The DKI Jakarta Generation Z Green Product Purchase

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Abstract

The issue of natural sustainability is a challenge for producers and consumers. Generation Z includes the generation that is more concerned with natural sustainability and is willing to pay more to buy more expensive, environmentally friendly products. The purpose of this study is to analyse the factors that influence the purchase of green products by generation Z in DKI Jakarta. This research is quantitative. Data collection conducted on 254 respondents consisting of generations in the age group of 19–25 years in DKI Jakarta. Respondents were selected purposefully from October 2023 to January 2024. The data processing method used structural equation modelling. The results showed that perceptions of the circular economy have a correlation with Generation Z's purchasing decisions and significantly moderates the 4Ps marketing mix (product, price, place, and promotion) in purchasing decisions. An essential implication of this research is that consumer decision-making is the intense urge of consumers themselves to buy environmentally friendly products.

Keywords: Gen Z, Green product, Marketing mix, Purchasing decisions, Economy Circular

JEL classification: M310

1. Introduction

Based on year of birth, then in the next thirty years, Gen Z will be potential buyers with behaviours that must be analysed. Data shown on the katadata.co.id website shows that Indonesia's population reached 275.77 million. This figure indicates that 69.25 per cent of the population is of productive age. Indonesia's population pyramid is generally clapper-shaped where the concentration of the population is in the 15-19 age group and the 25-29 age group. This group belongs to Generation Z.

Detailed data can be seen in figure 1. Andriyanty and Wahab in their research results show that generation Z is a generation born from 1995 to 2016. This generation is well-educated and has different consumption behaviour from other generations. (Andriyanty

& Wahab, 2019). In general, this generation has a lifestyle based on their self-concept and self-perception (Andriyanty & Dewi, 2021; Andriyanty & Yunaz, 2020).

Central Bureau of Statistics of Indonesia's data shows that Indonesia's population projection until 2035 has an increasing trend. Detailed data can be seen in the following graph.
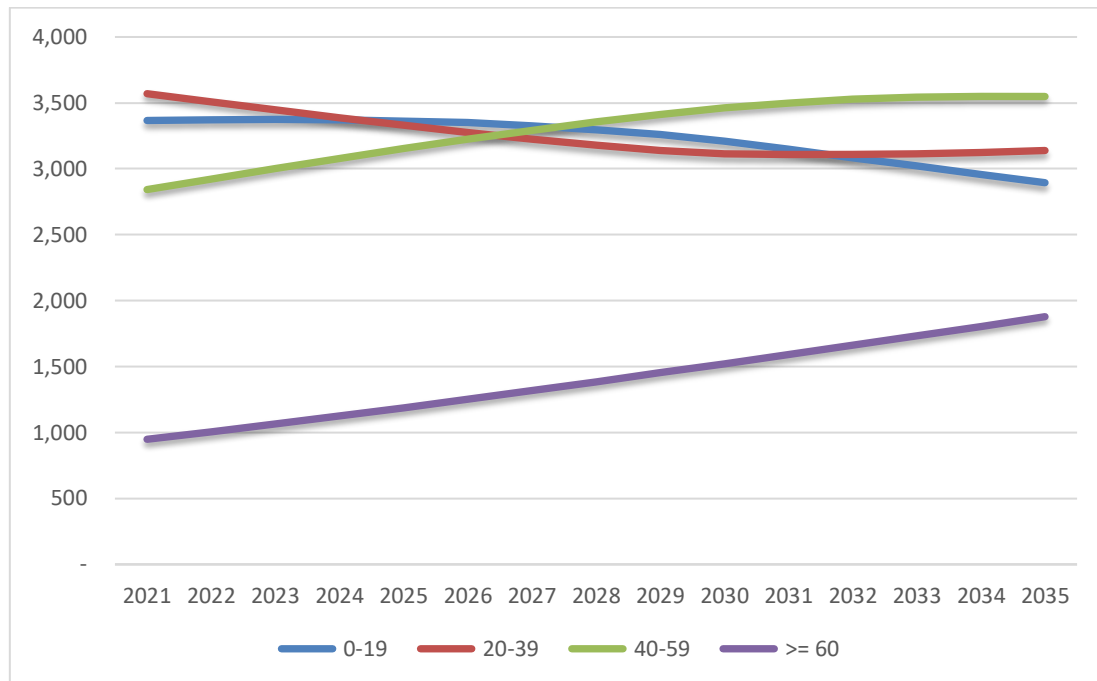

Figure 1: Indonesia's population projection based on the total population until 2035
Source: BP (2023).

If the data is juxtaposed, Indonesia's generation Z today will enter the highly productive age group in 2027. This productive age group will have the highest production and consumption activities among other age groups. The issue of natural sustainability is a challenge for producers and consumers. Generation Z, including the behavioural generation, is more concerned with natural sustainability where they are willing to pay more to buy more expensive environmentally friendly products.

Marketing today must analyse consumer behaviour related to environmental consciousness, in order to invest appropriately in the marketing activities of the company. (Gomes et al., 2023;Anggraeni & Balqiah, 2021). The Doloitte Global 2022 Gen Z and Millennial Survey states that on average 24% of generation Z is concerned about climate change (Doloitte Touche Tohmatsu Organization, 2022).

Green consumption is defined as a global phenomenon that shifts the sense of responsibility to address the crisis of natural sustainability towards environmentally friendly consumption behaviour and is guided by the responsibility of producers to produce environmentally friendly products and promotions (Andrea, 2021). In general, even small businesses are capable of implementing green marketing (Andriyanty et al.,

2021). Globally, there is a change in consumer behaviour to buy environmentally friendly products. This can be seen in the following figure.
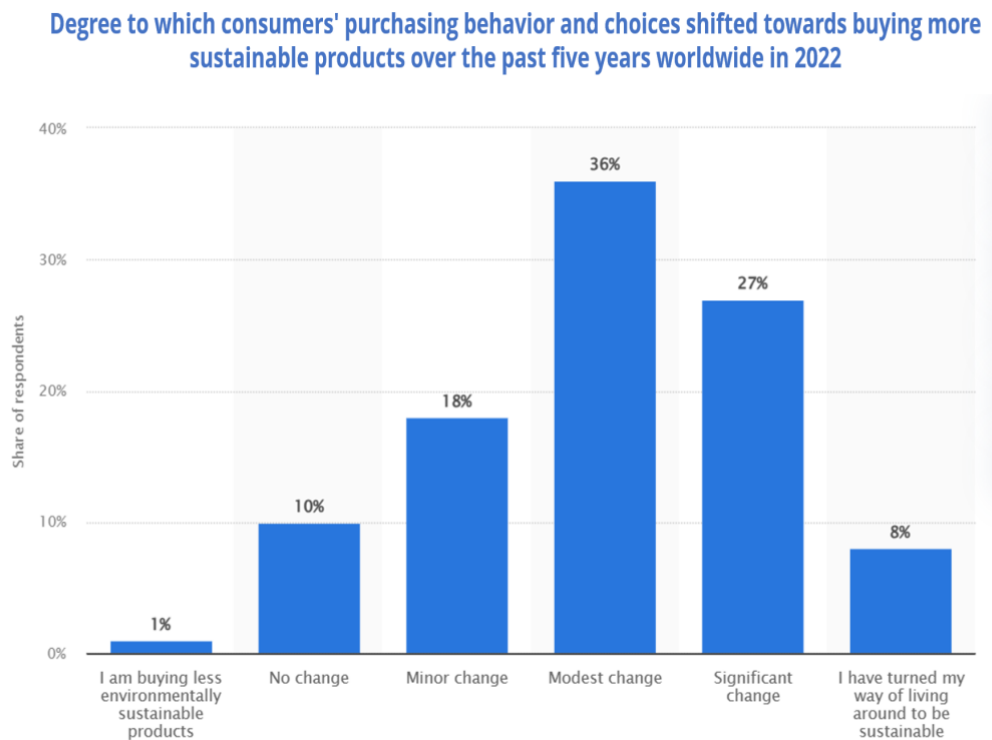

Degree to which consumers' purchasing behavior and choices shifted towards buying more sustainable products over the past five years worldwide in 2022

Figure 2: Rate of change in consumer purchasing behaviour for environmentally friendly products in 2022
Source: Statista.

Rakuten Insight Centre and McKinsey conducted a survey on the Indonesian population in 2022. The results indicated that 79 per cent of shoppers would be willing at least to pay more for sustainable and eco-friendly products.

Understanding consumer perceptions, motivations and behaviours in retail is critical to designing effective strategies and interventions to engage and incentivise individuals to participate in circular business practices (Hellström & Olsson, 2024). EThe circular economy has gaps in relation to system perspectives, business models, and consumer behaviour. Material utilisation to conserve nature is not enough, as it depends on influencing effective consumer demand.

Practical applications and regulations for the circular economy need to ensure that producer and consumer behaviour supports circularity at the macro and micro levels (United Nations, 2023).

Therefore, based on above discussion, the purpose of this study is to analyse the link between circular economy and 4P marketing mix factors (product-price-place-

promotion) that influence generation Z's purchase of environmentally sound products in DKI Jakarta.

2. Material and methods

2.1. Marketing and the Community

Economists considers whether marketing systems efficiently serve consumer wants, environmentalists are concerned with marketing to the environment and the costs of serving consumer needs and wants. They are concerned with the damage to ecosystems caused by open-pit mining, deforestation forest thinning, acid rain, loss of atmospheric ozone layer, toxic waste and garbage.

They are also concerned about the loss of recreational areas and increasing health problems caused by bad air, polluted water and chemically treated food. These concerns form the basis for environmentalism - an organised movement of concerned citizens and government agencies to protect and enhance the environment. Environmentalists are not against marketing and consumption; they just want people and organisations to operate with more care for the environment, not to maximise consumption, consumer preference, or consumer satisfaction, but to maximise quality of life. 'Quality of life' means not only the quantity and quality of consumer goods and services but also the quality of the environment. Many of these companies have responded positively to consumerism and the environment to better serve consumer needs. Responsible marketers will attract buyers, either forcing less responsible marketers out of business or forcing them to stop unsavoury practices (Kottler et al., 1999).

External pressures on businesses tend to be the main trigger for recycling-oriented business practices and circularity in business processes (Castro-Lopez et al., 2023). Consumers who care about fair trade are shown to significantly and positively influence ethically-minded behaviour related to the circular economy (Kutaula et al., 2022). That the circular economy should be promoted to all groups in society and not limited to civil society organisations and private companies (Vanhuyse et al., 2022).

2.2. Gen Z's Purchasing Behaviour

Research by Thangavel et al (2019) shows that value consciousness, convenience, and comfort are the dominant shopping orientations that drive Gen Z consumers. This generation has a highly adaptive behaviours towards internet technology (Andriyanty, Retno, et al., 2023), heavily utilising the use of information technology in consumption and production activities (Andriyanty, Rafiq, et al., 2023;Hasibuan, Laksono, et al., 2022; Hasibuan, Suharli, et al., 2022; Nurdin Hasibuan & Rambe, 2020) and tend to be self-centred in shopping (Andriyanty & Wahab, 2022). This could be the main reason why they overtly favour e-retailers. At the same time, they are most likely to compare and contrast the products available on e-commerce platforms before they make their final purchase.

So e-retailers will have to keep looking for ways to improve these features to lead the disruption they cause in the retail industry. This also leads to the assertion that Gen Z is less brand loyal as compared to previous generations, and the same is validated by this

study. Hence, instead of spending millions of dollars in advertisements and promotions to restore brand awareness and loyalty among customers, marketers should adopt an all-income segment approach (Thangavel et al., 2022). Gen-Z likes to get more information from online influencers.

Along with artificial intelligence technology, virtual influencers have become very attractive to consumers. Research conducted in Brazil shows that virtual influencers can replace human influencers, at least on the premise that virtual influencers are cheaper, more reliable, always available, very popular, and effective at persuading human consumers, making the brand of the product being marketed more creative in itself where the company can control its content autonomously (Allal-Chérif et al., 2024). Hence, marketers should formulate different promotional activities to reach out to their potential buyers. In addition, the study found that Gen-Y, who have greater purchasing power, hardly cares about the price of the product compared to Gen Z. To capitalise on the young market segment, it is imperative for marketing managers to establish the right price, brand image, quality, and platform to promote products. To further enhance the brand image of local products, policymakers and governments should enact stricter initiatives that protect businesses from using hazardous and illegal materials to manufacture their products (Aevilyvia Brenda Jaimon, 2022).

To understand what factors influence Generation Z's purchasing decisions, it is imperative to examine issues that influence consumer purchasing decisions, such as demographics, environmental awareness, consumer attitudes towards green products, and others. The results show that the people involved in the study tend to prefer buying from organisations that support green products and services, work for them, and prefer greener products. This generation does not favour specific brands, but the origin of the product is important to them. Respondents think about the green features of the product before making a purchase decision. Green product quality, support for the environment, and concern for climate change were the most significant reasons why participants wanted to buy green products (Kemppainen, 2021).

2.3. The Marketing Mix & Circular Economy

The 4P concept (product, price, place, and promotion) proposed by Jerome McCarthy in the 1950s is the cornerstone of the "marketing mix.".

The product conception is the entire product or service offered by the company and accepted by consumers in full, including all the attributes attached to the product or service. Price is the amount of money that consumers are willing to pay to get certain products or services. Price is the most flexible variable in the marketing mix. Location is where a product or service can be purchased. This variable includes the presence of physical stores as well as virtual online outlets that facilitate direct exchange.

Promotion is the process of communication between consumers and products or services, including the combination of various activities, methods, and media to make customers aware of the existence of the product or service (Al Badi, 2015; Lahtinen et al., 2020). This marketing mix is a conceptual framework related to decision-making in configuring company offers to meet consumer demand. Even this marketing determination behaviour

can be applied to how companies can deal with competition and market entry and exit behaviour (Gruca et al., 2001).

So that the 4Ps become the basis for translating marketing activities that companies must carry out in practice. This concept is outdated because the 4 P's view marketing from the producer's point of view and not from the consumer's point of view. In the new millennium, consumers demand to be served the way they want, whenever they want, and wherever they want. So this concept needs to be reviewed (Londhe, 2014). Further research is needed on how the 4P concept applies to wine products in Italy. The 4P concept can be radically directed towards consumer buying behavior, where the product is equivalent to the consumer's own assessment skills, the price is equivalent to the consumer's evaluation process, promotion is equivalent to the consumer's education, and place is equivalent to experience (Festa et al., 2016).

The marketing mix as a whole is able to explain the marketing framework for traditional products. Nowadays, where consumers are socially connected through digital platforms, the concept of marketing mix has become less strategic in marketing by companies (Wichmann et al., 2022). When it comes to the service sector, the factors of personalised service, place, product and price are important. The best combination of these four factors will enable companies to expand their customer base and retain them (Purohit et al., 2021). The moderating effect of marketing management on the relationship between strategic orientation and marketing performance will increase when more elements of the marketing mix are used simultaneously (Adams et al., 2019). Empirically, that consumers have a very varied sensitivity response to marketing efforts made by each type of industry (Andrews & Franke, 1996).

Today, marketing turbulence occurs as environmental issues influence the formulation and implementation of marketing strategies. Redefining the nature and pace of environmental change will enable businesses to exploit new opportunities related to marketing performance (Chatterjee et al., 2023).

Global resource use and associated emissions continue to rise despite businesses' efforts to encourage more sustainable consumption. One question rarely addressed in the sustainability literature is the extent to which a sustainable marketing mix can paradoxically encourage higher levels of consumption by reducing the guilt and associated costs of purchasing (Olson, 2022). The concept of green marketing is a leverage in building a competitive advantage between business actors (Nath & Siepong, 2022).

Research conducted on 100 personal care product industries in malaysia regarding green marketing awareness with the 4P method (Osman et al., 2016):

Products. By comparing the average scores of all product-related green marketing activities, it is seen that three activities viz: producing products that are ozone-friendly, not tested on animals, and biodegradable are the most practised by personal care product manufacturers in Peninsular Malaysia. On the other side, using refillable packaging and returnable or reusable packaging are the least implemented.

Price. There were 40% of respondents who strongly agreed that the price of environmentally friendly products should be higher than chemical-based products and

46% answered moderately agreed. There were 14% of respondents who disagreed that there is no price difference between environmentally friendly products and chemical-based products. On the statement 'the price of products produced should include the cost of environmental conservation", 30% of respondents strongly agreed with the statement, 52% of respondents agreed with the statement, 52% of respondents moderately agreed with the statement while 12% of respondents argued that the price charged should not include the cost of environmental conservation.

Place. On the statement "at retail outlets, the company emphasises on providing an environmentally friendly atmosphere and an environmentally friendly and relaxing atmosphere", the highest number of 40% said that they put very little emphasis on environmentally friendly and relaxing atmosphere at retail outlets, 52% of the respondents stated that they put enough emphasis on it in their operations, while 9 (9%) of the respondents made very great efforts in the practice. On the aspect of whether product distribution is designed to minimise negative impacts on the environment, 49% of respondents said that product distribution is moderately designed to minimise negative impacts on the environment, while 32% of respondents said that product distribution is barely designed to do this. Only 20% of respondents said that product distribution is very poorly designed to minimise negative environmental impacts. Companies tend to design distribution strategies that minimise negative environmental impacts rather than emphasising eco-friendliness in the ambience of retail outlets.

Promotion. On the statement of whether "the products produced are promoted as environmentally friendly products", 46 per cent of the respondents stated that the products they produce are moderately promoted as environmentally friendly products and 40 per cent of the respondents stated that their products are highly promoted to consumers as environmentally friendly products. A total of 14 per cent of respondents do very little of this.

A circular business model is a business concept that seeks to close the waste of resources, slow the turnover of resources, or narrow the flow of resources, with a focus on the planet as one of the elements in the marketing mix. This will contribute to environmental sustainability and reflect social sustainability, and the "profit concept" will relate to economic aspects that are mutually beneficial to all stakeholders. As a result, all activities have an impact on sustainability. The circular economy (CE) is a growing trend that more and more businesses are realizing.

Demand from consumers and new regulations from policymakers are motivating many business practitioners to transform business models into circular business models. Considering that the circular economy has unique attributes, it is imperative to reframe traditional marketing strategies and traditional marketing theories (Mostaghel et al., 2023). Marketing activities, business models, and consumption practices become intertwined and open up opportunities for change towards more sustainable consumption. Some of the key factors related to this in the fashion industry will relate to consumer competencies in: increased awareness and knowledge of environmental and social impacts; checking clothing labels for knowledge of fibres used; increased skills in repairing and caring for clothing (through tutorials or workshops); and reflecting on knowledge of equipment rental (Gossen & Kropfeld, 2022).

In an effort to construct the marketing mix in circular business, it turns out that the most significant element for companies to shift their concern for the environment is the product element. Product is the most significant element to change regarding the circular economy. The next aspects are promotion and place. The concept is increasingly driving the availability of alternatives to consumer attitudes that want to be healthier and less environmentally damaging. And the consumer's choice is more due to impulse (Rainatto et al., 2023). Consumer attitudes are contextually driven by certain personality traits, such as extraversion (consumers who tend to be influenced by outside factors), sociability, and conscientiousness (Kutaula et al., 2022).

Key to the concept of sustainability is the flow of non-biodegradable materials and waste back to nature. So the concept of circular flow of materials and disposal will consist of the concept of "reduce, reuse, recycle" and is known as the 3R concept. The concept of reducing—the main idea is to reduce the amount of waste generated. This can be done by starting with an examination of what materials, details, and products are used and ending with an examination of their intended use. Reuse: The main idea is to reuse an item as much as possible before replacing it. Items that would otherwise be thrown away can be turned into something useful. Learning to reuse items or repurpose them for purposes other than their original use is very important in the waste hierarchy. Again, many activities should be undertaken to reuse as much as possible. Recylce or recycling (and composting) is done to ensure that the item or its components are used for new purposes as much as possible.

Recycling something means turning it back into raw materials that can be turned into new items. Instead of throwing items in landfills of certain types, such as glass, paper, and cans, they should be recycled, thus turning them into something useful and reusable. Recovery refers to the practice of reusing waste products. However, the 3Rs concept developed further, evolving into the 5Rs concept: refuse, reduce, reuse, recycle, and recover. Then it became the 6Rs: reinvent, rethink, refuse, reduce, reuse, repair, recycle, replace, and rebuy. It evolved again into the 7 Rs: refuse, reduce, reuse, recycle, recover, repair, and re-gift (Tambovceva & Titko, 2017).

The discussion above provides support in forming the hypothesis in this study. The hypothesis proposed is as follows :

- H1: It is hypothesised that there is a direct relationship between the perception of the concept of the circular economy and purchasing decisions.
- H2: It is hypothesised that there is a relationship between green product factors moderated by the perception of circular economy concepts and purchasing decisions.
- H3: It is hypothesised that there is a relationship between the price factor of environmentally friendly products and the perception of the concept of circular economy on purchasing decisions.
- H4: It is hypothesised that there is a relationship between the factor of the place of sale of environmentally friendly products moderated by the perception of the circular economy concept on purchasing decisions.

- H5: It is hypothesised that there is a relationship between the factor of sales promotion of environmentally friendly products moderated by the perception of the concept of circular economy on purchasing decisions.

2.4. Methods

This research was quantitative descriptive research. The research data was collected from January to November 2023. Data was obtained from 254 respondents who were conscious of their own will to buy green or environmentally friendly product categories and belonged to the generation Z group in DKI Jakarta and its surroundings.

Because the respondents are large and the detailed population is unknown, the determination of respondents is carried out by the non-probability sampling method, where respondents are selected intentionally and are willing to become respondents. Respondents gave their willingness to contribute, and their data was used in this research. All identity data is kept confidential. The detailed descriptive data of the respondents can be seen in the following table.

Table 1: Descriptive data of respondents

Gender	Percentage
Male	33,5
Female	66,5
Age groups	
17-20	58,7
21-25	40,9
26-30	0,4
Level of Education	
High school	50,0
Bachelor	49,2
Magister	0,8
Expenditure Level/Month	
Less than Rp.5.000.0000/month	13,7
Rp.5.000.000-Rp.10.000.000/month	83,9
> Rp.11.000.000/month	2,4

Source: Primary data processed (2023)

The data processing method used structural equation modelling with the mathematical equation for the inner model as follows:

$$\eta = \tau_1\xi_1 + \tau_2\xi_2 + \tau_3\xi_3 + \tau_4\xi_4 + \varsigma_1 \qquad (1)$$

Which:

- η = Purchasing decision ; τ_1= coefficient of Purchase decision;
- ξ_1= Product factor produk; τ_2= coefficient of product factor;

- ξ_2 = Price factor; τ_3= coefficient of price factor;
- ξ_3 = Promotion factor; τ_3= coefficient of promotion factor;
- ξ_4 = Market platform factor; τ_3= coefficient of market platform (online & offline);
- $\mathfrak{z}_1$ = exogenous latent variable error.

Outer models are formed with mathematical equations as follows:

1. exogenous latent variable factors:

x_1 =Needs = $\lambda_{x1}\xi_1 + \delta_1$

x_2 =Wants = $\lambda_{x2}\xi_2 + \delta_2$

x_3 =Good features = $\lambda_{x3}\xi_3 + \delta_3$

x_4 =Realibility = $\lambda_{x4}\xi_4 + \delta_4$

x_5 =Durability = $\lambda_{x5}\xi_5 + \delta_5$

x_6 =Esthetics = $\lambda_{x6}\xi_6 + \delta_6$

x_7 =Environmentally friendly= $\lambda_{x7}\xi_7 + \delta_7$

x_8 =Price according to quality = $\lambda_{x8}\xi_8 + \delta_8$

x_9 =Price compatibility with benefits = $\lambda_{x9}\xi_9 + \delta_9$

x_{10} =Affordable price = $\lambda_{x10}\xi_{10} + \delta_{10}$

x_{11}=Competitive prices with products that are not pro-environmental = $\lambda_{x11}\xi_{11} + \delta_{11}$

x_{12}=Discount = $\lambda_{x12}\xi_{12} + \delta_{12}$

x_{13}=Attract interest = $\lambda_{x13}\xi_{13} + \delta_{13}$

x_{14}=Reminding consumers = $\lambda_{x14}\xi_{14} + \delta_{14}$

x_{15}=Frequent promotion = $\lambda_{x15}\xi_{15} + \delta_{15}$

x_{16}=Online promotion = $\lambda_{x16}\xi_{16} + \delta_{16}$

x_{17}=Highly detailed information = $\lambda_{x17}\xi_{17} + \delta_{17}$

x_{18}=Attracting website = $\lambda_{x18}\xi_{18} + \delta_{18}$

x_{19}=Good website layout = $\lambda_{x19}\xi_{19} + \delta_{19}$

x_{20}=Good information = $\lambda_{x20}\xi_{20} + \delta_{20}$

x_{21}=Attractive color scheme = $\lambda_{x21}\xi_{21} + \delta_{21}$

x_{22}=Convenient website display= $\lambda_{x22}\xi_{22} + \delta_{22}$

x_{23}=Availability of testimonials = $\lambda_{x23}\xi_{23} + \delta_{23}$

x_{24}=Connected to many social medias = $\lambda_{x24}\xi_{24} + \delta_{24}$

x_{25}=Reduce = $\lambda_{x25}\xi_{25} + \delta_{25}$

x_{26}=Reuse = $\lambda_{x26}\xi_{26} + \delta_{26}$

x_{27}=Recycle = $\lambda_{x27}\xi_{27} + \delta_{27}$

x_{28}=Refuse = $\lambda_{x28}\xi_{28} + \delta_{28}$

x_{29}=Recovery = $\lambda_{x29}\xi_{29} + \delta_{29}$

2. endogenous latent variable

y_1 = Determined on Pro-Enviroment products = $\lambda y_1\eta_1 + \varepsilon_1$

y_2 = Willing to recommend= $\lambda y_2\eta_2 + \varepsilon_2$

y_3 = Believe on Pro-Enviroment products= $\lambda y_3\eta_3 + \varepsilon_3$

y_4 = Willing to repurchase= $\lambda y_4\eta_4 + \varepsilon_4$

y_5 = Quick making purchase-decision= $\lambda y_5\eta_5 + \varepsilon_5$

y_6 = Not considering unpro-Enviroment products= $\lambda y_6\eta_6 + \varepsilon_6$
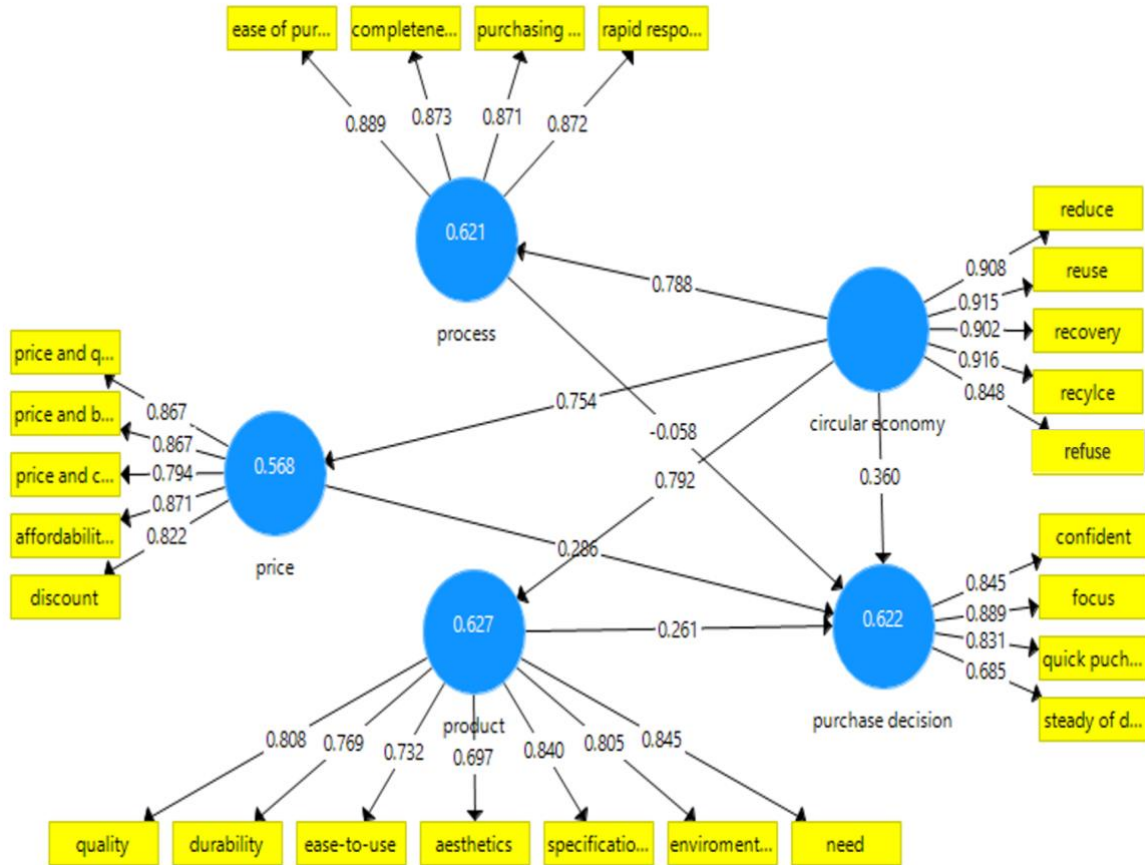
Figure 3: Proposed research model

The reflective measurement model associated with the results of item loadings, VIF, convergent validity (AVE), composite reliability (CR) and discriminant validity showed satisfactory results as shown in the table below:

Table 2: Construct validity (PLS-SEM assessment)

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Circular Economy	0.930	0.931	0.947	0.782
Place	0.931	0.932	0.943	0.674
Price	0.839	0.841	0.886	0.610
Product_	0.865	0.871	0.896	0.553
Promotion	0.827	0.840	0.885	0.658
Purchase Decision	0.887	0.892	0.914	0.639

Source: Primary data processed (2023)

The research model was declared feasible because the SRMR value was <0.8 and the NFI value was 0.788. These results indicate that the model is feasible to analyse. All latent

variables are also stated to be able to explain the model by 69.40 percent. Detailed data can be seen in the following table:

Table 3: The Model Fitness analysis

	Saturated Model	Estimated Model
SRMR	0.059	0.059
d_ULS	2.206	2.206
d_G	1.071	1.071
Chi-Square	1.494.312	1.494.312
NFI	0.788	0.788

Source: Primary data processed (2023)

3. Discussion

A circular economy is an economic system that focuses on minimising waste and maximising resource use. In this system, products are designed to be reused or recycled, thereby reducing the amount of waste generated. The concept also focuses on more efficient and sustainable use of resources. In the context of the 4P marketing mix, the circular economy can be applied to each element of the marketing mix. In the relationship between products and purchasing decisions, moderated by perceptions of the circular economy, products should be designed to be reusable or recyclable. This can be accomplished by using recyclable materials or by designing products that can be repaired or upgraded.

The relationship between price and purchasing decisions, moderated by the perception of the circular economy, is that the price of products produced should reflect the value of the resources used in production. This can be implemented by taking into account the environmental and social costs associated with the production of these products. In the context of the 4P marketing mix, companies can promote products that have a fair price and reflect the value of the resources used in their production. The relationship between place and purchasing decisions is moderated by the perception that, in a circular economy, the products produced must be distributed in an environmentally friendly way. Efforts are made by using environmentally friendly transport or by distributing these products locally.

The relationship between promotion and purchasing decisions is moderated by perceptions of the circular economy; the promotion of products produced must reflect the environmental and social values associated with the production of these products. The endeavour is to promote products that are environmentally friendly and designed to be reused or recycled. Circular economy can be applied to every element of the 4P marketing mix where companies demonstrate their commitment to environmental and social causes and fulfil the demands of consumers who are increasingly aware of the importance of the environment and sustainability.

The results showed that the marketing mix—place and promotion—significantly influenced consumer purchasing decisions. Meanwhile, product and price are not directly

significantly correlated with purchasing decisions. Detailed data can be seen in the following table:

Table 4: Path analysis result

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Decision
Circular Economy -> Purchase Decision	0.286	0.291	0.057	5.030	0.000	Significant[**]
Place -> Purchase Decision	0.342	0.343	0.086	3.964	0.000	Significant[**]
Price -> Purchase Decision	0.077	0.068	0.083	0.925	0.355	Insignificant
Product_ -> Purchase Decision	0.030	0.032	0.060	0.505	0.613	Insignificant
Promotion -> Purchase Decision	0.202	0.207	0.097	2.084	0.038	Significant[**]
[**] significant in α=0,05						

Source: Primary data processed (2023)

However, after being moderated by consumer perceptions of the circular economy, product, price, place, and promotion were significantly correlated to consumer purchasing decisions. The respondents of this study were young people aged between 17 and 26 years old who decided to buy products that had a vision to preserve the quality of the natural environment. Products are also known to be recyclable, organically produced, and rapidly biodegradable. Data analysis also indicated that there was a direct correlation between respondents' perceptions of the circular economy and purchasing decisions. Detailed data regarding specific indirect effects can be seen in the following table:

Table 5: Spesific Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Decision
Place -> Circular Economy -> Purchase Decision	0.064	0.064	0.029	2.167	0.031	Significant[**]
Price -> Circular Economy -> Purchase Decision	0.086	0.087	0.034	2.503	0.013	Significant[**]
Product_ -> Circular Economy -> Purchase Decision	0.051	0.052	0.027	1.869	0.062	Significant[*]
Promotion -> Circular Economy -> Purchase Decision	0.056	0.057	0.022	2.587	0.010	Significant[**]
[**] significant in α=0,05						
[*] significant in α=0,10						

Source: Primary data processed (2023)

Consumers who value environmental benefits in the current situation tend to think that the price factor is no longer a barrier to purchasing products. (Meet et al., 2024). Products that are recyclable or biodegradable, or products made from recycled or 'upcycled' materials, will be viewed by consumers as products with high product quality and durability, as they extend the use phase as long as possible (Gossen & Kropfeld, 2022). The existence of a physical store in an area that follows pro-environmental policies can create a good perception or impression for consumers, thus influencing their purchasing decisions (Rainatto et al., 2023). Meanwhile, promotion was found to be significant for rational consumer decisions in consuming circular products (Koide et al., 2023). And circular product promotion strategies geared more towards educated and high-income consumers will be more effective. This includes businesses promoting the circular economy through exhibitions and engaging key opinion leaders who can persuade other groups to consume circular products (Kutaula et al., 2022).

Environmentally friendly products, price compatibility with product benefits, promotions that attract Gen Z, and places that are connected to many social media are important factors related to the 4P marketing mix for environmentally friendly products. Regarding consumer perceptions of the circular economy, the important factors in order are recovery, reuse, recycling, reducing, and refusing. An important factor in consumer decision-making is the strong desire of consumers themselves to buy environmentally friendly products. The results of the important factor analysis of each research variable can be seen as a whole in the following table:

Table 6: The outer loading analysis

Code	Manifest	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
X17	Environmentally friendly <- Product_	0.792	0.792	0.033	24.022	0.000
X16	Esthetics <- Product_	0.792	0.791	0.039	20.501	0.000
X14	Realibility <- Product_	0.750	0.749	0.051	14.579	0.000
X15	Durability <- Product_	0.737	0.738	0.045	16.516	0.000
X13	Good features <- Product_	0.691	0.691	0.073	9.460	0.000
X11	Needs <- Product_	0.687	0.691	0.065	10.595	0.000
X12	Wants <- Product_	0.749	0.745	0.049	15.343	0.000
X22	Price compatibility with benefits <- Price	0.850	0.850	0.024	34.893	0.000
X23	Affordable price <- Price	0.825	0.825	0.032	26.172	0.000
X21	Price according to quality <- Price	0.783	0.786	0.037	21.256	0.000
X24	Competitive prices with products that are not pro-environmental <- Price	0.725	0.721	0.044	16.302	0.000
X25	Discount_ <- Price	0.713	0.713	0.039	18.331	0.000
X31	Attract interest <- Promotion	0.865	0.865	0.021	42.142	0.000

X32	Reminding consumers <- Promotion	0.844	0.845	0.021	39.466	0.000
X33	Frequent promotion <- Promotion	0.800	0.801	0.032	25.322	0.000
X34	Online Promotion <- Promotion	0.731	0.727	0.045	16.329	0.000
X48	Connected to many social medias <- Place	0.849	0.849	0.024	35.746	0.000
X43	Good website layout <- Place	0.841	0.840	0.027	31.122	0.000
X41	Highly detailed information <- Place	0.838	0.839	0.026	32.039	0.000
X45	Attractive color scheme <- Place	0.831	0.829	0.028	30.062	0.000
X47	Availability of testimonials <- Place	0.829	0.827	0.026	31.885	0.000
X46	Convenient website display <- Place	0.827	0.825	0.024	34.552	0.000
X42	Attracting website <- Place	0.800	0.800	0.031	25.915	0.000
X44	Good information <- Place	0.747	0.746	0.042	17.767	0.000
X54	Recovery <- Circular Economy	0.906	0.906	0.016	57.783	0.000
X52	Reuse <- Circular Economy	0.895	0.895	0.028	32.212	0.000
X53	Recylce <- Circular Economy	0.891	0.891	0.020	45.394	0.000
X51	Reduce <- Circular Economy	0.890	0.889	0.023	38.512	0.000
X55	Refuse <- Circular Economy	0.837	0.834	0.034	24.331	0.000
Y1	Determined on Pro-Enviroment products <- Purchase Decision	0.844	0.842	0.025	33.675	0.000
Y2	Willing to recommend <- Purchase Decision	0.820	0.817	0.031	26.080	0.000
Y3	Believe on Pro-Enviroment products <- Purchase Decision	0.815	0.816	0.027	30.554	0.000
Y4	Willing to repurchase <- Purchase Decision	0.789	0.788	0.030	26.322	0.000
Y5	Quick making purchase-decision <- Purchase Decision	0.780	0.778	0.037	21.121	0.000
Y6	Not considering unpro-Enviroment products <- Purchase Decision	0.744	0.743	0.038	19.743	0.000

Source: Primary data processed (2023)

In a circular economy, products are designed to be reused or recycled, thereby reducing the amount of waste produced. The concept also focuses on more efficient and sustainable use of resources.

Generation Z is a group of consumers born between 1997 and 2012. They are a generation that grew up in the digital age and have different characteristics from previous generations. Generation Z is known to be more environmentally conscious and more concerned about the social impact of their purchasing decisions. In the context of Gen Z consumers' purchasing decisions in Indonesia, the circular economy can be a factor that influences their purchasing decisions.

Gen Z consumers in Indonesia tend to favour environmentally friendly products. In a circular economy, products are designed to be reused or recycled, thereby reducing the amount of waste produced. Companies that produce environmentally friendly products can attract Gen Z consumers in Indonesia. Indonesian Gen Z consumers prefer products that are reasonably priced. In a circular economy, the price of the products produced reflects the value of the resources used in production.

Companies that produce products at fair prices can attract Gen Z consumers in Indonesia. Gen Z consumers in Indonesia tend to prefer products that are distributed in an environmentally friendly way. In a circular economy, products must be distributed using environmentally friendly methods and resources.

Companies that produce products and distribute them in an environmentally friendly way can attract Gen Z consumers in Indonesia. Gen Z consumers in Indonesia will tend to choose products that are promoted with positive environmental and social values. In a circular economy, the promotion of products reflects the environmental and social values associated with their production.

Companies that promote products that are environmentally friendly and reflect positive environmental and social values can attract Gen Z consumers in Indonesia. Therefore, businesses that apply circular economy concepts in the production and marketing of their products can attract Gen Z consumers in Indonesia who are more environmentally and socially conscious. Thus, companies can demonstrate their commitment to environmental and social responsibility and fulfil the needs of consumers, who are increasingly aware of the importance of the environment and sustainability.

4.   Conclusions

The conclusion of this research can be stated there is a significant direct correlation between the perception of the circular economy concept and purchasing decisions. There is a significant and positive relationship between green product factors moderated by the perception of circular economy concepts on purchasing decisions. There is a significant and positive relationship between the price factor of environmentally friendly products which is moderated by the perception of the circular economy concept on purchasing decisions. There is a significant and positive relationship between the factor of the place of sale of environmentally friendly products which is moderated by the perception of the concept of circular economy on purchasing decisions.

And also there is the significant relationship between the sales promotion factor of environmentally friendly products moderated by the perception of the circular economy concept on purchasing decisions.

Analysis of the discussion of the research results has implied that environmental sustainability, price compatibility with product benefits, promotions that attract Gen Z, and places that are connected to many social media are important factors related to the 4P marketing mix for environmentally friendly products.

Regarding consumer perceptions related to the circular economy, an important factor is recovery. An important factor in consumer decision-making is the strong intention of

consumers themselves to buy environmentally sustainable products. The limitation of the study was the respondents, who were voluntarily willing to be the source of the research. Future research is expected to be able to capture the instrumentation of the circular economy and a broader range of respondents.

Acknowledgment

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