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THE EFFECT OF MORAL NORM ON PUBLIC TRANSPORT PASSENGERS' BEHAVIORAL INTENTION (CASE STUDY: PUBLIC TRANSPORT PASSENGERS IN BOGOR, INDONESIA)

Summary. This paper aims to examine the effect of moral norm on public transport passengers' behavioral intention in Bogor, Indonesia. This research is important because there is lack of research on the topic. The research used quantitative research methodology. Survey with questionnaire was performed in order to gather the research data. The respondents of the survey are 277 public transport passengers in Bogor, Indonesia. The research results show that moral norm influences public transport passengers' behavioral intention positively.

WPLYW NORM MORALNYCH NA ZACHOWANIE PASAŻERÓW TRANSPORTU PUBLICZNEGO (STUDIUM PRZYPADKU – PASAŻEROWIE PUBLICZNEGO TRANSPORTU W MIEŚCIE BOGOR W INDONEZJI)

Streszczenie. Artykuł ma na celu wykazanie wpływu norm moralnych na zachowanie pasażerów transportu publicznego w mieście Bogor w Indonezji. Tego rodzaju badania nie zostały wcześniej przeprowadzone, co potwierdza ich istotność. Do wykonania badań wykorzystana została metoda ilościowa. Dane zostały zgromadzone na podstawie opracowanego kwestionariusza ankiety. W badaniu wzięło udział 277 pasażerów transportu publicznego w Bogor w Indonezji. Wyniki badań wskazują, że normy moralne mają pozytywny wpływ na zachowania badanych pasażerów.

1. INTRODUCTION

Public transport passengers' behavioral intention is an important factor that should be managed effectively by public transport service provider [1, 2]. This because behavioral intention can provide many strategic advantages, such as positive word of mouth communication, increased in the number of public transport service users, and increased in revenue [1 - 4]. Furthermore, passengers' behavioral intention can be used as an effective weapon to maintain the old passengers as well as to attract the new ones [1, 4, 5].

In Indonesia, public transport service provider should also manage passengers' behavioral intention effectively [1, 5]. This is due to the rapid growth of private vehicles ownership [1, 5]. Nowadays, Indonesian has many opportunities and easiness to buy their own car or motorcycle [1]. The condition leads the public transport passengers can switch to private vehicle easily [1]. If public transport service providers don't have passengers with favorable behavioral intention, it will be very difficult to survive

and win the business completion [1]. Given this, public transport passengers' behavioral intention in Indonesia is important to be studied.

1.1. Previous Research and Research Gap

One of the important topics in public transport research is public transport passengers' behavioral intention [1, 2]. Surprisingly, there are only a few researchers that investigated the topic. Wen et al. [2] studied intercity bus passengers' behavioral intention in Taiwan. They found some factors that influence passengers' behavioral intention, i.e. satisfaction, service value, service quality, sacrifice, switching costs, attractiveness of competitors, and trust. Other researchers, Lai and Chen [4] performed a research to understand the behavioral intention of Kaohsiung Mass rapid Transit (KMRT) passengers in Taiwan. They found that passengers' behavioral intention is influenced by involvement, service quality, perceived value, and satisfaction. Furthermore, table 1 shows the researchers that have studied public transport passengers' behavioral intention.

Even though some researchers have investigated public transport passengers' behavioral intention, we identified a fundamental research gap. There is lack of research that investigated the effect of moral norm on public transport passengers' behavioral intention. Psychology literature has identified that moral norm is a predictor of behavioral intention [6, 7]. Given this, moral norm may be relevant for explaining public transport passengers' behavioral intention. Thus, it is important to empirically test the effect of moral norm on public transport passengers' behavioral intention.

Table 1

Previous Studies on Public Transport Passengers' Behavioral Intention

Author (s)	Public Transport Type	Country	Findings
Sumaedi et al. [1]	Paratransit	Jabodetabek – Indonesia	Image, perceived value, and perceived sacrifice affect behavioral intention
Wen et al. [2]	Intercity Bus	Taiwan	Satisfaction, service value, service quality, sacrifice, switching costs, attractiveness of competitors, and trust significantly affect behavioral intention
Jen et al. [3]	Coach	Taiwan	Perceived cost, service quality, perceived value, satisfaction, switching cost, and alternative attractiveness affect behavioral intention
Lai and Chen [4]	Mass Rapid Transit	Taiwan	Involvement, service quality, perceived value, and satisfaction affect behavioral intention
Sumaedi et al. [5]	Paratransit	Jakarta - Indonesia	Service quality, sacrifice, and perceived value significantly affect behavioral intention

1.2. Research Objectives

In order to address the gap in the literature, this research aims to examine the effect of moral norm on public transport passengers' behavioral intention in Bogor, Indonesia. On other words, the research question is does moral norm influence public transport passengers' behavioral intention in Bogor, Indonesia?

2. LITERATURE REVIEW

Public transport passengers' behavioral intention, which is also called as passengers' loyalty, is defined as the passengers' deep commitment to continually use public transport services even though they can use private vehicles easily [1, 2, 8]. Passengers' behavioral intention represents a strong emotional bond between passengers with public transport that can make the passengers become a "brand zealot" [1, 9, 10]. Brand zealot refers to them who will assist the public transport service provider if the provider is attacked by the other parties [1, 9]. Furthermore, there are two observed behaviors of a passenger with favorable behavioral intention, namely reusing the public transport services and recommending the services to the others [1 - 5].

The strategic role of public transport passengers' behavioral intention has been recognized by scholars [1 - 5]. Many competitive advantages will be obtained by public transport service providers if their passengers have favorable behavioral intention [1 - 4]. The service providers will have a strategic barrier that prevents their passengers to switch to private vehicles [1, 2]. They will also have a free marketing promotion program due to the spread out of positive word of communication [1, 4]. On other words, passengers' behavioral intention represents an effective weapon to maintain the old passengers as well as to attract the new ones [1, 4, 5]. Furthermore, those strategic advantages will lead to increased in the number of public transport passengers as well as increased in the revenue of public transport service providers [1, 4, 5].

2.1. Moral Norm

It is well accepted that human behavioral intention is influenced by moral norm [6, 7]. Someone may change his/her decision in performing certain behavior if he/she perceived that the behavior doesn't match his/her moral norm [6, 7]. Given this, moral norm is one of important factors that should be managed effectively.

Moral norm is defined as "perception of the degree of moral correctness of a behavior" [11]. Thus, in the context of public transport services, moral norm refers to passengers' perception of the degree of moral correctness of keep using public transport services. Moral norm related with personal norm rather than subjective norm [6, 7]. On other words, moral norm is caused by personal feeling rather than direct social pressure [6, 7].

2.2. The Effect of Moral Norm on Public Transport Passengers' Behavioral intention

Psychology literature has identified that moral norm may influence behavioral intention [6, 7]. This is because someone may intent to perform certain behavior if she/he feels that the behavior matches his/her moral norm even tough he/she doesn't have positive attitude on the behavior [6, 7]. In the context of public transport services uses, the existence of moral norm in deciding to keep using or not using public transport becomes relevant due to the environmental problems as well as the social problems that may be caused by the rapid growth of private vehicle use [12]. A passenger may keep using public transport services if he/she feels that using public transport services matches his/her moral norm. On other hand, a passenger may refuse to switch to private vehicle if he/she feels that using private vehicle doesn't match his/her moral norm.

Some researchers have performed empirical research to examine the effect of moral norm on behavioral intention in other context than public transport use. For example, O'Connor and Armitage

[6] found that moral norm influences behavioral intention positively. This finding is supported by other researchers, such as Conner et al. [7], Tonglet et al. [13], Nemme and White [14], and Robinson et al. [15]. Given this, it is expected that a similar condition is also found in the context of public transport passengers' behavioral intention. Therefore, this research hypothesis is formulated as follows.

H: Moral norm has positive impact on passengers' behavioral intention

3. RESEARCH METHODOLOGY

This research performed quantitative research methodology by using survey. This research used the methodology due to its research question type [16, 17]. Furthermore, the methodology is also chosen because the methodology is also performed by previous researches on public transport passengers' behavioral intention [e.g. 1 - 5].

3.1. The Case Study

The case of the research is public transport passengers who live in Bogor. Bogor is a city in West Java, Indonesia. Geographically, the city location is between 106° 48' and 6° 26' latitude [18]. Furthermore, the city is near the capital city of Indonesia, Jakarta.

Bogor has broad area of 118,50 km² area with six districts. The population of the city is 1,013,019 people consisting of 514,797 men and 498,222 women [18]. Thus, it can be stated that the population density of Bogor City reached 8,549 people per km² [18]. Generally, the population of Bogor City is absorbed on trade, restaurants and hotels, and employment services [18].

Regarding the transportation aspect, most all the roads in the city are paved [18]. Bogor is known as "Kota Sejuta Angkot" (The City with One Million Public Transport) due to the high number of public transport unit. According to [18], there are 4,644 public transport unit in Bogor. Given this, this research specifically focuses on public transport passengers in Bogor.

3.2. The Content of Survey

The survey was performed by using questionnaire. In the questionnaire, the respondents were asked regarding their demographic profile, such as gender, age, occupation, and education. Furthermore, the questionnaire also asked the respondents regarding this research' two main variables, namely moral norm and behavioral intention. Moral norm and behavioral intention are latent variables. Given this, multiple indicators were used to measure the variables [2, 19]. We developed the indicators based on relevant literature in order to ensure the content validity of each variable [16, 20]. Passengers' behavioral intention was measured using five indicators based on the work of [1, 5, 21]. Moral norm was measured using three indicators modified from [13]. Table 2 shows the variables and the indicators used in the questionnaire for measuring the variables. In the questionnaire, the respondents were asked their opinion regarding the indicators by using seven-point Likert scale, which ranges from (1) very disagree to (7) very agree.

3.3. The Process of Survey

The respondents of the survey are public transport passengers who live in Bogor. In order to ensure the respondents are public transport passengers, the survey was performed in Bogor public terminal [1, 5]. Following [5], we performed convenience sampling to select the respondents of the survey due to the unknown characteristics data of public transport passengers in Bogor. The respondents were asked to join the survey voluntarily.

The sample of the survey is 277 public transport passengers who live in Bogor, Indonesia. The sample size fulfils the requirement of the statistical analysis method we performed [22]. Table 3 shows the demographic profile of the respondents.

Table 2

The Variables and Indicators of the Research

Variables	Indicator Code	Indicators
Behavioral intention	L1	I say positive things regarding the public transport service to others
	L2	I recommend using the public transport service to someone who seek my advice
	L3	I encourage friends and relative to do business with the public transport
	L4	I consider the public transport service as my first choice to travel
	L5	I will do more business with the public transport service in the next few years
Moral Norm	MN1	I feel that I should prioritize using the public transport service than private vehicle
	MN2	When I am travelling, I feel guilty if I don't use the public transport service
	MN3	Using the public transport service shows my life principle
	MN4	Society needs to prioritize using the public transport service than private vehicle

Table 3

The demographic profile of the respondents

Variable	Category	Percentage (%)
Gender	Male	49.1
	Female	50.9
Age	≤ 20 years old	37.5
	21-30 years old	32.7
	31-40 years old	12.7
	41-50 years old	9.1
	≥ 51 years old	8.0
Occupation	Unemployed	8.3
	Labor/Private Employee	15.2
	Students	48.2
	Government employee	2.2
	Military/policeman	.4
	Entrepreneur	25.7
Education	Other	9.9
	Junior High School	13.2
	Senior High School	55.3
	Diploma	2.9
	Bachelor and Post Graduate	18.7

3.4. Data Analysis

This research performed two stages of analysis. First, the construct validity and reliability of the instrument were checked. The criteria we used to evaluate construct validity are (1) Kaiser-Meyer Olkin (KMO) ≥ 0.5 , (2) factor loading of each indicators ≥ 0.5 , and (3) p-value of the Bartlett Test of Sphericity ≤ 0.05 [16, 22]. The criterion for evaluating construct reliability is cronbach alpha coefficient ≥ 0.6 [16, 22]. Second, the hypothesis was tested using regression analysis. The input data of the regression analysis is the factor score obtained from factor analysis. All data analyses were supported by SPSS 14.

4. RESULT AND DISCUSSION

Table 4 shows the descriptive statistics of this research's two main variables that we obtained from the survey. Based on table 4, it can be seen that the score of all indicators of behavioral intention given by the respondents are higher than 4. This means all indicators of behavioral intention tend to be perceived positively by the respondents. The score of the indicators of moral norm that are lower than 4 are "When I am travelling, I feel guilty if I don't use public transport service" (MN2) and "Using public transport service shows my life principle" (MN3). This means the respondents tend to perceive negatively the indicators. Meanwhile, there are also two indicators of moral norm that have score above 4, namely "I feel that I should prioritize using public transport service than private vehicle" (MN1) and "Society needs to prioritize using public transport service than private vehicle" (MN4).

Table 4

The Descriptive Statistics of the variables of the Research

Variables	Indicator Code	Mean	Standard Deviation	Factor Score
Behavioral intention	L1	4.0036	1.37919	.226
	L2	4.1594	1.35779	.269
	L3	4.0108	1.36330	.275
	L4	4.1083	1.57051	.256
	L5	4.0397	1.47019	.243
Moral Norm	MN1	4.0975	1.46254	.313
	MN2	3.2166	1.41294	.322
	MN3	3.1841	1.48130	.323
	MN4	4.3587	1.54389	.269

4.1. Construct Validity and Reliability Testing

Using the data we obtained from the survey, we performed exploratory factor analysis in order to analysis the construct validity. Furthermore, we also performed cronbach alpha analysis in order to analysis the construct reliability. Table 5 shows the result of construct validity and reliability testing. Based on table 5, the construct validity and reliability were confirmed.

4.2. Hypothesis Testing

Table 6 shows the result of regression analysis. Based on table 3, it can be seen that the t value is 7.674 and p-value is 0.000, which is lower than 0.05. Given this, the research hypothesis is supported.

On other words, moral norm influences public transport passengers' behavioral intention positively and significantly.

Table 5

Validity and Reliability Testing Results

Variables	Indicator	Loading Factor	KMO (Bartlett's Test of Sphericity)	Cronbach Alpha
Behavioral intention	L1	.698	.769 (.000)	.843
	L2	.831		
	L3	.849		
	L4	.792		
	L5	.753		
Moral Norm	MN1	.828	.771 (.000)	.826
	MN2	.852		
	MN3	.855		
	MN4	.712		

Table 6

The Results of Regression Analysis

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R ²
	B	Beta				
(Constant)	-.003	.055		-.055	.957	17.7%
Moral norm	.421	.055	.421	7.674	.000	

*Dependent Variable: Behavioral intention

4.3. Discussion

4.3.1. Theoretical Implication

Public transport passengers' behavioral intention is an important factor that should be managed effectively by public transport service provider [1, 2]. This because behavioral intention can provide many strategic advantages, such as positive word of mouth communication, increased in the number of public transport service users, and increased in revenue [1, 2, 3, and 4]. Thus, understanding the factors that influence public transport passengers' behavioral intention is important.

A number of researchers have studied public transport passengers' behavioral intention [1, 2, 3, 4, and 5]. However, none of them investigated the effect of moral norm on passengers' behavioral intention. On the other hand, psychology literature has proposed that behavioral intention may be affected by moral norm [6, 7]. Given this, our research provides theoretical contribution by testing the impact of moral norm on passengers' behavioral intention.

The results of this research showed that moral norm have positive impact on passengers' behavioral intention. This means the increased in the personal feeling of responsibility to keep using public transport services will make the passenger becomes more intent to keep using public transport services. This finding may relate with the environmental problems as well as the social problems that may be caused by the rapid growth of private vehicle use [12]. Given this, the passengers may perceive the issue of public transport uses as a moral issue. Furthermore, this finding also supports the finding of the previous research on moral norm and behavioral intention in the other context than public transport use, such as [6, 7, 13 -15].

4.3.2. Managerial Implication

The results of this research give managerial implications for public transport services practitioners in developing passengers' behavioral intention. The findings show that public transport service

providers need to manage moral norm effectively. Public transport service providers need to measure the favorability level of moral norm their passengers have and improve it based on the result of the measurement. Furthermore, it is also important to develop marketing communication strategy that expose the moral issue on using public transport services.

5. CONCLUSION

This research has tried to test the influence of moral norm on public transport passengers' behavioral intention. This is important because there is limited literature on the topic. Based on the data analysis, this research found that moral norm influences public transport passengers' behavioral intention positively.

Even though this research has generated interesting finding, there are some limitations. First, the sampling method employed was convenience sampling and the data collection was done only in one area in Bogor, Indonesia with limited sample size. Thus, it would be hard to generalize the findings of this research into other contexts. Second, this research only included moral norm in explaining passengers' behavioral intention. The R^2 is 17.7%. It indicates that there are still other variables that may affect passengers' behavioral intention. Based on the limitations, we suggest that future researches should include the other variables in explaining passengers' behavioral intention and use higher sample size. It is also important to perform the research in other context than Bogor, Indonesia.

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References

1. Sumaedi, S. & Bakti, I.G.M.Y. & Astrini, N.J. & Rakhmawati, T. & Widiyanti, T. & Yarmen, M. *Public Transport Passengers' Behavioural Intentions: Paratransit in Jabodetabek Indonesia*. New York: SpringerBriefs in Business. Springer. 2014.
2. Wen, C.H. & Lan, L.W. & Cheng, H.L. Structural equation modelling to determine passenger loyalty toward intercity bus services. *Journal of the Transportation Research Board*. 2005. Vol. 1927. P. 249-255.
3. Jen, W. & Tu, R. & Lu, T. Managing passenger behavioral intention: an integrated framework for service quality, satisfaction, perceived value, and switching barriers. *Transportation*. 2011. Vol. 38. P. 321-342.
4. Lai, W.T. & Chen, C.F. Behavioral intention of public transit passenger – the role of *service quality*, perceived value, satisfaction and involvement. *Transport Policy*. 2011. Vol. 18. P. 318-325.
5. Sumaedi, S. & Bakti, I. G. M. Y. & Yarmen, M. The empirical study of public transport passengers' behavioral intentions: The roles of service quality, perceived sacrifice, perceived value, and satisfaction (Case study: Paratransit passengers in Jakarta, Indonesia). *International Journal for Traffic and Transport Engineering*. 2012. Vol. 2. No.1. P. 83-97.
6. O'Connor, R.C. & Armitage C.J. *Theory of Planned Behavior and Parasuicide: An Exploratory Study*. In *Planned Behaviour: The relationship between Human Thought and Action* (ed. Armitage C.J. & Christian J.). New Jersey: Transaction Publishers. 2006.
7. Conner, M. & Smith, N. & McMillan, B. *Examining Normative Pressure in The Theory of Planned Behavior: Impact of Gender and Passengers on Intentions to Break the Speed Limit*. In

- Planned Behaviour: The relationship between Human Thought and Action* (ed. Amirtage C.J. & Christian J.). New Jersey: Transaction Publishers. 2006.
8. Moliner, M.A. Loyalty, perceived value, and relationship quality in healthcare services. *Journal of Service Management*. 2009. Vol. 20. No. 1. P. 76-97.
 9. Aggarwal, P. The effects of brand relationship norms on consumer attitudes and behavior. *Journal of Consumer Research*. 2004. Vol. 31. P. 87-101.
 10. Bruhn, M. *Relationship Marketing: Management of Customer Relationships*. Harlow: Financial Time Prentice Hal. 2003.
 11. Ajzen, I. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 1991. Vo. 50. P. 179-211.
 12. Cox, P. *Moving People, Sustainable Transport Development*. Cape Town: UCT Press. 2010.
 13. Tonglet, M. & Phillips, M. & Read, A.D. Using the Theory of Planned Behaviour to investigate the determinants of recycling behaviour: a case study from Brixworth, UK. *Resources, Conservation and Recycling*. 2004. Vol. 41. P. 191-214.
 14. Nemme, H. & White, K.M. Texting while driving: psychosocial influences on young people's texting intentions and behavior. *Accident Analysis and Prevention*. 2010. Vol. 42. No. 4. P. 1257-1265.
 15. Robinson, N.G. & Masser, B.M. & White, K.M. & Hyde, M.K., & Terry, D. J. Predicting intentions to donate blood among non-donors in Australia: An extended theory of planned behavior. *Transfusion*. 2008. Vol. 48. No. 12. P. 2559-2567.
 16. Sekaran, U. & Bougie, R. *Research Methods for Business: A Skill Building Approach*. Hoboken, N.J./Chichester: John Wiley and Sons. 2010.
 17. Yin, R. K. *Case Study Research: Design and Methods*. *Applied Social Research Methods Series Vol. 5*. London: Sage Publications. 1990.
 18. Bappeda Kota Bogor. 2014. *Kota Bogor dalam Angka/Bogor City in Figures 2013*. Retrieved from http://bappeda.kotabogor.go.id/frontend/bogor_angka/2014.
 19. Diamantopoulos, A. & Sarstedt, M. & Fuchs, C. & Wilczynski, P. & Kaiser, S. Guidelines for choosing between multi-item and single-tem scales for construct measurement: A predictive validity perspective. *Journal of the Academy of Marketing Science*. 2012. Vol. 40 No. 3. P. 434-449.
 20. Buil, I. & de Chernatony, L. & Martinez, E. Methodological issues in cross-cultural research. *Journal of Targeting, Measurement and Analysis for Marketing*. 2012. Vol. 20. No. 3-4. P. 223-234.
 21. Zeithaml, V.A. & Berry, L.L. & Parasuraman, A. The behavioral consequences of service quality. *Journal of Marketing*. 1996. Vol. 60. P. 31-46.
 22. Hair, J.F. & Anderson, R.E. & Tatham, R.L. & Black, W.C. *Multivariate Data Analysis*. New Jersey: Prentice Hall. 2006.