TRANSPORTATION BUSINESS AND ROAD SAFETY MANAGEMENT IN INDONESIA

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Abstract: Influences on traffic accidents include road conditions, traffic conditions, and the average accident rate. This study investigates the influence of risk perception, social impact, road safety infrastructure, and road safety responsibilities on the behavioral intentions of Indonesian road users. This study is descriptive in character and quantitative in design. The respondents of the survey are Jakarta motorists. Simple random sampling was used to acquire data from respondents in this study. The research questionnaire was prepared following a review of previous studies. The study's usable response rate was 69.53 percent. The collected data were analyzed with SEM via Smart PLS 3.3.9. The study's outcomes indicate that social influence, road safety infrastructure, and road safety responsibilities all directly affect behavioral intention. The data, however, do not support the hypothesis that risk perception significantly affects behavioral intention. Nonetheless, officials and academics can use the study's findings to design legislation and future research.

Keywords: Road safety, Behavioral Intention, Risk perception, social influence, Indonesia

1. Introduction

Due to the connection between exposure and risk, traffic accidents may occur. Exposure quantifies the likelihood of accidents occurring at a given time and location. The risk is the consequence or consequence of the possibility of unpredictable situations or dangers that will be formed if probable mishaps occur. The traffic volume determines the magnitude of the exposure. At the same time, the risk is a consequence of the relationship between the elements of traffic: 1) humans, 2) roads, 3) automobiles, and 4) the environment. Road conditions can be a factor in automobile accidents. National roads can potentially be the site of traffic incidents. The national route used for the study is Jalan Soekarno Hatta, located in Bandung. This route is the most heavily traveled road in the transportation activities of the Community. Soekarno Hatta Road is a critical arterial network arterial road (JAP). Soekarno Hatta Road is a part of the Bandung metropolitan area's road network. The route traverses the city, connecting the east and west sides. This section of the national highway contains the city's longest highways and is also known as the Bypass road. The Soekarno hatta road is 18.35 kilometers long.

According to the 2015 decree of the Minister of Public Works, Ministry of Public Works and Housing 2015-2019, the code number for the Soekarno Hatta road is 034 11 K. (Hamid et al., 2018). In 2009, the road number for Soekarno Hatta changed to 018 11 K.

Soekarno Hatta Street is a four-lane, two-way lane with two columns that may or may not be restricted by road signs. The line's width ranges from 3m to 4.5m, with a median garden width of 6m and median sidewalk width of 1m. Even for individuals who do not have a shoulder path, the width of the Soekarno Hatta shoulder varies. Along Soekarno, Hatta Road is offices, an educational district, and commercial complexes. The Soekarno Hatta road is highly active in sponsoring community activities (Ongkowijoyo & Ruseno, 2021).

The condition of the roads in Indonesia demonstrates that not all adhere to geometric requirements (Santoso, 2011). Therefore, it is necessary to identify the Geometrics of Jalan Soekarno Hatta as a national road to define its current condition. On Soekarno Hatta Road, existing road conditions can be a physical barrier to identifying problems. Studies on geometric roads have been conducted in domestic and international countries. Still, there is a lack of research on the relationship between traffic adequacy and the Soekarno Hatta route. This study will examine the geometric relationship between Soekarno Hatta road roads and possible traffic accidents. The intersection of factors relating to a traffic collision on the streets of Soekarno Hatta is discussed in a geometric relationship fundamental to this study. The research results are anticipated to serve as input and reference for the preliminary phase of identifying geometric pathways that can potentially cause traffic accidents on national highways (Petruswandie & Radam, 2018).

In Indonesia, there are several concerns with the road infrastructure. These issues include the absence

of speed limit signs on sharp curves, delays in the installation of signs and development of roads that cause frustration, the absence of a prohibition on the installation of billboards around roads and buildings, and the lack of information regarding the end of the roads. If government and law enforcement authorities do not take this problem seriously, achieving road safety will become challenging. Therefore, the Indonesian road administration must build an evaluation and monitoring system for roads. Moreover, it is essential to implement road safety guidelines and procedures at the site of road infrastructure installation. Alternatively, it can be added during the construction or posy phase (Salim & Negara, 2018).

Compared to safety in the air, water, and rail, road safety is rarely discussed in the literature, and authorities have not paid much attention to this notion. However, the risk-travel rate on the road is thirty times higher than other forms of transportation. The primary reason is that road safety procedures differ from other modes of transportation. Risk analysis, evaluation of risk, criteria for risk assessment, methods for selecting measures to monitor hazards related to road safety, and communication of these measures are essential to the effectiveness of safety management regardless of the mode of transport and type of transport (Shah & Ahmad, 2019). The fundamental objective of road safety infrastructure is to develop techniques to mitigate road risks during road infrastructure construction, design, and planning. Topolšek, Babić, and Fiolić (2019) state that after planning, designing, and constructing the road, it is possible to assess the dangers on the road, which can then be minimized or eliminated.

The perception of risk is linked to the perception of potential threats, hazards, or dangers due to many factors. Their risk perception determines their attitude toward a person. Consequently, behavior and response to the threat are determined by risk perception. It is essential to comprehend the risk perception of road users (Ram & Chand, 2016) because a correlation exists between risky behavior and accident rates.

On the other side, infrastructure influences the choice of modes of transportation. Other plausible causes include psychological characteristics, finances, and public transportation accessibility. Culture, a lack of vehicle upkeep, and poor road conditions are a few of the reasons that contribute to traffic accidents. Problems with driver health, vehicle issues, road conditions, violation of traffic laws, distractions, and a lack of risk awareness contribute significantly to road accidents. Unfortunately, no study discusses all these variables (McIlroy et al., 2019).

Therefore, the purpose of this study is to evaluate the elements that influence road users' attitudes regarding road safety. This study intends to investigate the influence of road safety infrastructure, road safety responsibility, and risk perception on intentions to utilize road safety measures in Indonesia. This proposed paradigm is supported by Ajzen's proposed theory of planned behavior (TPB) (1991).

2. Literature Review

Traffic safety

Traffic safety is the absence of any potential traffic accidents. Accidents are unforeseen occurrences that might result in bodily harm or property loss. Elements of geometric roads that can influence the occurrence of traffic accidents, notably 1) road cross-section and 2) road alignment. In addition, road accidents can occur when many factors co-occur. Traffic-influencing factors include column number, column width, median width, median availability, road shoulder availability, horizontal alignment, and vertical alignment (Islam et al., 2019; Pimonratanakan, 2022).

The national road is a path classified as a public street. Kementerian Pekerjaan Umum is the governing body for the national highway. It connects provincial cities, vital routes, and toll roads. The National Road is comprised of arterial and collector highways. The arterial path based on grouping function is a public road that serves the primary transportation with the following characteristics: 1) has long-distance travel, 2) has a high average speed, and 3) has a restricted number of roads based on the power of the main transportation (Pécora et al., 2021; Tsigdinos & Vlastos, 2020). Based on the grouping function, the Collector road is a public road that supports collector transport with the following characteristics: 1) medium-distance travel, 2) medium average speed, and 3) a limited number of entries (Government of the Republic of Indonesia, 2004). (Mahendradhata et al., 2017; Ojeyinka & Ajide, 2022). Based on its function, the National road is the most significant in the road network for intercity connectivity.

Management of roadway safety is defined as a "quantitative, systematic process for studying roadway crashes and characteristics of the roadway system and those who use the system, which includes identifying potential improvements, implementation, and evaluation of the improvements" in the manual about highway safety. Therefore, the literature defines road infrastructure safety management as the sum of all management methods that assist authorities in mitigating and preventing future road accidents (Noor, 2021; Persia et al., 2016).

On the other hand, scholars have defined the procedures of road accidents as "the analytic tools that help the government detect emerging safety problems early, that help in locating the most hazardous parts of the road system, that identify the most important factors contributing to road accidents and injuries, and that help estimate the likely effects of specific road safety measures or a road safety program comprised of multiple measures" (Murhula, Singh, & Myende, 2021; Outay, Mengash, & Adnan, 2020).

Theory of Planned Behavior

Ajzen presented the theory of deliberate behavior (1991). It asserts that intentions precede behavior plans. Intentions that influence an individual's behavior indicate a person's willingness to engage in a particular behavior, which affects motivational variables. It is more likely that a person will engage in a specific behavior if their intentions to accomplish a particular task are greater. Specific behaviors support this connection between behavior and intent. Scholars have explained that ideas do not directly influence behavior. The individual's objectives mediate them. Therefore, the relationship between perceived behavioral control, subjective norms, attitude, and intentions is mediated (Ledesma et al., 2018; Mesquita-Romero, Fernández-Morante, & Cebreiro-López, 2022; Miladinov, 2021).

Ajzen (1991) noted that a person's attitude toward the behavior is the degree of negative or positive evaluation or appraisal of the behavior. Various actions will be taken if the behavior evaluation is unfavorable or favorable. Ajzen and Fishbein (1975) developed the concept of attitude, which explains that attitude is influenced by subjective value in direct proportion to belief. Subjective norms are felt societal pressure not to perform or perform a particular behavior. Attitude is associated with a person's subjective criteria on the approval of a group or others regarding the execution of a specific behavior (Ajzen, 1991). Friends, family, and other close relatives are crucial referral sources. A person's attitude reveals their view of unfavorable or favorable behavior. There are positive correlations between normative views and subjective norms (Hardin-Fanning & Ricks, 2017; Mattayaphutron, Tam, & Jariyapan, 2021).

Behavioral Intention

According to Ajzen (1991), the individual's intention is the most significant determinant of behavior and is considered a significant and direct precursor of the individual's behavior. Literature defines intents as "the motivational factors that influence an individual's readiness to act and to demonstrate the effort they would strive to perform the behavior" (Ajzen, 1991). Behavioral intention is "the individual's willingness to use and continue using a technology system, where individuals are technology users, and the context is m-shopping fashion apps" (Marpaung, Kamello, & Ginting, 2022; Miladinovic & Hong, 2016).

According to scholars, the influence of perceived opportunities and good attitudes increases the likelihood that behavioral intentions will be carried out. According to previous research, there is a strong correlation between an individual's behavior and their objectives. Numerous research on the individual's goals in various contexts, such as education, technology, and the motor industry, has been done (Chao, 2019; Mao & Ma, 2021).

Road Safety Responsibility

According to proponents of road safety, academics, and practitioners who support the agenda most of the time, Vision zero represents a new planning paradigm and road safety strategy. According to this policy, such measures must be implemented since no one should suffer severe injuries or die when using roads. In addition, road users, educators, health professionals, police, road safety engineers, road traffic planners, and the motor vehicle industry all share responsibility for maintaining the protection of road safety systems. However, the responsibilities and roles understood by various actors in the transportation system through zero vision are primarily concerned with the ramifications of applying a system based on principles of safety in an industry where a highly controlled system exists, such as the aviation industry (Nævestad et al., 2022).

Further, scholars suggested that the application of safety system concepts to the setting of road transportation has enabled professionals to build more vital control over road users, who normally and traditionally move independently. Further, they stated that this modification demonstrates the need to clarify duties and roles when building roads and systems to ensure user safety (Née et al., 2019)

The perception of society's members has evolved. So far, accidents have been defined as any random undesirable occurrence. Professionals and the general public continue to believe preventing traffic accidents is possible. It is also claimed that accidents can be prevented by designing road safety information.

Researchers utilized the broad concept of public problems to explain and comprehend individuals' responsibility for road safety. They also highlighted three public problem and responsibility factors. The first aspect relates to the owner as the individual who can influence and define the public's definition of road safety. The second aspect is a responsibility, which reveals the causes of accidents. Political responsibility is the third and last factor (Bonnefon et al., 2020).

According to the professional and conventional understanding of the parties involved, pedestrian behavior, bicycling, and poor driving are the primary causes of road accidents. Therefore, changing the behavior of road users is one of the primary ways to increase road safety for all parties involved. It is the communal obligation, not the individual responsibility, to prioritize road safety. The causal responsibility of the individual about collisions and injuries can justify individual behavior. Scholars claimed that individual responsibility could not accurately reflect community accountability. To educate individuals, experts must assume complete responsibility (Khawaja, 2019).

On the other hand, the country's political system should be accountable for implementing road safety rules. In this regard, markets, non-governmental organizations, and government agencies must monitor, regulate, and build the system for road users. Moreover, the system designers "are responsible for doing everything in their power to make the system as safe as possible." (McAndrews, 2013).

Drivers in society should demonstrate unambiguous responsibility for road safety by adhering to all traffic regulations. Consequently, road safety will be enhanced. Therefore, drivers are primarily responsible for adhering to traffic regulations. Approximately 40% of drivers do not wear seat belts, which is terrifying. Even these automobiles lack seatbelts. In addition, the majority of truck drivers do not rest properly, and they travel large distances. The majority of passengers and drivers do not wear helmets while driving. The use and installation of road safety equipment can play an essential role in assisting drivers in preventing road accidents. Some drivers feel uncomfortable when wearing helmets while driving. Male drivers cause the majority of accidents due to speeding and seat belts. There is a considerable correlation between rear-end collisions and tailgating (Khaliq et al., 2020).

Road Infrastructure Safety

The safety of road infrastructure reflects and impacts road users' perception of the environment because a few deteriorating parts of the road's environment can influence the perception of road users. As a result, humans are susceptible to making mistakes that may end in an accident. The road network influences the crash risk because it influences the perception of the road user's environment. Consequently, infrastructure for road users is provided by the route. Negative road engineering aspects include the detection of road crashes by roadways in which a few features of the road's environment may deceive the driver. Human mistake is therefore possible (Manan et al., 2018).

In the context of Indonesia, the improvement of road infrastructure is insufficient. Alternatively, road safety infrastructure is also effective. Infrastructure development in Indonesia falls under the jurisdiction of the Directorate General of Land Transport and Highways. These institutions are responsible for the management and administration of roads. DGH has the authority and responsibility to develop safer roadways. This institute is also responsible for improving several road locations.

On the other side, DGLT plays a significant role as the road authority (Nadia, 2016). This institute is responsible for implementing and planning supporting facilities, traffic lights, road markings, and road designs. The supporting facilities include signs for the road's functionality (Sandhyavitri et al., 2018).

Various elements have been cited in the literature as causes of road accidents. These considerations include the roadway's environment, vehicle, and human factors. Roadway considerations, often known as infrastructure factors, encompass the design of roadside and roadway features. According to the United Nations, roads must be made safer worldwide. It is also one of the five fundamental UN pillars for road safety. Government can do this through various means, including improvements to road operations, construction, and the design and planning of road safety (Dewi et al., 2022; Li, Yang, & Kim, 2022; Sabbir, 2022; Safarpour, Khorasani-Zavareh, & Mohammadi, 2020).

Regarding roadway parameters, there are two vertical cross-sections known as roadway parameters. It consists of the slip resistance, shoulder type, breadth, and travel lane. In addition to the road's qualities, the condition of the roadside also contributes to road accidents. In addition, the horizontal roughness of the road is crucial, as a vehicle's circular motion causes acceleration (Ahmed, 2013).

Two philosophical ideas guide the integration of different components of road safety during operation and procurement. These elements include creating a road Environment that explains the road's status to its users and a road Environment that the route's users adore. Indonesia's road system is now in bad condition. Indonesia's road infrastructure is not implemented thoughtfully. Using a comprehensive management system approach, the infrastructure of road safety evaluation and monitoring systems is insufficient. Such a system is required to continuously and systematically implement road safety during development. Generally speaking, there are four terms associated with management systems: assessment and audit system, control and management pattern, tools of target attainment, and achievement plan (Bathuure, 2021; Chakrovorty, 2020; Elena, Sergei, & Grigory, 2020; Purwanti, Purwanto, & Jamaludin, 2022; Sawanglaptham, Worawattanaparinya, & Silpcharu, 2022).

Researchers have implemented a mechanism for evaluation and monitoring. This system's functions include: (a) ensuring that different aspects of road safety are considered in the maintenance, operation, development, designing, and planning of the road network and road infrastructure; (b) assisting the administration of roads in achieving and implementing skills, procedures, standards, and goals that are consistent with improving the infrastructure's road safety performance; and (C) ensuring that road safety standards are met (Marusin, Marusin, & Ablyazov, 2019; Persia et al., 2016).

Risk Perception

Risk perception refers to people's feelings, judgments, attitudes, and beliefs regarding the incorporation and risks of broader cultural and social ideals and people's adoption of risks. Therefore, perception is a crucial consideration in risk communication. Literature defines risk perception about traffic as drivers' experience regarding potential traffic hazards, as identified by knowledge regarding traffic environment hazards. In the context of traffic safety, numerous research is undertaken to comprehend the behavior of individuals. The most pertinent source of information regarding a group's thought process is the group's behavioral intents, beliefs, and views, as they disclose specific aspects of the attitude in terms of safety and mobility of the relationship between the issues, experiences, and users (Idrus & Khair, 2022; Mubeen et al., 2022; Utomo, Udin, & Haryono, 2022; Valiyeva & Thomas, 2022).

Researchers have defined traffic risk perception as the subjective assessment and participation in traffic conditions. In addition, a more significant subjective evaluation of traffic risks will lead to protective behavior in traffic, such as using a helmet or seatbelt. Consequently, variances in driving conduct may result from divergent perceptions of traffic risk. In such situations, it is plausible to assume that, due to the high frequency of accidents in developing countries, the perception of traffic risk is lower than in industrialized nations (V Luot et al., 2020).

Previous research on the perception of risk in transportation has identified two categories of transport management. These categories include background variables such as the education and age of drivers. However, these indicators are not reliable precursors and predictors of traffic accidents. Therefore, it is necessary to find other elements that can assist in reducing the likelihood of traffic accidents (Kummeneje, Ryeng, & Rundmo, 2019).

The perception of risk is a trait shared by both animals and humans. Risk perception in diverse contexts and conditions is a distinct phenomenon. There is variance in the risk perception levels of different persons. It depends on various variables, including personal qualities, social circumstances, and prior experience. Individuals with a heightened risk perception are more careful and circumspect in their actions (Paek & Hove, 2017). The perception of risk facilitates the adaption of protective behavior. The perception of risk is the experience drivers have with potential road dangers and accidents.

The perception of risk is driven by knowledge regarding potential risks in the road environment and the drivers' ability to consider potential hazards that can result in accidents. The most prominent causes of accidents are excessive speed and low perception of risk. A significant correlation exists between traffic accidents and risk perception. Individual behavior is highly influenced by risk perception. Researchers have discovered a low level of risk perception among people from various geographic regions.

On the other hand, a high-risk perception will negatively affect an individual's risk-taking behavior. The perception of risk depends on the driver's age, experience, and training. Drivers' perception of risk increases when they receive extensive training. The driver's risk-taking behavior is affected by their age, which also influences their risk perception. Additionally, the driving experience enhances the impression of risk. Researchers have revealed that risk perception is significantly related to risk attitude and risk-taking behavior (Ram & Chand, 2016).

Social Influence

Literature defines social influence as the social ability of a group or an individual to modify the behavior or

attitude of other groups or individuals in a particular direction. The impact of society plays a crucial part in shaping the behavior of individuals. It refers to how individuals accept the perceptions of others on road usage. It comprises social standards, social influences, and image. Researchers noted that social influence significantly affects a person's behavioral intent (Jamal et al., 2015; Wisutwattanasak et al., 2022).

H1: RIS positively affects the Behavioral Intention of Road users toward safety.
H2: RP positively affects the Behavioral Intention of Road users toward safety.
H3: RSR has a positive effect on the Behavioral Intention of Road users toward Safety
H4: SP has a positive effect on the Behavioral Intention of Road users toward safety

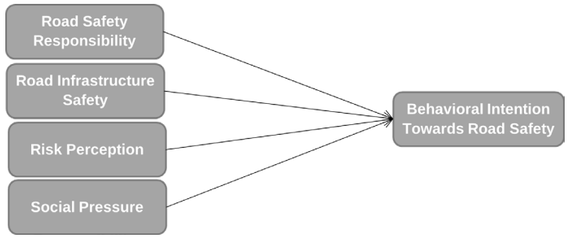

Figure 1: Theoretical framework

3. Research Methodology

The present research is quantitative and explanatory. This investigation seeks to forecast and explain the link between the dependent and independent variables. This study employs Ajzen's Theory of Planned Behavior as its underlying framework (1991). This study's framework, discussion, and hypotheses were derived from literature reviews of prior investigations. In addition, this study produced a questionnaire based on previous research and a review of the literature to examine the influence of various factors on the behavioral intention of road users in Indonesia. These surveys were also required to validate the study's stated hypothesis. In this study, these questions were completed by drivers with valid licenses who were at least 18 years old.

As stated previously, the study's questionnaire was developed from previous research. Regarding the study variables, the questionnaires were adapted from previous research. These questionnaires were used to evaluate the behavior of Jakarta's road users. The sections on Road safety duty were borrowed from Subhan et al. (2021). The questionnaire items on road safety infrastructure were based on a comparative study. However, the behavioral intention items were adapted from a different study (Olya & Han, 2020). The social Influence components were adapted from Chatterjee (2022). And the socially influential things were modified by Jamal et al. (2015). And the risk perception components were derived from Shaikh, Glavee-Geo, and Karjaluoto (2021).

These questions were constructed using a 5-point Likert scale (5=strongly agreed, 3=uncertain, 1=strongly disagree). The researchers used a self-administered technique to collect data from the participants. Simple random sampling was employed to acquire information from the respondents. Respondents to the survey were drivers operating automobiles on Jakarta's roads. We circulated a questionnaire to 384 respondents for this purpose. 267 questionnaires were useable. Thus, the study response rate was 69.53 percent. Using the SEM method and Smart PLS 3.3.9, this study analyzed data collected from respondents.

4. Results

This study analyzed the demographic profiles of the study's respondents. It was discovered that 37.2% of the respondents were female, while 62.8% of the respondents to this study were male. However, 39% of the study's respondents were students, while 61% were professionals. 43% of respondents were unmarried, while 57% were married.

As suggested by Ringle, Da Silva, and Bido, the study was evaluated using PLS using Smart PLS 3.3.9 to explore the structural correlations between the variables (2015). This study employed PLS for a variety of reasons. PLS is firstly capable of testing the many interactions in complicated models. Consequently, it can explore various correlations and constructs; secondly, its assumptions are less stringent; and it can handle both big and extremely small sample sizes (Joseph F Hair et al., 2017).

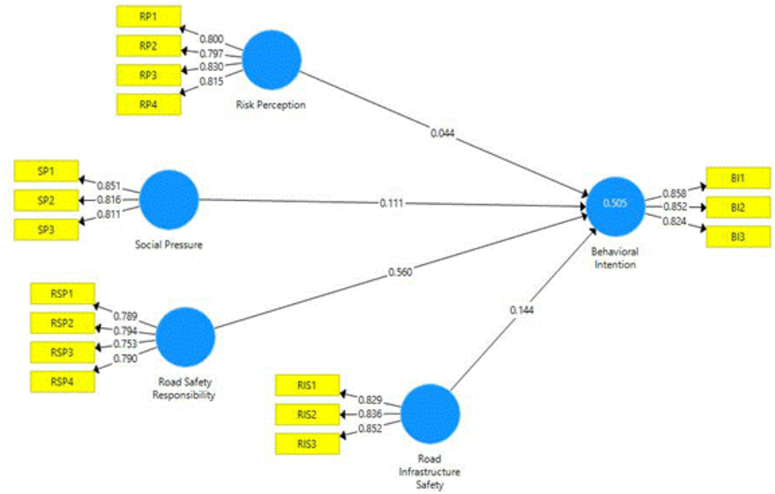

Figure 2: Measurement Model

Note: BI=behavioral intention, RIS=road infrastructure safety, RP=risk perception, SP=social pressure, RSP=road safety responsibility

Table 1: Factor Loading

	BI	RIS	RP	RSR	SP
BI1	0.858				
BI2	0.852				
BI3	0.824				
RIS1		0.829			
RIS2		0.836			
RIS3		0.852			
RP1			0.800		
RP2			0.797		
RP3			0.830		
RP4			0.815		
RSP1				0.789	
RSP2				0.794	
RSP3				0.753	
RSP4				0.790	
SP1					0.851
SP2					0.816
SP3					0.811

Note: BI=behavioral intention, RIS=road infrastructure safety, RP=risk perception, SP=social pressure, RSP=road safety responsibility

The clever PLS analysis is comprised of two phases. The first step is the measurement model, which is essential for determining the convergent and discriminant validity of the data. Convergent validity is determined by factor loading, reliability, validity tests, and AVE evaluation (Barclay, Higgins, & Thompson, 1995). The convergent validity investigation began with factor loading calculation, with 0.50 serving as the standard. Table 1 and figure 2 show that all goods had factor loadings greater than 0.50. Consequently, all of these things were kept.

This study then analyzed the data's reliability and validity. These tests are essential for demonstrating that the study's items measure the same topics. The present study assessed Cronbach Alpha and composite reliability for this aim. In both cases, the reference value is 0.70 (Hair Jr, Ringle, & Sarstedt, 2013). Table 2's CR and Cronbach Alpha values indicate that the present study meets its criteria. Later, this study analyzed the AVE for the current investigation. In this context, Joe Hair et al. (2017) suggested that the benchmark value should exceed 0.50. The AVE values for the current investigation are listed in table 2, meeting the criterion. Thus, convergent validity is established in the present study.

Table 2: Reliability and validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
BI	0.799	0.802	0.882	0.713
RIS	0.790	0.794	0.877	0.704
RP	0.827	0.831	0.885	0.657
RSR	0.788	0.790	0.863	0.611
SP	0.768	0.770	0.866	0.683

Note: BI=behavioral intention, RIS=road infrastructure safety, RP=risk perception, SP=social pressure, RSP=road safety responsibility

This study established discriminant validity after demonstrating convergent validity. The HTMT approach

and Fornell and Larcker (1981) criteria were utilized for this aim. Under the HTMT approach, all matrix values must be smaller than 0.90. Table 3 reveals that all matrix values are smaller than 0.90, proving discriminant validity using the HTMT criterion. Also, according to the criterion of Fornell and Larcker (1981), discriminant validity is demonstrated if all diagonal values in the matrix are more significant than the remaining value. It is obvious from Table 4 that diagonal values are more important than other values, showing discriminant validity via Fornell and Larcker (1981).

Table 3: HTMT

	BI	RIS	RP	RSR	SP
BI					
RIS	0.552				
RP	0.486	0.492			
RSR	0.849	0.531	0.479		
SP	0.511	0.521	0.893	0.459	

Note: BI=behavioral intention, RIS=road infrastructure safety, RP=risk perception, SP=social pressure, RSP=road safety responsibility

Table 4: Fornell and Larcker (1981)

	BI	RIS	RP	RSR	SP
BI	0.845				
RIS	0.440	0.839			
RP	0.398	0.400	0.811		
RSR	0.677	0.417	0.389	0.782	
SP	0.401	0.405	0.710	0.359	0.826

Note: BI=behavioral intention, RIS=road infrastructure safety, RP=risk perception, SP=social pressure, RSP=road safety responsibility

After establishing discriminant and convergent validity, the present study's measurement model is confirmed. This study evaluated the structural model to confirm the relationship between the variables. Additionally, this test verifies the hypothesized hypothesis. The present study employed the bootstrapping method for this aim. The study's direct results are listed in Table 5 below.

Table 5: Direct Results

HYP		Beta	SD	T value	P Values	Results
H1	**RIS->BI**	0.144	0.047	3.068	**0.001**	**Accepted**
H2	**RP->BI**	0.044	0.071	0.620	**0.268**	**Rejected**
H3	**RSR->BI**	0.560	0.052	10.729	**0.000**	**Accepted**
H4	**SP->BI**	0.111	0.065	1.698	**0.045**	**Accepted**

Note: BI=behavioral intention, RIS=road infrastructure safety, RP=risk perception, SP=social pressure, RSP=road safety responsibility

The results mentioned in table 5 demonstrate that RIS has a significant positive relationship with BI (Beta=0.144, t=3.068) accepting H1. Moreover, the H3 of the study is also accepted as RSR has a positive relationship with BI (Beta=0.560, t=10.729). Also, the H4 of the study is accepted, showing a positive relationship of SP on BI (Beta=0.111, t=1.698). But, H2 of the present study is not accepted (Beta=0.044, t=0.620).

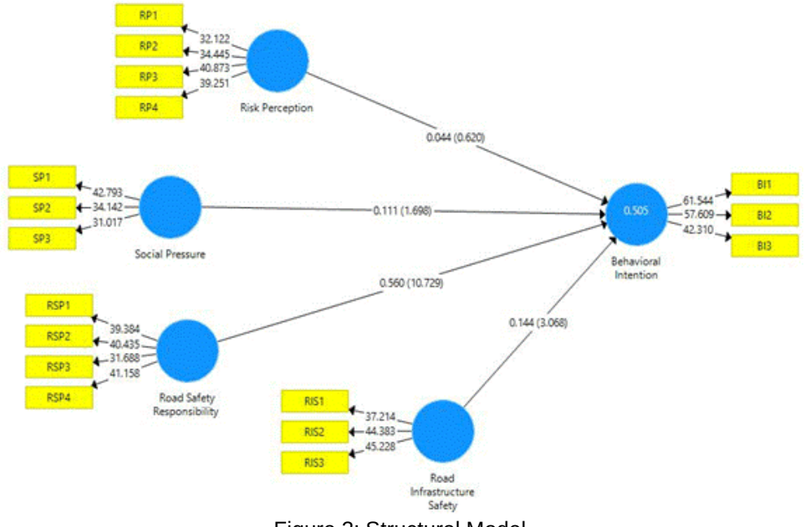

Figure 3: Structural Model

Note: BI=behavioral intention, RIS=road infrastructure safety, RP=risk perception, SP=social pressure, RSP=road safety responsibility

At the end of the Analysis, the present study examined the R square value. The value of R square represents the effect of IVs of a proposed model on the DV. The minimum acceptable value of R square in the Present study is 0.10 (Cohen, 1988). According to figure 2 and Table 6, the value of R square in the present study is 0.505, which is in the acceptable range.

5. Discussion and Conclusion

This study aimed to determine the effect of several factors on the road safety attitudes of Indonesian motorists. Consequently, this study studied the relationship between social influence, risk perception, road safety responsibility, infrastructure, and behavioral intention. According to the study's findings, RIS has a favorable impact on behavioral intention, validating the null hypothesis. These study results are consistent with those of Persia et al. (2016).

In addition, the study results indicate that social pressure is a significant predictor of behavioral intention. Indonesia has a collective society, which may be a contributing factor. In such a culture, family and friends exert a considerable impact. These findings corroborate Hypothesis 4 and are comparable to those of Jamal et al. (2015) and Wisutwattanasak et al. (2022), who also assert that social influence is a crucial predictor of an individual's goals. In addition, the present study's H3 is supported by the assertion that RSR is a significant predictor of behavioral intention. These findings are also consistent with those of Née et al. (2019). The present investigation findings, however, challenge the hypothesis that there is no substantial link between RP and BI. Thus, the data does not support the H2 hypothesis of the present investigation.

Similar to other empirical investigations, the present research has some limitations. The current study's IVs predict 50.5% of the R square. Therefore, future research must concentrate on the other variables that can enhance the R-square value of the present study. In addition, this study only assessed the proposed framework's direct relationship. Future research may test any variable serving as a mediator in the suggested model.

In conclusion, it will be of interest to evaluate any moderating variables in the suggested model. The outcomes of this investigation fill in numerous gaps. This study aids in understanding the role of the TPB in road safety. The second objective of this research is to establish the factors that can be used to explain the road safety behavior of Indonesian drivers. These findings will assist policymakers in Indonesia in formulating policies that will increase road user safety. Additionally, this work is useful for future road safety research.

Conflict of Interest.
The authors confirm that there is no conflict of interest to declare for this publication.

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