



# The level of River Boat Operators's Understanding and Obedience of inland water signs (Case Study: Pier 16 Ilir)"

Siti Nurlaili Triwahyuni<sup>1</sup>, Slamet Prasetyo Sutrisno<sup>2</sup>, Monica Amanda<sup>3</sup>,  
Nyimas Arnita Aprilia<sup>4</sup> and Ahmad Tomix Kurniawan<sup>1</sup>

<sup>123</sup>Inland Water and Ferries Transportation Polytechnic of Palembang

<sup>4</sup>Land Transportation Polytechnic of Indonesia  
Corresponding author email: <sup>1</sup>sitinurlailitw@gmail.com

<sup>2</sup>azzam.ammar76@gmail.com <sup>3</sup>monicamanda86@gmail.com <sup>4</sup>Nyimas.aprilia@ptdi.sttd.ac.id

**Abstract.** The high enthusiasm of riverboat users in the musu river waters should be accompanied by the high awareness of service providers of safety factors, both safety for the ship operator itself and passengers as service users. So the government often calls on service providers or ship operators to prioritize safe, comfortable and safe shipping, one of which is by complying with river traffic signs, this is in line with the government mandate contained in Government Regulation No. 5 of 2010 concerning Navigations in article 54 Paragraphs 1 and 2, as well as Ministerial Regulation No. 52 of 2012 concerning Shipping Lanes in Article 87 Paragraphs 1 and 2. This study aims to determine and describe the current condition of the function of river traffic signs on the 16 ilir (Palembang)-Banyuasin route; (2) Analyze the level of understanding and obedience of riverboat operators with the function of river traffic signs. Analysis of the level of understanding and obedience of vessel operators with the function of river traffic signs is based on the results of filling out a questionnaire containing a number of questions that present the level of understanding of the function of the signs and a number of questions described from 3 (three) dimensions of the level of compliance based on the theory of Blass (1999). The results of the analysis show: (1) The condition and function of river traffic signs on the 16 ilir (Palembang)-Banyuasin route currently dominated by 42 signs or 72%, with good condition (clear signs, upright poles) by 59% and sufficient condition (clear sign leaves, sloping poles) by 7% and poor by 8% (missing/damaged sign leaves, sloping poles); (2) Based on 2 (two) dimensions, namely Recalling and Interpreting, it can be concluded that the level of understanding of boat operators of river traffic signs on the 16 ilir track on average can recognize images and can describe back but can only explain some of the functions and descriptions on the designated signs, this is high level of understanding with a value of 62%; (3) The average level of compliance of riverboat operators with river traffic signs on the 16 Ilir track is 62%, this value is the "High obedience Level" category (60%-79.99%) with the criteria that boat operators can explain the function of prohibited signs and mandatory signs and often carry out / follow orders according to these signs.

**Key words:** inland waters, river signs, the level of understanding and obedience

## 1.1 Introduction

Among the Musu riverside piers that are still pulsating shipping activities to this day is the 16 ilir pier, which is centered in the 16 ilir Market area, located just under the Ampera bridge which is one of the landmarks of Palembang. Pier 16 ilir serving travel route the Palembang – Banyuasin, Musu Banyuasin, OKI and Coastal/surrounding areas. The

© The Author(s) 2024

F. Pusriansyah et al. (eds.), *Proceedings of the International Conference of Inland Water and Ferries Transport Polytechnic of Palembang on Law, Economic and Management (IWPOSPA-LEM 2023)*, Advances in Economics, Business and Management Research 290,

[https://doi.org/10.2991/978-94-6463-486-0\\_24](https://doi.org/10.2991/978-94-6463-486-0_24)

high enthusiasm of river boat users in the waters of the Musi River should be accompanied by the high awareness of service providers on safety factors, both safety for the ship operator himself and passengers as service users. So the government often appeals to service providers or ship operators to prioritizing safe, comfortable and safe sailing, one of which is by obeying river traffic signs as the government mandates which is stated in Government Regulation No. 5 of 2010 concerning Navigation in article 54 Paragraphs 1 and 2, and Ministerial Regulation No. 52 of 2012 concerning Shipping Lanes in Article 87 Paragraphs 1 and 2, to ensure safety, security, order, and smooth traffic and transportation in river and lake shipping lanes must be equipped with shipping facilities. One of the shipping channel facilities in question is Rambu. Then technically the ambush is regulated in the Regulation of the Director General of Land Transportation NUMBER. KP.4755/AP005/DRJD/2020 concerning Technical Guidelines for inland waters sign. The objectives in this study are:

- a. Knowing and describing the current condition and function of river traffic signs on the 16 ilir (Palembang)-Banyuasin route;
- b. Analyzing the level of understanding of ship operators on the function of river traffic signs;
- c. Analyze the level of compliance of riverboat operators with river traffic signs.

## 1.2 Research Methodology

The analysis of the level of understanding and compliance of ship operators with the function of river traffic signs is based on the results of filling out a questionnaire containing a number of questions that present the level of understanding of the function of the signs and a number of questions elaborated from 3 (three) dimensions of the level of compliance based on the theory of Blass (1999).

The results of filling out the questionnaire are then recapitulated and scoring of each question item is carried out, the scoring results (in Percentage) will show the interpretation of the tendency of the level of understanding and obedience of riverboat operators with river traffic signs. Categories of obedience level scoring results, are:

00.00 - 19.99% = Very Low obedience level

20.00 - 39.99% = Low obedience Level

40.00 - 59.00% = Medium obedience level

60.00 - 79.99% = High obedience Level

80.00 - 100% = Very High obedience Level

While the category of the results of scoring the level of understanding, are:

00.00 - 19.99% = Very Low Understanding Level

20.00 - 39.99 % = Low Understanding Level

40.00 - 59.00% = Medium understanding Level

60.00 - 79.99 % = High understanding Level

80.00 - 100 % = Very High understanding Level

## 1.3 Results and Discussion

### 1.3.1 The current condition and function of river traffic signs on the 16 ilir (Palembang)-Banyuasin route.

The current condition and function of river traffic signs is shown in Table 3.1. Based on table 3.1 below, the river traffic signs on the 16 Ilir-banyuasin route are dominated by directional signs with a total of 42 signs with good conditions

of 59% and sufficient conditions of 7% and poor conditions of 8%. Fair condition is categorized as the condition of river traffic signs that can still show their function either as guidance signs, mandatory signs or prohibition signs but the condition of the sign leaves is not perfect or the signposts are tilted / not standing upright.

Locations	Sign Types	Amount	Conditions and Functions					
			Good		Fair		Poor	
34	Directional Signs	42	33	78%	4	10%	5	12%
	Mandatory Signs	9	6	67%	1	11%	2	22%
	Prohibition Signs	8	4	50%	2	25%	2	25%

1.3.2 Analyzing the level of understanding of ship operators on the function of river traffic signs

The level of understanding on the recalling indicator is shown in Figure 3.1 and the interpreting dimension in Figure 3.2.

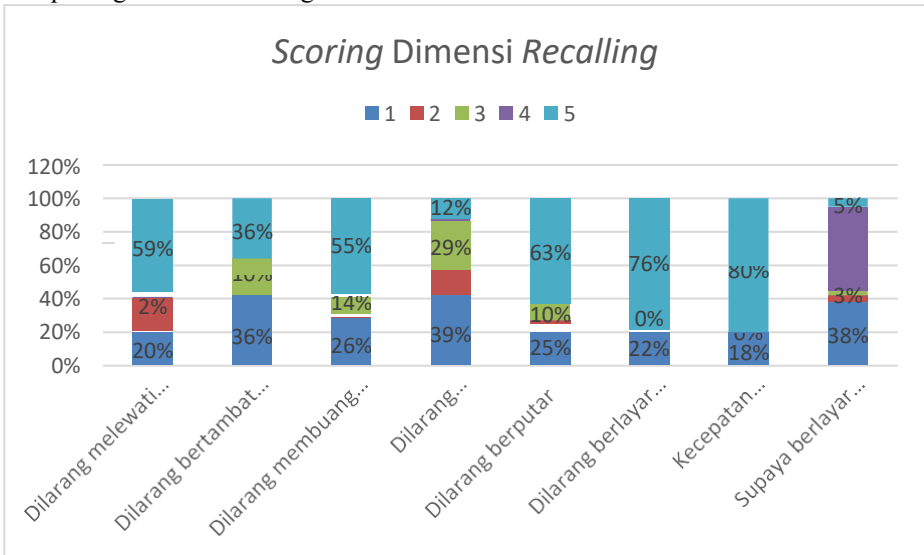


Figure 3.1 Riverboat operators' level of understanding of the river traffic signaling function in the recalling dimension

Based on Figure 3.1, it can be concluded that an average of 50.2% of ship operators have a score of 5 (five), which is included in the category of a very high level of understanding, with the criteria that the respondent is able to recognize the image and can describe it again, then followed by an average of 28% of ship operators in the category of a very low level of understanding with a score of 1 (one), with the criteria that the ship operator is unable to recognize the image and cannot describe the designated sign

again. While 10.8% of ship operators have a sufficient level of understanding and 10% are in the low level of understanding category, and 1% are in the high level of understanding category. If categorized in general, then in the recalling dimension, the average ship operator is in the "High" category. While the interpreting dimension aims to assess the level of understanding of ship operators through the ability of ship operators to re-explain the function of signs and additional information according to the images designated in the questionnaire.

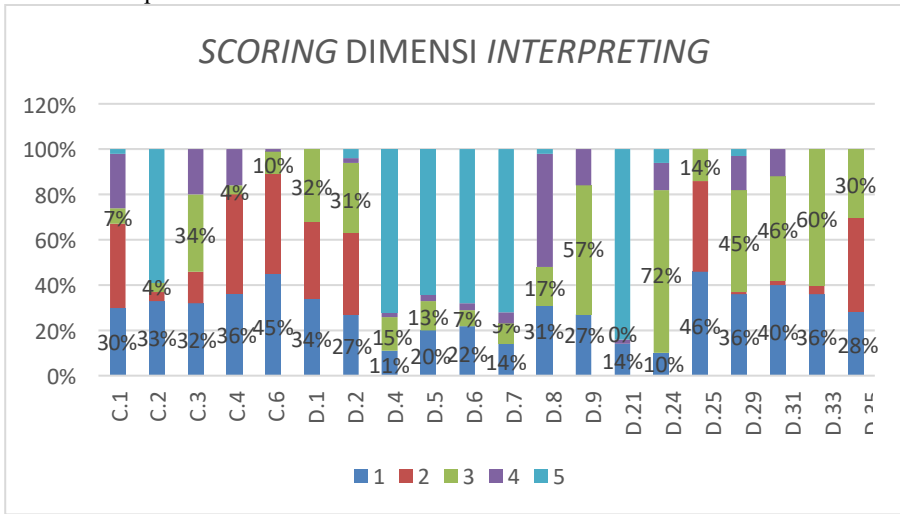


Figure 3.2 Level of understanding of river traffic signs on the Interpreting dimension

Based on Figure 3.2, it is known that an average of 29% of respondents have a score of 1 (one), namely a very low level of understanding with the criteria that the ship operator cannot explain the function of the sign and additional information on the designated image at all. Then followed by 25% of the average ship operator in the medium understanding category with a score of 3 (three), namely being able to explain some of the functions and captions on the designated signs and 22% of respondents in the category of very high level of understanding, namely being able to explain the functions and additional information on the designated image appropriately. Meanwhile, 15% and 9% were in the low and high understanding level categories.

Based on 2 (two) dimensions, namely Recalling and Interpreting, it can be concluded that the level of understanding of ship operators on river traffic signs on the 16 ilir track on average can recognize images and can describe back but can only partially explain the functions and descriptions on the designated signs, this category falls into the category of high level of understanding with an average value of 62% as seen in table 3.2 below.

Table 3.2 Average Level of Understanding of Ship Operators of the River Traffic Signaling Function

Dimintions	Index	Category
<i>Recalling</i>	68%	High
<i>Interpreting</i>	56%	Fair
Average	62%	High

1.3.3 Analyze the level of compliance of riverboat operators with river traffic signs  
 In general, the compliance level score is dominated by the "very high" compliance level with a score of 5 (five) at 44%, followed by the "very low" compliance level with a score of 1 (one) and "low" at 15%, while 9% and 5% of vessel operators' compliance scores are in the moderate and compliant categories of river traffic signaling functions, as shown in Figure 3.3 below:

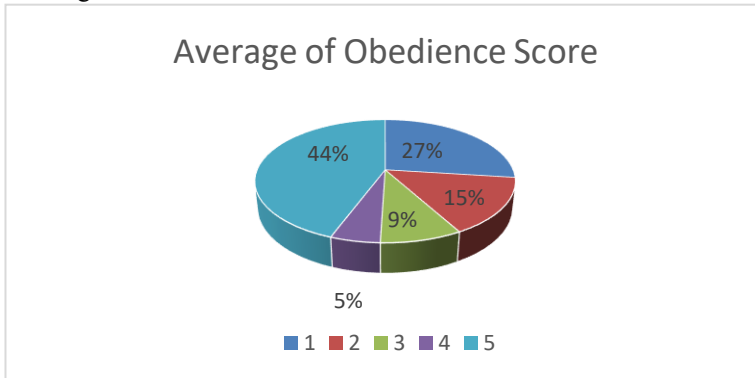
















Figure 3.3 Average Obedience Score

Meanwhile, based on the results of the analysis, it can be concluded that the average level of compliance of ship operators with the function of river traffic signals on the 16 Ilir track is 62%, this value is included in the "High Compliance Level" category (60%-79.99%), more details on the level of compliance with each question item are summarized in Table 3.3.

Table 3.3 Level of Riverboth’s Obedience to each River Traffic Sign

Questions	Obedience	TS	Y	Index	Category
A.1 	Stay in line, do not overtake the ship in front of	381	500	76%	High
A.4 	Not entering the ship	163	500	33%	Poor
A.5 	Not lighting a cigarette	466	500	93%	Very high
A.6 	Not mooring at the edge of the waterway, where this sign is posted	468	500	94%	Very high
A.7	Not throwing anchor or anchoring where this sign is posted	416	500	83%	Very high

Questions	Obedience	TS	Y	Index	Category
					
A.8 	No mooring where this sign is posted	374	500	75%	High
A.10 	Not making a U-turn or a U-turn of the ship that I am steering	410	500	82%	Very high
A.11 	Sailing at low speed so as not to cause wave action	295	500	59%	Moderate
A.13 	No logging along the area as indicated on the sign	318	500	64%	High
A.17 	No anchoring within 60 m of the sign	304	500	61%	High
B.1 	Keep sailing in the left-hand channel	192	500	38%	Poor
B.3 	Vessels stop for purposes as directed on the board below the sign	152	500	30%	Poor
B.4 	Sail at the maximum speed according to the number indicated on the sign	372	500	74%	High
B.6 	Sail with caution and vigilance in areas marked by signs	237	500	47%	Moderate
<b>RATA-RATA</b>				<b>65%</b>	<b>Tinggi</b>

## 1.4 Conclusions

Based on the analysis and discussion, it can be concluded that:

- 1.4.1 The condition and function of river traffic signs on the 16 ilir (Palembang)-Banyuasin route currently reviewed are 43 points/locations with a total of 59 signs dominated by 42 signs or 72%, with good condition (clear signs,

- upright poles) of 59% and sufficient condition (clear sign leaves, sloping poles) of 7% and poor at 8% (missing/damaged sign leaves, sloping poles).
- 1.4.2 Based on 2 (two) dimensions, namely Recalling and Interpreting, it can be concluded that the level of understanding of boat operators on river traffic signs on the 16 ilir track is on average able to recognize images and can describe back but can only explain some of the functions and information on the designated signs, this category falls into the category of high level of understanding with a value of 62%.
- 1.4.3 The average level of compliance of riverboat operators with river traffic signs on the 16 ilir track is 62%, this value is included in the "High Compliance Level" category (60%-79.99%) with the criteria that boat operators can explain the function of prohibited signs and mandatory signs and often carry out / follow orders according to these signs.

## 1.5 Suggestions

Based on the above conclusions, the researcher provides the following suggestions:

- 1.5.1 Inventory of signs on the 16 ilir - banyuasin track by the authorities in carrying out periodic maintenance of signs, so that the signs are 100% functional.
- 1.5.2 Although the level of understanding of ship operators of the signage function is in the "High" category, it is necessary to carry out socialization of the introduction of all signs and signs, so that ship operators can recognize the various kinds of river signs that have been stipulated in the PM 52/2012 regulations concerning River and Lake Navigation Flows and 4. Regulation of the Director General of Land Transportation NUMBER KP.4755/AP005/DRJD/2020 Regarding Technical Guidelines for inland waters.
- 1.5.3 The level of compliance with signs needs to be accompanied by compliance with the fulfillment of ship documents (certification), so that compliance with inland water traffic regulations becomes perfect, as mandated by the government that the fulfillment of the ship's seaworthiness is proven by ship certificates and letters as stated in Law No.17 of 2008 concerning Shipping.

## References

1. Direktorat Jenderal Perhubungan Darat. 2020. Lampiran Peraturan Direktur Jenderal Perhubungan Darat Nomor KP. 4755/AP005/DRDJ/2020 Tentang Pedoman Teknis Rambu Sungai dan Danau. Kepala Bagian Hukum dan Hubungan Masyarakat.
2. Haryanto,H.,C. 2020. Kepatuhan Terhadap Peraturan Lalu Lintas Para Pengendara Di Perkotaan. Inquiry: Jurnal Ilmiah Psikologi, Vol. 4 / November 2011, hlm 39 – 46. Diakses [https://www.researchgate.net/publication/341654883\\_KEPATUHAN\\_TERHADAP\\_PERATURAN\\_LALU\\_LINTAS\\_PARA\\_PENGENDARA\\_DI\\_PERKOTAAN\\_Inquiry\\_Jurnal\\_Iliah\\_Psikologi\\_4\\_1\\_2011](https://www.researchgate.net/publication/341654883_KEPATUHAN_TERHADAP_PERATURAN_LALU_LINTAS_PARA_PENGENDARA_DI_PERKOTAAN_Inquiry_Jurnal_Iliah_Psikologi_4_1_2011) pada 09/30/2023.

3. Abraham, J. 2010. Masalah Transportasi Kota dan Pendekatan Psikologi Sosial. [https://www.researchgate.net/publication/326119585\\_Masalah\\_Transportasi\\_Kota\\_dan\\_Pendekatan\\_Psikologi\\_Sosial](https://www.researchgate.net/publication/326119585_Masalah_Transportasi_Kota_dan_Pendekatan_Psikologi_Sosial) diakses pada 09 Maret 2023.
4. Muchlisin Riadi (29 Mei 2021). Kepatuhan (Obedience) - Pengertian, Aspek, Indikator dan Faktor yang Mempengaruhi. <https://www.kajianpustaka.com/2021/05/kepatuhan-obedience.html> diakses pada 09 Maret 2023.
5. Prayudha, Wahyu. 2017. Tingkat Kepatuhan Masyarakat Pengguna Jalan Terhadap Fungsi Rambu - Rambu dan Marka Lalu Lintas di Kota Medan. Diakses dari <http://repository.umsu.ac.id/handle/123456789/12711> pada 09 Maret 2023.
6. Pemerintah Republik Indonesia. Undang-undang No.17 Tahun 2008 Tentang Pelayaran. Tambahan Lembaran Negara Republik Indonesia Nomor 4849.
7. Pemerintah Republik Indonesia. Peraturan Pemerintah RI Nomor 5 Tahun 2010 Tentang Kenavigasian. Sekretariat Negara RI. Lembaran Negara RI Tahun 2010 Nomor 8.
8. Pemerintah Republik Indonesia. Peraturan Menteri Perhubungan RI Nomor 52 Tahun 2012 Tentang Alur Pelayaran Sungai dan Danau. Kepala Biro Hukum dan KSLN. Berita Negara RI Tahun 2012 Nomor 1089.
9. Pemerintah Republik Indonesia. Peraturan Menteri Perhubungan RI Nomor 25 Tahun 2015 Tentang Standar Keselamatan Transportasi Sungai Danau dan penyeberangan. Kepala Biro Hukum dan KSLN. Berita Negara RI Tahun 2015 Nomor 224.
10. Pemerintah Republik Indonesia. Peraturan Menteri Perhubungan RI Nomor 61 Tahun 2021 Tentang Penyelenggaraan angkutan Sungai dan Danau. Kepala Biro Hukum. Berita Negara RI Tahun 2021 Nomor 780.
11. Purboyo,dkk. 2020. Modul Statistika Terapan. Politeknik Transportasi Sungai Danau dan penyeberangan Palembang. Tidak dipublikasi.
12. Risti, Enida (2019). Kepatuhan Berlalu Lintas Ditinjau Dari Sikap Terhadap Polisi dan Jenis Kelamin. SKIRPSI. <http://repository.radenintan.ac.id/6614/> diakses pada 09 Maret 2023.
13. Safitri,A & Rahman,T. 2013. Tingkat Kepatuhan Hukum Siswa Sma Kartika IV-3 Surabaya Terhadap Etika Berlalu Lintas Menurut Undang-Undang Nomor 22 Tahun 2009 Tentang Lalu Lintas dan Angkutan Jalan. Jurnal Kajian Moral dan Kewarganegaraan Nomor 1 Volume 3 Tahun 2013. <https://core.ac.uk/download/pdf/230708765.pdf> diakses pada 09 Maret 2023.
14. Sugiono. 2020. Metode Penelitian Kuantitatif Kualitatif. Bandung: ALFABETA.
15. Wahyudi,S. 2019. Model Pengukuran Tingkat Pemahaman Visi, Misi & Tujuan Perguruan Tinggi.[https://www.researchgate.net/publication/332120319\\_MODEL\\_PENGUKURAN\\_TINGKAT\\_PEMAHAMAN\\_VISI\\_MISI\\_T\\_UJUAN\\_PERGURUAN\\_TINGGI](https://www.researchgate.net/publication/332120319_MODEL_PENGUKURAN_TINGKAT_PEMAHAMAN_VISI_MISI_T_UJUAN_PERGURUAN_TINGGI) Diakses dari pada 09 Maret 2023.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

