Article

Journalist competence vs. fishing company intervention on IUU fishing reporting in Riau, Indonesia: Questioning the media leader policy

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Abstract: Illegal, unreported, and unregulated fishing (IUU fishing) crimes by rogue fisheries companies are rife in the sea waters of Riau Province. However, this issue is rarely reported by those provincial journalists in the online media where they work. In fact, in Riau, there are 163 online media companies and 600 competent journalists; 200 of them live in capture fisheries center areas. Apart from the journalist competency factor, the decision to make IUU fishing news can also be influenced by the fisheries company intervention that committed the crime. Besides, the policy role of media leaders—editors, editors-in-chief, and media owners—also determines journalists' decisions to make those news stories. This research aims to analyze the influence of journalist competence and fishing company intervention on the decision to make IUU fishing news, as well as the role of media leader policy as mediators in these influences. This survey involved 100 competent journalists as respondents. Data collection was carried out through a questionnaire containing a number of closed statements measured on a 5-point Likert scale, which was distributed to respondents. The data were analyzed using the Structural Equation Modeling (SEM) method. The research results show that the fishing company intervention has a negative and significant influence on the decision to make IUU fishing news in Riau, while journalist competence does not. Additionally, media leader policy was found to play a significant role in mediating the influence of fisheries company intervention and journalist competence on the decision to make IUU fishing news. The leader policy could prevent journalists from making IUU fishing news if fisheries companies, who are responsible for those crimes, intervene and request it. Those actions of media leaders need to be questioned because they can hamper the media's function as a means of disseminating information, educating the public, and implementing social control, especially those related to combating IUU fishing crimes.

Keywords: fishing industry; illegal fishing; influence hierarchy theory; Malacca straits; media educational function; online media; SEM method

1. Introduction

1.1. Background

Illegal, unreported, and unregulated fishing (IUU fishing) is defined as the act of fishing that is illegal, unreported, and not regulated fishing. Illegal fishing refers to activities: (i) conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations; (ii) conducted by vessels flying the flag of States that are parties to a

relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law; or (iii) in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization. Unreported fishing refers to fishing activities: (i) which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or (ii) undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization. Unregulated fishing refers to fishing activities: (i) in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law (FAO, 2001). According to Irina (2022), this action consists of illegal fishing (fishing without a permit), unreported fishing (fishing activities that are not reported, have not been reported, or are wrongly reported to local fisheries authorities), and unregulated fishing (fishing in waters in which conservation and management provisions have not been established). The act of IUU fishing occurs in all types and dimensions of fisheries, both on the high seas and in areas of national jurisdiction. In fact, it has also penetrated all aspects and stages of fishing and the utilization of fish and is sometimes linked to organized crime (FAO, 2024). The practice of IUU fishing has increased in the last 20 years, especially in high seas fisheries around the world. The losses incurred are around 11–26 million tons of fish every year, or USD 10–23 billion (Mubarok, 2019). It takes advantage of corrupt governments and exploits weak management regimes, especially in developing countries that lack effective capacity and resources for monitoring, control, and supervision. Therefore, the United Nations has recognized that the practice of IUU fishing is one of the seven main threats to world maritime security; therefore, it must be eradicated (Leonardo and Deeb, 2022).

Indonesia is one of the potential zones in the 14 fishing ground zones in the world. This country is not immune from the practice of IUU fishing, which causes a reduction in the scale of production and damage to natural ecosystems (Ningrum and Nuzulian, 2024). There are two types of IUU fishing that stand out in Indonesia. First, there is the duplication of fishing vessel permits. With this mode of crime, fish entrepreneurs who have one boat permit operate up to 30 other vessels with fake permits. The second type is the use of illegal fishing gear that is large in size and catches all sizes of fish, such as trawls (Aryo, 2017). This illegal fishing practice often occurs in coastal areas that directly border neighboring countries, especially in the waters of the Malacca Strait and the South China Sea. Rogue fish entrepreneurs sell stolen fish abroad, so domestic fish supplies become limited (Yulinda et al., 2023). The practice of IUU fishing by large fishing companies has been shown to significantly reduce the income

of small-scale fishermen and their families, with examples such as Thailand, where it has resulted in an average income reduction of 24% (Zwoelfer, 2020). In the Panipahan waters, Riau Province, Indonesia, the use of illegal fishing gear by fishermen from outside the province has sparked violent conflicts with local fishermen (Widodo et al., 2022). Additionally, IUU fishing has been found to undermine small-scale fisheries activities and impose an unjust burden on countries heavily reliant on such fisheries (Song et al., 2020).

One of the capture fisheries industry centers in Indonesia is Riau Province. There are four marine fish production centers in Riau: Rokan Hilir, Bengkalis, and Dumai, which stretch across the waters of the Malacca Strait; and Indragiri Hilir, which faces the waters of the South China Sea. These two waters are known to be fertile and have abundant fish stocks, so many fishing companies are tempted to carry out IUU fishing in this area. In 2020, the number of large fishing boats (>10 to 200 gross tonnage/GT) in these two waters was recorded at 14,551 units and tends to increase every year (Ministry of Marine Affairs and Fisheries of Indonesia, 2022). This can be seen from existing data: in 2000, the number was only 8700 units, but this increased to 8680 units in 2010. This means that there was an average increase of 6.73% per year (Ministry of Marine Affairs and Fisheries of Indonesia, 2009). Moreover, these waters directly border Malaysia and Singapore, making it easier for them to sell fish illegally abroad. This crime is not only committed by foreign fishing companies but also by local companies, causing those waters to become overfished and their sustainability to be disrupted (Yulinda et al., 2021b). The number of IUU fishing crimes in Riau reached 243 cases per year, of which 40% were committed by domestic fish companies (Rani, 2019).

The practice of IUU fishing in Riau can be prevented and overcome, one of which is through campaigns in online media, or internet-based mass media. This is because the media is a means of disseminating information, exercising social control, and educating the public (Li, 2019). The Indonesian Ministry of Maritime Affairs and Fisheries uses mass media to invite the public to report IUU fishing practices in their areas (Suherman et al., 2020); and to fight IUU fishing practices (Pedrason et al., 2016). FAO also did the same thing, using online media to campaign against IUU fishing practices in China (Godfrey, 2019). Riau is the province that has the largest online media industry in Indonesia (Indonesian Press Council, 2023). Currently in Riau, there are 163 official online media (Indonesian Cyber Media Union, 2024), which employ almost 1,200 journalists. Around 435 journalists of that number (46.31%) work in capture fisheries centers: Rokan Hilir, Bengkalis, Dumai, and Indragiri Hilir (Indonesian Journalists Association, 2024). However, the large number of journalists in these four locations does not automatically increase the number of IUU fishing reports. The number of IUU fishing news in the five largest online media in Riau in the last six years was only 32 titles (an average of 6.4 titles per media) or 1.07 news titles per media per year (**Table 1**). This number is much smaller than the practice of IUU fishing that occurred in Riau, which reached 34 cases per year (Ambarwati, 2024).

Table 1. IUU fishing news published in the five largest online media in Riau (2019–2024).

Online Media		Number of News (Title)						
Name	Link	2019	2020	2021	2022	2023	2024	Total
Riau Pos	https://riaupos.jawapos.com	2	2	1	-	1	1	7
Tribun Pekanbaru	https://pekanbaru.tribunnews.com	2	3	3	2	1	1	12
Haluan Riau	https://riau.harianhaluan.com	-	-	2	1	-	1	4
Antara Riau	https://riau.antaranews.com	-	-	1	-	1	1	3
Hallo Riau	https://halloriau.com	1	1	1	2	1	-	6
	Number per year	5	6	8	5	4	4	32
	Average	1	1.2	1.6	1	0.8	0.8	6.4

Sources: Antara Riau (2024); Hallo Riau (2024); Haluan Riau (2024); Riau Pos (2024); Tribun Pekanbaru (2024).

The news is generally made into headlines on online media websites, marked as "latest news." Apart from that, it is placed in the "national" rubric because this issue is no longer on a local scale, namely Riau Province. Journalists' decisions to make news are influenced by internal and external media factors (Gibemba, 2021). This is based on the "hierarchy theory of influences on media content," introduced by Shoemaker and Reese (2013), which states that the media is not actually neutral in conveying reality. The media can even manipulate reality by removing certain elements from it (Krisdinanto, 2014). According to this theory, there are five levels that influence media content. Four levels come from internal media factors, namely: individual level of media worker (journalist's personal experience and so on), media routines level (media's routine habits in packaging news), organization level (organizational management structure, policies, and media goals), and ideological level (journalist's frame of mind that is influenced by values, interests, and power relations). Meanwhile, another level comes from external media factors, namely the extramedia level. This level includes news sources, public relations, advertisers, the government, reading audiences, and so on (Reese, 2019; Shoemaker and Reese, 2013).

Based on research by Nurmalia et al. (2024), there are three aspects that are thought to be the most dominant in influencing journalists' decisions to make news about IUU fishing in Riau Province, respectively: the individual level, the extramedia level, and the organization level. An individual factor that can influence the decision to make news is the journalist's competence, namely the ability to carry out journalistic activities by demonstrating the necessary professional knowledge and responsibility. According to Nasrullah (2018), most journalists who pass the competency exam are proven to be able to write quality news. Therefore, a professional journalist must have competence. Putra and Bidin (2023) explain that journalist competency can be measured through awareness (of the importance of journalistic ethics, journalistic sensitivity, and building networks); knowledge (journalistic knowledge, general knowledge, and special knowledge); and skills (covering and writing news, analyzing and predicting developments in the issues being reported, and using communication tools and information technology). Journalist competency standards are measured through a competency test, which is able to

categorize a journalist as having primary, intermediate, or young-level competency (Indonesian Press Council, 2023).

The extramedia factor that is thought to have the most influence on the decision to make IUU fishing news in Riau is the fishing company intervention. According to Krisdinanto (2014), this kind of case could happen because fishing companies often act as advertisers in the media, thus becoming a source of income for the media. With this role, the company can intervene in journalists' decisions to make news about IUU fishing, if the news is deemed detrimental to the company. The intervention that occurs can be mild (rebuttal and so on), moderate (legal action and so on), or severe (physical action up to a life threat). This is in line with the results of the study by Nurmalia et al. (2024), who found that the intervention of water polluting companies had a significant influence on online media journalists' decisions in making news about water pollution in Riau Province. BPS-Statistics Riau (2021) noted that currently there are around 150 fishing companies operating in four capture fisheries centers (**Table 2**).

Table 2. Number of capture fishing companies in Riau province.

Capture Fisheries Center	Fishing Company	Fishing Boat (unit)	Fish Production (ton per year)
Rokan Hilir	50	2.000	51.000
Bengkalis	40	1.885	5.650
Indragiri Hilir	50	3.000	52.000
Dumai	10	300	1.400
Total	**150**	**7.185**	**110.050**

Meanwhile, the media organization level that is thought to also influence the decision to make IUU fishing news in Riau is the media leader policy. This is because, according to Krisdinanto (2014), this level is related to the organizational management structure, policies, and objectives of the media. This level is even more influential than the individual level and media routines because media policy is held by its leaders, namely editors and media owners. When the media owners put pressure on certain reports, individual media workers and their routines must submit. Online media leaders in Riau generally have close relationships with large fishing companies (Yulinda et al., 2021a). This relationship is based on economic interests. In this regard, fishing companies often become a source of income for media leaders to support their media businesses. What happens most routinely is that the media receives money from companies in the form of fees for placing company advertisements in the media. Apart from that, incidentally, the media also asks for non-binding financial assistance from fishing companies to carry out internal media activities. However, none of the online media leaders in Riau are shareholders in fishing companies (Yazid and Salsabila, 2023). Reflecting on the research results by Nurmalia et al. (2024), apart from having a direct influence on the decision to make IUU fishing news, media leader policy can also mediate journalist competence and fishing company intervention (as independent variables) on the decision to make IUU fishing news (dependent variable). This means that media leader policy factors can act as mediators in the relationship between the independent variable and the dependent variable.

Based on these reasons, we consider it necessary to examine the journalist

competence and fishing companies intervention in the decision to make IUU fishing news in online media, both directly and through the mediation of media leader policy. Specifically, this research aims to: (1) analyze the direct influence of journalist competence and fishing company intervention on decisions to make IUU fishing news; and (2) analyze the influence of journalist competence and fishing company intervention, through media leader policy as a mediator, on decisions to make IUU fishing news.

1.2. Hypothesis and research framework

To answer the research objectives, we proposed five hypotheses (H) to be tested, as follows:

H1: Journalist competency has a positive and significant influence on the decision to make IUU fishing news in Riau Province;

H1a: Journalist competence mediated by media leader policy has a positive and significant influence on the decision to make IUU fishing news in Riau Province;

H2: Fishing company intervention has a positive and significant influence on the decision to make IUU fishing news in Riau Province;

H2a: The fishing company intervention mediated by the media leader policy has a positive and significant influence on the decision to make IUU fishing news in Riau Province;

H3: Media leader policy has a positive and significant influence on the decision to make IUU fishing news in Riau Province.

Figure 1 is a research framework that illustrates the influence of relationships between variables and the hypotheses proposed in this study.
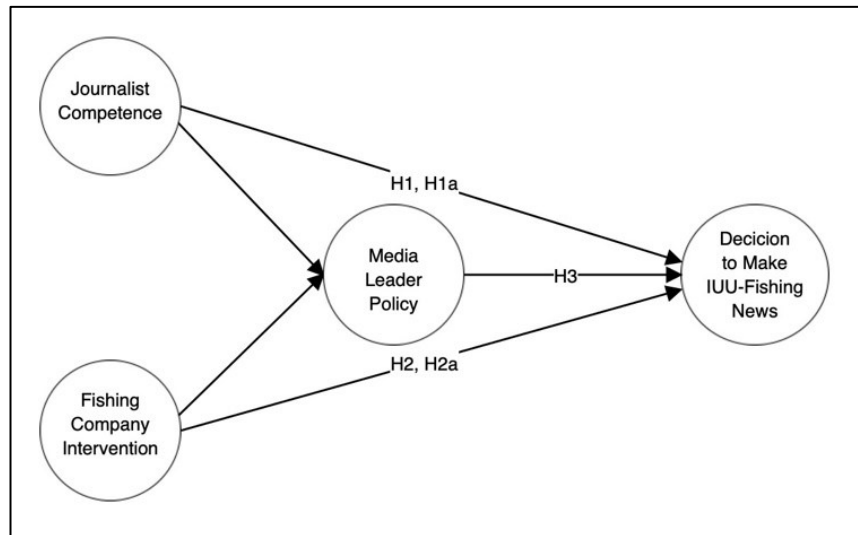

Figure 1. Research framework model.

1.3. Theoretical framework

A media decision to make IUU fishing news does not stand alone; it is influenced by various internal and external media factors. This refers to "the hierarchy theory of influences on media content," introduced by Shoemaker and Reese (2013), which states that content (news) created by the mass media cannot be separated from five

circles of influence, namely: the individual level of media workers, the media routines level, the organization level, the extramedia level, and the ideological level (**Figure 2**).
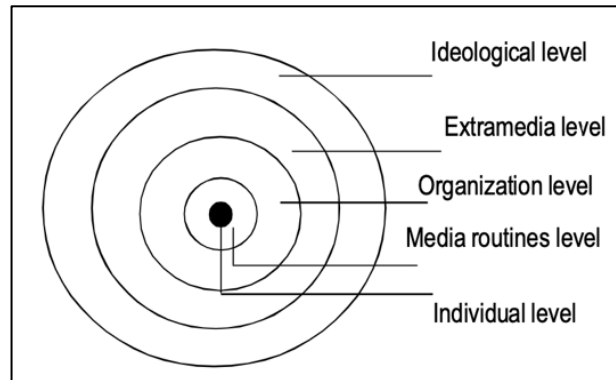

Figure 2. Circle of influence on media content.
Source: Shoemaker and Reese (2013).

This theory is able to explore the factors that influence media content. This includes influences caused by individual characteristics of communicators, media work routines, media organizations, social institutional factors, and so on. As such, this theory is invaluable to researchers in helping explain concepts, synthesizing findings in the field of media sociology, and guiding comparative studies of journalism (Reese, 2019). Some researchers use this theory (Collins et al., 2023), for example, use it in research on hierarchical models of influence, national culture, human development, and the influence of naturalism. Meanwhile, Ferrucci and Kuhn (2022) use it to explore the sociology of media.

The individual level of journalists is more dominant in influencing media content than their personal beliefs (political, demographic, etc.). The media routine level is formed by three elements: news sources, media organizations, and audiences. The level of media organization emphasizes that the media policymaker in determining news coverage is the media owner, who is technically run by the media editor. The media organization level is more dominant in determining media content compared to the previous two levels. The extramedia level includes news sources, public relations institutions that collaborate with the media, media readers, and advertisers who provide financial support to the media. The ideological level pertains to the specific mindset adopted by individual journalists when perceiving and responding to news subjects. This research investigates the influence of journalist competence (at the individual level) and fishing company intervention (at the extramedia level), mediated by the media leader policy (at the organizational level), on the decision to make IUU fishing news in Riau Province.

2. Methods

This section consists of research location, respondent and data collection, and data analysis. This section consists of research locations, determining respondents, data collection techniques, and data analysis methods.

2.1. Research location, respondent and data collection

This research was conducted in January 2024 in four capture-fisheries centers regencies in Riau Province, Indonesia: Rokan Hilir, Bengkalis, Dumai, and Indragiri Hilir (**Figure 3**). These regencies were chosen purposefully for two considerations. First, it is located on a seacoast that is rich in commercial marine fish potential in the Southeast Asia region. Rokan Hilir, Dumai, and Bengkalis are located in the Malacca Strait area, while Indragiri Hilir is on the coast of the South China Sea. Illegal, unreported, and irregulated (IUU) fishing activities often occur in these two waters. Second, in these regions, there are many journalists who usually write fisheries news.
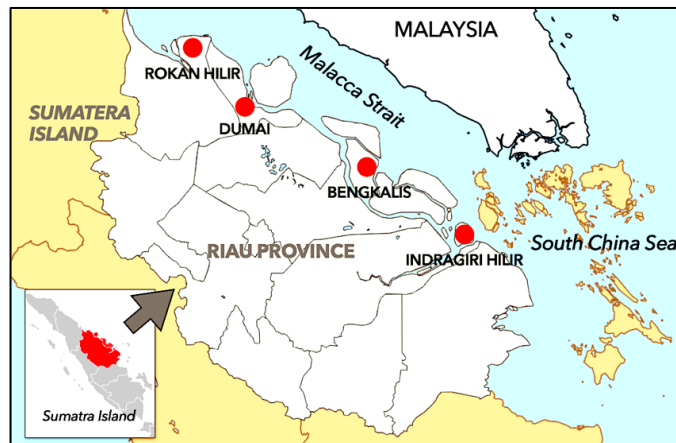

Figure 3. Map of research location.

Source: Adapted from Google Maps.

This research uses a survey method with a quantitative approach (Creswell and Creswell, 2018). A total of 100 of the 201 journalists who had passed the competency exam in those locations were determined as respondents using the Sample Size Calculator method (Akbar, 2020), with the following Equation (1)

$$\text{Sample size} = \frac{\frac{z^2 x p(1-p)}{e^2}}{1 + \frac{z^2 x p(1-p)}{e^2 N}} \tag{1}$$

where:

N = population;

e = margin of error;

z = deviation score, which is set at 95%.

Based on the equation, the minimum number of respondents required is 97 journalists, but in this study, this was increased to 100 journalists. Respondents were selected using a purposive-proportional sampling technique, where the number of respondents in each regency follows the proportion of the population (Akbar, 2020): Bengkalis (37 respondents), Dumai (27), Rokan Hilir (15), and Indragiri Hilir (21). Respondents must be at least 20 years old, possess a high school diploma or equivalent, have at least three years of experience as journalists, be mentally healthy, and reside in the vicinity of capture fisheries centers in Riau Province.

The data collected includes both directly measurable indicator data and construct data (latent variables) that cannot be measured directly. There are four variables with a total of 34 indicators studied: Journalist Competence (JOC) and Fishing Company

Intervention (FCI) as independent variables, Decision to make IUU Fishing News (dependent variable), and Media Leader Policy (MLP) as a mediator variable. A mediator is a variable that influences the relationship between independent and dependent variables. According to Syahrir et al. (2020), there are two types of mediation: full mediation and partial mediation. Full mediation occurs when the independent variable is entirely mediated by the mediator, with no direct influence on the dependent variable. On the other hand, partial mediation indicates that, in addition to having an indirect influence through the mediator, the independent variable also directly influences the dependent variable. The JOC variable includes awareness, knowledge, and skill (12 indicators); the FCI variable includes sending rebuttal news to the media editor, providing gifts and facilities, offering advertising as compensation, and threatening journalists (10 indicators); the MLP variable includes editor briefing, editor-in-chief briefing, and media owner briefing (six indicators); and the DMN variable includes news planning, news gathering, news writing, and news publishing (six indicators). Data were collected using a closed questionnaire, containing statements measured using a 5-point Likert scale, respectively: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree (Hendri, 2022).

2.2. Data analysis

Data analysis used the Structural Equation Modeling (SEM) method, which was carried out with the help of SmartPLS version 4 software (Hair Jr. et al., 2021). The SEM method was selected due to its suitability for analyzing latent variables (constructs) that cannot be measured directly, as well as for comprehensively analyzing both direct and indirect relationships between variables (Sekaran and Bougie, 2020). Both analyses are needed for this research. SEM Analysis involves two stages of evaluation, namely: (1) Measurement Model (Outer Model) which aims to test the validity and reliability of the research instrument; and (2) Structural Model (Inner Model) which aims to test hypotheses (Sholiha and Salamah, 2015). The Measurement Model was analyzed using the PLS Algorithm procedure, which specifically, aims to determine indicator validity, variable validity, and variable reliability (Cheah et al., 2018). Indicators are considered valid if their factor loading values exceed 0.6. A variable is declared valid if the average variance extracted (AVE) value is greater than 0.5 and is declared reliable if the composite reliability value is greater than 0.7 and Cronbach's alpha is greater than 0.6 (Syahrir et al., 2020). The Structural Model analysis aims to test several aspects: first, the ability of variables to predict the model; second, the ability of independent variables to explain the dependent variable; and third, the hypotheses regarding the influence between variables. The predicting ability of the variable was analyzed using the Blindfolding procedure in SmartPLS. A variable is considered capable of predicting the model well if the resulting predictive relevance value (Q square/Q^2) is greater than 0. Next, the ability of the independent variable to explain the dependent variable and hypothesis testing are analyzed using the Bootstrapping procedure in SmartPLS. The ability of the independent variable to explain the dependent variable can be seen from the resulting R square (R^2) value, while the hypothesis will be accepted if it has a P-value less than 0.05 (Memon et al., 2019).

3. Results and discussion

3.1. Validity and reliability test results

The results of the Measurement Model evaluation for testing indicator validity, variable validity, and research variable reliability are presented in **Table 3**.

Table 3. PLS Algorithm analysis output for validity and reliability.

Latent Variable	Dimension	Code	Indicator	Factor Loading
Journalist Competence (JOC): AVE = 0.707 CR = 0.967 CA = 0.964	Awareness	JOC1	Uphold ethics	0.829
		JOC2	Siding with the public interest	0.857
		JOC3	Understand and comply with the journalistic code of ethics	0.748
		JOC4	Be sensitive to newsworthy issues	0.819
		JOC5	Develop networks and increase the number of news sources	0.873
	Knowledge	JOC6	Have adequate general knowledge	0.901
		JOC7	Have knowledge about fisheries and marine affairs	0.812
		JOC8	Knowing the negative impacts of IUU fishing practices	0.848
		JOC9	Understand communication theory and journalistic principles	0.888
	Skill	JOC10	Skilled in covering and writing news about IUU fishing	0.849
		JOC11	Skilled in using information technology devices	0.815
		JOC12	Able to analyze available data and reference materials	0.842
Fishing Company Intervention (FCI): AVE = 0.699 CR = 0.959 CA = 0.952	Sending rebuttal news to the media editor	FCI1	Denying the news by telephone to journalists	0.831
		FCI2	Provide news clarification to journalists specially invited by fishing companies	0.812
		FCI3	Send a news rebuttal via email to the editor-in-chief	0.826
	Providing gifts and facilities	FCI4	Organizing media gatherings to improve the quality of relationships	0.808
		FCI5	Giving money to journalists	0.835
	Offering advertising as compensation	FCI6	Allocate advertising funds to the media	0.866
		FCI7	Sponsor money and facilities to make media internal activities a success	0.851
	Threatening journalists	FCI8	Condemn the news written by journalists	0.857
		FCI9	Prosecuting journalists legally	0.842
		FCI10	Threatening the safety of journalists	0.833
Media Leader Policy (MLP): AVE = 0.827 CR = 0.966 CA = 0.958	Editor briefing	MLP1	Prohibit journalists from covering IUU fishing news	0.876
		MLP2	Revise journalists' writing so that it is not too detrimental to fishing companies	0.918
	Editor-in-chief briefing	MLP3	Prevent the process of writing IUU fishing news	0.924
		MLP4	Stop the process of publishing IUU fishing news	0.924
	Media owner briefing	MLP5	Urges the editor-in-chief not to report on the IUU fishing issue	0.914
		MLP6	Prohibit the editor-in-chief from publishing IUU fishing news	0.900
Decision to Make IUU Fishing News (DMN): AVE = 0.828 CR = 0.967 CA = 0.958	News planning	DMN1	Propose to report on IUU fishing cases	0.917
		DMN2	Create a technical plan for covering IUU fishing cases	0.910
	News material gathering	DMN3	Conduct interviews with news sources	0.947
		DMN4	Collect news material from documented sources	0.905
	News writing	DMN5	News writing	0.900
	News publishing	DMN6	News publishing	0.880

Note: AVE = Average Variance Extracted; CR = Composite Reliability; CA = Cronbach's Alpha.

Table 3 shows that all the indicators tested have factor loading values greater than 0.6, where the smallest value is 0.748 (JOC3 indicator). This means that all indicators are valid for use as research instruments. Furthermore, the AVE value of the four variables is greater than 0.5 (valid), with the smallest value being 0.699 (JOC variable). The CR value of all variables is greater than 0.7 (reliable), with the smallest value being 0.959 (FCI variable). Likewise, the CA value of all variables is greater than 0.6 (reliable), with the smallest value being 0.952 (FCI variable). Thus, the four variables are valid and reliable enough to be used as research instruments.

Meanwhile, the PLS algorithm analysis results to look at the independent variable's ability to explain the dependent variable show that the MLP variable R^2 value is 0.510 and the DMN variable is 0.564 (**Table 4**). This means that the ability of JOC and FCI factors to explain MLP is 51.0%, while another 49.0% is explained by other factors not discussed in this study. Furthermore, the ability of the JOC, FCI, and MLP factors to explain DMN is 56.4%, while another 43.6% is influenced by other factors not discussed in this study.

Table 4. PLS algorithm analysis results for R square (R^2).

Latent Variable (Construct)	R Square	R Square Adjusted
Media Leader Policy (MLP)	0.510	0.499
Decision to Make IUU Fishing News (DMN)	0.564	0.550

3.2. Hypothesis test results

The blindfolding analysis results for looking at the variables' ability to predict the model show that the Q^2 values of the DMN variable are 0.456 and the MLP variable is 0.413 (**Table 5**). Both variables Q^2 values are greater than 0, so it can be concluded that the data and variables used in this research can predict the model well.

Table 5. Blindfolding analysis results for Q square.

Latent Variable	SSO	SSE	Q^2 (=1 − SSE/SSO)
Decision to Make IUU Fishing News (DMN)	600.000	326.436	0.456
Fishing Company Intervention (FCI)	1000.000	1000.000	
Journalist Competence (JOC)	1200.000	1200.000	
Media Leader Policy (MLP)	600.000	352.266	0.413

Note: SSO = Sum Square Observation; SSE = Sum Square Error; Q^2 = Q square.

Meanwhile, the hypothesis testing results using bootstrapping analysis are displayed visually in **Figure 4**, the details of which are shown in **Table 6**.
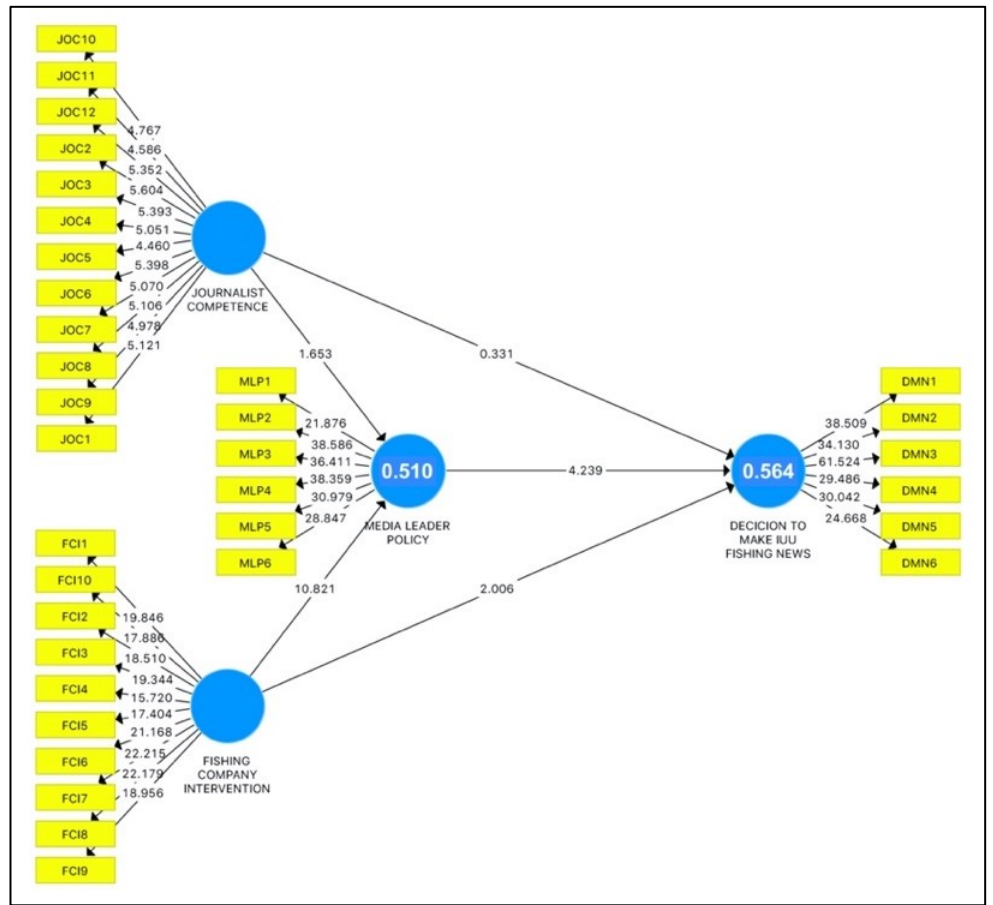
Figure 4. Visualization of bootrapping analysis results.

Table 6. Bootstrapping analysis results for the hypothesis test.

Influence Between Variables		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	*T* Statistics (|O/STDEV|)	*P* Values	Decision
Direct Influence	JOC → DMN	−0.028	−0.023	0.085	0.331	0.737	Not significant
	FCI → DMN	−0.269	−0.272	0.134	2.006	0.045	Significant
	MLP → DMN	0.534	0.531	0.128	4.239	0.000	Significant
Indirect Influence	JOC → MLP → DMN	−0.308	−0.306	0.061	2.927	0.036	Significant
	FCI → MLP → DMN	−0.373	−0.371	0.098	3.825	0.000	Significant

Note: JOC = Journalist Competence; FCI = Fishing Company Intervention; MLP = Media Leader Policy; DMN = Decision to Make IUU Fishing News.

Table 6 shows the influence between variables, both direct influence and through mediator variables, with the following explanation:

H1: Influence of journalist competence on the decision to make IUU fishing news. On the direct influence of journalist competence on the decision to make IUU fishing news, the resulting *P* value is 0.737 or greater than 0.05 (not significant). This means that a journalist competence factor does not have a significant influence on his decision to make IUU fishing news. Thus, hypothesis 1 (H1) is rejected.

H1a: Influence of journalist competence through media leader policy on the decision to make IUU fishing news. In terms of the indirect influence of journalist competency factors through media leaders' policies on decisions regarding IUU fishing news coverage, a *P*-value of 0.036, which is less than the significance threshold

of 0.05, was obtained, with an original sample value of −0.308. This means that media leader policy factors have a negative and significant role in the relationship between journalist competence and decisions to make news about IUU fishing. In other words, although the journalist competency factor does not influence the decision to make IUU fishing news, after being mediated by the policy factor of media leaders, it then becomes influential. In this case, the mediation that occurs is full mediation, where the decision to publish IUU fishing news is completely determined by the media leader policy and not by journalist competence. Thus, hypothesis 1a (H1a) is accepted.

H2: Influence of fishing company intervention on the decision to make IUU fishing news. On the direct influence of fishing company intervention on the decision to make IUU fishing news, the resulting *P* value is 0.045, or smaller than 0.05 (significant), with an original sample value of −0.269. This means that a factor of fishing company intervention has a negative and significant influence on the decision to make IUU fishing news. In other words, the stronger the fishing company intervention, the less inclined journalists are to decide to write about IUU fishing. Thus, hypothesis 2 (H2) is accepted.

H2a: Influence of fishing company intervention through media leader policy on the decision to make IUU fishing news. In terms of the indirect influence of fisheries company intervention factors through the media leaders policy on the decision to make IUU fishing news, a *P*-value of 0.000, which is less than the significance threshold of 0.05, was obtained with an original sample value of −0.373. This means that media leader policy factors have a negative and significant role in the relationship between fisheries company intervention and decisions to make news about IUU fishing. In other words, the media leader's policy to make IUU fishing news tends to follow the fishing company's intervention. The stronger the intervention carried out by fishing companies, the more likely media leaders are to adopt a policy of not reporting on the issue of IUU fishing. In this case, the mediation that occurs is partial mediation, where the decision to report on IUU fishing, apart from being caused by the direct influence of fishing company intervention, is also determined by the media leader policy. Therefore, hypothesis 2a (H2a) is accepted.

H3: Influence of media leader policy on the decision to make IUU fishing news. On the direct influence of media leader policy on the decision to make IUU fishing news, the resulting *P* value is 0.000, or smaller than 0.05 (significant), with an original sample value of 0.534. This means that a factor of media leader policy has a positive and significant influence on the decision to make IUU fishing news. In other words, if media leader policy has issued a policy to report on an IUU fishing incident, then the editor or journalist must report it, and vice versa. Therefore, hypothesis 3 (H3) is accepted.

4. Discussion

The findings of hypothesis 1 (H1) state that journalist competency does not have a significant influence on decisions to make news about IUU fishing in Riau Province. This finding suggests that no matter how often efforts are made to increase journalist competence, they will not be able to warn companies that commit IUU fishing through the media to stop their criminal activities. This can happen because the decision to

make news is not solely determined by the competence of journalists but also by the influence of other factors, including media organizational factors. According to Reese (2007), when on duty, a journalist is still under the control of his superiors: the editor-in-chief. In fact, in certain cases, the decision to make news is in the hands of the media owner, who is executed by the editor-in-chief. Research by Sulistyawan and Antonius (2020) proves that journalists from the five major television stations in Indonesia are powerless to present spectacular content when the content touches the interests of their media owners. Based on these reasons, it is suspected that the media leader policy factor is what limits the journalist ability to producing IUU fishing news in Riau.

This assumption is quite reasonable because the media leader policy as mediator has been proven to have a significant role in influencing journalist competence in making IUU fishing news (findings from hypothesis 1a, or H1a). In these findings, it appears that although journalist competence cannot directly influence the decision to make IUU fishing news, it then becomes influential after being mediated by the media leader policy factor. This happens because journalists are under the control of media leaders, so they must comply with their leaders' policies. However, the media leader policy who silence journalists' decisions to on IUU fishing does not stand alone. This media leader policy occurred, allegedly, also due to pressure from fishing companies, which are advertisers and sources of media income. This allegation refers to the results of a study (Wulandari and Sunarto, 2022), which found that local television journalists in Central Java, Indonesia, often received intervention from external and internal parties when working in the newsroom. Media external intervention comes from the government and advertising companies, while media internal intervention comes from the media business division.

Pressure from fishing companies is very likely to occur. This can be seen from the results of hypothesis 2 (H2) testing, which concludes that pressure from fishing companies directly has a significant influence on the decision to make IUU fishing news. This influence can occur because most fishing companies in Riau have been acting as advertisers. According to Krisdinanto (2014), companies that are a source of media income are very free to influence the reporting process in the media when the news involves their company. However, this finding has raised concerns, not only because it is very detrimental to the capture fisheries sector in Riau, but also because it could threaten the independence of the press in the future. This concern is strengthened by the study results of Axhami et al. (2015), who found that the media in Albania had difficulty maintaining their independence due to intervention by the government and companies as advertisers. Advertisers, who are the media's main source of income, can easily influence media editorial policies in the country. In line with this, according to Hiltunen and Suuronen (2022), the practice of media external interference in reporting policies is common, even happening in Western countries, which are considered democratic and have somewhat stronger protection for press autonomy. The results of their study found that the majority of the 875 Finnish journalists surveyed admitted that they often received pressure from external parties when producing news involving these parties. Apart from that, external actors also often intervene in the journalistic process in order to influence media editorial content.

Unfortunately, this fishing company intervention received policy support from media leaders. This can be seen from the hypothesis 2a (H2a) test results, which state

that media leader policies have a significant role in the influence of company intervention on the decision to make IUU fishing news. This makes it clearer that the process of creating news in the media cannot be separated from the influence of the relationship between advertisers and media leaders. According to Beckert (2022), in the future, media owners will continue to build collaborations with advertisers to ensure the survival of the media. Apart from that, along with the rapid growth of media digitalization, journalists have to work hard to find new reporting formats so as not to be infiltrated by hidden advertising. Journalists must be smart in maintaining a balance between the interests of advertisers and media responsibilities to the public.

The dominant role of media leader policy factors is increasingly visible in Hypothesis 3 test results, which state that the media leader policy directly has a significant influence on the decision to make IUU fishing news in Riau. This finding is in line with the opinion of Krisdinanto (2014) who states that the media leader policy (media organization level) is more influential than the journalist competence (individual level of media workers) and other internal factors in a media. Karman (2014) finds that in the pattern of reporting in major media in Indonesia, media owners tend to prioritize their interests (money income) compared to the interests of the public represented by journalists. This is because these media generally practice monopoly (centralization of ownership) to facilitate pressure on the editor. It is not uncommon for these media owners to also run other businesses and place advertisements in their own media. Sjøvaag and Ohlsson (2024) support this opinion by stating that media ownership can have an impact on journalism content and practices. The main concerns in media ownership are market concentration and monopoly, the formation of public opinion, democracy, and journalistic autonomy. The media leader policy, which is overly dominant in deciding to report on IUU fishing news in Riau, to the extent of curtaining the reporting of their journalists, needs to be questioned. This is because journalists will no longer be able to fully utilize their abilities to educate the public through the media. Given these circumstances, online media in Riau will no longer be able to shine a light on the curse of IUU fishing. If this situation continues, the role of the media as a tool of social control over the practice of IUU fishing will become insignificant.

5. Conclusion

This research concludes that the three variables used (journalist competency, fishing company intervention, and media leader policy) are able to predict the research model well. These three independent variables are able to explain the 'decision to make IUU fishing news' as a dependent variable of 56.4%. The rest is explained by other factors not discussed in this study. The fishing company intervention, either directly or through the media leader policy as a mediator, has a negative and significant influence on the decision to make IUU fishing news in Riau Province. Meanwhile, journalist competence does not have a direct influence but has an influence after being mediated by the media leader policy. The factor of media leader policy appears to be very dominant because, apart from acting as a mediator, it also has a significant influence on the decision to make IUU fishing news. This dominance is counterproductive because it acts counter to the media's authority to investigate and

to inform, especially in the context of IUU fishing violations and crimes committed in Riau.

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References

Akbar, Y. R. (2020). Quantitative Analysis: Statistical Data Processing Using SPSS and Google Form Survey Data Collection/Survey Monkey, 1st ed. CV, Pena Persada.

Ambarwati, S. (2024). The Ministry of Marine Affairs and Fisheries Indonesia has Secured 269 Vessels Involved in IUU Fishing Throughout 2023. "Antara" News Agency, 1–2.

Antara Riau. (2024). IUU Fishing News Summary in Riau (2019–2024). Available online: https://riau.antaranews.com/ (accessed on 16 March 2024).

Aryo, R. D. (2017). Polemic on the Problem of Illegal Fishing in Indonesia. Website of Law Faculty, Universitas Indonesia.

Axhami, M., Mersini, M., & Zela, L. A. (2015). Advertising impact on the media content. European Scientific Journal, 11(13), 210–218.

Beckert, J. (2022). A threat to journalism? How journalists and advertising sales managers in news organizations perceive and cope with native advertising. Journalism, 24(8), 1733–1751. https://doi.org/10.1177/14648849211067584

BPS-Statistics Riau. (2021). Production of Capture Fisheries 2019–2021 in Riau Province. Badan pusat statistik.

Cheah, J. H., Sarstedt, M., Ringle, C. M., et al. (2018). Convergent validity assessment of formatively measured constructs in PLS-SEM. International Journal of Contemporary Hospitality Management, 30(11), 3192–3210. https://doi.org/10.1108/ijchm-10-2017-0649

Collins, S. J., Kinnally, W., & Sandoval, J. A. (2022). The Hierarchy of Influences Model, National Culture, Human Development, and Journalism Influences. Electronic News, 17(2), 93–112. https://doi.org/10.1177/19312431221140920

Creswell, J. W., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 5th ed. SAGE Publications Inc.

FAO. (2001). International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. Available online: http://www.fao.org/3/a-y1224e.pdf (accessed on 15 January 2024).

FAO. (2024). Illegal, Unreported and Unregulated (IUU) Fishing. Available online: https://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/ (accessed on 18 January 2024).

Ferrucci, P., & Kuhn, T. (2022). Remodeling the Hierarchy: An Organization-Centric Model of Influence for Media Sociology Research. Journalism Studies, 23(4), 525–543. https://doi.org/10.1080/1461670X.2022.2032805

Gibemba, M. J. (2021). Decision-making process of news production in the congolese national radio and television. European Journal of Social Sciences Studies, 7(1), 50–85. https://doi.org/10.46827/ejsss.v7i1.1170

Godfrey, M. (2019). FAO launches anti-IUU campaign on Chinese social media. Available online: https://www.seafoodsource.com/news/environment-sustainability/fao-launches-anti-iuu-campaign-on-chinese-social-media (accessed on 16 January 2024).

Hallo Riau. (2024). IUU Fishing News Summary in Riau (2019–2022). Available online: https://www.halloriau.com/ (accessed on 16 January 2024).

Haluan Riau. (2024). IUU Fishing News Summary in Riau (2019–2024). Available online: https://riau.harianhaluan.com/ (accessed on 16 January 2024).

Hendri, R. (2022). Mixed Methods for Fisheries Research, 1st ed. Taman Karya.

Hiltunen, I., & Suuronen, A. (2020). Differences Based on Individual- and Organizational-level Factors in Experiences of External Interference among Finnish Journalists. Journalism Practice, 16(4), 774–796. https://doi.org/10.1080/17512786.2020.1815558

Hair Jr, J. F., Hult G., T. M., Ringle, C., & Sarstedt, M. (2021). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 3rd ed. SAGE Publications, Inc.

Indonesian Cyber Media Union. (2024). List of Online Media Companies in Riau Province 2023. Available online: https://smsindonesia.co/ (accessed on 16 January 2024).

Indonesian Journalists Association. (2024). List of Online Media Journalists in Riau Province. Available online: https://pwi.or.id/group/pwi-riau (accessed on 16 January 2024).

Indonesian Press Council. (2023). Online Media Companies Verified by the Press Council in Indonesia in 2022. Available online: https://dewanpers.or.id/ (accessed on 16 January 2024).

Irina, P. (2022). Illegal, Unreported and Unregulated (IUU) fishing. European Parliamentary Research Service.

Karman. (2014). Monopoly in media ownership and the lost of public rights. Jurnal Masyarakat Telematika Dan Informasi, 5(1), 69–84.

Krisdinanto, N. (2014). Anomalies and the hierarchy theory of influence on media content. Komunikatif: Jurnal Ilmiah Komunikasi, 3(1), 1–18.

Leonardo, A., & Deeb, N. (2022). Illegal, Unreported and Unregulated (IUU) Fishing in Indonesia: Problems and Solutions. IOP Conference Series: Earth and Environmental Science, 1081(1), 012013. https://doi.org/10.1088/1755-1315/1081/1/012013

Li, M. (2019). The interplay between the media as a form of social control and its potential to offer opportunities for resistance. Available online: https://webofproceedings.org/proceedings_series/ESSP/ASSAH%202019/AH27001.pdf (accessed on 18 March 2024).

Memon, M. A., Cheah, J., Ramayah, T., et al. (2019). Moderation analysis: Issue and guidelines. Journal of Applied Structural Equation Modeling, 3(1), 1–14. https://doi.org/10.47263/JASEM.3(1)01

Ministry of Marine Affairs and Fisheries of Indonesia. (2009). Marine and Fisheries in Figure 2009. Centre of Data, Statistics and Information.

Ministry of Marine Affairs and Fisheries of Indonesia. (2022). Marine and Fisheries in Figure 2022. The Center for Data, Statistics and Information of MMF.

Mubarok, Z. (2019). Illegal, Unreprted and Unrefulated Fishing and Transnational Organized Fisheries Crimes: Perspectives of Legal and Policy Measures of Indonesia. University of Wollongong.

Nasrullah, R. (2018). Public digital research: Media perspective and virtual reality in social media. Jurnal Sosioteknologi, Volume 17(2), 271–287.

Ningrum, S. A., & Nuzulian, U. (2024). Indonesian foreign policy in the case of illegal fishing of Vietnamese fishermen in the Natuna Islands on the border of Indonesia and Vietnam in 2014–2021. Journal of Business Management and Economic Development, 2(01), 201–214. https://doi.org/10.59653/jbmed.v2i01.392

Nurmalia, D., Hafiar, H., & Karlina, S. (2024). The Influence of journalist competence, polluting companies intervention and government support on reporting water pollution in online media. Jurnal Simbolika: Research and Learning in Communication Study, 10(1), 44–59. https://doi.org/10.31289/simbolika.v10i1.11036

Pedrason, R., Kurniawan, Y., & Purwasandi. (2016). Handling of illegal, unreported and unregulated (IUU) fishing. Jurnal Pertahanan, 2(1), 13–26.

Putra, E., & Bidin, A. (2023). Press Professionalism, journalist competence and social responsibility: A conceptual paper. Insaniah Online Journal, 6(1), 122–132. https://doi.org/10.47254/insaniah.v7i1.244

Rani, F. (2019). Combating Illegal Fishing in the Coastal Waters of Riau Province. Proceedings of the National Seminar on Environmental Conservation, 16, 674–684.

Reese, S. D. (2007). Journalism Research and the Hierarchy of Influences Model: A Global Perspective. Brazilian Journalism Research, 3(2), 29–42. https://doi.org/10.25200/bjr.v3n2.2007.116

Reese, S. D. (2019). Hierarchy of Influences. The International Encyclopedia of Journalism Studies, 1–5. https://doi.org/10.1002/9781118841570.iejs0023

Riau Pos. (2024). IUU Fishing News Summary in Riau (2019–2024). Available online: https://riaupos.jawapos.com/ (accessed on 17 March 2024).

Sekaran, U., & Bougie, R. (2020). Research Method for Business: A Skill Building Approach, 8th ed. John Wiley & Sons Ltd.

Shoemaker, P. J., & Reese, S. D. (2013). Mediating the Message in the 21st Century: A Media Sociology Perspective. Routledge. https://doi.org/10.4324/9780203930434

Sholiha, E. U. N., & Salamah, M. (2015). Structural Equation Modeling-Partial Least Square for modeling the health status of districts/cities in East Java. Jurnal Sains Dan Seni ITS, 4(2), 169–174.

Sjøvaag, H., & Ohlsson, J. (2024). Media ownership and journalism. Oxford Research Encyclopedia of Communication, 1, 1–28. https://doi.org/10.1093/acrefore/9780190228613.013.839

Song, A. M., Scholtens, J., Barclay, K., et al. (2020). Collateral damage? Small-scale fisheries in the global fight against IUU fishing. Fish and Fisheries, 21(4), 831–843. https://doi.org/10.1111/faf.12462

Suherman, A., Santosa, M. A., Wijayanto, D., et al. (2020). The eradication of IUU fishing in Indonesia. Saintek Perikanan: Indonesian Journal of Fisheries Science and Technology, 16(3), 154–164.

Sulistyawan, A. Y., & Antonius, E. P. (2020). Revealing the relation between global capitalism and television industry. Journal of Law Reform, 16(1), 87–96. https://doi.org/10.14710/lr.v16i1.30307

Syahrir Danial Yulinda, E., & Yusuf, M. (2020). Application of the SEM-PLS Method in Coastal and Ocean Resource Management. IPB Press.

Tribun Pekanbaru. (2024). IUU Fishing News Summary in Riau (2019–2024). Available online: https://pekanbaru.tribunnews.com/ (accessed on 17 February 2024).

Widodo, P., Sukendro, A., Madjid, M. A., et al. (2022). The conflict resolution and prevention between fishermen in Panipahan, Riau Province, Indonesia. Social Science Journal, 12(4), 1568–1577.

Wulandari, S., & Sunarto. (2022). Intervention the local television media news-room "Metro News" Jateng-DIY. Kalijaga Journal of Communication, 4(1), 50–70. https://doi.org/10.14421/kjc.41.04.2022

Yazid, T., & Salsabila, S. (2023). Comparative study of Riau Pos and the Star Media implementation in convergence continuum. Indonesian Journal of Communications Studies, 7(1), 297–318. https://doi.org/10.25139/jsk.v7i1.5203

Yulinda, E., Hendri, R., & Yolandika, C. (2023). The role of trust mediation in the effect of business capital, production factors and government support on the marine fish supply chain performance, in Inhil Riau, Indonesia. AACL Bioflux, 16(1), 291–298.

Yulinda, E., Supian, K., & Saad, M. (2021a). The Effect of Trust on the Fishing Industry Supply Chain Performance in Rokan Hilir Regency Riau Province, Indonesia. IOP Conference Series: Earth and Environmental Science, 934, 012044. https://doi.org/10.1088/1755-1315/934/1/012044

Yulinda, E., Supian, K., & Saad, M. (2021b). The role of trust as a mediator on the effect of productivity in the fishing-industry supply chain performance in Riau, Indonesia. AACL Bioflux, 14(4), 2317–2326.

Zwoelfer, R. (2020). The economic impact of IUU-fishing and its countermeasures on small scale fishermen in Thailand: A case study of Baan Khan Kradai. IOP Conference Series: Earth and Environmental Science, 416(1). https://doi.org/10.1088/1755-1315/416/1/012019