



## RESEARCHER MEETING

# ROUTE CHOICES OF FREIGHT DRIVERS' PERCEPTION IN JAVA ISLAND (TOL AND NON TOL)



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YOUNG RESEARCHER OF MULTIMODAL TRANSPORT

# OUTLINE



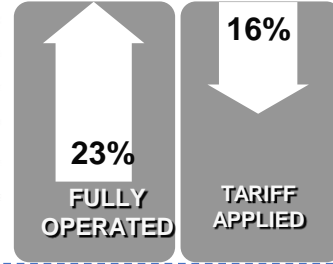
- 1 BACKGROUND OF STUDY
- 2 PURPOSES OF STUDY
- 3 METHODOLOGY
- 4 RESULT AND DISCUSSION
- 5 CONCLUSION AND RECOMENDATION

# BACKGROUND

## TRANS JAVA TOLL ROAD



LALULINTAS HARIAN RATA-RATA



Toll charge Jakarta-Surabaya = Rp 1.380.000 Atau Rp 1.800/km (Source by BPJT Regulation)

**EXPENSIVE**

No	Toll Road	Length (km)	Investor
1	Cikopo-Palimanan	116	PT Lintas Marga Sedaya
2	Kanci-Pejagan)*	35	PT Semesta Marga Raya
3	Pejagan-Pemalang	57,5	PT Pejagan Pemalang Tol Road
4	Pemalang-Batang	39	PT Pemalang Batang Tol Road
5	Semarang-Batang	75	PT Marga Setiapuritama
6	Semarang-Solo	75,7	PT Trans Marga Jateng
7	Solo-Ngawi)**	90,1	Kerjasama Pemerintah-Swasta (PPP)
8	Ngawi-Kertosono)**	87,02	Kerjasama Pemerintah-Swasta (PPP)
9	Kertosono-Mojokerto	40,5	PT Marga Hanurata Intrinsic
10	Surabaya-Mojokerto	36,27	PT Marga Nujyasumo Agung
	Jumlah	652,09	



Saving travel time by 30 percent or earlier by at 5 hours than traveling time required to cover the same distance via national road



Reducing logistic transport cost  
 A good transport from Jakarta-Surabaya takes an average 2 days  
 → Travel time certainty shorter

**TIME**  
**FUEL**  
**OVC**

# GOALS OF STUDY



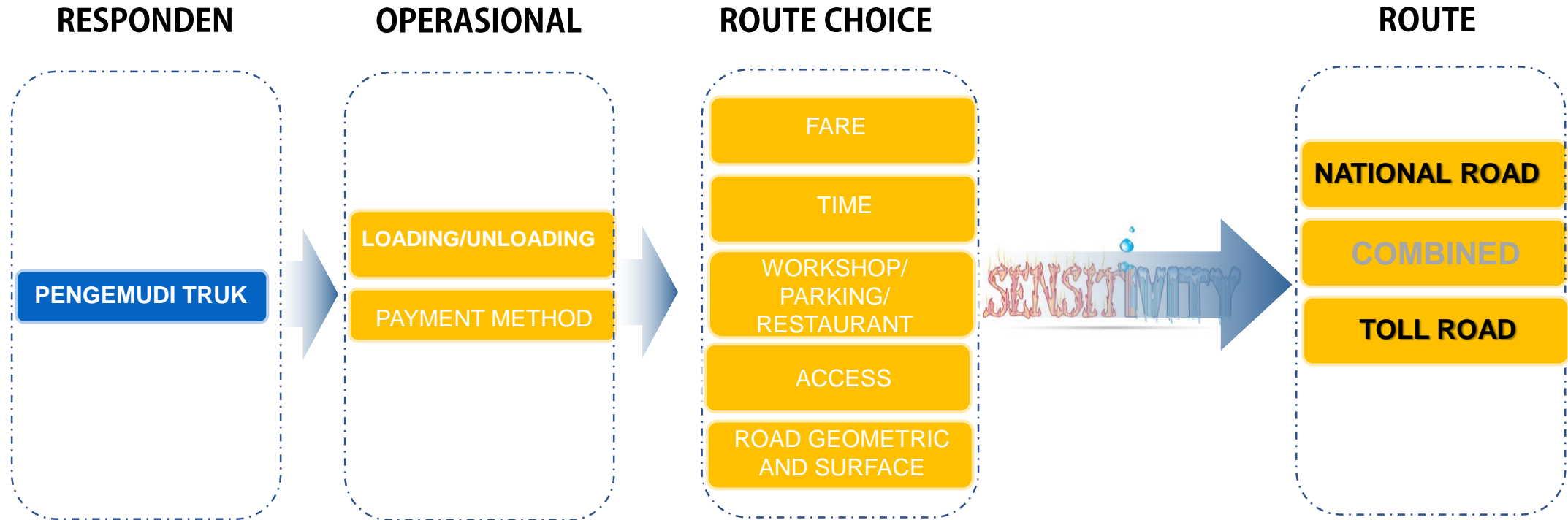
Is there impact of toll Trans Java Development through the national Road demand

Are the driver's characteristics influencing their route choice

What are the factors driver decision in using national or toll road?

**Are The factors sensitivity??**

# METHODOLOGY



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ROUTE CHOICE OF FREIGHT DRIVERS' PERCEPTION

HERAWATI \$ IRAWATI

ROUTE CHOICE OF FREIGHT DRIVERS' PERCEPTION

HERAWATI \$ IRAWATI

# SURVEY LOCATION



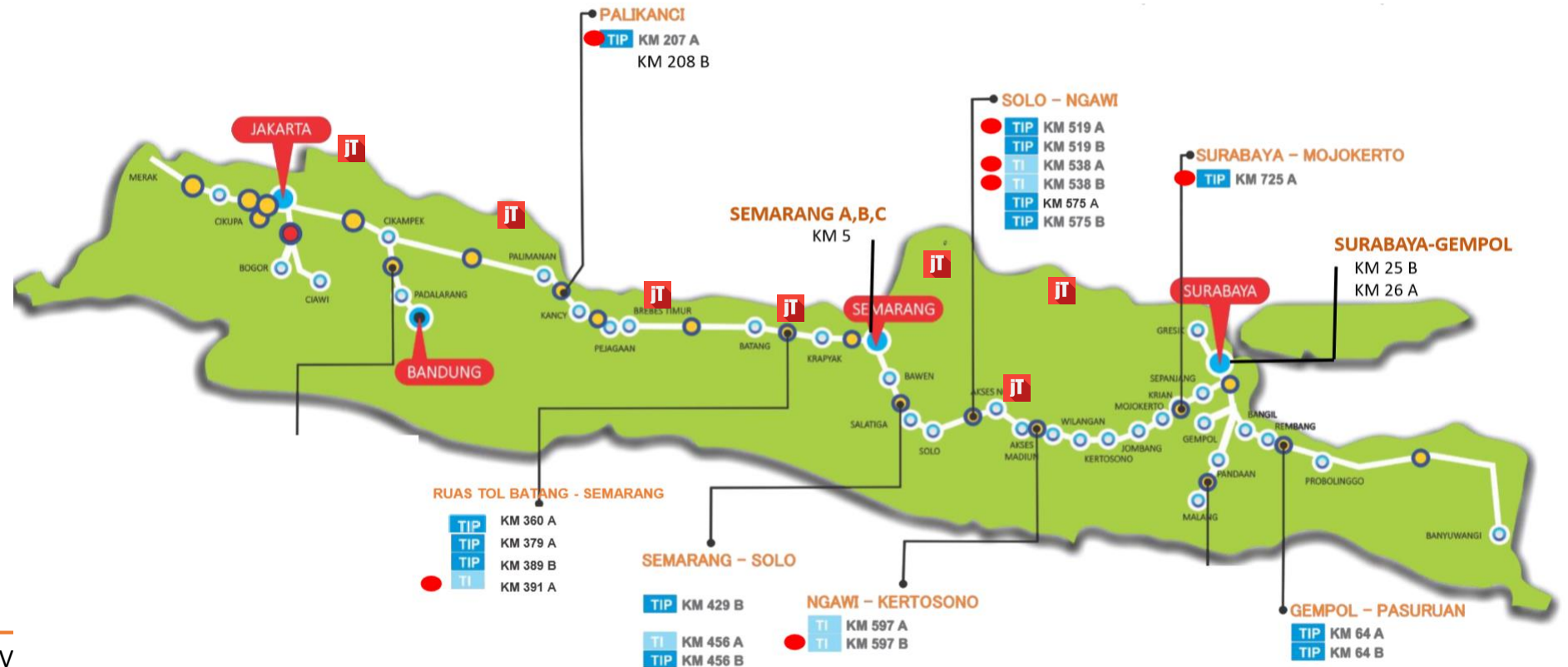
INTERVIEWING TRUCK DRIVER

ROUTE CHOICE OF FREIGHT DRIV  
HERAWATI \$ IRAWATI

- REST AREA
- JT UPPKB JEMBATAN TIMBANG
  1. BALONGGADU
  2. LOSARANG
  3. TANJUNG
  4. SUBAH
  5. SERANG
  5. WIDAN
  6. WIDODARE

100 samples (50%)

100 samples (50%)



# RESULT AND DISCUSSION

## Impact to The National Road

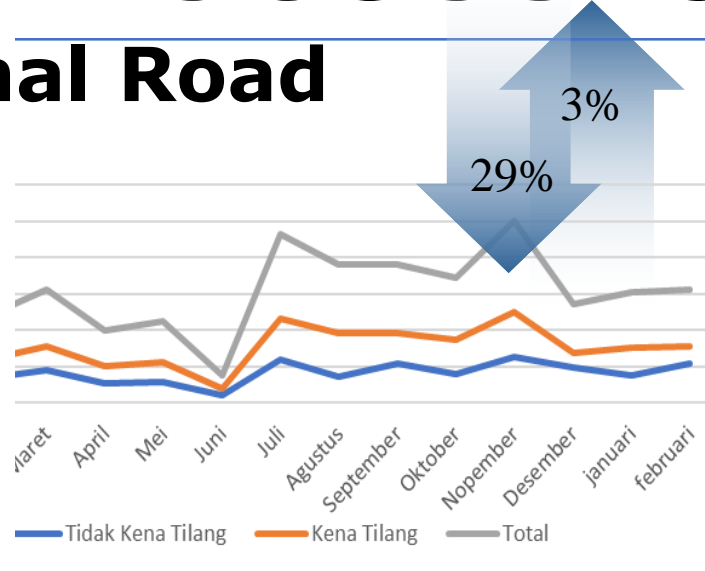


WEIGHTBRIDGE

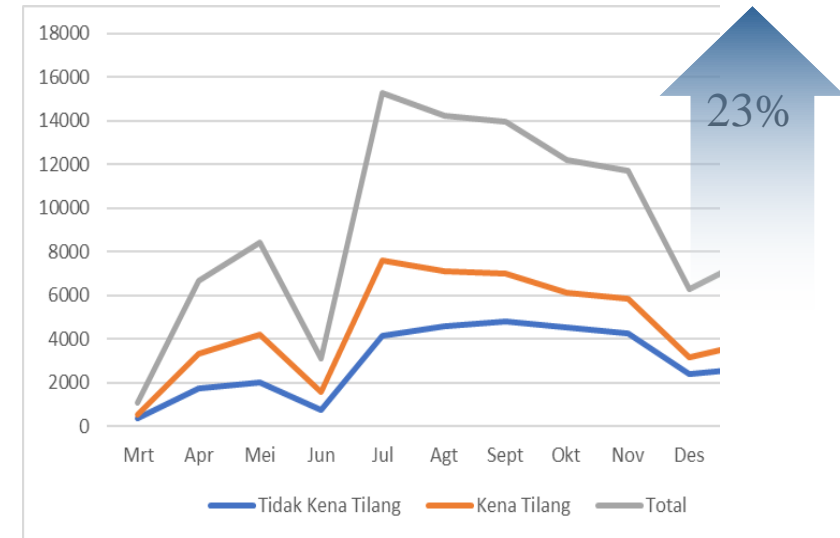
TRAFFIC REDUCTION

SANCTION REDUCTION

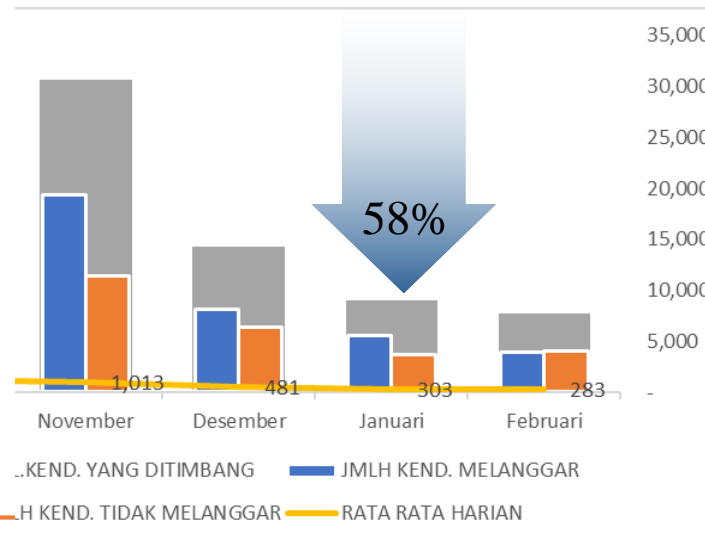
ROUTE CHOICE OF FREIGHT DRIVERS' PERCEPTION  
HERAWATI \$ IRAWATI



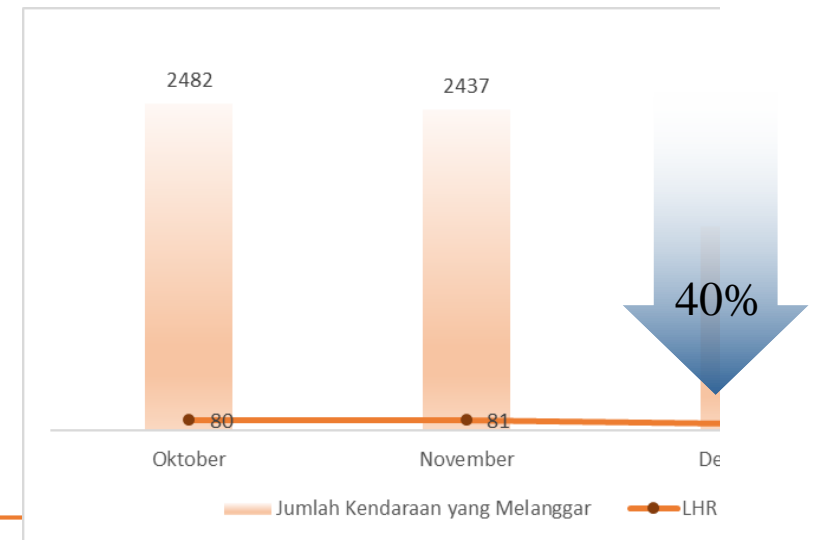
(a) LHR UPPKB Losarang



(b) LHR UPPKB Bolangandou



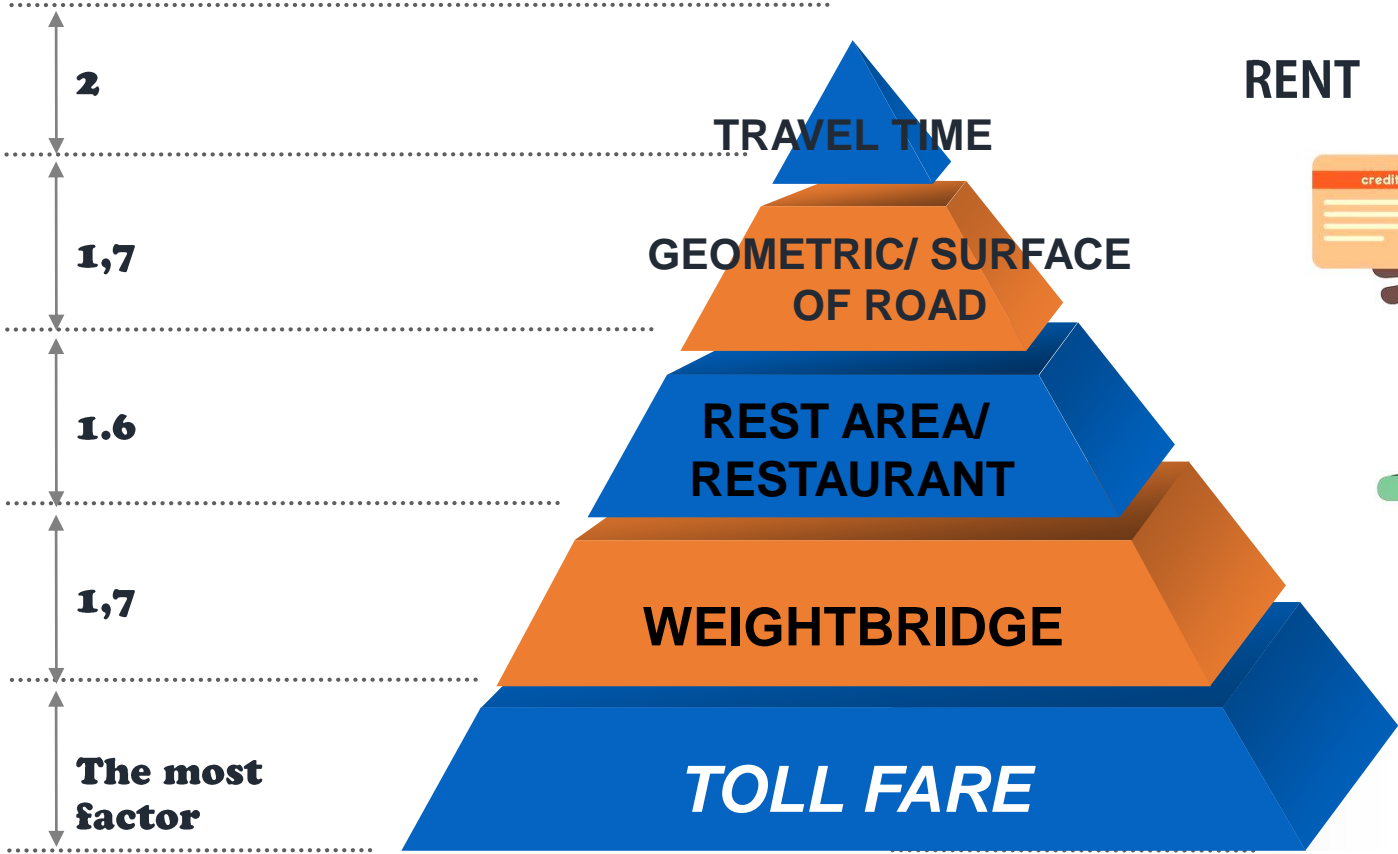
(c) LHR UPPKB Widodaren



(d) Gambar 4.14 LHR UPPKB Sut

# RESULT AND DISCUSSION

## Route Choice Factors



79%  
CONTRACT PER TRIP

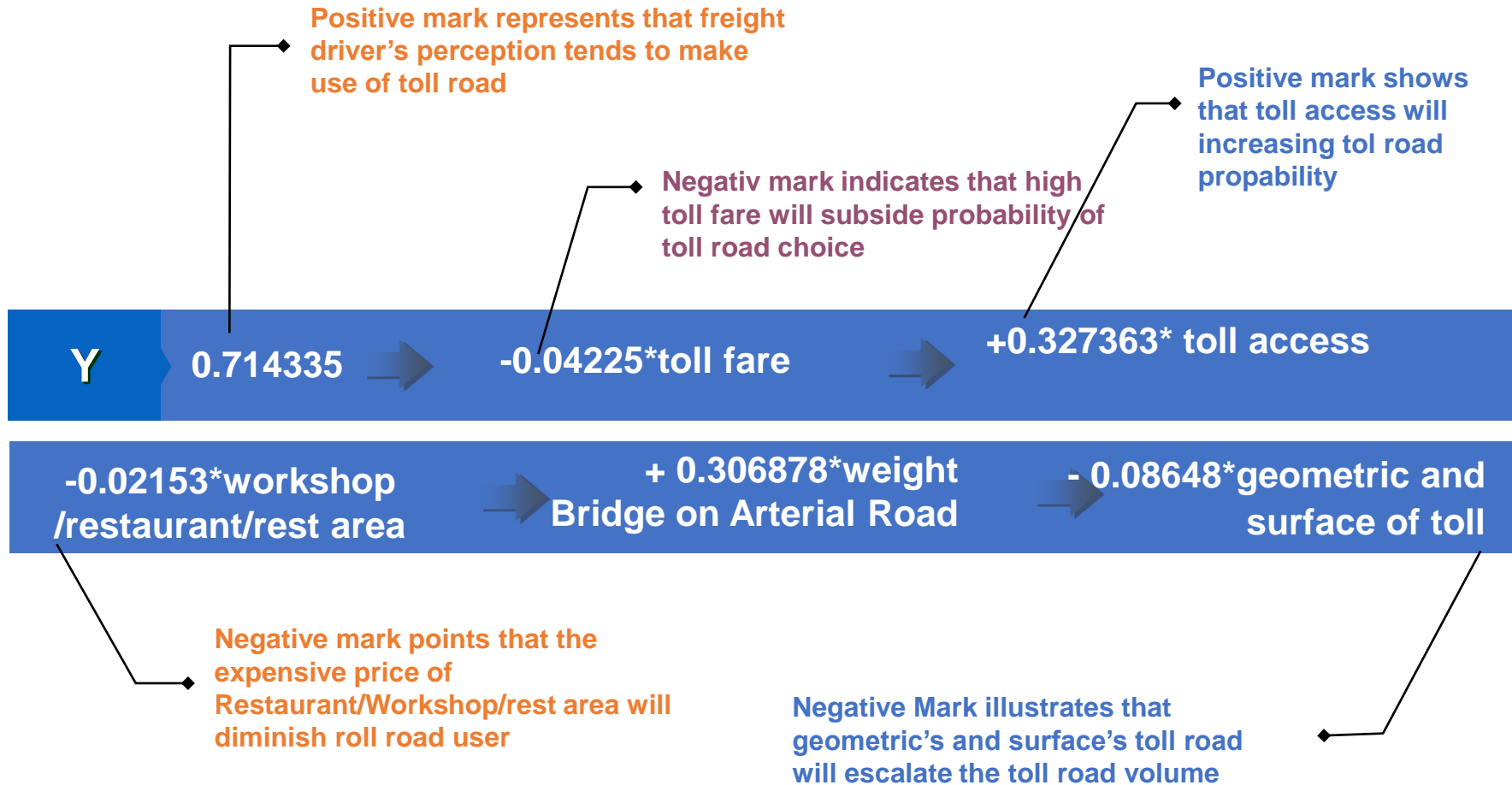


NATIONAL ROAD  
TOLL ROAD



# RESULT AND DISCUSSION

## SENSITIVITY OF THAT FACTORS



### • R-square

R-square = 0.695 or 69.5% (Cox & Snell) and 0.938 or 93,8% (Nagekerk).

### • Uji chi-square

p-signifikansi = 0.58 (>0.05) and H0 accepted.

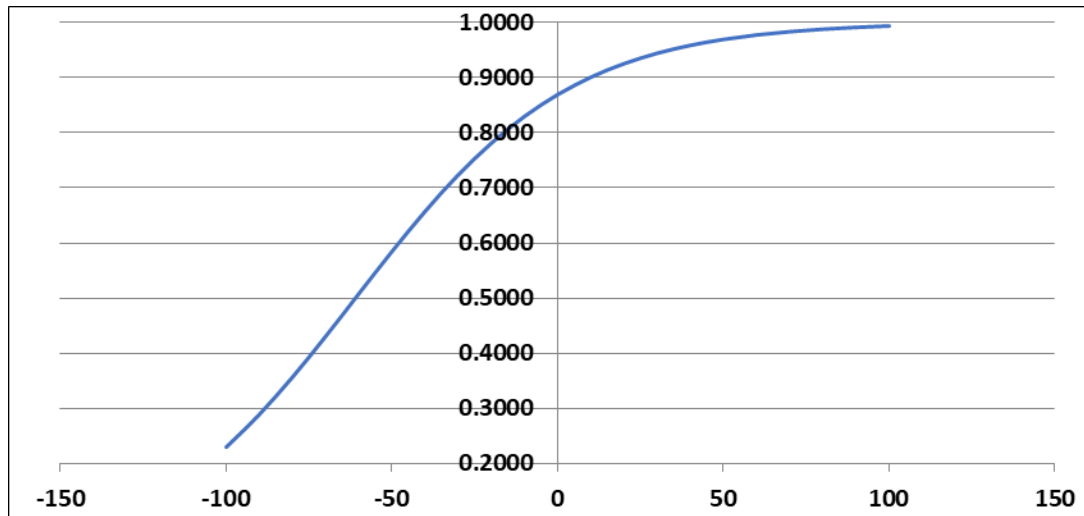
### p-value signifikansi

Every variable > 0.05 maka terima H0.

# RESULT AND DISCUSSION

## SENSITIVITY OF THAT FACTORS

The curve tends to negative area



Sensitivity graphic gradually

**HIGH** Toll Fare

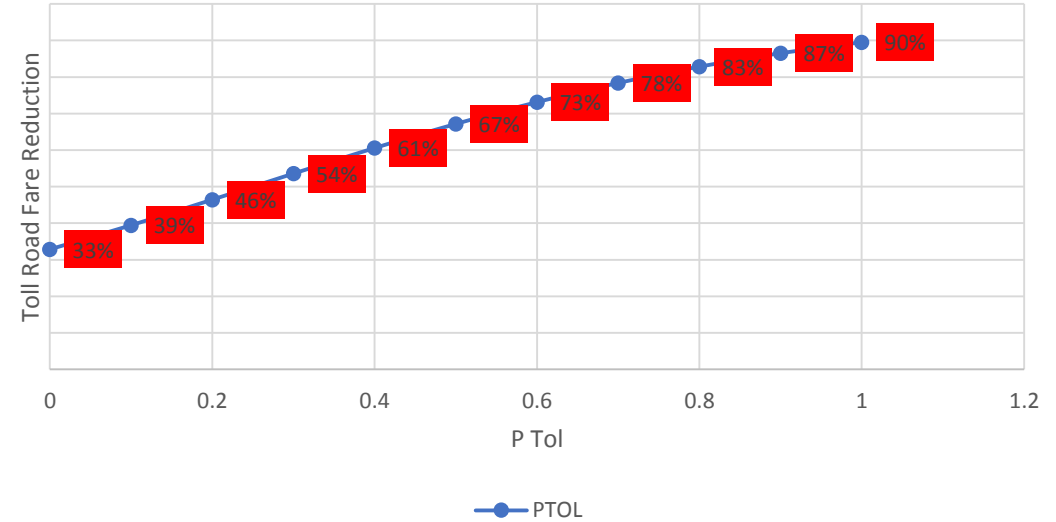
**EXPENSIVE** Restaurant/Rest Area/  
Workshop

**WORSE** Road Condition



probability  
**DECREASING**

ROUTE CHOICE OF FREIGHT DRIVERS' PERCEPTION  
HERAWATI \$ IRAWATI



**LOWER TOLL RATE = HIGHER TRAFFIC VOLUMES =  
HIGHER TOLL REVENUE**

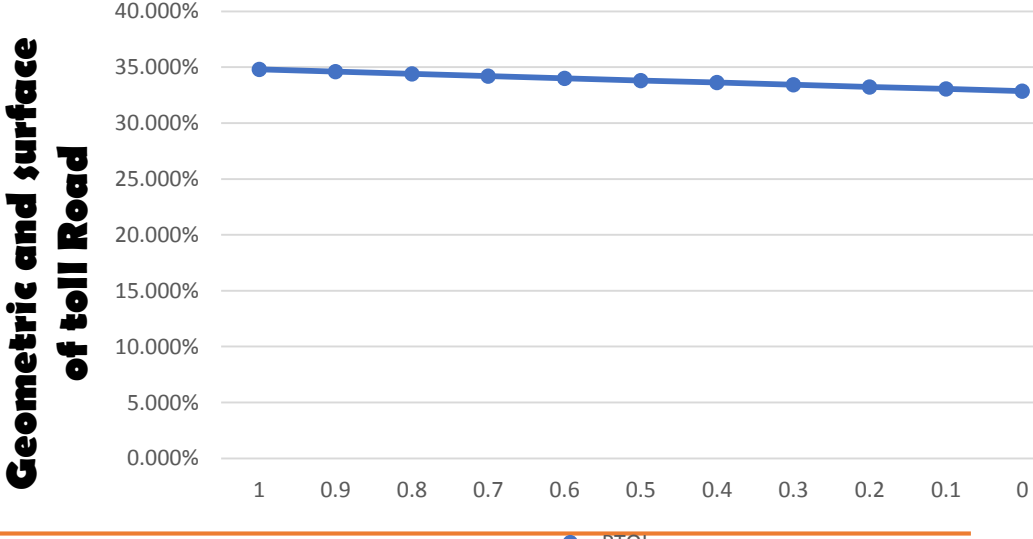
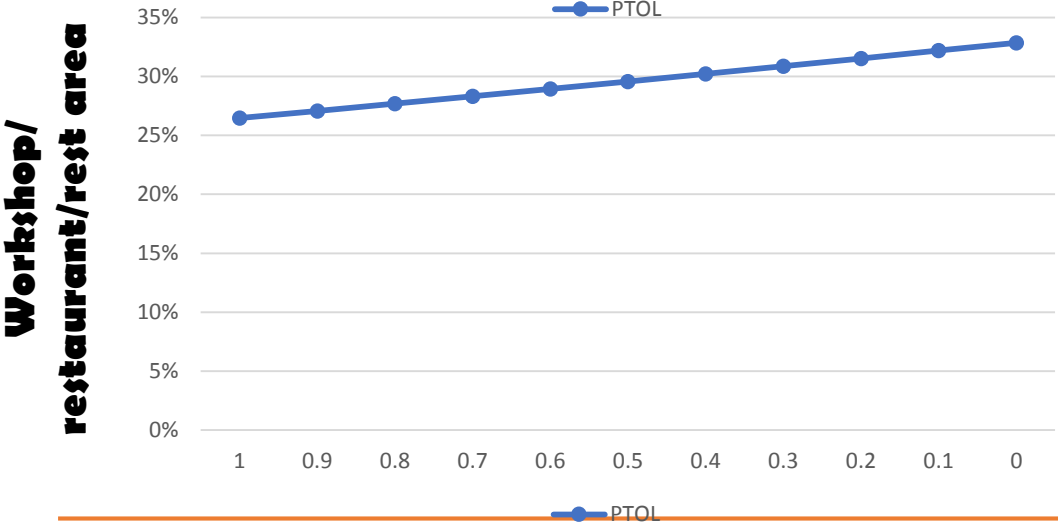
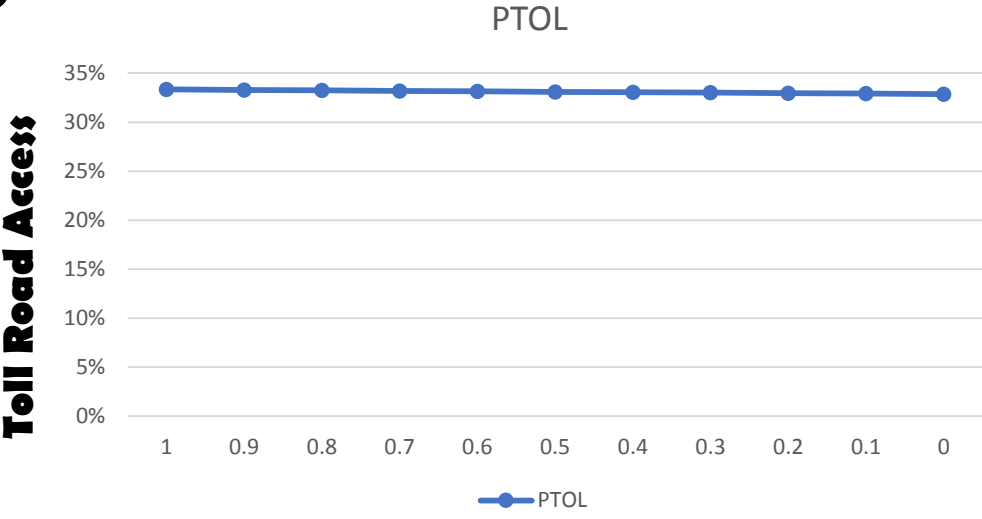
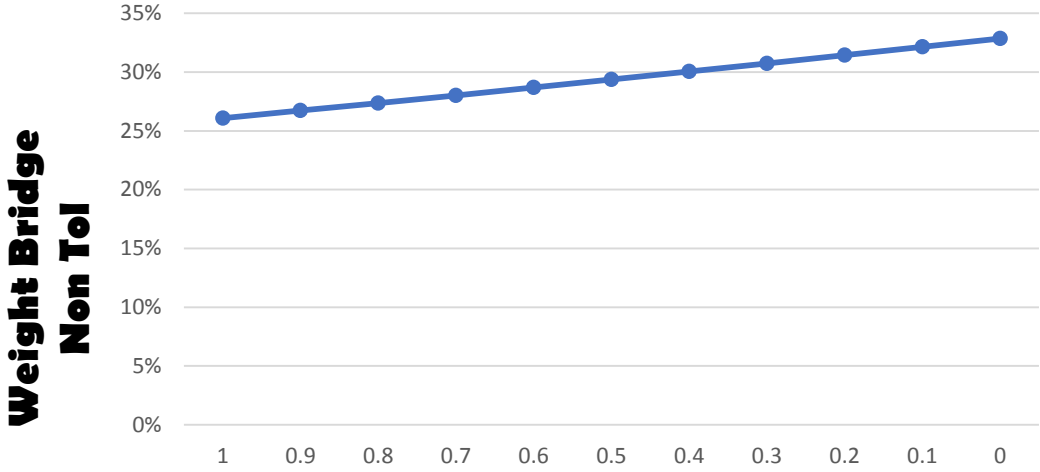
VOLUME	BIAYA	REVENUE
325.19	-	Rp -
315.71	17,600	Rp 5,556,580
304.46	35,200	Rp 10,717,136
291.48	52,800	Rp 15,390,021
276.97	70,400	Rp 19,498,948
261.36	88,000	Rp 22,999,812
245.21	105,600	Rp 25,894,419
229.18	123,200	Rp 28,235,398
213.91	140,800	Rp 30,119,169
199.93	158,400	Rp 31,668,764

RM/BENGKEL/  
REST AREA

SPBU

# RESULT AND DISCUSSION

## SENSITIVITY OF THAT FACTORS



# CONCLUSION

## 1. Java Toll Road has reduced freight volume on National Road

Reducing Average Traffic Volume and Number of Sanctions

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## 2. Driver Behaviour and Intensive Awarded

Internal and External Costs and the best performance

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## 3. Factor Effecting of Freight Drivers

Toll fare, Toll Access, Weighbridge on Arterial Road, Toll road Facilities

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## 4. Sensitivity

Positive with toll road access and Weighbridge on Arterial Road

Negative with toll road fare, Expensive price of restaurant menu/workshop services/Rest area limited

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# RECOMENDATION

## 1. Knowledge and Information Improvement

Training and socializing toll road facilities

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## 2. Fare Discounted

Low Season Such as Night travelling, Weekday or off-peak hours

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## 3. Weight Bridge on Toll Road

Controlling overweight and Overdimension truck

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**THANK YOU**