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UNDERSTANDING CONSUMER BEHAVIOUR IN CHOOSING ROJOLELE SRINUK RICE: DEVELOPING THE THEORY OF PLANNED BEHAVIOUR

Purpose. *The objective of this study is to identify and assess the key factors affecting consumer behaviour in choosing Rojolele Srinuk rice based on the Theory of Planned Behaviour (TPB) approach, sustainability motive, health consciousness, and risk perception.*

Methodology / approach. *This study uses a quantitative approach with government employees' respondents in the case of Klaten Regency, Central Java, and consumers of Rojolele rice throughout Indonesia, who were selected by stratified random sampling with 525 respondents based on their age. Data was collected by questionnaire survey with analysis using Partial Least Square (PLS) – Structural Equation Modelling (SEM).*

Results. *The results of this study show that variables such as the sustainability motive, health consciousness, and subjective norm have a significant impact on such behaviour. Subjective norms, perceived behaviour control, and perceived risk influence consumer intention. Attitude can mediate the relationship between sustainability motive, consumer intention, and consumer behaviour. Attitude can also mediate subjective norms with consumer intention and behaviour. This shows that attitude strongly influences consumer habits when choosing Rojolele Srinuk rice. Consumer intention can mediate perceived behaviour control, perceived risk, and attitude towards consumer behaviour, which can significantly affect these relationship.*

Originality / scientific novelty. *This research is necessary because, despite the popularity of Rojolele Srinuk rice, very little is known about this variety and the reasons why consumers choose it. This study uses the TPB approach, commonly used to analyse consumer behaviour from various previous studies. However, in this study, the aspect of planned behaviour, in theory, becomes a mediation effect, namely attitude and intention. This study adds sustainability motives, health consciousness, and risk perception variables that can affect consumer behaviour. Risk perception is a new concept that, in this study, includes health, financial, social, functional, and safety risks, which did not exist in previous studies combining other variables.*

Practical value / implications. *The results of this study will be a recommendation for the Klaten Regency government regarding the development of Rojolele Srinuk rice cultivation in the future, because it is a local variety native from Klaten through farmer assistance, guaranteed selling prices, and product promotion. According to the study, Rojolele Srinuk rice is in high demand, and most buyers purchase it repeatedly, so the need to expand the area under cultivation will grow.*

Key words: *consumer behaviour, health consciousness, risk perception, SEM PLS, sustainability motive, sustainable consumption.*

1. INTRODUCTION

World rice consumption continues to increase, as shown by data for 2022/2023, when approximately 520.4 million metric tons were consumed, which is 437.18 million metric tons more than in 2008/2009 (Shahbandeh, 2024). Indonesia is an agricultural

country where most of the population works in the farm sector. The agricultural sector in Indonesia has a strategic role, namely as the largest consumer of labour, reaching 26.54 % of the total 135.3 million workers in Indonesia. Population growth increases the world's food needs and demands for water and land use in the agricultural sector (Dutt Tripathi & Agarwal, 2023). The most dominant agricultural industry in Indonesia is the cultivation of food crops, especially rice. The regions in Indonesia that produce the highest rice crops (2021–2022) are West Java, Central Java, and East Java, with an average rice production of 9 million tons annually. In the province of Central Java, one of the regions known as rice producers is Klaten Regency. Rice productivity in Klaten Regency in 2023 is 5.4 tons/hectare (BPS Kabupaten Klaten, 2024).

The rice cultivation pattern in Klaten Regency is unique. Namely, the existence of local rice varieties Rojolele. Rojolele is rice planted by farmers in Delanggu District, Klaten Regency for several decades. The character of the rice is fragrant, fluffy, and long-lived for up to six months, so many farmers are reluctant to plant again for economic reasons and rice productivity. Seeing these conditions, the Klaten Regency Government collaborated with the National Nuclear Technology Agency (BATAN) from 2013 to 2019 to develop short-lived Rojolele rice for four months in the Rojolele Srinuk and Srinar varieties (Rizal et al., 2022). The characteristics of the rice of the Rojolele Srinuk rice variety are more similar to the long-lived Rojolele, so consumers prefer it to Rojolele Srinar. For this reason, as part of a campaign to promote Rojolele Srinuk rice among the general public, Regent Decree No. 1 of 2021 was issued, according to which 150,000 rupees will be deducted from the salaries of Klaten civil servants each month to purchase 10 kg of Rojolele Srinuk rice from farmers.

The campaign to promote Rojolele Srinuk rice proved effective, resulting in new off-takers at the end of 2021, namely Sanggar Rojolele, and in 2022, Agro Rice. (Luviansyah & Permatasari, 2023). From the two off-takers, this local variety market distribution is increasingly massive throughout Indonesia. This is starting to become known because the public is learning more and more about it. On the other hand, rice mills are local government partners that also have their target market. Observing the spread of this variety, which is becoming increasingly widespread, raises interest in research. The high number of consumers of this rice must be directly proportional to the availability of stock at the local level.

However, the government is not paying sufficient attention to this issue. This is evident from the large number of farmers who have switched to other crops over the past four years (2021–2024) due to the lack of support and the takeover of market prices, which are higher than for other rice varieties. Identifying intentions and habits of consumers is essential when choosing Rojolele Srinuk rice because we will know their motive. This is crucial because in the market, consumers can buy rice with the Rojolele brand, but not the original Rojolele variety. Consumers who only buy rice will find it difficult to distinguish real Rojolele Srinuk rice from counterfeit products because there is no government policy to standardise and certify Rojolele rice sold in the market. This research will be a recommendation for the government and related stakeholders to provide special policies for Rojolele Srinuk rice to ensure its

authenticity and easy recognition by consumers.

Consumer habits in choosing rice are driven by intention (Giacomuzzo et al., 2024). Behaviour is also influenced by attitudes, subjective norms, and perceived behavioural control (Liang et al., 2024). Attitude has significant role in attracting a person's intention to choose something (Habib et al., 2023). Attitudes will be formed when a person has evaluated an item so that if it results in a positive evaluation, it will encourage the intention to become a habit or routine (Islam & Bowling, 2022). Subjective norms are believed to motivate people to take certain actions (Ogiemwonyi et al., 2023). Everyone wants to gain recognition from other parties, so subjective norms play an essential role for consumers in choosing rice. Perceived behavioural control plays a central role in selecting rice to be consumed (Antriandarti et al., 2023). This is due to internal factors, which suggest that the quality of rice can be determined based on what the consumer sees and feels, as well as external factors, which also play an important role in person's behaviour.

However, a person's habit of choosing rice is influenced not only by attitudes, subjective norms and behavioural controls. The trend of healthy living since COVID-19 has played an essential role in a person's decision to select the food ingredients they consume (Ghufran et al., 2022). This health consciousness is influenced by the origin of food commodities that are labelled healthy or organic, for this reason, the labelling of organic rice significantly affects consumers' rice consumption habits (Boccia & Tohidi, 2024). By the recommendations of the Klaten Regency Agriculture Office, the cultivation of Rojolele Srinuk rice must prioritise the sustainability aspect of farming with balanced fertilisation so that the rice produced becomes a healthy type of rice. Thus, it will increase consumer attention to choose local Rojolele Srinuk rice cultivated healthily by local farmers. This sustainability motive is crucial in supporting consumers in selecting the Rojolele Srinuk rice (Okpiaifo et al., 2020). The sustainability motive include environmental impact, packaging, certification, and local community support. Sustainable rice cultivation practices not only affect the output of healthy rice for consumers, but will also improve the rice cultivation environment in the future and result in a continuous increase in production (Mahmood & Gheewala, 2023).

On the other hand, consumers who consume rice also consider the risks that will be faced. Consumers are very particular about their choice of rice and pay attention to how it is grown, stored, and even transported (Begho & Zhu, 2023). Food ingredients have a relatively high level of risk if they are not treated according to applicable standards (Aminizadeh et al., 2024). Based on an analysis of existing studies, the present study supplements consumer behaviour research by integrating elements of the Theory of Planned Behaviour, sustainability motives, health consciousness and perceived risk, which play a significant role in the choice of Rojolele Srinuk rice, thanks to which a wide audience continues to consume it. Furthermore, the aim of this study is to identify and assess the key factors affecting consumer habits in choosing Rojolele Srinuk rice based on the Theory of Planned Behaviour (TPB) approach, sustainability motive, health consciousness, and perceived risk. In the future, this research can be used as a reference for local governments and managers of Rojolele

Srinuk rice to maintain quality and quantity in order to meet consumer needs.

2. LITERATURE REVIEW

Measurement of consumer preferences is based on certain indicators that have been developed (Khai & Yabe, 2015). Consumer preferences are also greatly influenced by a product's components of raw materials (Kim et al., 2023). Food quality and safety for consumers are essential and are greatly influenced by various factors, and added value for consumers is significant (Kabir et al., 2023). Consumer preferences evolve from factors such as the environment and habits when choosing food products (Antúnez et al., 2019). Agricultural investments and interventions could be impacted by consumer preferences (McCullough et al., 2022). Consumers also desire to buy if there is added value to a product, so various factors influence consumer preferences (Resconi et al., 2016).

The decision-making process is influenced by a person's behaviour (Firoozzare, 2024; Ghufra, 2022). According to TPB, attitude, subjective norm, perceived behaviour control influence consumer intention, that shaped consumer behaviour in the future (Wu et al., 2024). The TPB approach is an essential point in preference research (Mottaleb & Mishra, 2016). For this reason, the TPB approach is ideal for assessing a consumer's preference for a product, especially food, in this study. The selection of TPB is the main theoretical basis in this study, namely the existence of intention variables that predict behaviour (Paul et al., 2016). In addition, there are variables of attitude, subjective norms, and perceived behavioural control that are relevant to research on consumer behaviour towards organic products or healthy food (Tarkiainen & Sundqvist, 2005). Compared to alternative models such as the Consumer Decision-Making Model or Innovation Adoption Theory, TPB offers a more focused and empirically supported framework for explaining the cognitive and normative factors influencing purchase intention, especially when the product is already introduced to the market (Yadav & Pathak, 2016). The SDGs approach will be the primary reference in determining the main preferences. The perception of aspects of TPB, subjective norms, attitudes, and behavioural controls will affect consumer intention (Bednarikova et al., 2020). The SDGs approach is not only closely related to consumption behaviour but also close to green behaviour and the traceability system (Ding et al., 2022).

Current trends show that eco-friendly product are in greater demand among consumers (Kyoi et al., 2022). Attitude is generally evaluated as the disposition of an individual or entity toward a specific direction. Attitudes to consumer preferences have a decisive role. In the case of consumer habits research, attitudes can be a crucial factor (Ding et al., 2022). Consumers will certainly be selective when choosing rice and will have various attitudes of consideration. Mainly, related to the sustainability motive of rice cultivation is an important point here. Currently, consumers are starting to be selective when choosing rice products. Healthy living and the green economy affect consumers' consumption of rice. For this reason, here the hypothesis of this research:

H1: Sustainability motive (SM) positively affects consumer attitude (AT) on choosing Rojolele Srinuk rice.

In addition, the healthy living factor also plays an essential role for rice consumers. In consuming food, a consumer must consider health reasons; consumer attitudes and health consciousness affect each other. Health consciousness refers to an individual's level of concern for his or her health condition so as to choose a lifestyle that supports health (Teng & Lu, 2016). In the TPB framework, health consciousness will develop a person's positive attitude so that they choose certain products. On the other hand, health consciousness will indirectly influence the intention to purchase the product through strengthening the positive attitude that has been formed (Michaelidou & Hassan, 2008). Health consciousness encourages consumers to choose an item. Attitudes influence the choice of healthy products. Health reasons affect consumers' desire to make a purchase decision (Yang et al., 2021). For this reason, consumer attitudes are also influenced by health reasons.

H2: Health consciousness (HC) positively affects attitude (AT) on choosing Rojolele Srinuk rice.

In the following context, attitudes are not much influenced by subjective norms. Subjective norms are often understood as affecting a person before doing something specific (Wu et al., 2024). Furthermore, subjective norms must be involved in decision-making to support consumers' attitudes towards rice (Aprilia et al., 2024). Several previous studies have also stated that subjective norms in rice consumer decisions have a positive effect. Subjective norms also have a role in managing consumer intentions in deciding which goods to be consumed (Mathew & Tholath, 2024).

H3: Subjective norm (SN) positively affects attitude (AT) towards choosing Rojolele Srinuk rice.

The intention to choose rice in some studies shows dependence on subjective norms. Theory of planned behaviour describe that consumer intentions are influenced by subjective norms. The quality of rice affects consumers' intention choices (Mottaleb & Mishra, 2016). Subjective norms influence quality, affecting consumer intentions when choosing rice. Meanwhile, the variable used in this study is related to the control of behaviour felt by consumers, which affects consumer intentions. Previous research on planned behaviour theory provides an overview of how consumer intentions are influenced by behavioural control. Besides that, consumers, when choosing rice, must consider various things. Perceived behaviour control is a critical factor in this study. Another study also suggests that consumer intentions are influenced by risk perception. Consumer desires including health risks, financial risks, social risks, functional risks, quality risks, and safety risks (Aminizadeh et al., 2024). In the aspect of interaction with TPB, perceived risk can influence attitudes. This can happen because the perception of negative risk in choosing a product can strengthen a positive attitude to choose a safer alternative product (Basha & Lal, 2019; Chen, 2007). In addition, consumer intent includes trust, value, satisfaction, and passion for recommendations. If consumers have developed such preferences, it means that subjective norms and perceived behavioural control factors have had a profound influence on consumers. For this reason, the hypothesis of the subsequent research is as follows:

H4: Subjective norm (SN) positively affects consumer intention (CI) on choosing

Rojolele Srinuk rice.

H5: Perceived behaviour control (PB) positively affects consumer intention (CI) on choosing Rojolele Srinuk rice

H6: Perceived risk (PR) has a negative effect on Consumer Intention (CI) on choosing Rojolele Srinuk rice.

Attitude is also a mediator and a place for a consumer's decision-making process. The mediation effect of attitude is enough to help other factors to support consumer habits. Consumer habits are influenced by several things, such as purchase frequency, daily consumption, attention to quality, storage habits, and where to buy (Ding et al., 2022; Zhang et al., 2022). For this reason, many factors that shape habits need help to correlate positively with other factors. Consumer habits can be formed from sustainability motives, health awareness, subjective norms, and consumer intentions. However, there still needs to be a mediating factor for this to be meaningful (Testa et al., 2020) in this study, and the hypothesis of the mediating factor can be formulated as follows:

H7: Attitude (AT) mediates sustainability motive (SM) with consumer intention (CI) and consumer behaviour (CB) on choosing Rojolele Srinuk rice.

H8: Attitude (AT) mediates health consciousness (HC) with consumer intention (CI) and consumer behaviour (CB) on choosing Rojolele Srinuk rice.

H9: Attitude (AT) mediates subjective norm (SN) with consumer intention (CI) and consumer behaviour (CB) on choosing Rojolele Srinuk rice.

Consumer intentions can also shape consumer habits in choosing rice. However, intentions are also influenced by perceived behavioural control, perceived risk, and attitude (Sumarwan et al., 2013; Yanakittkul & Aungvaravong, 2020). For this reason, consumer intention actually acts as a mediator of other factors with consumer behaviour. To support consumer habits, we must look at different aspects so that it will become an implementable habit. In rice selection, consumption habits will be influenced by various supporting factors, so the decision to adopt habits becomes complex and cannot be decided by direct effects (Aznan et al., 2023; Calingacion et al., 2014; Okpiaifo et al., 2020). Based on some previous studies, the next hypothesis is as follows:

H10: Consumer intention (CI) mediates perceived behaviour control (PBC) with consumer behaviour (CB) on choosing Rojolele Srinuk rice.

H11: Consumer intention (CI) mediates perceived risk (PR) with consumer behaviour (CB) on choosing Rojolele Srinuk rice.

H12: Consumer intention (CI) mediates attitude (AT) with consumer behaviour (CB) on choosing Rojolele Srinuk rice.

This study is the first to analyse consumer behaviour towards Srinuk Rojolele rice. Several previous studies related to Rojolele Srinuk rice have focused on farmer motivation, the role of farmer groups, the role of agricultural extension workers, the interest of the younger generation, and the adoption of innovations to Rojolele Srinuk rice. This research demonstrates the novelty associated with consumer behaviour regarding Rojolele Srinuk rice. There have been many studies related to consumer

behaviour towards rice purchasing decisions. However, what makes this study unique is that it shows consumer behaviour specifically in relation to Rojolele Srinuk rice in Indonesia. The differences between this study and several previous studies are shown in Table 1.

Table 1

Findings of previous research and the contribution of this research

Authors & year	Focus area	Key findings	The contribution of this research
1	2	3	4
Michaelidou & Hassan (2008)	Organic food, health, ethics	Health consciousness and food safety concerns positively influence attitudes and intentions	The current study integrates health consciousness into the TPB model and confirms its positive effect not only on attitudes but also on behavioural intention in the context of local rice, strengthening the empirical linkage between health awareness and food choices
Khai & Yabe (2015)	Biodiversity & consumer preference in agriculture	Biodiversity conservation values significantly influence consumer preferences in the Mekong	This research confirms that the sustainability motive can influence consumer attitudes and intentions, expanding the motivational dimension in consumer behaviour studies
Mottaleb & Mishra (2016)	Rice preferences in Bangladesh	Preferences shaped by price, cultural norms, and sensory traits like aroma and taste	Filling the gap in the study of consumer behaviour towards Indonesian local food products, namely Rojolele Srinuk rice, which has not been widely discussed in international studies
Paul et al. (2016)	Green products & TPB	Attitude and perceived behavioural control strongly predict consumption intention	This study extends their work by contextualising TPB within a specific traditional food product, enhancing the model with sustainability and risk considerations to increase its explanatory power in niche markets
Basha & Lal (2019)	Organic food in India	Positive attitudes and health awareness enhance intentions; price remains a key barrier	The present study builds upon their findings by including perceived risk
Rizal et al. (2022)	Motivation of farmers (Rojolele Srinuk)	Cultivation driven by cultural value, unique quality, and market opportunity	The present study complements this by analysing the demand side, particularly consumer motivations and perceptions, thus bridging the producer–consumer gap in sustainable rice adoption

Continuation of Table 1

1	2	3	4
Ding et al. (2022)	Traceable seafood & extended TPB	Perceived risk negatively affects intention; trust enhances intention	By incorporating perceived risk into the TPB model, this research provides a new understanding of how consumers respond to risks (e.g. high price, accessibility, or inconsistent quality) of local products
Hapsari et al. (2022)	Rojolele Srinuk seed adoption	Adoption influenced by access to information and perceived economic gain	This research contributes methodologically with a quantitative approach to SEM-PLS analysis compared to previous studies that tend to analyse qualitatively
Rezaui et al. (2023)	Youth interest in rice farming	Low interest due to limited awareness and perception of farming as unprofitable	Exploring consumer-side acceptance, thus contributing to a holistic understanding of the value chain of Rojolele Srinuk rice
Prestiana et al. (2023)	Role of extension agents	Extension officers act as change agents supporting knowledge and innovation adoption	This research provides another perspective on what influences consumer decisions that refines the previous research process that focuses on cultivation
Luviansyah & Permatasari (2023)	Farmer decision-making (Rojolele Srinuk)	Farmers evaluate risks, benefits, and social support in adopting innovations	This research contributes to providing a view from the consumer side in the decision to choose the rice consumed
Kabir et al. (2023)	Vegetable purchasing in Bangladesh	Freshness, price, and food safety are dominant factors in consumer decisions	The current study adds value by linking quality perception (risk) with behavioural intention
Aznan et al. (2023)	Rice quality and consumer perception	Advances in technology improve matching between rice attributes and consumer preferences	This research focuses on factors that influence consumer behaviour directly, not technology
Zhu et al. (2024)	Game meat consumption & perceived risk	Perceived risk reduces consumption intention; social norms influence intention	Maintaining the core TPB structure while incorporating contextual and culturally relevant constructs, such as sustainability motives and perceived risk, to better reflect consumer dynamics in traditional agricultural products
Aprilia et al. (2024)	Organic vegetables & TPB	Attitude, subjective norms, and PBC predict intention, enhanced by health consciousness	This research provides another point of view of the object under study, namely consumers of local Rojolele Srinuk rice

Source: authors' analysis.

From a policy perspective, this study will provide strategic implications to support sustainable cultivation and commercialisation of Rojolele Srinuk rice. First, this study will provide policy guidance to highlight the health and environmental benefits of cultivated products. Second, managing perceived risks through certification, quality assurance, and consistent branding is essential to build trust and increase market acceptance. Finally, aligning consumer preferences with production incentives can support integrated rural development policies and strengthen the long-term sustainability of local rice varieties.

3. METHODOLOGY

3.1. Basic research approach. The conceptual framework of this study is based on the results of the literature review and the formulated hypotheses (Figure 1).

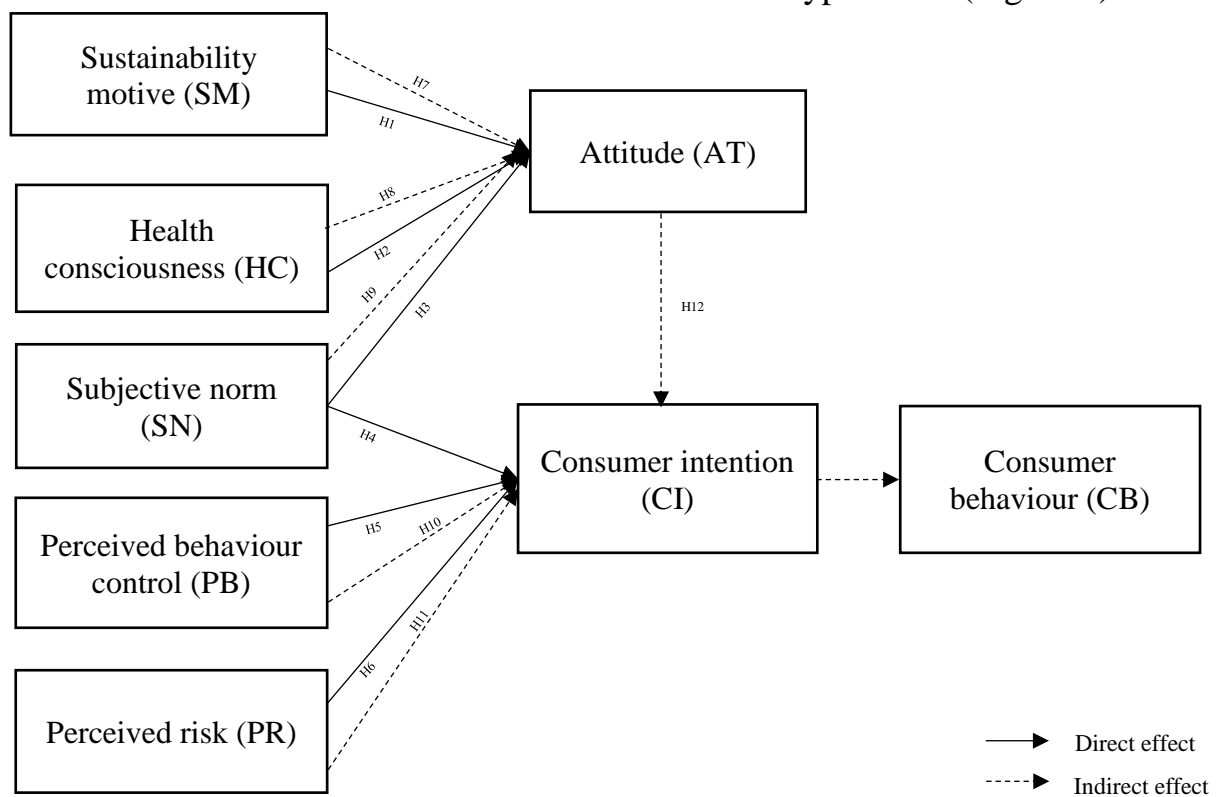


Figure 1. Research framework

Source: the authors' development.

This study uses a quantitative approach with a survey using a questionnaire tool for data collection. The use of quantitative method aims to objectively and systematically investigate the causal relationships among variables based on the extended Theory of Planned Behaviour. A quantitative approach is appropriate for collecting large-scale data, allowing generalisation of findings and validation of theoretical models through statistical testing (Mohammad-Zyoud et al., 2024).

The respondents selected for this study were representatives of the government employees of Klaten Central Java Regency, numbering nearly 10,000 people, as well as consumers of Sanggar Rojolele and Agro Rice as off-takers of Rojolele Srinuk rice, which is widely available throughout Indonesia. Government employees are typically

characterised by higher levels of education, stable income, and greater access to information related to public health, food safety, and environmental issues. These characteristics align well with constructs in this study such as health consciousness, sustainability motives, and perceived behavioural control. The inclusion of health conscious individuals, environmentally aware consumers, and urban middleclass buyers ensures that the sample reflects segments of the population more likely to be aware of or interested in organic and premium rice varieties. These groups exhibit diverse attitudes, social norms, and behavioural intentions, which enrich the variability needed for robust SEM-PLS analysis. By targeting these respondents, the study enhances the external validity of its findings while ensuring the sample is contextually relevant (Basha & Lal, 2019; Hair et al., 2022).

Table 2

Respondents' stratification

Age, years old	Selected respondents, persons	Percentage	Stratification description
21–30	60	11.4	Young consumers, potential as early adopters
31–40	110	21.0	Early adult consumers, becoming economically stable
41–50	190	36.2	Established adult consumers, dominant in households
Above 50	165	31.4	Senior consumers, more health conscious & traditional

Source: developed by the authors.

Based on the respondent population around 10,000 people 525 people were selected by stratified random sampling based on the age of consumers from Rojolele Srinuk rice suppliers who had consumed Rojolele Srinuk rice more than twice. The selection of respondents was based on a 95 % confidence level, whereby if the population of respondents was 10,000, the minimum number of respondents selected would be 370 people (Gili et al., 2010). Therefore, this study met the criteria. This criterion was chosen to see the factors that cause consistency in consuming Rojolele Srinuk rice. Age stratification is crucial in consumer behaviour research, especially when analysing food choice preferences such as organic rice selection, because perceptions of health, sustainability, and risk vary across age groups. For instance, older consumers may value health benefits more, while younger consumers may be influenced by social norms or environmental consciousness. Using stratified sampling increases the precision and representativeness of the findings, reduces sampling bias, and allows for subgroup comparisons which are particularly useful in studies (Etikan, 2017; Taherdoost, 2016).

3.2. Data analysis methods. The data analysis method was carried out by partial least squares – structural equation modelling (PLS-SEM). The PLS-SEM method was selected due to its suitability for exploratory studies that integrate new constructs and examine both direct and indirect effects within a conceptual model (Hair et al., 2022). PLS-SEM is particularly advantageous when dealing with models that have multiple constructs and indicators, and when the sample size is relatively small to moderate

(Sarstedt et al., 2022). Additionally, PLS-SEM does not assume normal data distribution, making it highly flexible for social science research contexts such as consumer behaviour studies (Sultan et al., 2020). Furthermore, this method promotes a comprehensive understanding of the key factors influencing consumer behaviour in choosing Rojolele Srinuk rice. Primary data from the questionnaire survey used a Likert scale of 1–5, 1: strongly disagree, 2: disagree, 3: average, 4: agree, and 5: strongly agree. PLS-SEM analysis using Smart PLS 4.0 software. Three measurement models use partial least square (PLS), including 1) measurement of the validity and reliability of the construct/indicator model against latent variables with the outer model; 2) measurement of the structural model to estimate the value of the coefficient of determination (R Square) and predictive relevance (Q Square) with the inner model; 3) using bootstrapping to test hypotheses and estimate the relationship between dependent latent variables and independent latent variables (Kusnandar et al., 2023). In addition, in PLS-SEM, we rely more on bootstrapping techniques to correct data abnormalities (Hair & Alamer, 2022).

The criteria for the outer model are measured by convergent validity, validity discrimination, and reliability. The data is valid if the loading factor value is >0.60 and the average variance factor (AVE) value is >0.50 (Hair et al., 2022). The cross-loading factor value is declared valid if the parent construct is higher than the cross-loading of other constructs. Reliability can be determined using the composite reliability value of >0.60 and Cronbach Alpha >0.70 , and if it meets these criteria, then the data used will be considered reliable. The measurement of the inner model (structural model) was carried out by looking at the R square with the criteria of values of >0.67 (good model), >0.33 (moderate), and >0.19 (weak model) (Tang et al., 2023). The higher R^2 values indicate a better model for predicting dependent variables. Furthermore, the structural test, Q^2 parameters, were advanced with criteria >0.00 . A Q^2 value of >0.00 means the model has relevant predictive capabilities. The higher the Q^2 value, the more predictive power of the model (Li et al., 2022). The next step in the partial least square analysis is to test the hypothesis with bootstrapping. In this study, bootstrapping was applied to test the significance of both direct and indirect effects, particularly the mediating roles of attitude and intention in consumer decision-making regarding Rojolele Srinuk rice. This enhances the accuracy, validity, and generalisability of the findings, particularly when evaluating mediation and moderation effects in complex consumer decision models (Guenther et al., 2023). In this study, a significance level of 5 % is used so that if the p-value ≤ 0.05 , then the hypothesis (H_0) is accepted, but if the p-value ≥ 0.05 , then the hypothesis (H_0) is rejected (Akhtar et al., 2021).

4. RESULTS

4.1. Respondents' characteristic. The characteristics of respondents in this study showed that there were more men than women (Table 3). In terms of age, most respondents are over 40 years old. These respondents are based on the majority of respondents who work as government employees and farmers in this range. Meanwhile, the dominance of respondents in the Central Java region is quite large. This is based on the convenience of consumers, who are respondents, to quickly and

easily buy Rojolele Srinuk rice. Some respondents also came from outside the island of Java due to the effect of subjective norms in the area of friends and colleagues that encouraged people to buy Rojolele Srinuk rice. This condition shows that Rojolele Srinuk rice has opportunities to be developed in the future with a considerable market.

Table 3

Respondents' characteristics in this research

Category	Description	Number of respondents	Percentage
Gender	Male	269	51.2
	Female	256	48.8
Age, years old	21–30	60	11.4
	31–40	110	21.0
	41–50	190	36.2
	Above 50	165	31.4
Region of origin	Central Java	205	39.0
	East Java	40	7.6
	Yogyakarta	115	21.9
	West Java	155	29.5
	Outside Java	10	1.9
Occupation	Entrepreneur	78	14.9
	Student	10	1.9
	Lecturer	64	12.2
	Government employees	245	46.7
	Farmer	95	18.1
	Freelancer	33	6.3

Source: developed by the authors.

4.2. Outer model evaluation. The outer model evaluation was carried out by a reliability test through composite reliability and Cronbach's alpha values. The latent variable was declared reliable when the composite reliability value was >0.60 and Cronbach alpha >0.70 (Marín-Díaz et al., 2024). The composite reliability and Cronbach alpha values in this research are as follows. Table 4 shows that each variable shows consistency in its measurements with Cronbach's alpha value of more than 0.70. This value indicates that the variable has internal consistency and is relevant for the subsequent measurement. The composite reliability value is more than 0.60, showing that the latent variable is acceptable or reliable for this study.

Table 4

PLS reliability test results

Variable	Cronbach's alpha	Composite reliability	Explanation
Sustainability motive (SM)	0.848	0.865	Reliable
Health consciousness (HC)	0.908	0.924	Reliable
Subjective norm (SN)	0.907	0.911	Reliable
Perceived behaviour control (PB)	0.875	0.881	Reliable
Perceived risk (PR)	0.953	0.955	Reliable
Attitude (AT)	0.916	0.919	Reliable
Consumer intention (CI)	0.875	0.878	Reliable
Consumer behaviour (CB)	0.881	0.884	Reliable

Source: developed by the authors via Smart PLS 4.0.

The next step is to test the validity by looking at the discriminant validity value. Discriminate validity aims to measure whether the constructs in the model are entirely different. Discriminant validity is measured using Average Variance Extracted (AVE) value of each construct. The method used to verify the validity of discrimination is the Fornell-Larcker Method. The Fornell-Larcker method assumes that the AVE value of each construct/variable must be greater than the square of the ratio of the construct to other constructs in order to be valid, as shown in Table 5. Each construct has a higher AVE value compared to the square of the relationship between constructs, so all constructs are valid.

Table 5

Fornell-Larcker criterion test

Variables	CB	HC	PB	SM	CI	SN	PR	AT
CB	0.823	-	-	-	-	-	-	-
HC	0.376	0.885	-	-	-	-	-	-
PB	0.608	0.397	0.784	-	-	-	-	-
SM	0.495	0.477	0.482	0.828	-	-	-	-
CI	0.659	0.397	0.681	0.656	0.853	-	-	-
SN	0.522	0.394	0.523	0.419	0.629	0.827	-	-
PR	-0.288	-0.297	-0.223	-0.455	-0.371	-0.203	0.899	-
AT	0.554	0.454	0.661	0.554	0.673	0.503	-0.309	0.794

Source: developed by the authors via Smart PLS 4.0.

The R^2 value shows the extent to which the model predicts dependent variables (Table 6). The higher the R^2 value, the better the model's ability to predict dependent variables with the following criteria: scores >0.67 (good model), >0.33 (moderate), and >0.19 (weak model). On the other hand, Q^2 value demonstrates the predictive model's ability to predict dependent variables. The higher the Q^2 value, the better the predictive ability. The calculation of Q^2 was carried out using the following formula (Harisudin et al., 2023): $Q^2 = 1 - [1 - (R^2 \text{ adjusted})]^2$.

Table 6

R^2 and Q^2 value

Variable	R^2	Q^2	Information
Consumer behaviour (CB)	0.434	0.680	Moderate; has predictive relevance
Consumer intention (CI)	0.640	0.871	Moderate; has predictive relevance
Attitude (AT)	0.417	0.660	Moderate; has predictive relevance

Source: developed by the authors.

The partial least square (PLS) model testing analysis can be seen from the Standardised Root Mean Square Residual (SRMR) value. SRMR is a measure that shows the difference between the observed correlation matrix and the correlation matrix predicted by the model. The SRMR value criterion for a model is considered appropriate, namely if the value is < 0.08 (Sharma et al., 2024). This study shows that the SRMR value is 0.068, meaning the model is still a good fit (Table 7).

The fit model is evident from the analysis output results in the Figure 2. This shows that the hypothesis and relationship models that have been built in this study can present data accurately.

Table 7

Fit model result

Description	Saturated model	Estimated model
SRMR	0.068	0.091
d_ULS	4.335	7.767
d_G	1.861	2.061
Chi-square	5068.982	5283.337
NFI	0.744	0.733

Source: developed by the authors via Smart PLS 4.0.

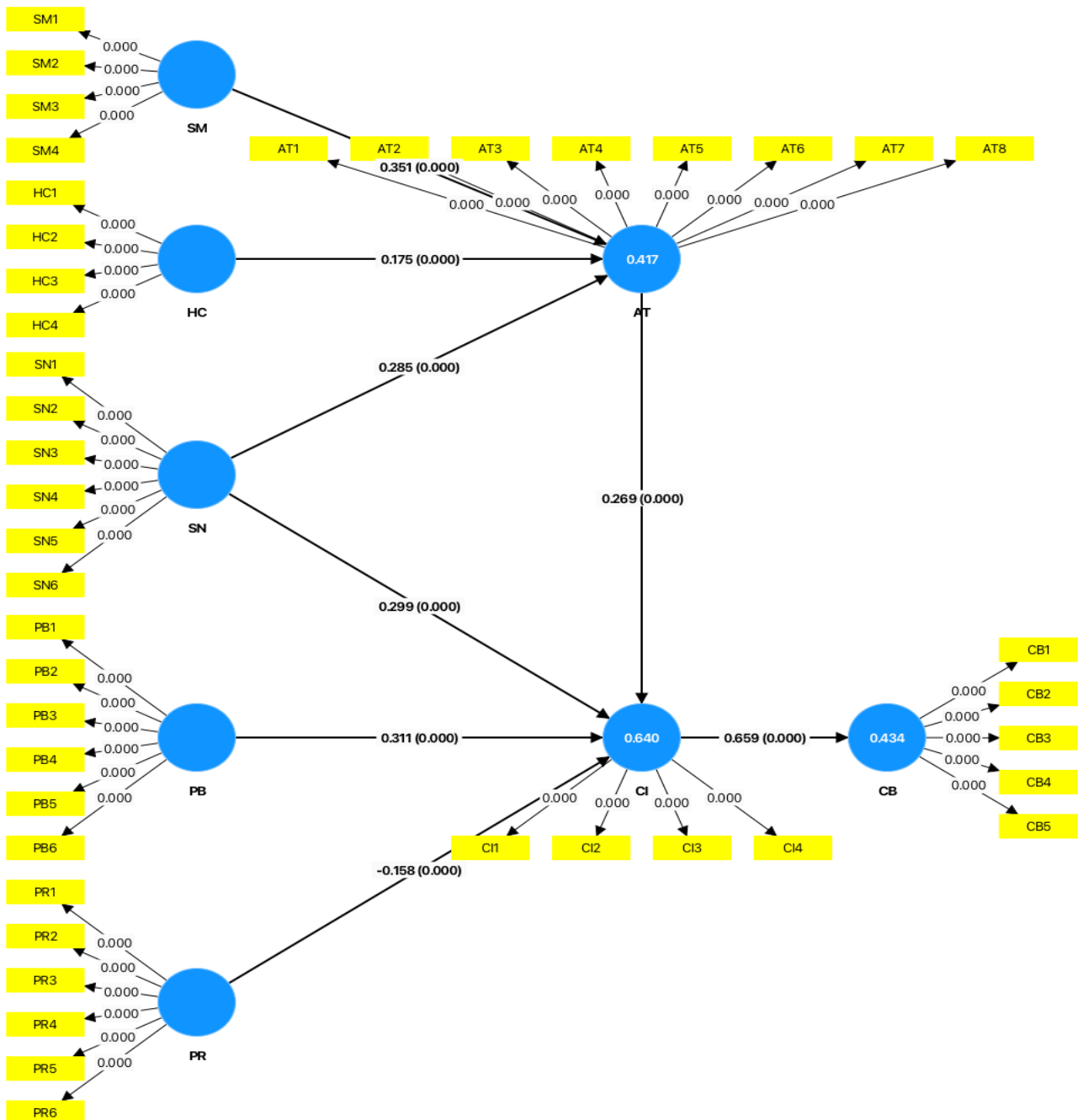


Figure 2. Measurement model evaluation results

Source: developed by the authors via Smart PLS 4.0.

In addition, the fit model in this study allows for the creation of a comprehensive

model of the research hypothesis (Petcharat et al., 2023). This encourages the authors not to make more modifications to the model because it is appropriate. The fit model of this SEM analysis is supported by valid input data, which is greatly influenced by the validity and reliability tests at the beginning of the study.

4.3. Hypothesis testing. T-statistics in this study is used to test the proposed hypothesis. The criteria will be accepted if it has a value greater than ± 1.98 , either on the right side or submit (Sutrisno et al., 2024). This means that if the T-statistic value is less than 1.98 then the proposed hypothesis is rejected and H_0 is accepted. Based on Table 8, it shows the direct effect of each variable in this study. Hypothesis 1 (H1), the original sample value of 0.351, which shows a positive direction and shows a p value of $0.000 < 0.050$ and t-statistics 6.926 (outside 1.98), means that the sustainability motive has a significant relationship with attitude so that H1 is accepted. The relationship between health consciousness and attitude (H2) showed a significant relationship shown by a p-value of $0.000 < 0.050$ with t-statistics of 4.101 and an original sample value of 0.175, which showed a positive direction so that H2 was accepted. In addition, the original sample value of 0.288 showed a positive direction in the relationship between subjective norm and attitude (H3) and p value $0.000 < 0.050$, t-statistics 6.558. This means that H3 is accepted because the variables have a significant relationship.

Table 8

Direct effect significance test result

Hypothesis	Direct effects	Original sample	Sample mean	Standard deviation	T-statistics	P-values	Decision
H1	Sustainability motive (SM) \rightarrow Attitude (AT)	0.351	0.352	0.051	6.926	0.000*	Supported
H2	Health consciousness (HC) \rightarrow Attitude (AT)	0.175	0.176	0.043	4.101	0.000*	Supported
H3	Subjective norm (SN) \rightarrow Attitude (AT)	0.285	0.285	0.044	6.558	0.000*	Supported
H4	Subjective norm (SN) \rightarrow Consumer intention (CI)	0.299	0.299	0.042	7.184	0.000*	Supported
H5	Perceived behaviour control (PB) \rightarrow Consumer intention (CI)	0.311	0.310	0.037	8.393	0.000*	Supported
H6	Perceived risk (PR) \rightarrow Consumer intention (CI)	-0.158	-0.156	0.031	5.187	0.000*	Supported

Note. *Significant at 1 % level.

Source: analysis result from Smart PLS 4.0.

The relationship shows a significant value because the p value of $0.000 < 0.050$ and t-statistics is 7.184 so that H4 is accepted. Perceived behaviour control shows significant relationship with consumer intention (H5), with an original sample value of 0.311, which had a positive direction, with a p value of $0.000 < 0.050$ and t-statistics

of 8.393, therefore H5 was acceptable. In addition, there is also a relationship between perceived risk and consumer intention (H6). The relationship has an original sample value of -0.158, which means it has a negative direction. Based on this relationship, it was found that p values of $0.000 < 0.050$ and t-statistics 5.187, so the relationship between perceived risk and consumer intention was significant so that H6 was accepted.

In Table 9, each of the existing direct relationships is combined with the mediation effect. In this study, attitude and consumer intention play a role as mediating variables. The purpose of the mediation effect is to test the level of significance of each variable indirectly whether it has a significant relationship. Based on Table 9, it can be concluded that attitude is able to have mediating properties in the relationship between sustainability motive and consumer intention and consumer behaviour (H7) with an original sample value of 0.062, which shows a positive direction, p-value $0.000 < 0.050$ and t-statistics 3.962, so that the relationship is significant and H7 is accepted.

Table 9

Mediation effect significance test result

Hypothesis	Mediation Effects	Original sample	Sample mean	Standard deviation	T-statistics	P-values	Decision
H7	Sustainability motive (SM) → Attitude (AT) → Consumer intention (CI) → Consumer behaviour (CB)	0.062	0.063	0.016	3.962	0.000*	Supported
H8	Health Consciousness (HC) → Attitude (AT) → Consumer intention (CI) → Consumer behaviour (CB)	0.031	0.032	0.012	2.577	0.000*	Supported
H9	Subjective norm (SN) → Attitude (AT) → Consumer intention (CI) → Consumer behaviour (CB)	0.051	0.051	0.014	3.746	0.000*	Supported
H10	Perceived behaviour control (PB) → Consumer intention (CI) → Consumer behaviour (CB)	0.205	0.205	0.028	7.217	0.000*	Supported
H11	Perceived risk (PR) → Consumer intention (CI) → Consumer behaviour (CB)	-0.104	-0.103	0.021	5.073	0.000*	Supported
H12	Attitude (AT) → Consumer intention (CI) → Consumer behaviour (CB)	0.177	0.180	0.035	5.110	0.000*	Supported

Note. * Significant at 1 % level.

Source: analysis results from Smart PLS 4.0.

In the relationship between health consciousness and consumer intention and consumer behaviour (H8), the mediation effect of attitude was significant from the p-value of $0.000 > 0.050$, so H8 was accepted. However, the attitude was able to mediate the relationship between subjective norms and consumer intention and consumer behaviour, as seen from the significant relationship at p-values $0.000 < 0.050$ and t-statistics 3.746 (H9). The original sample value also showed a positive direction with a value of 0.051. From these three hypotheses, it can be concluded that attitude is quite good as a mediation effect.

The following mediation effect is from the consumer intention variable. In H10, consumer intention can mediate the relationship between perceived behaviour control and consumer behaviour with a p-value of $0.000 < 0.050$ and a t-statistic of 7.217. This means a significant relationship, so H10 is accepted with an original value sample of 0.205, which means it has a positive direction. In the context of the relationship between perceived risk and consumer behaviour (H11), consumer intention was able to mediate the relationship significantly with a p-value of $0.000 < 0.050$ and t-statistics of 5.073, so that H11 was accepted, and the original sample value was negative with a value of -0.104. In the relationship between attitude and consumer behaviour (H12), consumer intention could mediate the relationship significantly with a p-value of $0.000 < 0.050$ and t-statistics of 5.110, so H12 could be accepted with an original sample value of 0.174. From the three hypotheses above, it can be summarised that consumer intention has a solid and good mediation effect, so it can bring a significant relationship between endogenous variables and exogenous variables.

5. DISCUSSION

The relationship between indicators and variables and between variables is reliable and valid. This encourages further research using variables and indicators. The grand theory in this study is the Theory of Planned Behaviour. Previous research conducted showed that attitude and perceived behavioural control showed significant results on consumer intention to encourage consumer behaviour in consuming food. The findings in this study are consistent with consumer intention to be a potent mediator and make a significant relationship between independent variables and consumer behaviour habits in consuming Rojolele Srinuk rice (Qi & Ploeger, 2019). An important factor that affects consumer preferences for a product can also be in the form of reference numbers (Gunasti et al., 2023). In addition, the current sustainability trend makes consumers consider eco-friendly consumption, so the sustainability factor of a product is the primary consideration for consumers.

The implications of this study show that factors that influence consumer preferences are shown in hypothesis testing. The results of the structural equation modelling analysis in this study show that the integration of TPB, sustainability motive, health consciousness, and perceived risk can be vital in influencing consumer habits in choosing organic rice, mediating the effect on consumer attitudes and consumer intentions (Dabija et al., 2024). For this reason, seeing the integration between these variables can be an important discussion and one factor that strengthens

recommendations to relevant stakeholders in the context of the future development of Rojolele Srinuk rice.

Hypothesis 1 is acceptable, which shows that sustainability motive and attitude have a significant relationship. This meaningful relationship can be seen from the respondents' answers, who consider factors that affect sustainability in choosing the rice consumed (Thi Nguyen & Dang, 2022). Consumers who are respondents in the current study pay attention to whether there is environmentally friendly packaging, how the cultivation process is carried out, and whether farmers are involved in this process in order to increase their productivity (Khandeparkar et al., 2024; Mameno et al., 2023). Aligning with previous research (Ardebili & Rickertsen, 2024; My et al., 2018), the sustainability motive has a strong influence on consumers when choosing products.

Hypothesis 2, related to the relationship between health consciousness and attitude in choosing Rojolele Srinuk Klaten rice is also significant so that it can be accepted. A healthy living trend by consumers drives this condition, so research respondents are aware of the importance of choosing rice products that are not only fluffy and delicious but also healthy (My et al., 2017). The organic conversion cultivation pattern in the Rojolele Srinuk rice plantation has made consumers interested in consuming it as healthy rice (Custodio et al., 2019; Petrenko, 2016). Consumers look at the nutritional content, sugar content, and antioxidant content when consuming rice, so consumer attitudes in this study are greatly influenced by health awareness (Saulais et al., 2023). This is aligned with previous research (Firoozzare et al., 2024; Wang et al., 2022), which states that health awareness is quite strong in influencing consumer attitudes in choosing rice.

Hypothesis 3 is acceptable, as shown by the fact that subjective norms and attitudes have a significant relationship. Factors influenced by family, friends, social groups, expert opinions, social media, culture and tradition significantly affect consumers' attitudes toward choosing organic rice (Roh et al., 2022). Consumers in choosing rice must consider subjective norms that various parties influence (Van Tonder et al., 2023). This influence will affect a person's attitude toward selecting the product to be purchased (Winterstein et al., 2024). In the case of this study, Rojolele Srinuk rice is widely purchased by consumers because of various positive influences arising from the exchange of information between consumers and giving rise to various new consumers. Aligned with research by Aslan (2023), which states that information exchange or word of mouth is quite effective in promoting consumer products, the subject of this study is Rojolele Srinuk rice.

On the other hand, subjective norms also greatly influence consumer intentions in buying rice (Imtiyaz et al., 2022). In this study, the relationship between subjective norm and consumer intention is significant, so hypothesis 4 can be accepted. Previous research, shows that subjective norms, mainly through social media, can influence consumer intentions when choosing a product (Jaeger & Höhler, 2021; Sultan et al., 2020).

Hypothesis 5 is acceptable, it shows that perceived behaviour control and

consumer intention have a significant relationship. In the case of this study, most consumers are facilitated in purchasing products with delivery facilities, product information before ordering, and prices adjusting the specifications of Rojolele Srinuk rice (Aitken et al., 2020; Govaerts & Ottar Olsen, 2023). For this reason, the intention of consumers to buy rice here is quite firm, among both government employees and ordinary consumers, as each supplier, whether designated by the government or local buyers, ensures delivery. Research conducted by Farrell et al. (2021) perceived behaviour control has a central role in determining consumers' intention to choose food products.

Hypothesis 6 is acceptable, which indicates that perceived risk and consumer intention have a significant relationship. Consumers consider health risks, financial risks, social risks, quality risks, functional risks, and safety risks when choosing food products (Farid et al., 2023; Lecegui et al., 2023). In the case of this study, these various risks have become consumer considerations, so a good consumer intention has been formed to select Rojolele Srinuk rice. This is aligned with research (Hsu et al., 2022; Singh et al., 2024), which states that consumer risk considerations will strongly influence consumers' intention to choose a product.

The analysis results are related to the mediating effect of the attitude variable on the relationship between variables. In the case of this study, the attitude was able to mediate the relationship between sustainability motive variables with consumer intention and consumer behaviour and had a significant relationship, and H7 was accepted. The stronger the consumer's sustainability motive, the stronger their attitude and intention to purchase the products they consume (Winterstein et al., 2024). The presence of organic labelling on rice packaging and education related to sustainable agriculture shapes consumer attitudes towards choosing rice (Saha et al., 2021). For this reason, consumer intentions will be formed when attitudes are deeply ingrained in consumers. This proves that attitude mediation is stronger, thereby helping to mediate consumer behaviour. On the other hand, attitude can also mediate the relationship between subjective norms, consumer intention, and consumer attitudes has a significant relationship so that H9 is accepted. In addition, subjective norms will shape a person's preference (attachment) for a product (Izquierdo-Yusta et al., 2022). This attachment accumulates from attitudes that already exist within a person. This will encourage a person to form an intention to choose a relevant product. However, attitude in the mediating effect between health consciousness, consumer intention and consumer behaviour has an significant relationship, so H8 is accepted and aligned with research (Kumar et al., 2024; Pop et al., 2023), which states that attitude can mediate various factors to consumer intention so that it becomes a significant relationship. The following mediation effect is from the consumer intention variable, which can mediate between perceived behaviour control and consumer behaviour, so H10 is accepted. Products that activate different values are beneficial because values are positively related to attitudes (Govaerts & Ottar Olsen, 2023). Attitudes accumulate consumer considerations to form intentions (Aitken et al., 2020). Attitudes become a strong link to intentions that will influence consumer behaviour.

On the other hand, consumer intention can mediate between perceived risk variables and consumer behaviour and become a significant relationship, so H11 is accepted. Previous studies (Ding et al., 2022; Paul et al., 2016; Zhu et al., 2024) have shown that risk perception often has a weak or insignificant influence, especially when the product is widely known, information is transparent, and quality assurance systems (labels, certification) are effective. However, in this study, risk perception becomes critical because (1) the product is still relatively new to consumers, (2) consumer knowledge is not yet widespread, and (3) product labelling and education are not yet optimal. Furthermore, consumer intention can mediate attitude with consumer behaviour so that it has a significant relationship and H12 is accepted. In addition, research stated that consumer intention can increase consumer appeal through attitudes and health awareness (Pillai et al., 2022).

Based on the results of this study, personal attitudes bridge and transform external influences into actual intentions (Paul Justin). Unlike social norms or behavioural controls, which can change depending on the social context, attitudes tend to be more stable and based on personal experience (Basha & Lal, 2019). This makes attitudes more powerful in influencing intentions in various situations. This study contributes to the development of consumer behaviour science, as evidenced by the following findings: (1) the inclusion of new context variables, namely health consciousness, sustainability motive, and perceived risk; (2) the strengthening of the role of attitude as a central mediator; (3) the adaptation of TPB to the local food context; and (4) the demonstration of the importance of risk in shaping intentions and behaviour.

Based on the results of the above analysis, various variables have a significant direct relationship and a significant indirect relationship, showing that the synergy between theory-planned behaviour, sustainability motive, health consciousness, and perceived risk is an important aspect for studying the preferences of consumer behaviours (Yang et al., 2023). The results of this study, which demonstrate the high appeal of Rojolele Srinuk rice to consumers, are expected to receive special attention from rice producers and local authorities. Based on the results of this study, consumers of Rojolele Srinuk rice are not only Klaten Regency government employees who receive programs from the government but also from almost all consumers in several regions in Indonesia. Rojolele Srinuk rice must be maintained so that the stock continues to be maintained and consumers continue to subscribe. Finally, the number of consumers of Rojolele Srinuk rice will continue to grow if the manufacturer provides a high level of service. Consumers have special considerations when consuming this rice, primarily related to sustainability and health awareness with risk perception considerations.

On the other hand, the results of this study provide recommendations for the selection of rice by consumers who must pay attention to various aspects such as sustainable farming practices, rice processing, and packaging that will affect the quality and durability of rice. This study also contributes to the research on consumer habits through the influence of various attributes on consumer rice selection, especially local rice commodities in Southeast Asia in particular and the world at large. The results of this study will serve as a basis for policy makers to ensure the sustainability of

production, quality management, branding, certification, and other efforts that support farmers and consumers. It is expected that, thanks to government and private support, as well as intensive assistance to farmers, Rojolele Srinuk rice will be able to gain access to the global market.

6. CONCLUSIONS

Factors that influence consumer preferences in consuming Rojolele Srinuk rice indicate by TPB approach, sustainability motive, health consciousness, and perceived risk. This research approach can strengthen the research results so that the research variables have a significant relationship. Based on the conducted data analysis, a direct relationship with the dependent attitude variable was revealed, showing significant results. The sustainability motive, health consciousness, and subjective norms significantly influence attitude. The critical relationship with attitude shows that these variations can influence attitudes when choosing Rojolele Srinuk rice. These variables can encourage consumers to be selective when choosing rice. In addition, there is a dependent variable of consumer intention in a direct relationship. Subjective norms, perceived behaviour control, and perceived risk influence consumer intention. These various factors greatly influence consumer intentions in choosing Rojolele Srinuk rice. For this reason, consumer intentions do not arise directly without their influence or those of others and the risk opportunities that they will face.

To strengthen the significant relationship between factors that influence consumer preference, there is a mediation effect. The mediation effect is quite well described in structural equation modelling analysis. The mediator variables in this study are attitude and consumer intention. Attitude was able to mediate three hypotheses, namely hypothesis 7, hypothesis 8, and hypothesis 9. The mediation effect carried out by attitude, in hypothesis 7, was successfully carried out on three variables, namely, being able to mediate the relationship between sustainability motive and consumer intention and consumer behaviour. Furthermore, attitude can mediate subjective norms (hypothesis 9) with consumer intention and behaviour. This shows that attitude plays a substantial role in consumer habits when choosing Rojolele Srinuk rice.

On the other hand, the mediation effect is also carried out by consumer intention. Although intention influences consumer behaviour, if there are sustainability motive variables and subjective norms, it must be influenced by attitude. In mediating perceived behaviour control, perceived risk and attitude towards consumer behaviour can directly mediate the relationship significantly. Consumer intention significantly effect on consumer behaviour when choosing Rojolele Srinuk rice.

Theoretically, this study extends the TPB model by integrating sustainability motive and perceived risk, showing that consumer preferences for local products are not only influenced by traditional psychological factors (such as attitude), but also by environmental awareness and risk considerations. In this study, attitude was a strong mediator and dominant influence in product selection because it was the result of personal experience and therefore not influenced by existing environmental conditions.

The practical implications of the research results show that the local variety of

Rojolele Srinuk rice must continue to be developed by the regional government of Klaten Regency through the local Agriculture Office in collaboration with local farmers because consumers who have consumed Rojolele Srinuk rice twice will continue to buy this rice. If this is assumed with further development, it will ensure the availability of rice stocks. The rice can only be planted in Klaten Regency, so it should be a joint decision by all interested parties to skip the reserves and plant this variety. Managers and suppliers of this local rice must pay attention to the quality and quantity in the future so that they can carry out good stock management and maintain the availability of rice. In the future, there must be intensive guidance to farmers, product promotion, and synergistic collaboration to provide price and market guarantees for this product. In addition, product legality and certification need to be considered to prevent product safety issues in the future.

7. LIMITATIONS AND FUTURE RESEARCH

The limitations in this study are related to the data on the distribution of Rojolele Srinuk rice consumers, which are only concentrated from Klaten civil servants, local off-takers, and partner Rojolele Srinuk rice mills. This makes the distribution of respondents outside Central Java province less than much because most respondents are in Central Java Province. In addition, the data on the production and consumption of Rojolele Srinuk rice is not clearly stated because the current data is only on rice production and consumption in general. On the other hand, the research data analysis will be more valuable if combined with the data of farmers who cultivate Rojolele Srinuk rice. However, these limitations are an opportunity for further research to obtain recommendations related to the development of Rojolele Srinuk rice in the future to expand market and consumer potential.

The opportunity for Rojolele Srinuk rice research in the future is quite large because not many researchers have conducted this research. The upstream-to-downstream sectors of Rojolele Srinuk rice farming have great potential for research. For this reason, it is advisable to conduct research in the future to develop a strategy for expanding the Rojolele Srinuk rice market and the sustainability of cultivation at the farmer level to see the synchronisation of the current supply chain and its potential in the future. Future research has significant potential to explore broader demographic segments, supplementing current research by incorporating qualitative data from businesses, markets, and consumers to deepen understanding of consumer motivations.

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