CHAPTER III
RESEARCH METHODS

3.1 Overview of Research Object

Picture 3. 1 Pijakbumi Logo

Source: pijakbumi.com

Pijakbumi is an Indonesian green footwear brand that strives to completely change the footwear industry by creating shoes that are friendly to the environment and sustainable to consumers. Founded in 2017, Pijakbumi is committed to reducing the ecological footprint of the footwear industry, providing consumers with a fresh and modernly crafted footwear item of their desire. As a result, the brand identity of the Pijakbumi company is a quiet walk on this earth, revealing its commitment to lowering its carbon footprint to lessen the increasingly harmful environmental footprint caused by the industry. A good example is the brand name, which means to step on the earth, and the logo includes footprints and leaf patterns, implying that the company is increasingly promoting a greener environmental footprint.

Sandals, boots, sneakers, formal shoe varieties, and the like are available for consumers to buy shoes. Pijakbumi has something to offer for everyone, men, women, and children who can easily find the ideal wear-over and footwear item for their occasions. Pijakbumi offerings prioritize comfort and aesthetics for customers

who, in addition to looking pretty, reduce the environmental footprint of their play style choices as a waste of the commodity. This commitment is realized through the store of eco-friendly products in which to make the product, such as organic cotton, recycled rubber, and sustainable products and leathers.

Picture 3. 2 Pijakbumi Products

Source: detik.com

Pijakbumi implements sustainable practices throughout its supply chain. A Pijakbumi product's life cycle has been strategized in a way that every phase is green. 80% of a Pijakbumi product's upper parts are made from naturally derived and recycled materials, 60% of the raw materials used in production are locally sourced, and 30% of the post-production waste and footwear is manageable and recycled. Outside of the production process, the brand also prioritizes ethical labor practices, providing fair wages and safe working conditions for their workers.

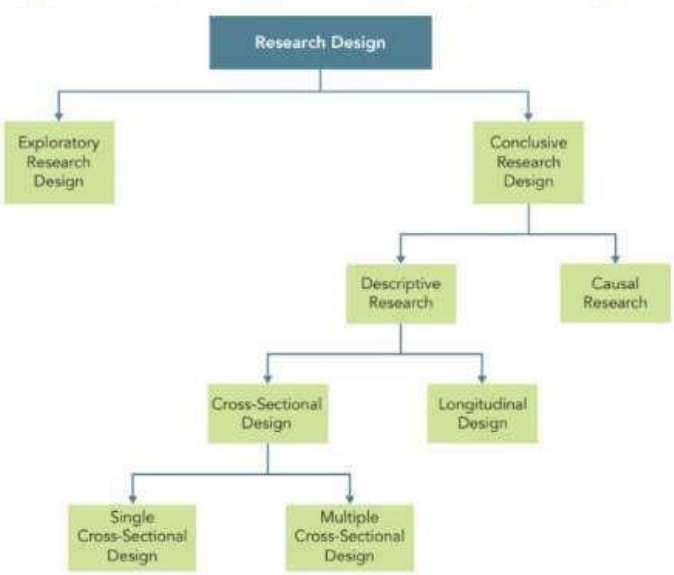
To ensure that their commitment to the green agenda stays true, Pijakbumi actively advocates and involves itself in activities of sustainability outside the production process. Pijakbumi occasionally collaborates with NGOs and local communities in driving positive change in the environmental sustainability sector.

Through these efforts they aim not only to align themselves in their original goal, but to also foster a sense of community for their consumers. Pijakbumi also aims to raise a sense of collective responsibility for the environment through their activities and products.

As a brand, Pijakbumi positions itself as a semi-premium green brand with prices starting as low as IDR 500,000 up to IDR 1,800,000. The huge price range allows different consumers to be able to purchase the product. Pijakbumi primarily markets and sells their products through online platforms, as they have no physical store available. Pijakbumi's presence on their website and on online e-commerce platforms allow consumers to be able to easily browse their catalog and easily purchase products from the comfort of their home.

3.2 Research Design

A research design is the framework used in marketing research, utilized to help in the collection of data that will be used to solve the research problem (Malhotra, 2020). Malhotra summarized two types of research design, as follows:



Picture 3. 3 Research Design Types

Source: Malhotra (2020)

1) Exploratory Research Design

An exploratory research design aims to collect ideas and knowledge in a mostly qualitative way, to give an understanding of a specific problem. Research using this design tests which variables affect other variables, as the goal is to find the affecting variables instead of testing the already known affecting variables. Data collection methods for this design include surveys, focus group discussions, interviews, and secondary data (Malhotra, 2020).

2) Conclusive Research Design

A conclusive research design focuses on evaluating, researching, and then providing a solution to solve a specific problem. Unlike exploratory research, conclusive research is more structured and specific, and is approached in a quantitative method. A conclusive research design aims to test hypotheses regarding factors and test their relationship significance. According to Malhotra (2020), there are two types of conclusive research design, as follows:

A. Descriptive Research

Descriptive research is described as research that focuses on explaining a problem in a market. Descriptive research is done on the basis of previous hypotheses and knowledge on the problem. Malhotra (2020) explained the two types of descriptive research as such:

i) Cross-Sectional Design

In a cross-sectional design research type, information collecting is only done once in a specific amount of allocated time. There are two types of cross-sectional design, single and multiple. In single cross-sectional design, data is collected only from one sample, while

in multiple cross-sectional design collected from two or more.

ii) Longitudinal Research

The longitudinal research type utilizes a fixed sample which then is measured multiple times with the same variables. This is done to showcase the differences that will occur within the same conditions over a period of time. Because of this repeated method, unlike cross-sectional design, longitudinal research is done over an extended period of time instead of just once.

B. Causal Research

Causal research aims to prove the cause and effect relationship between variables. This is done through experiments in collecting data about the phenomenon.

Based on the descriptions above, the research design used in this research is a conclusive research design, specifically the descriptive research type using the single cross sectional design method from the cross sectional design type. This is due to this research being based off of previous hypotheses and aiming to test the significance between the determined independent and dependent variables, through analyzing data collected in one instance using a survey only from one sample.

3.3 Population and Sample

3.3.1 Population

Malhotra (2020) defines population in research as the group of elements with similar characteristics that can act as representatives for the goal of the research problem. To get parameters for a population, he

explained the method of identifying the element, sampling unit, extent, and time can be used, as follows:

1. Element

   The element is the source of information for research. The elements of a research are the participants of the research where the information or data can be drawn upon, also called the respondents.

2. Sampling Unit

   The sampling unit is a part of the population that is selected to be further chosen in picking the research sample.

3. Extent

   The extent is the geographical boundaries placed when collecting data for the research.

4. Time

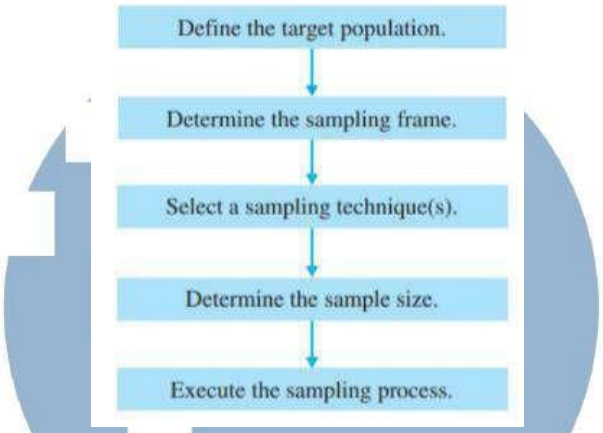
   Time in this context is the period of time the data collection will take place for.

In this research, the element is people who have heard of or know the local footwear brand Pijakbumi, has done at least one pro-environmental activity, however has not bought a product from the brand. The sampling unit is the Gen Z age range, as Gen Zs account for the most people in Indonesia and are the most aware of environmental issues and take action upon them. The extent used is the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) region of Indonesia, and the time of research is March to May of 2024.

3.3.2 Sample

The sample is the selected subgroup of a population that will be used as data in research (Malhotra, 2020). Malhotra mentioned five steps to

determine sample size for research, starting by defining the target population, continued by determining the sampling frame, then selecting a sampling technique, determining the sample size, and finally executing the sampling process.



Picture 3. 4 Sampling Process

Source: Malhotra (2020)

3.3.2.1 Sampling Frame

Malhotra (2020) explained sample frame as a framework or directory taken from a population that can be utilized or referred to in identifying the target population for a research. A sampling frame is utilized in research using the probability sampling method, while no sampling frame in a research means that it will be using the non-probability sampling method. In this research, no sample frame was utilized as there was no prior data used or referred to when choosing the population for the research. As such, the non-probability sampling technique will be used.

3.3.2.2 Sampling Technique

Malhotra (2020) explains two types of sampling that can be used in research, probability and non-probability sampling. Their main difference lies in the presence of probability in the sampling process, and both can further be broken down into different types, as follows:

1. Probability Sampling

   In probability sampling, every sample component has the same chance of being chosen. Malhotra (2020) explains the types of probability sampling as follows:

   A. Simple Random Sampling

      This sampling type has each element having an equal probability to get selected and is also known. As such, all elements will have the same chance of getting selected.

   B. Systematic Sampling

      In this sampling type, a starting point is selected, and is continued by picking an nth element in the succession to continue the chain.

   C. Stratified Sampling

      In stratified sampling there are two steps. The first step is to group the sample into sub-populae called strata based on shared characteristics. The second is to start selecting samples from those strata by using another probability sampling method. There are two types of stratified sampling,

proportionate and disproportionate. Proportionate is done when the sample size is taken to the same proportion of the population, while disproportionate is not.

D. Cluster Sampling

In cluster sampling, the population is first divided into clusters, and then these clusters will get picked and the elements in them become samples.

2. Non-Probability Sampling

Opposite of probability sampling, in non-probability sampling, there is no same chance of every sample component being chosen. This is due to the fact that criteria is usually chosen or pre-determined by the researcher. Malhotra (2020) explains four types of non-probability sampling techniques, as follows:

A. Convenience Sampling

Convenience sampling is mentioned as the easiest technique of non-probability sampling, due to the fact that it is done on the basis of simplicity. The sample is determined and is taken based on the easiest method deemed by the researcher.

B. Judgmental Sampling

Judgmental sampling is a technique of non-probability sampling done based on the judgment or subjectivity of the researcher. As such, the sample is taken based on the

subjective choice and criteria of the researcher.

C. Quota Sampling

Quota sampling is characterized by two steps, first determining the quota of the population based on characteristics, then picking the sample through either convenience or judgmental sampling.

D. Snowball Sampling

In snowball sampling, the sample used will be based on the referral of the previous element used as sample, and will continue until sufficient data is reached.

This research will be utilizing the non-probability sampling method, specifically the judgmental sampling method, as the sample will be chosen based on the individual judgment of the researcher. The sample chosen will be based on the criteria set by the researcher, which are as follows:

- Knows the local footwear brand Pijakbumi
- Have not bought a Pijakbumi product
- Have done at least one pro-environmental activity

3.3.2.3 Sample Size

Hair et al. (2014) explains that to set a sample size for research, multiply the number of indicators for research by 5. Based on this, the sample size for this research will be set as 29 x 5 = 145 respondents.

3.4 Data Collection Technique

3.4.1 Research Period

This research was done over a period of 4 months, starting from February to May of 2024. There were two periods of data collection and analyses, the pre-test period and the main test period.

3.4.2 Data Collection Method

Malhotra (2020) classified two types of data collection techniques, using primary and secondary data. Primary data is data collected by the researcher through methods like surveys or interviews, while secondary data is data already previously collected by another party and is available to be used as references.

This research will be utilizing both, however primary data collected through a google form survey will be used mainly for data analysis in proving the hypotheses already mentioned before. Secondary data was used as references to support the research claims made, such as hypotheses formulation, theory explanation, and research methods.

3.5 Operationalization of Variable

Table 3. 1 Variable Operationalization Table

No.	Variable	Operational Definition	Indicator		Original	Measurement Source	Scale
1	Attitude (ATT)	How favorably an individual assesses a	1	Saya menganggap bahwa membeli	I consider that buying ethical fashion goods	Liu et al., 2020	Likert scale 1-5

		behavior (Liu et al., 2020)		barang-barang sustainable fashion seperti Pijakbumi itu positif	is positive		
			2	Saya menganggap bahwa membeli produk sustainable fashion seperti Pijakbumi itu bermanfaat	I consider that buying ethical fashion goods is beneficial		
			3	Saya berpendapat bahwa membeli produk sustainable fashion seperti Pijakbumi itu berguna	I consider that buying ethical fashion goods is useful		
			4	Saya anggap membeli produk sustainable	I consider that buying ethical fashion goods		

				fashion seperti Pijakbumi itu berharga	is worthwhile		
			5	Saya menganggap bahwa membeli produk sustainable fashion seperti Pijakbumi itu bijaksana	I consider that buying ethical fashion goods is wise		
2	Subjective Norms (SN)	Individual's perception of what ought to be done which is based on the approval of significant others (Han, 2018)	1	Sebagian besar orang yang penting bagi saya berpikir saya seharusnya membeli produk Pijakbumi saat ingin berbelanja produk fashion	Most people who are important to me think I should purchase green products when going for purchasing	Paul et al., 2016	Likert scale 1-5
			2	Sebagian besar orang yang penting bagi	Most people who are important to		

				saya ingin saya membeli produk Pijakbumi saat ingin berbelanja produk fashion	me would want me to purchase green products when going for purchasing		
			3	Orang-orang yang pendapatnya saya hargai lebih memilih agar saya membeli produk Pijakbumi	People whose opinions I value would prefer that I purchase green products		
			4	Opini positif teman saya mempengaruhi saya untuk membeli produk Pijakbumi	My friend's positive opinion influences me to purchase green products		
3	Perceived Behavioral Control	An individual's internal	1	Saya percaya saya memiliki kemampuan	I believe I have the ability to	Ko & Jin, 2017	Likert scale

	(PBC)	perception that he/she possesses control over personal resources (Ko & Jin, 2017)		untuk membeli produk Pijakbumi	purchase green apparel products		1-5
			2	Jika sepenuhnya tergantung pada saya, saya yakin bahwa saya akan mampu membeli produk Pijakbumi	If it were entirely up to me, I am confident that I would be able to purchase green apparel products		
			3	Saya yakin bahwa saya akan mampu membeli produk Pijakbumi	How confident are you that you will be able to purchase green apparel products?		
			4	Saya melihat diri saya mampu membeli produk Pijakbumi	To what extent do you see yourself as capable of purchasing green apparel products?		

4	Price (P)	Price refers to the amount paid by the purchaser to the seller in return for a product or service (Olajide et al., 2016)	1	Menurut saya, harga yang tertera pada produk Pijakbumi tergolong murah	The price listed by this hotel is inexpensive	Lien et al., 2015	Likert scale 1-5
			2	Menurut saya, harga produk Pijakbumi wajar	The hotel price is reasonable		
			3	Menurut saya, harga produk Pijakbumi terjangkau	The hotel price is affordable		
			4	Menurut saya, harga produk Pijakbumi sudah sesuai	The hotel price is appropriate		
5	Knowledge (K)	The perception of an individual regarding their level of knowledge about a	1	Saya merasa saya lebih mengetahui tentang sustainable fashion secara umum daripada	I feel I know more about fish in general than the average person	Menozzi et al., 2023	Likert scale 1-5

		product (Han, 2019)		orang rata-rata			
			2	Saya merasa saya lebih mengetahui tentang sustainable fashion secara umum daripada teman-teman saya	I feel I know more about fish in general than my friends		
			3	Saya memiliki banyak pengetahuan tentang cara membeli sustainable fashion	I have a great deal of knowledge about how to purchase fish		
			4	Saya memiliki banyak pengetahuan tentang cara menilai kualitas produk sustainable fashion	I have a great deal of knowledge about how to evaluate the quality of wild and farmed fish		

6	Trust (T)	Trust is believing that the other party is trustworthy, dependable, and not manipulative, but rather committed to honoring its promises. (Chen et al., 2015)	1	Saya percaya bahwa citra lingkungan produk Pijakbumi secara umum dapat dipercaya	You believe that this product's environmental image is generally reliable.	Chen et al., 2015	Likert scale 1-5
			2	Saya berpikir bahwa fungsionalitas lingkungan dari produk Pijakbumi secara umum dapat diandalkan	You think that this product's environmental functionality is generally dependable.		
			3	Secara keseluruhan, saya percaya bahwa klaim lingkungan produk Pijakbumi dapat dipercaya	Overall, you believe that this product's environmental claims are trustworthy.		
			4	Kinerja	This		

				lingkungan produk Pijakbumi memenuhi harapan saya	product's environmental performance meets your expectations.		
7	Sustainable Fashion Consumption Intention (SFCI)	The motivation of a consumer to consume sustainable fashion (Ray & Nayak, 2023)	1	Saya mempertimbangkan untuk membeli produk Pijakbumi	I consider purchasing sustainable clothes	Leclercq-Machado et al. (2022)	Likert scale 1-5
			2	Saya berniat untuk membeli produk Pijakbumi daripada produk sepatu konvensional di masa depan	I intend to buy sustainable clothes instead of conventional clothes in the future		
			3	Saya mungkin membeli produk Pijakbumi di masa depan.	I might buy sustainable clothes in the future		
			4	Saya akan mempertimban	I would consider		

				gkan untuk membeli produk Pijakbumi jika saya kebetulan melihatnya di toko online	buying sustainable clothes if I happen to see them in an online store		

Source: Self-processing (2024)

3.6 Data Analysis Technique

3.6.1 Pre-Test Data Analysis

Malhotra (2020) explained the importance of pretesting in research, by testing the indicators being used for validity and reliability. This is to ensure that the indicators are proper in explaining the variables used in the research. When the results pass the requirements, then the research can proceed to the main test.

3.6.1.1 Validity Testing

Malhotra (2020) explains validity testing as measuring if the data used as measurement can really be used as measurement, by testing if the indicators used in the research are valid enough to be used. Validity testing is further divided into three categories, as follows:

1. Content Validity

   Content validity is a systematic and subjective measuring of how well the contents of a scale represents the measurement.

2. Criterion Validity

Validity method used in measuring if the scale works as needed and if other variables are connected to the other variables.

3. Construct Validity

   Validity method used in answering which characteristics or constructs that can be measured using scale.

This research will be using the construct validity type, as if an indicator fulfills the validity criteria then it is assumed that it is valid enough to be used as measurement. The criteria is as follows:

Table 3. 2 Validity Measurement Criteria

No	Validity Measurement	Definition	Validity Criteria
1	Kaiser Meyer-Olkin (KMO)	Index used in measuring validity of a factor analysis (Malhotra, 2020)	KMO ≥ 0.5
2	Bartlett's Test of Sphericity	Statistical test used to measure inter-variable correlation and statistical significance (Hair et al., 2019)	Significance < 0.05
3	Measure of Sampling Adequacy (MSA)	Measuring variables and matrix (Hair et al., 2019)	MSA ≥ 0.5
4	Factor Loadings of Component Matrix	Used in understanding the characteristics of specific factors and inter-variable	Factor Loadings of Component Matrix

		correlation (Hair et al., 2019)	≥ 0.5

3.6.1.2 Reliability Testing

Reliability testing is used in testing how far the scale will result the same when the measurement is done repeatedly (Malhotra, 2020). This is done to ensure that there is not much variation within a period of time so that the measurement can be trusted (Hair et al., 2014). To measure reliability, this research will be using the method explained by Ghozali (2018), by accepting the test if the resulting Cronbach Alpha results in a nominal of > 0,70.

3.6.2 Main Test Data Analysis

3.6.2.1 Classical Assumption Test

Ghozali (2018) explained the classical assumption test as a test aimed to ensure that the collected data has no bias. There are three tests run in the classical assumption test, the multicollinearity test, heteroskedasticity test, and normality test.

3.6.2.1.1 Multicollinearity Test

Ghozali (2018) explained the multicollinearity test as a testing method to see if there exists a correlation between independent variables in a regression model. A good regression model ideally has no multicollinearity between its variables. To measure if multicollinearity is present in a model, the variance inflation factor (VIF) and tolerance level indicators can be used, it can be said that no multicollinearity occurs when VIF is ≥ 10 and tolerance level is ≤ 0,10.

3.6.2.1.2 Heteroskedasticity Test

The heteroskedasticity test is used in measuring if variance difference is present in the residual of an observation to another observation in a regression model (Ghozali, 2018). A good regression model has homoskedasticity instead of heteroskedasticity. To measure heteroskedasticity, the scatter plot graph can be observed. If there are no strong patterns such as waves of the dots in the graph, it can be said that heteroskedasticity is not happening. Another method is by using the Park test, by observing the significance number. If it is ≤ 0.05, then heteroskedasticity is present. If opposite, then there is no heteroskedasticity present (Ghozali, 2018),

3.6.2.1.3 Normality Test

The normality test aims to test if the data used in the research is distributed normally (Ghozali, 2018). To assess the results of the test, a histogram and p-p plot will be used. A normally distributed dataset will show the plotting of data following the diagonal of the histogram graph. Another method in assessing the test is by using the Kolmogorov Smirnov method, where a normally distributed dataset will show a significance of ≥ 0,05.

3.6.2.2 Model Testing

3.6.2.2.1 Coefficient of Determination Test (R^2)

Coefficient of determination testing is used to measure how far a model can explain a dependent variable

(Ghozali, 2018). The coefficient determinant is measured between 0 and 1, if R^2 is showing a number close to 1, it signifies that the independent variables are strong in providing the information to predict the dependent variable. If the number is closer to 0, then the opposite happens, meaning that the independent variables have less power in explaining the dependent variables.

3.7 Hypothesis Testing

3.7.1 Simultaneous Significance Test (F Test)

Ghozali (2018) explained the simultaneous significance test as used in testing if there exists an effect of all the independent variables on the dependent variable simultaneously. To assess if the simultaneous effect of all variables exists, the F count value can be observed as being bigger than the F table value. Another indicator is if the significance value is < 0,05. Further explanation for the hypothesis is as follows:

H0: all independent variables have no significant effect on the dependent variable

HA: all independent variables have a significant effect on the dependent variable

3.7.2 Individual Parameters Significance Test (T Test)

Ghozali (2018) explains the individual parameters significance test as the next step after the simultaneous significance test, which is used to measure if each independent variable individually has an effect on the dependent variable. Assessing the test is done by looking at the significance value, if it is lower than 0,05. Another method is by observing the t table value and the t count value. The two hypotheses for this test is as follows:

H0: the independent variable has no significant effect on the dependent variable

HA: the independent variable has a significant effect on the dependent variable

3.7.3 Multiple Linear Regression Test

The multiple linear regression test aims to test how significant the effect is between the independent and dependent variables (Ghozali, 2018). The formula for a multiple linear regression test is as follows:

$$Y = a + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \beta 6X6 + e$$

Keterangan:

Y: Sustainable Fashion Consumption Intention

X1: Attitude

X2: Subjective Norms

X3: Perceived Behavioral Control

X4: Price

X5: Knowledge

X6: Trust

a: Constant

β = Regression coefficient

e = Error