

Evolution of public broadcasting: TeleJurnal's viewership trends and strategic implications for business sustainability

Research Article

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Received 10 March 2025; Accepted 16 June 2025

Abstract: As traditional public broadcasting contends with a more competitive digital environment, Romania's national broadcaster, Televiziunea Română, confronts crucial questions regarding audience engagement from a business standpoint. This research examines the viewership trends of TeleJurnal, the network's main flagship news program, utilizing data from 2018 to 2022, and projects forecasts for 2023–2025. By employing a time-series autoregressive moving-average model, this article assesses the stationarity and autocorrelation of audience data to evaluate the consistency of ratings amidst external factors such as changes in programming strategy, political events, and market competition. The results show notable steadiness in TeleJurnal's viewership, offering considerable strategic benefits and allowing for more assured long-term planning for programming and revenue generation. The consistent audience patterns we identified enhanced the broadcaster's position in advertising discussions and supported more precise budget forecasts while revealing opportunities to capitalize on seasonal viewing trends for optimized advertising revenue. Nonetheless, financial limitations and digital disruption may alter audience tastes and diminish the effectiveness of conventional television formats. By implementing data-centric content creation and business planning strategies, TeleJurnal can sustain its competitiveness and fulfill its duty as a public service entity in a changing media environment. The insights derived from this study provide actionable advice to maintain audience fidelity, enhance financial outcomes, and adjust to evolving market dynamics.

Keywords: *Public television • Audience retention • Predictive modeling • TeleJurnal • TVR • Competitive advantage • Digital transformation*

1. Introduction

Public television has long been regarded as a pillar of democratic engagement, cultural representation, and media accessibility. As a medium intended to serve the public interest, it has historically operated independently of commercial imperatives, ensuring diverse content and equitable access to information (Hoynes, 1999). However, with the rapid evolution of digital media landscapes, public broadcasters face increasing challenges in maintaining audience engagement and financial sustainability (Syvertsen, 2003). These transformations have intensified debates surrounding the role of public television, particularly regarding audience

trends, commercialization pressures, and strategic adaptability.

Romanian public television, Televiziunea Română (TVR), has played a crucial role in shaping the national media landscape since its establishment in 1956. Initially operating as a state-controlled entity under the communist regime, TVR was used as a propaganda tool, heavily censored to align with government narratives. However, following the fall of communism in 1989, TVR underwent significant restructuring, embracing a more independent editorial stance and diversifying its programming. Throughout the 1990s and 2000s, the broadcaster faced mounting competition from private television networks, which offered more dynamic and commercially driven content. Despite these challenges, TVR remained committed to its public service mission, providing high-

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quality journalism, educational programs, and cultural productions.

Today, TVR operates several national and regional channels, including TVR 1, TVR 2, TVR Cultural, and TVR International, catering to both domestic and diaspora audiences. However, the broadcaster faces ongoing struggles, including financial instability, declining viewership, and political interference. The rise of digital platforms, streaming services, and commercial competitors has significantly eroded TVR's traditional audience base. Moreover, concerns regarding political influence over editorial content continue to raise questions about the broadcaster's independence. In this context, understanding TVR's audience dynamics, particularly for its flagship news program *TeleJurnal*, is essential to developing effective strategies for sustaining public trust and engagement.

Understanding viewership behavior is essential for sustaining public television's relevance. Research has shown that while public television aspires to universal accessibility, actual viewership is often concentrated among highly educated and affluent audiences (Brooks & Ondrich, 2006). Moreover, transnational networks, such as ARTE, have struggled to redefine audience engagement amidst shifting media consumption habits (Stankiewicz, 2012). These findings highlight the importance of predictive models in understanding audience dynamics and informing strategic decision-making.

Against this backdrop, this study examines the viewership trends of *TeleJurnal*, a prominent public television news program, over the period 2018–2022, and presents a forecast for 2023–2025. Using a time-series analysis with an ARMA(1,1) model, the study explores whether *TeleJurnal*'s ratings exhibit stability or are subject to fluctuations due to external factors such as programming changes, political events, and competition. By evaluating stationarity and autocorrelation in audience data, the research aims to provide insights into the future of public television ratings, contributing to broader discussions on sustaining audience engagement and optimizing programming strategies.

This study seeks to explore the impact of audience constancy and predictability on the financial sustainability of public broadcasting, outlining the necessity for data-driven business decisions that effectively balance content innovation with maintaining a consistent viewer base. This research argues that maintaining a constant audience base provides *TeleJurnal* with a significant competitive advantage, allowing the optimization of business strategies by forecasting advertising revenues, adjusting resources according to consumer trends, and developing appealing commercial packages for partners. The rating stability can also help strengthen long-term media relationships and

attract new funding sources, reducing the risks associated with market volatility.

This research is situated within the existing literature on public television sustainability and audience analytics, building upon previous studies on media independence (Rozanova, 2007), funding models (Hoynes, 2003), and digital-era challenges (Syvertsen, 2003). The findings of this study have significant implications for public broadcasters, emphasizing the necessity of data-driven audience retention strategies and a balanced approach between public service commitments and financial viability.

2. Literature review

Public television has historically played a crucial role in democratic participation, cultural representation, and accessibility. Hoynes (1999) argues that public television was originally conceptualized as an alternative to commercial broadcasting, providing quality content free from market pressures. Similarly, Rozanova (2007) emphasizes that public service broadcasting (PSB) is essential for maintaining media independence and informational pluralism, especially in emerging democracies. In Andean America, public television faces challenges related to political influence and commercialization. Romero-Rodriguez et al. (2021) highlight that public broadcasters in countries like Bolivia and Ecuador often function as political tools, rather than independent sources of public information.

Recent research highlights that public service broadcasters in Europe tend to focus their transparency efforts primarily on institutional and financial reporting, while often overlooking more meaningful practices such as promoting diversity, inclusion, and equitable representation among stakeholders (Rivera Otero et al. 2021).

Research shows that public television audiences are influenced by socioeconomic factors. Brooks and Ondrich (2006) found that while public television aims for universal access, its actual audience is predominantly composed of highly educated and affluent individuals. Stankiewicz (2012) expands on this by analyzing how transnational public channels like ARTE struggle to redefine their audiences amid shifting viewing habits.

Within this framework, Li et al. (2023) offer a regulatory approach in which public broadcasters are encouraged to maintain high-quality programming while introducing limited advertising in a controlled manner. This model supports financial sustainability without eroding audience trust and emphasizes the importance of carefully designed co-regulation mechanisms.

The TeleJurnal study reflects these trends, showing stable ratings over time and suggesting a core, loyal audience. However, the correlogram analysis reveals that past viewership patterns strongly predict future ratings, emphasizing the importance of consistent programming and audience retention strategies. Time-series models, particularly ARMA(1,11), have been widely used to forecast television ratings. Research by Brooks and Ondrich (2006) supports the use of autoregressive and moving average models to predict audience behaviors effectively. The TeleJurnal study confirms that ratings are stable from 2023 to 2025, with moderate fluctuations around a central trend, aligning with these previous findings.

This kind of audience consistency also strengthens arguments for updating how public broadcasters are financed. Solak (2023) points out that traditional models based on owning a radio or television set no longer align with how people access media today. He suggests that a contribution system based on households could better support the financial health of public broadcasters while ensuring fairness.

This stability is crucial for strategic planning within public broadcasting. Research by Hoynes (2003) and Syvertsen (2003) suggests that a stable audience base enables public broadcasters to plan long-term content strategies, optimize funding models, and maintain editorial independence. Public broadcasters increasingly face commercialization and privatization pressures. Hoynes (2003) discusses how market-driven strategies have influenced PSB, pushing it toward a more brand-oriented model. Similarly, Syvertsen (2003) highlights how convergence and digital transformation challenge traditional public broadcasting structures, forcing them to compete with commercial networks.

Franks and Seaton (2024) argue that the future of public broadcasting depends on a strong commitment to democratic principles. They stress the need for broadcasters to invest in regional content and serve the public interest by engaging with communities and offering programming that reflects a broad range of voices.

Armstrong and Weeds (2007) argue that audience consistency provides a solid foundation for financial planning and negotiating long-term commercial contracts, allowing broadcasters to attract advertising partners who value audience predictability. However, traditional funding channels relying on government and advertising support face considerable challenges in the digital age, as Donders (2019) stated. The transition to digital broadcasting lowers entry barriers for new market competitors, decreasing public broadcasters' revenues and requiring a strategic reassessment of content positioning and monetization strategies. The deployment of data analytics technologies and leveraging predictions of

audience behavior can increase the efficiency of business decisions, facilitating optimal resource allocation and mitigating external risks.

Rivera Otero *et al.* (2021) further identify two crucial areas for long-term success: adopting sustainable operational strategies and advancing digital tools for public engagement. Although some broadcasters have embraced these goals in theory, the actual implementation of inclusive and accountable governance remains inconsistent, which could undermine public confidence over time.

Lee and Wilding (2021) point out that the current co-regulatory systems lack sufficient involvement from the public and often operate in favor of commercial interests. They advocate for a renewed structure of regulation that places citizens at the center of decision-making and reinforces the mission of public broadcasters as essential pillars of democratic communication.

Ulin (2019) stresses the importance of media distribution as a crucial element in revenue generation, focusing on audience stability and long-term planning. He notes that the predictability of media consumption allows companies to secure business partners, such as advertisers, through customized packages that account for seasonal fluctuations in consumption. Given the transformation of public television, audience stability is essential in developing commercial and financial strategies.

The TeleJurnal study supports these concerns, indicating that external shocks such as competition and content shifts could influence ratings, reinforcing the need for strong audience engagement strategies. Since past engagement strongly predicts future viewership, strategies such as consistent programming, investigative journalism, and audience interaction are essential. Research suggests that balancing government support with diversified revenue sources, such as audience donations or educational partnerships, strengthens public broadcasting sustainability (Brooks & Ondrich, 2006). Studies by Labio-Bernal and García-Prieto (2022) emphasize the need for inclusivity in public broadcasting, advocating for greater representation of minorities, sign language accessibility, and cultural diversity.

The literature highlights key challenges for public television, including audience segmentation, funding constraints, and commercial pressures. The TeleJurnal study aligns with these broader themes, showing high stability in viewership and strong autocorrelation in audience trends. Future policy efforts should focus on maintaining content quality, resisting excessive commercialization, and strengthening funding mechanisms to ensure the sustainability of public television.

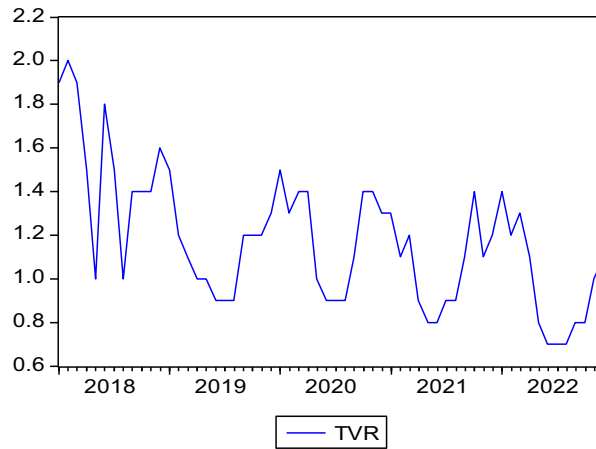


Figure 1. Monthly rating of TeleJurnal (2018–2022) and Forecast for 2023–2025.

Source: Authors' own research.

3. Methodology

The study examines the monthly rating of TeleJurnal over the period 2018–2022, with a forecast for 2023–2025. The data are structured as a time series, where each observation represents the audience rating for a given month. The time series is denoted as Y_t , where t represents the time in months.

To ensure the validity of the predictive model, we first test for stationarity using the Augmented Dickey–Fuller (ADF) test. The ADF test evaluates the null hypothesis that the time series has a unit root, implying non-stationarity. The test is specified as follows:

$$\Delta Y_t = \alpha + \beta t + \gamma Y_{t-1} + \sum_{i=1}^p \delta_i \Delta Y_{t-i} + \epsilon_t.$$

Null hypothesis: TVR has a unit root

Exogenous: constant, linear trend

Lag length: 3 (automatic based on SIC, MAXLAG = 10)

	t-statistic	Prob.*
ADF test statistic	−4.419714	0.0044
Test critical values:		
1% level	−4.130526	
5% level	−3.492149	
10% level	−3.174802	

Table 1. Dickey–Fuller test results for stationarity analysis
If the probability is less than 0.05, then the null hypothesis is rejected and the alternative hypothesis is accepted, i.e., the series is stationary.

Source: Authors' own research.

The next step involves selecting the optimal Autoregressive Moving Average (ARMA) model. We analyze the series' autocorrelation function (ACF) and partial autocorrelation function (PACF) using a correlogram. Significant spikes in the ACF and PACF suggest a mixed ARMA structure. The general ARMA(p,q) model is given by

$$Y_t = c + \sum_{i=1}^p \phi_i Y_{t-i} + \sum_{j=1}^q \theta_j \epsilon_{t-j} + \epsilon_t.$$

Several ARMA models were evaluated based on the Akaike Information Criterion (AIC) and Schwarz Criterion (SC). To confirm the robustness of the ARMA(1,11) model, we conducted several diagnostic tests: Durbin–Watson test, Breusch–Godfrey Lagrange Multiplier (LM) test for serial correlation, and Autoregressive Conditional Heteroskedasticity (ARCH) test for heteroscedasticity.

4. Results

In Figure 1, we graphically represented the monthly rating of TeleJurnal for the period 2018–2022. We then made a forecast for the period 2023–2025. The prediction method we use is AR(I)MA. We checked if the initial series is stationary by applying the Dickey–Fuller test for a model with a constant and trend. Since the probability associated with the test is 0.0044, which is lower than 0.05, the null hypothesis is rejected, and the alternative hypothesis is accepted, meaning that the initial series is stationary, as shown in Table 1.

Since the series is stationary, this suggests that the TeleJurnal ratings have stabilized over time without

exhibiting a long-term increasing or decreasing trend. This means that external shocks, such as programming changes, public events, or seasonal fluctuations, have temporary effects rather than causing persistent growth or decline in viewership. This stability is essential for TVR's strategic planning, as it implies that future changes in ratings will likely be driven by content quality and competition rather than structural market shifts.

The static nature of TeleJurnal's ratings offers a strategic opportunity to optimize content scheduling and advertising packages. Because external shocks such as seasonal events or programming shifts create only temporary fluctuations, TeleJurnal can concentrate on increasing viewer engagement by investing in constant, high-quality content rather than hazardous, high-cost experiments targeted at rapid viewership increase. Furthermore, this steadiness

Date: 08/04/24 Time: 07:58

Sample: 2018:01 2022:12

Included observations: 60

Autocorrelation	Partial correlation		AC	PAC	Q-Stat	Prob
. ****	. ****	1	0.689	0.689	29.942	0.000
. ***	. *	2	0.432	-0.081	41.930	0.000
. **	. *	3	0.316	0.095	48.430	0.000
. *	**	4	0.098	-0.270	49.065	0.000
. .	. *	5	0.005	0.098	49.067	0.000
* .	* .	6	-0.071	-0.150	49.416	0.000
* .	. .	7	-0.124	0.061	50.503	0.000
. .	. *	8	-0.046	0.095	50.657	0.000
. *	. **	9	0.083	0.203	51.158	0.000
. *	. .	10	0.181	0.058	53.588	0.000
. **	. .	11	0.245	0.049	58.134	0.000
. **	* .	12	0.233	-0.079	62.343	0.000
. *	* .	13	0.143	-0.105	63.969	0.000
. *	. .	14	0.091	0.021	64.645	0.000
. .	. .	15	0.046	0.026	64.819	0.000
* .	* .	16	-0.077	-0.101	65.325	0.000
* .	. .	17	-0.166	-0.049	67.696	0.000
* .	. *	18	-0.132	0.109	69.250	0.000
* .	* .	19	-0.139	-0.118	70.993	0.000
* .	. .	20	-0.089	0.058	71.728	0.000
. *	. *	21	0.069	0.142	72.184	0.000
. *	. *	22	0.156	0.093	74.551	0.000
. *	. .	23	0.188	-0.049	78.116	0.000
. **	. *	24	0.249	0.111	84.504	0.000
. *	* .	25	0.187	-0.133	88.235	0.000
. *	. .	26	0.083	-0.046	88.993	0.000
. .	* .	27	-0.018	-0.121	89.028	0.000
* .	. .	28	-0.143	0.036	91.392	0.000

Table 2. Correlogram of the TVR series.

Source: Authors' own research.

enables TeleJurnal to establish long-term relationships with advertisers by providing reliable audience reach numbers, which may justify premium ad costs during peak viewership periods. To enhance profitability, TeleJurnal could look into combining advertising slots across numerous programs with comparable audience profiles, creating long-term value for sponsors without incurring major content production costs. A stable trend with no significant long-term fluctuations may suggest that TeleJurnal could adopt business strategies focused on streamlining content and strengthening commercial collaborations. One potential strategy is to diversify advertising offerings by creating customized packages for peak and off-peak periods, including discounts for long-term campaigns. In addition, TeleJurnal could consider forming partnerships with educational, cultural, or governmental organizations to develop thematic programs that appeal to specific segments of the target audience. With a stable audience, TeleJurnal has the opportunity to experiment with time slots that attract smaller audiences to attract new segments of viewers. In this way, TeleJurnal can focus on strategies that appeal to the existing target audience while reaching new

potential viewers without experiencing significant audience fluctuations.

Using the TVR correlogram displayed in Table 2, we tested multiple possible ARMA models of type (p,q) . Several valid models were identified, but we selected the ARMA(1,11) model shown in Table 3, as it has the lowest AIC and SC values. In the selected model, the estimated coefficients are significant, with probabilities associated with the t -statistic test lower than 0.05. Additionally, the model's residuals are not autocorrelated, as confirmed by the Durbin–Watson test with a value of 1.98 and the Breusch–Godfrey test with an associated probability of 0.71. The ARCH test confirms the absence of heteroscedasticity, with a test probability of 0.32, which is greater than 0.05. Furthermore, the model is stationary and invertible. The forecast is graphically represented, along with the confidence interval, in Figure 2.

The correlogram (ACF and PACF) of the time series reveals significant autocorrelations at multiple lags, with the Q -statistics being highly significant at all lags (p -value = 0.000). The presence of large spikes in the ACF at early lags indicates the

Dependent variable: TVR				
Method: least squares				
Variable	Coefficient	Std. error	t-statistic	Prob.
C	0.976146	0.102396	9.533022	0.0000
AR(1)	0.607754	0.103520	5.870912	0.0000
MA(11)	0.910815	0.021739	41.89706	0.0000
R-squared	0.718066	Mean dependent var		1.164407
Adjusted R-squared	0.707997	SD dependent var		0.294058
S.E. of regression	0.158901	AIC		−0.791564
Sum squared residual	1.413970	SC		−0.685926
Log-likelihood	26.35113	F-statistic		71.31404
Durbin–Watson stat	1.986850	Prob(F-statistic)		0.000000
Inverted AR roots		0.61		
Inverted MA roots	0.95 + 0.28i	0.95 − 0.28i	0.65 + 0.75i	0.65 − 0.75i
	0.14 − 0.98i	0.14 + 0.98i	−0.41 − 0.90i	−0.41 + 0.90i
	−0.83 + 0.54i	−0.83 − 0.54i		−0.99
Breusch–Godfrey serial correlation LM test				
F-statistic	0.340248	Probability		0.713108
Obs*R-squared	0.378654	Probability		0.827516
ARCH test				
F-statistic	1.001927	Probability		0.321150
Obs*R-squared	1.019470	Probability		0.312645

Table 3. Model ARMA (1,11) for TVR.

Source: Authors' own research.

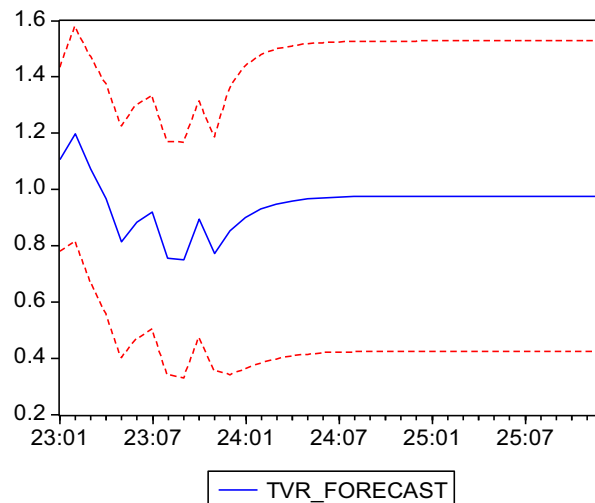


Figure 2. TVR forecast based on ARMA model.

Source: Authors' own research.

potential for an ARMA process, justifying the model selection process. The strong autocorrelations suggest that past ratings have a persistent influence on future viewership trends. This implies that audience retention strategies should focus on maintaining consistency in content quality and engagement since past performance influences future viewership. The significant correlations at various lags could also indicate cyclical patterns, potentially reflecting seasonal viewing habits that TVR should consider in scheduling decisions. From the viewpoint of a business strategy, it is obvious that TeleJurnal should, first and foremost, maintain established programs that have been successful over the years and focus on periodically planning special events to stimulate audience interest at certain anticipated times. TeleJurnal could create a strategic content calendar that aligns with seasonal patterns, such as offering special programs during the festive season or themed holiday shows. This strategy would help maximize the audience during peak periods and efficiently use the resources during non-peak periods. In addition, TeleJurnal could increase its advertising revenues by tailoring its offerings to meet market demands based on the seasonality of media consumption.

Several ARMA models were tested, and the ARMA(1,11) model was chosen based on its superior performance in terms of the AIC (−0.7916) and SC (−0.6859). These values indicate that the ARMA(1,11) model fits the data better compared to alternatives. The key findings from the ARMA(1,11) model indicate that the AR(1) coefficient is 0.6077, with a t -statistic of 5.8709 and a probability of 0.0000, making it highly significant. Similarly, the MA(11) coefficient is 0.9108, with a t -statistic of 41.8971 and a probability of 0.0000,

confirming its strong significance. The Durbin–Watson statistic is 1.9869, suggesting no significant autocorrelation in the residuals. The Breusch–Godfrey LM test for serial correlation further confirms the absence of autocorrelation, with an associated probability of 0.7131. Additionally, the ARCH test validates homoscedasticity, with a probability of 0.3211, which is above the 0.05 threshold, indicating that the residual variance remains stable over time.

The ARMA(1,11) model's strong fit and statistical significance confirm that TVR can reliably predict TeleJurnal ratings based on past performance. This means that forecasting efforts can be used to anticipate periods of high or low viewership and adjust marketing, programming, or content strategies accordingly. The lack of heteroscedasticity further supports consistent prediction accuracy, reinforcing TVR's ability to plan ahead with confidence. Using the ARMA(1,11) model, a forecast for 2023–2025 was generated. The forecasted values are graphically represented in Figure 2. The model predicts that the monthly ratings of TeleJurnal will remain relatively stable, with moderate fluctuations around a central trend. The confidence interval provides a margin of uncertainty, allowing for scenario planning.

The implications for TVR suggest that the stability in ratings indicates no major audience shifts are expected unless significant external changes occur, such as increased competition, content adjustments, or shifts in audience behavior. This stability allows TVR to use the forecasted data for strategic planning, enabling optimization of advertising revenue, adjustments in programming, and more effective promotional campaigns. Additionally, the forecast

can help identify potential declines in ratings, allowing TVR to take proactive measures such as content innovations, special editions, or targeted marketing strategies to maintain audience engagement. The analysis and forecasts presented in this article demonstrate that the prediction of TeleJurnal's future ratings can be achieved with a high degree of accuracy based on past performance. This capability provides several valuable strategic and commercial advantages. By anticipating periods of audience growth or decline, TeleJurnal can effectively plan resources, such as adjusting marketing campaigns and scheduling key content during peak viewing periods. Accurate forecasting also improves the optimization of advertising packages, allowing TeleJurnal to provide partners with precise promotional opportunities aligned with periods of peak interest. The overall stability of ratings reduces the risks associated with sudden changes in audience behavior, thereby increasing confidence in long-term planning. This predictability allows TeleJurnal to explore calculated content innovations or special editions without jeopardizing overall performance. In addition, forecast scenarios allow for proactive adjustments to the programming strategy to prevent potential audience declines while maintaining a constant level of viewer engagement and loyalty.

The reliability of TeleJurnal's ratings provides a solid ground for capitalizing on medium and long-term strategic opportunities. TVR can use this consistency to build commercial partnerships through customized advertising offers designed to align with seasonal audience trends identified in the statistical model. Moreover, leveraging predictive analytics can facilitate content diversification by introducing themed content, social campaigns, or educational programs designed to maximize engagement during peak viewing periods. This strategy can strengthen TeleJurnal's reputation, build viewer loyalty, and improve its position in the media landscape. Providing high-quality content and timely innovations can also enable TVR to capture young audiences who are attracted to contemporary and interactive formats. However, there are crucial risks to be managed in the face of a changing media market. One notable risk is the potential for sudden external changes, such as competition from streaming services or changes in audience viewing habits. In addition, reliance on the historical stability of ratings could create an illusion of security, which could stifle innovation initiatives. To mitigate these risks, TVR should constantly monitor emerging trends, invest in digital tools to analyze audience behavior, and maintain strategic adaptability to respond quickly to unexpected changes.

These results carry several important implications for media policy and institutional strategy. The consistent viewership trends observed in TeleJurnal suggest that stability in

programming, when paired with data-informed decision-making, can reinforce public trust and engagement. This opens a valuable opportunity for national broadcasters to embed forecasting methods, such as time-series modeling, into their organizational frameworks. Rather than treating audience behavior as reactive and unpredictable, policy-makers could promote proactive planning tools that enable content scheduling, resource allocation, and audience targeting to be based on measurable trends. This shift toward evidence-based governance would not only enhance internal efficiency, but also strengthen public accountability. Moreover, the results support the idea that future public media funding mechanisms should move away from static, historical allocations and toward models that reflect both audience loyalty and innovation in delivery. By linking financial support to demonstrable performance metrics, such as sustained viewership or successful digital integration, public service broadcasters can be encouraged to remain adaptive and responsive to societal needs. In the broader context of media reform, these findings may also inform legislative efforts to redefine public broadcasting mandates, emphasizing transparency, responsiveness, and long-term sustainability as guiding principles for future development.

The results of the analysis provide opportunities for TVR to focus on building its brand and refining its programming and advertising strategies by anticipating peak viewing hours, adapting its promotional efforts, and prioritizing the airing of compelling content during these periods. However, the model also emphasizes the importance of managing the risks associated with potentially rapid changes in consumer preferences and media technologies. In order to remain competitive, TVR must strike a balance between consistency of established content and continuous innovation by continuously monitoring consumer trends and diversifying program formats.

5. Conclusion

The findings of this study highlight the stability of TeleJurnal's ratings over the observed period, with predictive models indicating that this trend is likely to persist in the near future. The stationarity of the time series suggests that external shocks, such as political events, programming adjustments, and market competition, have only temporary effects rather than causing long-term audience shifts. This insight is consistent with research by Brooks and Ondrich (2006), who found that public television audiences demonstrate habitual viewing patterns, making retention strategies more effective than aggressive expansion efforts.

From a policy perspective, the strong autocorrelation in TeleJurnal ratings underscores the importance of consistent programming and audience retention efforts. This aligns with Hoynes (2003), who argues that public broadcasters must strike a balance between editorial independence and financial sustainability to maintain their public service mission. Maintaining a stable audience base requires ensuring high-quality journalism, engaging content, and adaptability to digital consumption trends, echoing the findings of Syvertsen (2003) regarding public television's need to evolve in an increasingly digitalized media landscape.

However, the study also raises concerns about TVR's long-term sustainability in an era where audiences are shifting toward digital platforms. While TeleJurnal maintains steady ratings, the overall market share of TVR has been eroded by commercial broadcasters and streaming services, a trend identified by Stankiewicz (2012) in the case of transnational public networks. This suggests that while traditional news formats remain relevant, TVR must enhance its digital presence to attract younger and more diverse audiences.

The analysis conducted in this study confirms the hypothesis that audience constancy plays a key role in optimizing the commercial and business strategies of public broadcasting. This research indicates that audience predictability enables more efficient budget planning, facilitating the strategic allocation of resources and reducing the risks associated with market fluctuations. Audience stability also creates a favorable framework for negotiating long-term commercial contracts, strengthening relationships with advertising partners, and increasing the appeal of the media offer. Stable audiences also support the development of strategic partnerships and customized advertising packages based on media consumption cycles. However, maintaining these competitive advantages requires public broadcasters to combine established content continuity with format and distribution innovation, adapting to evolving audience behavior and digital competition. Building predictive analytics into the decision-making process is therefore essential to ensure economic sustainability and long-term relevance in the dynamic media landscape.

Financial challenges also pose a significant risk to TVR's operational stability. The broadcaster's reliance on government funding and limited advertising revenue makes it vulnerable to political and economic shifts. This mirrors the concerns raised by Rozanova (2007), who highlighted that public broadcasters in emerging democracies often struggle with financial and political pressures that limit their ability to function independently. To mitigate this risk, adopting a hybrid funding model, including diversified revenue streams such as

audience subscriptions, strategic partnerships, and digital monetization, could ensure long-term viability.

While the forecasting models employed in this study offered reliable results and revealed meaningful patterns in audience behavior, the analysis presents certain limitations that should be acknowledged. One of the main constraints is the exclusive reliance on quantitative data, specifically historical viewership records. Although this approach captures long-term trends effectively, it does not provide insight into the personal or social factors that influence audience engagement. Aspects such as viewer satisfaction, cultural preferences, or motivations for choosing a program remain unexplored. Additionally, the study concentrates solely on TeleJurnal, which may not fully reflect the dynamics of other programs within the broader landscape of public service broadcasting. This narrow focus limits the ability to extend conclusions to the entire institution or to similar media systems in different countries.

Future investigations could benefit from combining statistical methods with qualitative approaches in order to obtain a more comprehensive understanding of how audiences interact with public media. For instance, interviews with viewers, content analyses, or participatory observations may reveal patterns that are not visible through data series alone. Expanding the research to include multiple programs from the same broadcaster or conducting comparative studies across national contexts would also help to determine whether the trends observed in TeleJurnal are unique or part of a larger phenomenon. Furthermore, as public broadcasting increasingly adapts to digital environments, incorporating online engagement indicators such as streaming data or social media responses could offer a richer and more current picture of audience behavior. These future directions would allow public service broadcasters to refine their strategies in ways that are informed by both measurable outcomes and human-centered insights.

In conclusion, this study reinforces the idea that public television can maintain audience stability despite market pressures, but it must evolve to remain competitive. TVR's ability to sustain and grow its viewership will depend on its willingness to embrace digital transformation, diversify revenue sources, and strengthen editorial independence. By leveraging predictive analytics and strategic adaptability, TVR can reinforce its role as a reliable source of public information and cultural programming, ensuring its relevance in the modern media landscape. These findings align with Syvertsen (2003), who suggests that public television must continuously adapt to remain viable, balancing its public service mandate with the realities of a changing media ecosystem.

Funding information

Authors state no funding involved.

Author contributions

All authors jointly contributed in every stage of the research and manuscript development, encompassing the conceptual framework, methodological design, data analysis, and writing. Each author has reviewed and given approval for the final version of the manuscript.

Conflict of interest statement

Authors state no conflict of interest.

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