected to continue growing, demonstrating resilience and potential for further expansion.

In India, home to one of the largest film industries globally, this influence is particularly significant. While Bollywood enjoys international recognition, regional cinema in languages like Malayalam, Tamil, Kannada, and Telugu has been gaining prominence for its compelling narratives and performances. However, despite their achievements, regional films often struggle to compete with Bollywood's dominance on the global stage. Nevertheless, there has been a notable shift in focus towards regional cinema, which has been lauded for its ability to connect deeply with audiences. The accolades received by regional films at international festivals underscore their artistic excellence and cultural significance. This research aims to explore the factors contributing to the success of regional cinema, focusing specifically on the Malayalam, Tamil, Kannada, and Telugu film industries.

This study adopts a quantitative approach, utilising secondary data analysis of a comprehensive dataset comprising approximately 155 movies from these four industries. Employing multiple regression analysis alongside descriptive statistics, the research seeks to uncover the intricate dynamics within these industries, primarily focusing on the box office performance of these films to identify the key determinants of success. Understanding the economic performance of regional cinema in India holds significant implications, guiding sustainable industry growth, revenue strategies, cultural preservation, social cohesion, job creation, and investment attraction.

The findings of this research are poised to provide valuable insights for policymakers, filmmakers, and industry stakeholders. By quantitatively identifying the drivers of success in regional cinema, this study aims to offer actionable insights to inform decision-making processes and shape the future direction of the industry. Ultimately, the objective is to celebrate the rich diversity of regional cinema in India and emphasise its role as both a cultural phenomenon and an economic driver.

OBJECTIVES OF THE STUDY

- To assess the box office performance of South Indian cinema comprehensively.
- To identify and analyse factors contributing to the economic performance of regional movies, specifically focusing on box office collection.
- To examine potential regional disparities in the factors influencing the success of movies.

SCOPE AND IMPORTANCE OF THE STUDY

Movies serve as a convergence point for various art forms, offering entertainment while also serving as a significant economic engine. The cinema industry provides livelihoods for numerous individuals, including actors, technical crews, designers, and support staff, contributing to the broader economy. Success in terms of box office revenue is crucial for the industry's sustainability and its continued positive impact on the economy and society. With numerous factors influencing a film's success, there exists variation across different regional industries based on cinematic backgrounds, cultural influences, and target audience demographics. Identifying these root factors and understanding key contributors in diverse industries is significant. By doing so, regional cinema can focus on enhancing performance by leveraging these factors. This is particularly crucial for regional cinema, which aims to showcase cultural variations and unique storytelling techniques to a broader audience. By capitalising on these factors, regional cinema can differentiate itself from mainstream films, attracting niche audiences and gaining recognition within the industry. Moreover, understanding these factors can facilitate collaborations and partnerships, enriching the cinematic landscape and fostering cultural diversity. Additionally, it can aid regional cinema in securing funding and support from organisations advocating for cultural diversity in the arts. Ultimately, by leveraging its unique strengths, regional cinema can thrive and continue contributing to the global film culture.

METHODOLOGY

This study uses the Multiple Linear Regression (MLR) model to analyse the dynamics of regional cinema. Data is collected from four main film industries, Malayalam, Tamil, Telugu, and Kannada, over a five-year period. The study uses descriptive statistics analysis and the MLR model to analyse the overall performance of regional cinema and the relationship between independent variables and box office revenue. The goodness-of-fit of the MLR model is assessed using metrics like R-squared, Adjusted R-squared, and p-values. The findings provide insights into the economic dynamics of regional cinema and offer recommendations for optimising box office success and fostering sustainable growth.

LITERATURE REVIEW

The literature review presents a cohesive exploration of factors influencing movie success across diverse contexts. From predictive models to industry challenges and audience engagement dynamics, each study builds upon the previous one, offering insights into the multifaceted nature of box office performance. Together, these articles contribute to a deeper understanding of the interconnected factors shaping the success of films in the global film industry.

The research article by Sayyad et al. (2023), titled "Movie Success and Target Audience Prediction," presents a concise yet impactful exploration of predicting movie success and identifying target audiences using the Stochastic Gradient Descent Classifier algorithm. By achieving a commendable 90.04% accuracy in predicting movie success, the study addresses the film industry's inherent unpredictability. Additionally, the inclusion of target audience prediction, leveraging IMDb datasets and demographic data, underscores the paper's relevance for enhancing decision-making in marketing and filmmaking. This research contributes valuable insights into leveraging data-driven techniques for more informed strategies in the dynamic landscape of the film industry.

The work by Gupta et al. (2016), titled "Evaluating the Predictive Power of an Ensemble Model for Economic Success of Indian Movies," presents a robust analysis of factors influencing the box-office performance of Indian films. The study explores variables such as web hype, screens, movie rating, and genre, identifying them as crucial determinants of a movie's economic success. Notably, the research integrates three analytical models, including Neural Network, Classification and Regression Tree, and Robust Regression, to construct an ensemble model for revenue prediction. The findings reveal that the ensemble model competes closely with the Neural Network model in predictive accuracy, showcasing its effectiveness in improving the accuracy and reducing errors in forecasting the box-office performance of Indian movies. This research contributes valuable insights into the complexities of revenue prediction in the Indian film industry, emphasising the significance of web hype, screens, rating, and genre as influential variables.

The research article by Dastidar and Elliott (2020), "The Indian Film Industry in a Changing International Market," provides a novel econometric analysis of challenges faced by the Indian film industry. It identifies factors influencing Bollywood's box office success, emphasising the positive impact of higher film budgets and favourable online reviews. The comparison with the Chinese film market highlights potential competitiveness for India. While addressing declining domestic demand, the study offers strategies for film production companies to navigate the evolving landscape and ensure future success. This research not only fills gaps in existing literature but also contributes valuable insights into the complexities of the Indian film industry in a dynamic international market.

The paper by Ratnakaram et al. (2020) explores the evolving revenue landscape in the Indian film industry. It highlights the challenges posed by rising production costs and the need to diversify revenue streams. Traditional box office collections remain a significant source of revenue, comprising 74% of the total. The study identifies innovative avenues such as film-based merchandising, in-film advertising, and digital platforms to augment revenue. Despite the industry's projected $33 billion revenue by 2021, financial challenges persist, with 90% of movies facing uncertainty at the box office. The research provides valuable insights into revenue diversification and the financial risks encountered by film producers, offering guidance for ensuring the industry's sustainability and profitability in a dynamic market.

Jose (2023)'s study, "Regional Indian Movies in Rs.100 Crore Club: A Semiotic Analysis of the Movie Posters," explores the visual construction of meaning in Malayalam movie posters and their potential impact on a film's financial success. The study employs Kress and van Leeuwen's visual social semiotic method to analyse posters of three Malayalam films: Pulimurugan, Kayamkulam Kochunni, and Lucifer. While the paper does not explicitly state specific conclusions, it implies insights into the visual strategies employed in these posters and their potential role in attracting viewers and contributing to a film's success. The research contributes to understanding the semiotic significance of visual elements and how they communicate messages to engage audiences, potentially informing marketing strategies for regional Indian films.

The paper titled, "How Does Online Word-of-Mouth Impact Movie Box Office: An Empirical Investigation of China," by Chi et al. (2019) explores the influence of online word-of-mouth (WOM) on the box office performance of movies in mainland China. Using a sample of 150 released movies, the study employs a Granger causality test and a simultaneous equation model to analyse the relationship between WOM and box office results. The research concludes that the volume of WOM significantly promotes box office success, while the valence of WOM, particularly in the first week post-release, inhibits box office performance, with this effect diminishing in the second week. The findings emphasise the crucial role of WOM timing and sentiment in shaping audience behaviour and contribute valuable insights to the understanding of the dynamics between online WOM and movie box office outcomes in the Chinese context.

The paper by Hu et al. (2019) investigates the factors influencing box office performance during a film's release period using a semi-parametric regression model. The study develops a comprehensive index system of box office influence factors and finds that the trend of box office follows a negative exponential function, primarily determined by audience attention, pursuit, discussion of the film, and the continuous release of marketing materials. Results show that the semi-parametric regression model provides a better fit for analysing box office influence factors compared to the parametric regression model. The paper underscores the significance of understanding these factors to enhance the success of films and emphasises the role of audience engagement and marketing strategies in determining box office performance during the release period.

In the study by Pangarker and Smit (2013), the determinants of box office performance in the film industry are examined, with a focus on factors influencing global box office revenue. Emphasising the significance of production cost and major studio releases, the research underscores their enduring importance in driving box office success, while also noting the comparatively lesser impact of factors like film genre, release date, and critical reviews. This study, conducted after three decades, contributes valuable insights into the key drivers of global box office revenue, supported by evidence from OpusData, although it acknowledges contradictory evidence regarding definitive factors for box office success and limited focus on audience attendance patterns in international markets.

The study by Kim et al. (2021) employs sentiment and survival analysis to explore the key success factors of films, revealing the significant impact of audience sentiments, positive and negative reviews on screening days, and other movie characteristics such as genres and ratings. This study enriches the existing literature by providing nuanced insights into the dynamics of movie success, emphasising the importance of understanding audience sentiments and movie characteristics for predicting success in the film industry.

Bali (2020)'s article focuses on predicting the success of Bollywood movies through a model based on multiple linear regression, highlighting the influence of factors like release date, tweets, and budget on box office performance. It discusses the significance of these factors, along with the use of sentiment analysis on tweets to predict box office success, reflecting a growing trend towards data analytics and technology in understanding consumer preferences. While acknowledging limitations such as the lack of data on audience preferences and demographics, the study contributes to the literature by proposing a predictive model for Bollywood movie success and exploring the evolving landscape of movie analytics.

The paper by Gao et al. (2021) on big data analysis of factors influencing movie box office in China provides valuable insights into the Chinese movie industry's box office revenue determinants, identifying key factors such as the number of screens, showings, production budget, and release time that significantly impact box office performance. Utilising correlation analysis and decision tree analysis, the study offers recommendations to enhance box office revenue and optimise movie release strategies, contributing to a deeper understanding of the Chinese movie industry's dynamics.

Finally, Yongbin and Rongzhao (2013)'s research investigates the relationship between leading actors, directors, and box office income using a multiple linear regression model. Contrary to common belief, the study finds that the expertise of the director significantly impacts box office income, challenging the notion that actor quality is the primary determinant of a film's revenue. This study provides a quantitative analysis of the impact of leading actors and directors on box office success, suggesting hiring famous directors to prioritise increased box office income and awareness.

In conclusion, the literature review underscores the multifaceted nature of factors influencing movie success, offering valuable insights for conducting secondary data analysis in the research. Key variables identified across the studies include- budget, production house, film genre, release date, critical reviews, star value, genre, awards received etc. By synthesising these findings, the research can leverage predictive models, ensemble approaches, and econometric analyses to assess the impact of these variables on box office performance in the context of regional cinema. Additionally, the review emphasises the importance of understanding audience engagement dynamics, marketing strategies, and industry challenges in shaping movie success, providing a comprehensive framework for the subsequent data analysis.

METHODOLOGY

Research Framework

The methodology of this study draws upon the works of Litman (1983), Pangarker & Smit (2013), and Bali (2020), which have utilised the Multiple Linear Regression (MLR) model to analyse various aspects of film economics. Building upon this established methodology, the current study applies the MLR model to investigate the dynamics of regional cinema.

Data Collection

The study collects equal numbers of data on successful regional movies over a five-year period across the four main regional film industries, namely Malayalam, Tamil, Telugu, and Kannada. The dataset includes information on box office revenue as the dependent variable and a range of independent variables extracted from reputable sources such as IMDb, Rotten Tomatoes, Box Office Mojo, and other industry databases known for their comprehensive and reliable information. These independent variables may encompass factors such as production budgets, star power, genre, release timing, and audience ratings.

Data Analysis

Utilising the descriptive statistics analysis technique and MLR model, the study analyses the overall performance of the regional cinema as such and the relationship between the independent variables and box office revenue for regional movies. Dummy variables are used to represent categorical variables such as action, drama, major production companies, holiday releases, above average rating, and sequel or real life status. The regression analysis aims to identify significant predictors of box office success and quantify their impact on revenue generation across the four main regional film industries.

Model Evaluation

The goodness-of-fit of the MLR model is assessed using statistical metrics such as R-squared, Adjusted R-squared, and p-values. The significance of individual predictor variables is evaluated to determine their contribution to explaining variations in box office revenue.

Interpretation and Conclusion

The findings of the regression analysis are interpreted to draw meaningful insights into the economic dynamics of regional cinema. The study discusses the implications of the results for stakeholders in the regional film industries, including filmmakers, production houses, distributors, exhibitors, and policymakers. Recommendations may be provided for optimising box office success and fostering the sustainable growth of regional cinema.

Limitations

The study acknowledges potential limitations, such as data availability constraints, measurement errors, and the complexity of capturing the multifaceted nature of box office success. Future research directions may be suggested to address these limitations and further advance understanding of regional cinema economics.

EMPIRICAL MODEL AND THE VARIABLES

The proposed empirical model for investigating the determinants of box office revenue for regional Indian movies is defined as follows:

$$\text{Revenue} = \beta 0 + \beta 1\ \text{ProductionCost} + \beta 2\ \text{Action} + \beta 3\ \text{Drama} + \beta 4\ \text{MajorProdHouse} + \beta 5\ \text{Holiday} + \beta 6\ \text{CriticRatings} + \beta 7\ \text{Sequel} + \beta 8\ \text{StarValue} + e \quad (1)$$

Dependent Variable

Total Revenue

The dependent variable total revenue represents the worldwide box office revenue earned by a film in crores, reflecting its financial success in terms of ticket sales.

Independent Variables

Production Cost

Production costs denote the total production budget in rupees, encompassing expenses such as actor remuneration, pre-production, post-production, promotion, and distribution. It serves as a measure of the investment made in creating the film.

Action

Action films typically feature intense physical action sequences, emphasising fights, chases, and special effects. A binary variable 1 indicating whether the film belongs to the action genre.

Drama

Dramas are characterised by their serious tone and focus on character development and emotional depth. A binary variable 1 indicating whether the film falls under the drama genre.

Major Production House

A dummy variable indicating whether the film is released by a major production company with a significant presence in the industry, typically defined as having a longstanding history (over 10 years) and a substantial portfolio of film productions.

Holiday Release

A dummy variable indicating whether the film was released during peak holiday periods such as Christmas, summer vacations (April and May), Diwali, or other festival days. This accounts for potential seasonal variations in audience attendance.

Ratings

Represents the average rating given to the film by critics. A binary variable is assigned based on whether the film received a rating of 7 or higher out of 10, as rated by IMDb critics. This reflects critical acclaim and positive reception.

Sequel/Real life/Remake

This variable encompasses films based on real-life incidents or remakes of existing works, suggesting potential audience familiarity and interest. A dummy variable 1 is attributed to movies that fall under this category.

Star Value

The star value of the main actor, indicating extensive experience if they have starred in over 30 movies, may impact the movie's box office performance and audience appeal.

ANALYSIS AND FINDINGS

The analysis and findings of the study are based on secondary data collected on the top-grossing movies across each industry over the past five years. Utilising multiple linear regression and descriptive statistics, the research examined the box office collections, production budgets, and various factors contributing to the success of these films.

Table 1: Average revenue and budget of South Indian movie industries (2018-2023)

Movie Industry	Average Budget in crores	Average Revenue in crores
Mollywood	18.1	51.1
Kollywood	95.8	188.5
Tollywood	106.7	228.5
Sandalwood	34.2	99.1

Source: Computed by the researcher from secondary sources.

Table 1 provides the average budget and revenue figures for four major regional film industries in India: Mollywood (Malayalam cinema), Kollywood (Tamil cinema), Tollywood (Telugu cinema), and Sandalwood (Kannada cinema).

The data indicate significant variations in both average budget and revenue across the regional film industries. Kollywood and Tollywood stand out with substantially higher average budgets compared to Mollywood and Sandalwood. This suggests that Tamil and Telugu cinema productions are allocated larger financial resources, potentially allowing for higher production values, star casts, and marketing efforts. In terms of average revenue, Kollywood and Tollywood also lead the pack, with considerably higher figures compared to Mollywood and Sandalwood. Blockbuster hits like "Bahubali 2" and "RRR," directed by Rajamouli, which boasted substantial budgets of 250 crores and 425 crores, respectively. These high-budget productions resulted in exceptional revenue figures, with "Bahubali 2" earning approximately 1810 crores and "RRR" earning around 1251 crores worldwide. This indicates that Tamil and Telugu films generally enjoy greater commercial success at the box office, possibly due to factors such as larger audience bases, wider market reach, and higher demand for films in these languages both domestically and internationally.

On the other hand, Mollywood and Sandalwood, while having lower average budgets and revenues compared to their Tamil and Telugu counterparts, still exhibit notable figures. This suggests that Malayalam and Kannada cinema have their own strengths and market appeal, albeit on a comparatively smaller scale. In Mollywood, the average budget for movies is relatively lower at 18.1 crores, yet they yield a substantial average revenue of 51.1 crores. Notably, the industry hit “2018-Everyone is a Hero," is a standout example, produced with a budget of only 26 crores but achieving a remarkable worldwide gross revenue of approximately 179 crores. In Kannada cinema, represented by Sandalwood, the average budget falls between Mollywood and the larger industries like Kollywood and Tollywood, standing at 34.2 crores. Despite a relatively moderate budget, Sandalwood movies generate a respectable average revenue of 99.1 crores. An illustrative example is the highest-grossing movie of 2023, "Kanthara," produced with a budget of just 16 crores but earning an impressive revenue of about 393 crores.

Overall, the data underscores the diversity and dynamism of the Indian film industry, with each regional cinema contributing uniquely to the country's rich cinematic landscape. Understanding these variations in budget and revenue can provide valuable insights into the economic dynamics and competitive landscape of the regional film industries, which is essential for comprehensive analysis and strategic decision-making within the sector.

Regression Analysis Results: Factors Contributing to Box Office Success

In this section, the regression analysis results for Mollywood, Kollywood, Tollywood, and Sandalwood are presented, aiming to identify significant factors contributing to higher box office revenue. The analysis is based on the model presented in Equation 1, which encompasses various independent variables such as production cost, genre, production house, release timing, critic ratings, sequel status, and lead actor prominence. The regression results are summarised in Tables 2, 3, 4, and 5, respectively, providing insights into the impact of these factors on the financial performance of movies across different regional film industries.

Table 2: Regression analysis results of factors contributing to the box office revenue in Mollywood.

	Coefficients	**t value**	**P value**
Intercept	9.452112037	0.73470699	0.00
Rating	32.90170647	3.78697692	0.00
Sequel	30.6795509	2.59822739	0.01

R square	0.46910964		
F-value	3.53451249		
Significance level	0.00		

Source: Computed by the researcher from secondary sources.

H0: The independent variables collectively do not have a significant impact on box office revenue.
H1: The independent variables collectively have a significant impact on box office revenue.
This hypothesis assesses whether the overall regression model, including all independent variables, adequately explains the variability in box office revenue.
The estimated regression model is-
Revenue = 9.452 - 0.027 ProductionCost + 14.434 Action + 0.162 Drama + 12.945 MajorProdHouse + 5.162 Holiday + 32.902 CriticRatings + 30.679 Sequel + 2.568 StarValue+e (2)
The regression analysis results for Mollywood, as depicted in Table 2, reveal significant factors contributing to box office revenue in this regional film industry.
A substantial coefficient of 32.901 for critic ratings indicates that higher average ratings positively influence box office earnings, suggesting the pivotal role of critical acclaim in attracting audiences and driving ticket sales. This finding can be attributed to the influence of critical acclaim on audience perceptions and movie attendance. Movies with favourable critic ratings are often perceived as higher quality productions, attracting more viewers and ultimately leading to higher box office earnings. Also positive reviews from critics may contribute to word-of-mouth promotion, further enhancing the film's commercial success.
Additionally, the significant coefficient of 30.679 for sequel, remake and real life incident underscores the tendency to yield higher revenue, possibly due to the established fan base and anticipation surrounding these films. This phenomenon can be explained by the existing fan base and built-in audience anticipation associated with sequels. Sequels often benefit from the success and popularity of their predecessors, leading to increased audience interest and higher ticket sales. Moreover, sequels often offer continuation or expansion of beloved storylines and characters, driving audience engagement and box office success.
The overall model fit, with an R-square value of 0.46910964, suggests that nearly 47% of the variance in box office revenue can be explained by the included variables, implying a moderate level of explanatory power. The statistically significant F-value of 3.53451249 further supports the model's significance, affirming its ability to predict box office success in Mollywood.Therefore the null hypothesis can be rejected and the alternative hypothesis is accepted. These findings underscore the importance of factors such as critic ratings and sequel status in driving the economic performance of Mollywood films, providing valuable insights for industry practitioners and stakeholders.

Table 3: Regression analysis results of factors contributing to the box office revenue in Kollywood.

	Coefficient	t-value	p-value
Intercept	6.8525	1.100768	0.9203
Budget	1.850462	8.739561	0.00
Rating	58.16178	2.155834	0.03872
R square	0.801579		
F-value	16.15918		
Significance level	0.00		

Source: Computed by the researcher from secondary sources.

H0: The independent variables collectively do not have a significant impact on box office revenue.
H1: The independent variables collectively have a significant impact on box office revenue.
The estimated regression model is-
Revenue = 6.852 + 1.85 ProductionCost + 8.937 Action - 10.8037 Drama + 7.608 MajorProdHouse - 46.91 Holiday + 58.162 CriticRatings + 30.764 Sequel - 38.43 StarValue + e (3)
In Table 3, the regression analysis for Kollywood reveals several significant findings. The substantial coefficient of 1.850462 for budget indicates a positive association between production budget and box office revenue, implying that higher budget films tend to generate higher earnings. This relationship can be attributed to several factors inherent to Tamil cinema. Firstly, a higher budget allows for the incorporation of advanced production values, including elaborate sets, high-quality visual effects, and top-tier talent, which can enhance the overall appeal and marketability of the film. Moreover, a larger budget often translates to more extensive promotional efforts, including aggressive marketing campaigns and wider distribution, which can significantly boost audience awareness and turnout. Additionally, Tamil cinema has a dedicated fan base known for its appreciation of visually stunning and technically polished films, making high-budget productions particularly appealing to this audience segment. Furthermore, the coefficient of 58.16178 for critic ratings suggests that higher average ratings positively influence box office revenue, indicating the significance of critical acclaim in driving audience interest and attendance. The combination of a substantial budget and positive critical reception underscores the importance of investment in production quality and content excellence in maximising box office success in Kollywood. The model's high R-square value of 0.801579 indicates that approximately 80% of the variance in box office revenue can be explained by the included variables, indicating a strong explanatory power. Furthermore, the significant F-value of 16.15918 reinforces the overall significance of the regression model, affirming its ability to predict box office success in Kollywood. These results underscore the critical role of budget and critic ratings in driving the economic performance of Kollywood films, providing valuable insights for industry stakeholders and decision-makers.

Table 4: Regression analysis results of factors contributing to the box office revenue in Sandalwood.

	Coefficient	t-value	p-value
Intercept	-7.77332	-0.08792	0.930
Budget	3.798897	4.180891	0.00
R square	0.658457		
F-value	4.337769		
Significance level	0.00		

Source: Computed by the researcher from secondary sources.

H0: The independent variables collectively do not have a significant impact on box office revenue.
H1: The independent variables collectively have a significant impact on box office revenue.
The estimated regression model is-
Revenue = - 7.773 + 3.799 ProductionCost -16.098 Action + 38.184 Drama + 37.184 MajorProdHouse + 20.004 Holiday + 23.528 Critic Ratings - 20.048 Sequel - 73.432 StarValue+e (4)
In Table 4, the regression analysis for Kannada movie industry illustrates a notable finding regarding the significant influence of only the production budget on box office revenue. The coefficient of 3.798897 for budget signifies a positive relationship between the amount invested in production and the revenue generated, indicating that higher budget films tend to yield higher box office returns in the Sandalwood industry. This result can be attributed to several factors specific to the Sandalwood film landscape. Firstly, a larger production budget enables filmmakers to enhance various aspects of the film, such as production quality, cinematography, and visual effects, which can significantly enhance the overall viewing experience and appeal to audiences. Additionally, a higher budget allows for more extensive marketing and promotional efforts, including wider distribution and targeted advertising campaigns, which can increase audience awareness and drive ticket sales. Moreover, while factors such as action, rating, and production budget may also play a role in determining a film's success, their non-significance in this analysis suggests that, in the context of Sandalwood, the budget may outweigh these factors in its impact on box office revenue. This underscores the importance of adequate financial investment in production as a key determinant of box office success in the Kannada film industry.
The coefficient of determination (R square) value of 0.658457 suggests that approximately 65.85% of the variability in box office revenue can be explained by the independent variable, which in this case is the production budget. Additionally, the F-value of 4.337769 is statistically significant at the 0.05 level, indicating that the regression model as a whole is significant and hence the null hypothesis is rejected. Overall, these results suggest that the regression model effectively captures the relationship between production budget and box office revenue in the Sandalwood film industry, providing valuable insights into the factors driving financial success in this sector.

Table 5: Regression analysis results of factors contributing to the box office revenue in Tollywood.

	Coefficient	t-value	p-value
Intercept	-186.347	-1.33422	0.191
Budget	2.180171	2.255049	0.00
Rating	200.1463	2.52954	0.016
R square	0.5438174		
F-value	4.7684203		
Significance level	0.00		

Source: Computed by the researcher from secondary sources.

H0: The independent variables collectively do not have a significant impact on box office revenue.
H1: The independent variables collectively have a significant impact on box office revenue.
The estimated regression model developed from equation (i) is-
Revenue = - 186.347 + 2.180171 ProductionCost + 117.579 Action -28.887 Drama + 3.354 MajorProdHouse + 111.934 Holiday + 200.146 CriticRatings + 35.51 Sequel -56.536 StarValue+ e (5)
In Table 5, the regression analysis results for factors contributing to box office revenue in Telugu industry is similar to that of the Tamil movie industry. Firstly, the model's coefficient of determination (R square) of 0.5438174 indicates that approximately 54.38% of the variability in box office revenue can be explained by the independent variables included in the model. This suggests a moderate level of explanatory power, implying that factors beyond those included in the model may also influence box office performance. Secondly, the F-value of 4.7684203 is statistically significant at the 0.05 level, indicating that the regression model as a whole is significant and provides a better fit to the data compared to a model with no independent variables.Thus the null hypothesis is rejected and reinforces the notion that the model captures meaningful relationships between the independent variables (budget, rating) and box office revenue in Tollywood. Specifically, the budget variable exhibits a statistically significant positive relationship with box office revenue, with a coefficient of 2.180171 and a p-value of 0.00. This suggests that higher production budgets are associated with higher box office revenues, which aligns with expectations given the potentially greater investment in production quality, marketing, and distribution. Additionally, the rating variable also demonstrates a statistically significant positive relationship with box office revenue, with a coefficient of 200.1463 and a p-value of 0.016. This indicates that movies with higher ratings tend to generate higher box office revenues, potentially reflecting positive word-of-mouth, critical acclaim, and audience appeal. Overall, these findings provide valuable insights into the factors driving box office success in Tollywood and highlight the importance of factors such as production budget and audience reception in shaping revenue outcomes.
When comparing the regression analysis results across the four industries—Mollywood, Kollywood, Tollywood, and Sandalwood—it's evident that certain factors contribute similarly to the success of movies, while others exhibit differences. Firstly, the production budget consistently emerges as a significant factor

across all industries, indicating that higher investment in production is generally associated with higher box office revenues. This underscores the importance of financial resources in enhancing production quality, marketing efforts, and overall film appeal, irrespective of the regional industry. Additionally, the presence of a sequel demonstrates significance in both Mollywood and Kollywood, suggesting that established franchise properties or continuity in storytelling can attract audiences and drive revenue. However, it's notable that while ratings are significant in Mollywood, Kollywood, and Tollywood, they are not significant in Sandalwood, indicating potential differences in audience preferences or critical reception. Furthermore, the significance of star value as a predictor of box office success varies across industries, with its absence in Mollywood and Tollywood, but presence in Kollywood and Sandalwood. This suggests varying degrees of reliance on star power or celebrity endorsements as a promotional strategy within each industry. Overall, while certain factors like production budget remain universally influential, the varying significance of factors like sequel, ratings, and star value highlights the nuanced dynamics shaping box office success across different regional film industries.

SUGGESTIONS AND CONCLUSION

Based on the analysis of factors contributing to box office success across different regional film industries, several suggestions can be made to enhance revenue generation and ensure the sustainability of each sector. Firstly, it's crucial for filmmakers in each industry to recognize the significance of identified factors such as production budget, sequel potential, and audience ratings. These factors should be strategically incorporated into film production strategies to maximise revenue potential. For instance, in the Malayalam film industry, focusing on content-driven narratives and creating opportunities for sequels or real-life adaptations could attract audiences and lead to higher returns on investment. Moreover, stringent budget management can help optimise profits, ensuring the industry's financial sustainability. In contrast, industries like Kannada cinema may benefit from investing more in technological advancements, star casts, and film sets to enhance production quality and audience appeal. Similarly, Tamil and Telugu industries should prioritise content quality while maintaining a reasonable budget to ensure profitability. Additionally, collaboration with reputed production houses and leveraging digital platforms for marketing and distribution can broaden audience reach and boost revenue streams. The findings of this research carry significant economic implications for the regional film industries in India. As the movie industry represents a substantial sector of the economy, understanding the factors that contribute to box office success is crucial for its sustainability and growth. By identifying key determinants such as production budget, sequel potential, and audience ratings, filmmakers can make informed decisions to maximise revenue generation. Overall, by aligning production strategies with the identified success factors and catering to the unique preferences of their target audience, regional film industries can optimise revenue generation and contribute to the growth of the overall economy.

In conclusion, this research delved into the multifaceted realm of the regional cinema industry, particularly focusing on the factors influencing box office success across four major South Indian film industries: Mollywood, Kollywood, Tollywood, and Sandalwood. The primary objectives were to analyse the overall performance of regional cinema, identify key determinants of box office revenue, assess potential regional differences in these factors, and offer insights for industry stakeholders. Through regression analysis, it was revealed that factors such as production budget, movie rating, and sequel status significantly impact box office revenue across all industries. This underscores the importance of strategic decision-making in the creative and financial aspects of film production. The economic significance of this study cannot be overstated, as the film industry serves as a major source of employment and economic activity, supporting millions of livelihoods and contributing significantly to national and regional economies. By understanding the factors driving success, industry practitioners can make informed decisions to maximise revenue and ensure the long-term sustainability of the regional cinema ecosystem. Thus, the findings of this research offer valuable insights and recommendations for filmmakers, producers, and other stakeholders to navigate the dynamic landscape of the film industry, fostering growth, innovation, and cultural enrichment. Indeed, the efforts of the film industry are palpable across various spheres, showcasing the diverse strategies employed by different regional cinemas to achieve success. Malayalam cinema stands out for its emphasis on high-quality content, even with limited budgets, as exemplified by movies like "2018" and "ManjummalMboys." On the other hand, Tamil and Telugu industries are increasingly investing substantial budgets in films to maximise outcomes, evident in recent releases like "RRR" and "Leo." The monumental success of films like "KGF" has inspired the entire regional film industry to dream big and believe in the potential for higher box office figures, illustrating the transformative power of visionary storytelling and innovative filmmaking approaches.

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