

## **Ergonomic Factors on The Purchase Decision of Matic Motorcycles**

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### **Abstract:**

Motorcycles are a practical and economical means of transportation to use. People prefer to use private vehicles because the mass transportation system in Indonesia is not yet good. There is a discrepancy between the size of the motorcycle seat and the static seat anthropometry of students. This mismatch can result in ergonomic risks to the driver and result in traffic accidents. In the Central Java area, especially the city of Kendal, there is a high interest in this mode of transportation. The people have diverse tastes in the selection of motorbikes, some prefer automatic motorbikes and some prefer sport motorbikes. The decision in buying a motorcycle has several considerations made by consumers before deciding to buy a motorcycle, including ergonomics. How to get information by using a questionnaire or questionnaire. Using validity and testing. From the results of the validity test with the purchase of an automatic motorcycle, all indicators are valid, so it is stated that it is appropriate to buy an automatic motorcycle. With a reliable test with the purchase of an automatic motorcycle, all indicators are reliable, so it is declared consistent in product purchases.

### **Keywords:**

Ergonomics, automatic motorcycles, validity, reliability

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## **INTRODUCTION**

Motorcycles are a practical and economical means of transportation to use. People prefer to use private vehicles because the mass transportation system in Indonesia is not yet good. There is a discrepancy between the size of the motorcycle seat and the static seat anthropometry of students. With this mismatch, it can lead to ergonomic risks to the driver and lead to traffic accidents (Djunaidi, Arnur, 2015). In the Central Java area, especially the city of Kendal, there is a high interest in this mode of transportation. The people have diverse tastes in the selection of motorbikes, some prefer automatic motorbikes and some prefer sport motorbikes. Factors that affect the purchase of a motorcycle because the vehicle has an economical price and can be reached by all people. Wijayanti (2017), the motorcycle used has two domains, namely as a transportation utility, as well as a lifestyle to show self-image which is shown through motorbikes. There are several factors in determining the purchase of a motorcycle, self-concept is the most dominant factor influencing the decision to purchase an automatic motorcycle (Budi Ariyono, et al, 2016). Purnama (2016), prices and promotions have a positive and significant influence on purchasing decisions for automatic motorcycles. There are four independent variables, namely product quality, price, promotion and after-sales service which have a positive and significant influence on the variable purchase of automatic motorcycles (Yudha Tripariyanto, Lukmandono, 2018). Marlina AZ (2018), the purchase decision of automatic motorcycles is influenced by the variables of product quality, promotion, brand trust and consumer satisfaction. multiple linear. The variable that has a positive influence on the purchase of a motorcycle is the quality of products and services (Amrullah, et al, 2016). Akkas, Narwana (2019), the product strategy variable partially has the most dominant influence on the automatic motorcycle purchase decision variable. The high and low quality of salesmen

has no influence on purchasing decisions. Location also does not have a significant effect on consumer desires (Mei Candra, et al, 2020).

The decision in buying a motorcycle has several considerations made by consumers before deciding to buy a motorcycle, the interest variable has the most dominant influence compared to the activity and opinion variables (Putra, 2014). Pahlevi, Sutopo (2017), 64 percent of consumer decision variables to purchase automatic motorcycles are influenced by price perception variables (X1), promotion (X2), product design (X3) and product quality (X4). results: (1) Brand awareness has a significant effect on purchasing decisions; Brand loyalty, brand awareness, brand associations, perceived quality, have a significant influence on consumer purchasing decisions (Sya'idah, et al, 2020). Pane (2019), there is a close relationship between the perceived product quality variable and the motorcycle purchase decision at PT. Maharaja Medan is 72%. Consumer purchasing decisions are influenced by the price variable which has a high coefficient value when compared to promotional strategies (Suharto, 2016). This study will examine the ergonomics and seat design variables, how much influence the decision to purchase an automatic motorcycle.

## RESEARCH METHODOLOGY

The place of research was carried out in the village area of Ngampel Kulon RW. 04 Kendal. The sampling technique used is convenience sampling, which is sampling based on the availability of elements and the ease with which they can be obtained. For a sample of 50 people with a population of 200 people who use motor matic. How to get information by using a questionnaire or questionnaire. Using the validity test is used to show the level of reliability or accuracy of a measuring instrument. To test the consistency of the respondents through the questions given, use the reliability test. The results of reliability testing are used to determine whether the research instrument used can be used many times at a certain time. This questionnaire uses a Likert scale, the Likert scale is a scale used to measure a person's attitudes, opinions, and perceptions about a particular object or phenomenon. The variables of this study used seat design, product quality, brand trust, consumer satisfaction, and ergonomics.

## RESULT AND DISCUSSION

For data based on gender, the choice items given are male and female.

Table 1.  
Gender

No	Gender	Sample	Percentage
1	Man	50	100%
2	Woman	0	0
	Amount	50	100%

Demographic data of respondents based on age has five selected items given.

Table 2.  
Respondent's age

No	Age	Frequency	Percentage
1	Less than 16 years old	0	0%
2	16 – 25 years	20	25%
3	26 – 35 years	10	50%
4	36 – 45 years	20	25%
5	More than 45 years	0	0%
	Amount	50	100%

Demographic data based on the highest education, the selected items were Elementary School, Junior High School, Senior High School / Vocational High School, Diploma and Bachelor.

Table 3.  
Respondent's education

No	Highest Education	Frequency	Percentage
1	Elementary school	10	25%
2	Junior high school	10	25%
3	Senior High School	20	50%
4	Diploma	0	0%
5	Bachelor (S1, S2, S3)	0	0%
Amount		50	100%

After testing the validity, it is said to be valid because it has a value less than 0.5

Table 4.  
Validity value

Skor Pearson	,09	,19	,35	,43	,44	,21	,61	,13	,16	,18	,18	,26	,25	,16	,09	,14	,14	,35	,23	,58	,54	1
_Tot Correlati al on	9	9	0'	2"	2"	8	4"	2	9	7	0	3	4	4	6	5	1	7'	5	4"	2"	
Sig. (2- tailed)	,49	,16	,01	,00	,00	,12	,00	,36	,24	,19	,21	,06	,07	,25	,50	,31	,32	,01	,10	,00	,00	
N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50

Reliability is an index that shows the extent to which a measuring instrument can be trusted or relied on. In the reliability statistics section, Cronbach's Alpha value = 0.84 which is greater than r table (0.632) with a significance level of 5%.

Table 5.  
Reliability value  
Reliability Statistics

Cronbach's Alpha	N of Items
,840	21

From the results of the validity test with the purchase of an automatic motorcycle, all indicators are valid, so it is stated that it is appropriate to buy an automatic motorcycle. With a reliable test, the purchase of an automatic motorcycle has a relationship with all reliable indicators, so it is declared consistent in product purchases.

## CONCLUSION

Ergonomics can be defined as a discipline that examines the limitations, strengths, and characteristics of humans, and utilizes this information in designing products, machines, facilities, environments and even work systems. With the main goal of achieving the best work quality without neglecting the health, safety and comfort aspects of its users.

Ergonomics is widely applied, the ergonomics discipline approach focuses on efforts to improve human work performance such as increasing work speed, accuracy, work safety in addition to reducing excessive work energy and reducing fatigue that is too fast.

Ergonomics factor which has a value of 0.050 meets the requirements, which means that for every purchase of 1 unit of motorcycles by consumers, basically, it is strongly influenced by ergonomics/comfort factors. Because every consumer will be more interested in things that are comfortable.

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