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Analysis of Factors Affecting Intention to Purchase Buffalo Milk and Milk Products among Malaysian Consumers

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Abstract

Buffalo milk has many health benefits, such as reducing the risk of cardiovascular diseases and cancer and improving bone mass. However, the buffalo milk market sector in Malaysia can be considered relatively young as the products availability are still limited. Although Malaysia's dairy market has increased positively in the past years, limited research was reported on the factors that influenced the purchase intention among Malaysian consumers for buffalo milk and buffalo milk products. This study investigates factors that influenced consumer demands towards buffalo milk and buffalo milk products, including consumer awareness), trust, knowledge, attitude, subjective norms, perceived behavioral control (PBC), acceptance, and purchase intention. This study adopted the extended Theory of Planned Behaviour (TPB) model, which tested the influence of awareness, trust, acceptance, and knowledge on consumers' intention to purchase buffalo milk and buffalo milk products. A total of 202 usable data were collected from consumers using self-administered surveys. Data obtained from the survey were then analyzed using SPSS (version 22) and Smart PLS. The results indicated that PBC (p<0.05) and acceptance (p<0.05) have a significant relationship with the purchase intention of buffalo milk and milk products. Knowledge indirectly influences the purchase intention, while it has a significant relationship with acceptance (p<0.05). This study could provide information that help the marketers or dairy industry understand to fulfil the consumers' demand for buffalo milk and milk products consumption in Malaysia.

Keywords: Buffalo Milk, Awareness, Trust, Knowledge, Acceptance, Purchase Intention

Introduction

Background

According to the Food and Agricultural Organization (FAO, 2019), the average annual milk consumption worldwide is approximately 108 kg per person. Much of the milk production in the world can be brokendown into 81% originates from cows, 15% from buffalo, and another

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4% from the combination of goat, sheep, and camel. Over the subsequent years, up to 2029, milk production is expected to grow at an annual rate of 1.3%, and much of this growth is expected to originate from India and Pakistan (FAO, 2020). Increased milk production is expected to occur among small herds of dairy cows and buffalos. According to Astolfi et al. (2020), most dairy products were consumed fresh or fermented.

Milk and other dairy products were fundamental components of the human diet. It is a nutritious food that constitutes adequate protein, saturated fat, vitamins, and calcium (Astolfi et al., 2020). As such, it is recommended that on a daily average, an adult should consume 200ml - 400ml of milk, while children should consume approximately 600 - 800 ml because of their protein and other nutritional demands. Around the world, the share of dairy product consumption was expected to grow at an annual rate of 1% per year; and such growth was expected to occur mainly in India and Pakistan because of rapid population growth. South and East Asia were reported as the regions in the world where there has been sustained economic growth due to the many emerging economies over the past four or more decades (Shahbandeh, 2021).

Cow milk remains the most consumed milk and associated milk product in Malaysia, although there is continuous growth in buffalo, goat, sheep, camel milk, and plant-based milk. The buffalo milk sector is young in most countries. According to Becskei et al (2020), the common buffalo products include pasteurized fresh milk, butter, concentrated milk, heat-desiccated, and fermented products such as yogurt and frozen milk. Over the past five years, Malaysia's average annual milk production has declined from approximately 188 million liters per year in 2016 to approximately 93 million liters in 2020. As a result, a sector that was globally projected to grow at a rate of 1.3% per annum is likely to experience a significant setback, especially in the early years of the current decade. When there was a sustained decline in overall dairy production and consumption in Malaysia, buffalo milk was also emerging as a preferred alternative dairy product because of its perceived rich nutritional content compared to cow milk.

Despite the signs of growth, the production of buffalo milk and the availability of buffalo milk products is significantly limited in Malaysia (Babolian & AbKarim, 2010). Most milk products take longer life on the shelves for most countries in Asia but are significantly lower than the average shelf-life in the Organization for Economic Co-operation and Development (OECD) countries. It is unclear the cause of the recent decline in dairy product consumption in the country. However, for buffalo milk products, the consumption pattern is more associated with consumer behavior than production factors. Drawing from the Theory of planned behavior, this study seeks to explore the Malaysian consumer acceptance towards the buffalo milk and buffalo milk products. Therefore, the study was conducted to achieve the following objectives:

- ☑ To examine the influence of acceptance, awareness, trust, and knowledge on consumers' purchase intention towards buffalo milk and buffalo milk products.
- ② To investigate the role of attitude, subjective norms, and perceived behavioral control on consumers' purchase intention towards buffalo milk and buffalo milk products.

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Research Framework and Hypotheses

Based on the available research and the theory of planned behavior (TPB), a conceptual model (see Figure 1.0) was constructed to illustrate the factors that influenced the acceptance of purchasing intentions of buffalo milk and buffalo milk products. This proposed model was adapted from Cazacu et al. (2014) and Lim and Goh (2019). This study aimed to explore the determinants of acceptance on purchasing intention of buffalo milk and its milk products among Malaysian consumers. Figure 1.0 illustrates a proposed research framework by adding the variables of health consciousness and perceived price to the TPB model. The following hypotheses were proposed to test the relationships between variables of the study:

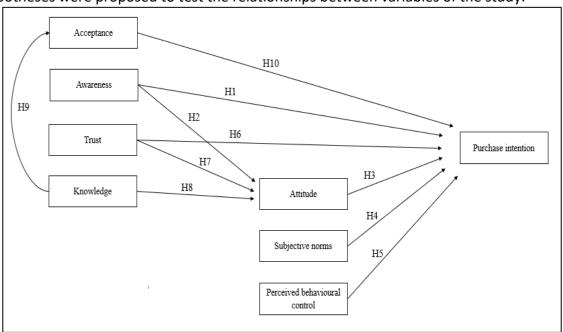


Figure 1.0: Proposed model for predicting consumer purchase intention towards buffalo milk and buffalo milk products among Malaysian consumers

- H1. There is a significant relationship between consumer awareness and intention to purchase buffalo milk and buffalo milk products
- H2. There is a significant relationship between consumer's awareness and their attitudes about buffalo milk and buffalo milk products.
- H3. There is a significant relationship between consumer attitudes and intention to purchase buffalo milk and buffalo milk products
- H4: There is a significant relationship between subjective norms and intention to purchase buffalo milk and buffalo milk products
- H5: There is a significant relationship between perceived behavioral control and intention to purchase buffalo milk and buffalo milk products
- H6: There is a significant relationship between consumer's trust and intention to purchase buffalo milk and buffalo milk products
- H7: There is a significant relationship between consumer's trust and consumer attitudes toward buffalo milk and buffalo milk products
- H8: There is a significant relationship between consumer's knowledge and their attitudes toward buffalo milk and buffalo milk products
- H9: There is a significant relationship between consumer's knowledge and their acceptance toward buffalo milk and buffalo milk products

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H10: There is a significant relationship between consumer's acceptance and intention to purchase buffalo milk and buffalo milk products

Methodology

Study Sample

The population of interest includes consumer who had experienced and had not experienced consuming any dairy milk and its products. For the survey's pilot test, the self-completed online questionnaire was distributed via common online mediums that were familiar to the population of interest, including WhatsApp, to test the consumer understanding of the questionnaire. For the primary data collection, the questionnaire had been distributed through an online medium, including WhatsApp and Telegram. The online self-completed questionnaire had gained popularity by ensuring a very high response rate that gave accuracy to the data collected and could help minimize bias (Redmond & Griffith, 2003).

This research aimed to explore the overall acceptability of the buffalo milk and buffalo milk products in the market. So, it was suitable for investigating the acceptance by not having specific and targeted locations. A random sampling of 250 respondents would be representative since, within the 200 respondents, there was likely to be an adequate variety of the consumer demographic (Hibberts *et al.*, 2012; Acharya *et al.*, 2013; Taherdoost, 2016).

Data Collection Procedure

The data had been collected using a self-administrated with a closed-ended questionnaire, which could encourage the respondent's participation in the study due to the ease of answering. Thus, many quantitative data could be collected in a short period (Dawson, 2002). The survey questionnaire was designed according to the objectives or hypotheses of the study. It also includes a cover letter, which was an important part of the survey since it maintained a pleasant tone and influenced the respondent's willingness to complete the surveyed (Walonick, 2004).

A survey's pilot test was done on ten respondents to determine its effectiveness in collecting the targeted information. The instrument was pre-tested for face validity and ensure the items were relevant and clearly expressed in languages. This helps to eliminate potential problems with the instrument before the actual data collection. Based on the pilot test result, some of the wordings were changed for better clarity. The instruments were then translated into the Malay language to ease the understanding of the target population. The final version of the instrument was then used for the actual data collection.

The questionnaire contained measurement the variables on the attitude towards buffalo milk and buffalo milk products, subjective norm, perceived behavioral control, knowledge, trust, awareness, acceptance, and intentions of purchasing buffalo milk and buffalo milk products. A five-point Likert scale was used in most parts of the questionnaire since statements captured the respondents' acceptance. For example, a Likert scale of 1-5 was used such that "1" represents "strongly agree" and "5" to represent "strongly disagree". Likert scale was commonly used in research studied where multiple items were used to measure a specific construct (Boone and Boone, 2012; Joshi *et al.*, 2015; Nemoto and Begler, 2014). For instance, awareness of buffalo milk by consumers in the Malaysian market was a variable that would effectively be captured if the study used multiple items, other than just asking the

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respondents if they were aware of buffalo milk. The questionnaire also contains questions to gather respondents' demographic information (age, gender, education, family status, and monthly income). All of the questions in the questionnaire were back translated into Malay language. The final questionnaire was prepared in Malay, as most populations could understand the language, and it was suitable for all ages and educational levels.

Data Analysis

Partial least squares structural equation modelling (Smart PLS-SEM) was adopted in this study for the robust prediction capacity (Hair *et al.*, 2017; Shmueli *et al.*, 2019). PLS-SEM was the ideal method in analyzing relationship testing, as it could analyze non-normal data with a more complex concept (Ramayah *et al.*, 2018). Confirmatory factor analysis was conducted on all factors affecting buffalo milk consumption and its milk products. Structural equation modelling was used to analyze the data and testing the hypothesis.

Result

Consumer Profile

A total of 202 useable data were collected from the survey. Table 1.0 presents the profile of respondents participated in this study. The majority of the respondents aged between 18 and 30 years (59.9%), followed by the other age groups 31-60 years (35.1%) and above 60 years (5%). A large majority of the participants were female (68.8%) and 63.9% of them have college or university degree as the highest level of education. More than half of the respondents were single (55.4%). More than half of the respondents have 1-4 family members at home (57.4%) and most of them earned a monthly income of less than RM3,000 (42.6%).

The majority of the respondents consumed milk (75.7%), while only 24.3% had never experienced consuming milk. Among those who do not consume milk, they stated that taste (15.3%) was the main reason why they do not consume milk, followed by availability (5.9%), price (5.9%), lactose intolerance (4.0%), diet restriction (2.5%) and health problem (1.8%). The survey also asked the respondents' experience in consuming buffalo milk and buffalo milk products. The result showed that most of the respondents never had experienced consuming buffalo milk and buffalo milk products (84.7%). About 9% of the respondents had consumed buffalo milk, 9.9% experienced in consuming buffalo mozzarella cheese, 4.5% experienced in consuming buffalo yogurt, and 3% experienced in consuming buffalo ice cream.

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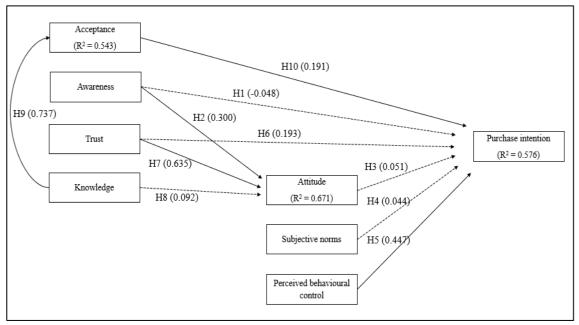
Table 1.0 *Profile of respondents (n =202)*

Sar	nple characteristics	Percentage	Frequency
Age (years old)	18-30	59.9	121
	31-60	35.1	71
	Above 60	5	10
Gender	Male	32.1	63
	Female	68.8	139
Race	Malay	87.6	177
	Chinese	5.9	12
	Indian	2.5	5
	Others	4.0	8
Education	Primary school/Secondary school	14.4	29
	College /Universities	63.9	129
	Postgraduate	21.8	44
Marriage status	Single	55.4	112
	Married	42.1	85
	Divorced	2.5	5
Numbers of	1 – 4	57.4	116
family members	5 – 8	40.1	81
	Above 8	3.0	5
Monthly income	Less than RM 3,000	42.6	86
	RM 3,000 – RM 8,000	40.6	82
	Above RM 8,000	16.8	34
Milk consumption	Yes	75.7	153
	No	24.3	49
Reason for not	Price	5.9	12
consuming milk	Availability	5.9	12
	Lactose intolerance	4.0	8
	Diet restriction	2.5	5
	Taste	15.3	31
	Health problems	1.8	3
Experienced	Buffalo milk	9.9	20
consuming buffalo milk	Buffalo yogurt	4.5	9
	Buffalo mozzarella cheese	6.9	14
	Buffalo ice cream	3.0	6
	Never had experienced	84.7	171

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Structural Equation Model

Hair *et al.* (2017) indicated that bootstrapping can be applied to assess the statistical significance. A bootstrap sample of 5,000 was selected for this study, and critical values for a two-tailed test was applied with a 0.05 significance level. Figure 2.0 presents the values of R^2 , where 54.3% of the variance in acceptance ($R^2 = 0.543$) was explained by consumer knowledge. The result shows that 67.1% of variance for attitude ($R^2 = 0.671$) was explained by consumers' knowledge, awareness, and trust. While 57.6% of variance in purchase intention ($R^2 = 0.576$) is explained by consumers acceptance, awareness, trust, attitude, subjective norms, and perceived behavioral control.



Note: ► Significant path; ► Insignificant path Figure 2.0: Hypothesized model with path estimates

Table 3.1 shows the results for the proposed hypothesis of the study. The findings indicate that five proposed hypotheses were not significant, while another five proposed hypotheses were significant. The proposed hypothesis (H1) between consumers awareness and purchase intention relationship was not significant (β = -0.048, t value = 0.588, p > 0.05). The hypothesis H3 for relationship between consumers attitude and purchase intention also was not significant (β = 0.051, t value = 0.368, p > 0.05). The hypothesis H4 for relationship between subjective norms and purchase intention also was not significant (β = 0.044, t value = 0.593, t value = 0.05). The hypothesis H6 for relationship between trust and purchase intention also was not significant (t = 0.913, t value = 1.824, t > 0.05). Lastly, the hypothesis H8 for relationship between knowledge and attitude also was not significant (t = 0.092, t value = 1.105, t > 0.05).

However, among the consumer's purchase intention variables, the relationship between awareness and attitude (H2) was found to be statistically significant relationship (β = 0.300, t value = 3.619, p < 0.05). H5, perceived behavioral control influence on consumer purchase intention, was statistically significant, as β = 0.447, t value = 4.405, p < 0.05. H7, which indicated the trust influence on consumer attitude, was statistically significant (β = 0.635, t value = 14.233, p < 0.05). Then, H9, the knowledge that influences the consumer acceptance of buffalo milk and products, was statistically significant (β = 0.737, t value = 19.986, p < 0.05).

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The last hypothesis, H10, or consumer acceptance influence the consumer purchase intention, was found to be statistically significant (β = 0.512, t value = 0.067, p < 0.05). In summary, H2, H5, H7, H9, H10 were significant while H1, H3, H4, H6, and H8 were not significant.

Table 3.1 *PLS result of path coefficients and hypotheses testing*

Hypothesis	Relationship	β value	SE	t value	p values	Decision
H1	AW → P	-0.048	0.082	0.588	0.557	Not supported
H2	AW → ATT	0.300	0.083	3.619	0.000	Supported
Н3	ATT → P	0.051	0.138	0.368	0.713	Not supported
H4	SN → P	0.044	0.074	0.593	0.553	Not supported
H5	PBC → P	0.447	0.101	4.405	0.000	Supported
Н6	T → P	0.913	0.106	1.824	0.068	Not supported
H7	T → ATT	0.635	0.045	14.233	0.000	Supported
Н8	K → ATT	0.092	0.083	1.105	0.269	Not supported
Н9	К → А	0.737	0.037	19.986	0.000	Supported
H10	A → P	0.512	0.067	7.696	0.000	Supported

Note: A – Acceptance, ATT – Attitude, AW – Awareness, K – Knowledge, PBC – Perceived behavioral control, P – Purchase intention, SN – Subjective norms, T – Trust

The predictive power of the in-sample model showed that the R^2 values for the acceptance, attitude and purchase intention were met the 0.5 and 0.25 criteria as recommended by Henseler et al. (2009) and Hair et al. (2011). The model showed moderate to weak endogenous constructs of the model's explanatory power. Thus, it can be considered that the constructs to be deemed adequate. However, the results in Table 4.15 showed that the Q^2 values were more significant than zero, demonstrating that the exogenous constructs have predictive relevance over the endogenous construct (Hair et al., 2019). Furthermore, the results showed that knowledge and trust within the exogenous variables of this study ($f^2 = 1.189$, $f^2 = 1.120$), respectively, showed a significant effect size. In contrast, the other constructs showed small to no effect on the endogenous variables (Hair et al., 2019).

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Table 3.2 Determination of coefficient (R^2), effect size (f^2) and predictive relevance (Q^2)

	Co-efficient of determination	Predictive relevance	Effect	size			
	R ²	Q ²	ATT	AW	SN	K	
Α	0.543	0.332					
ATT	0.671	0.432				0.011	Small to medium effect size
Р	0.576	0.416	0.001	0.002	0.002		Small to medium effect size

Discussion

Based on the hypotheses results for eight factors that determine the consumers' intention to purchase buffalo milk and milk products, awareness showed an insignificant relationship with the consumer purchase intention. Hence, H1 was not supported in this study. This result was an unexpected finding as prior studies showed a significant positive relationship with this variable. This can be seen in the study by Wills & Royne Stafford (2016) and Rana & Paul (2017). They suggested that consumers who are concern with their health are very cautious and seek more information on health issues, and they are taking extra precautions by purchasing only a healthy product. Therefore, the differences in this study could be attributed to the data received. A possible explanation is that more than 85% of Malaysian consumers are educated (e.g., Degree, MSc, PhD). Hence, they are better informed about the health benefits. They could quickly obtain health-related information from online (e.g., internet, social media) or offline sources (e.g., newspaper or books). We assume that more educated people are better informed about the health benefits based on the past studies on health awareness conducted among Malaysian consumers by Kamarulzaman et al. (2014). This study found that the more educated the people, they tend to have a more significant health awareness. In this study, the respondents from this study are aware of the benefits of buffalo milk. However, they tend not to purchase buffalo milk as they could easily reach or access other products that provide similar health benefits. Therefore, in this case, awareness significantly affects the purchase intention on buffalo milk and buffalo milk products. They were realized that buying buffalo milk is not the only option to get health benefits. Therefore, the results are found to be insignificant.

As for the influence of awareness on consumers, awareness exerts a significant relationship on attitude; hence H2 was supported. In this study, consumer awareness or knowing buffalo milk and buffalo milk products would demonstrate a favorable evaluation, consistent with Chen (2010). They indicate that consumers' awareness to perform healthy behaviors is an important determinant of consumers' attitudes. Furthermore, in Malaysia, it is said that the living standards were high, as majority of the population are well educated, which may contribute to the high level of consumers' awareness.

Nevertheless, the attitude was found to has an insignificant relationship with consumer purchase intention toward buffalo milk and buffalo milk products among the original TPB model. Hence, H3 was not supported in this study. Although this was an unexpected finding based on the results, it shows that an attitude has the most substantial predictive power and

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significantly impact consumer purchase intention. This could be because buffalo milk and buffalo milk products tend to be better in terms of health benefits; therefore, a good evaluation among Malaysian consumers will increase the buying intentions. These findings were inconsistent with prior studies, as several prior studies discovered that a positive attitude does give a strong predictor to the willingness to purchase (Giampietri et al., 2018; Hsu et al., 2016; O'Connor and White, 2010; Vabo and Hansen, 2016). A possible explanation was that since most of the respondents were in a younger generation, we can assume that they are inexperienced in tasting the buffalo milk and milk products compared to the older generation.

Our study also showed that subjective norms have an insignificant relationship with the purchase intention of buffalo milk and buffalo milk products. Hence, H4 was not supported in this study. This study report shows an inconsistent finding compared to prior studies literature. They suggest that subjective norms influence the respondents' dairy milk consumption and dairy milk products (Agnoli et al., 2016; Haque et al., 2015; Teng and Wang, 2015). In intensity, subjective norms have a substantial impact on consumer acceptance after attitude. A study by Teng and Wang (2015) noted that families and friends would be essential referents for Malaysian consumers. Accordingly, this study confirmed the positive influence of subjective norms on the consumers' acceptance of buffalo milk and buffalo milk products. However, in the current study, we assumed that respondents aged between 19-30 years were the age that was not easily influenced by the surrounding, compared to respondents aged between 15-18 years and above 60 years old. This is because, at this age level, they were more likely to carry out a daily activity freely without any control from any party (e.g., families or friends). This can be seen in a study by Patch et al. (2005), who revealed that for consumers within the aged range 17-80 years old, the selection of functional foods remains largely on personal choice without any interference from the surroundings. Although, for example, marketers, health professionals and family members suggest using these novel products, ultimately, use is an individual decision having minimal influence from normative factors.

Perceived behavioral control showed a significant relationship with consumer purchase intention of buffalo milk and buffalo milk products. Hence, H5 was supported in this study. This finding was consistent with the previous studies as they showed that perceived behavioral control has a significant positive impact on purchasing the food product because consumers themselves can control their purchase behavior (Dun *et al.*, 2011; Giampietri *et al.*, 2018; Ham *et al.*, 2015; Padgett *et al.*, 2013; Vabo and Hanse, 2016). This can be seen in the results as 65.5% of the respondents were educated, and they can control their daily food choice.

As for the influence of trust on purchase intention and attitude on buffalo milk and buffalo milk products exert an insignificant relationship on purchase intention, but significant relationship on attitude; hence H6 was rejected, and H7 was supported. In this study, the consumer trust with having a good attitude would demonstrate a positive evaluation, thereby supporting H7. This is consistent with Teng and Wang (2015) which consumers with a higher level of trust tend to exert a more decisive consumer attitude and indirectly affect consumers' purchasing intention. Moreover, when consumers believe or having the expectations that buffalo milk and buffalo milk products are reliable, trustworthy, the health concern and

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commitments meet the expectations, it will influence their acceptance. These findings match with the earlier studies, from Lee *et al.* (2015), Liang (2016), and Lim and Goh (2019).

However, from the earlier findings, no evidence shows trust has a relationship with the consumer purchase intention on buffalo milk and buffalo milk products, so H6 was not supported. Based on the prior studies by Liang (2016), Lee et al (2015), and Lim and Goh (2019), they mentioned that consumer trust does strengthen the consumer purchase intention, as the trust can be the motivator to influence the consumers' purchasing intentions. However, in this current study, the possible reason could be that 60% of respondents were in the younger generation between 18-30 years, compared to the middle to older age group (40%). Because there were studies among the scholars that older respondents were highly interested and more willing to use functional foods, especially functional foods products with disease risk-reducing properties (Bimbo et al., 2017; Urala et al., 2011). We assumed that older consumers might be exposed to buffalo milk and milk products more frequently than younger ones (Messina et al., 2008). Thus, they have more knowledge, are more trustworthy, and are more familiar with buffalo milk and buffalo milk products and their effects on health, leading to being more likely to accept them (Bimbo et al., (year) Lim and Goh, 2019).

This study also shows that consumer knowledge significantly influences consumer acceptance of buffalo milk and buffalo milk products. This finding is consistent with several prior studies that mention that product knowledge was the higher determinant. Therefore, they played an essential role in influencing the purchasing and acceptance of food products (Del Guiduce and Pascucci, 2010; Kamarubahrin, 2019; Labrecque *et al.*, 2006). Additionally, this current study has shown that educated consumers can be more knowledgeable in accepting and purchasing buffalo milk and milk products. This finding was similar to Ares *et al.* (2008), who found that consumers lacking nutritional knowledge will be not interested in accepting and purchasing functional food products.

Finally, this study shows that consumers acceptance of buffalo milk and buffalo milk products has a significant relationship with consumer purchasing intention. A study by Kumar et al. (2016), mentioned that consumer acceptance was linked directly with nutritional content, health benefits and consumers' socio-demographic. Based on the current study, the current findings show similarities with the previous findings by Johansen et al. (2011), who found that female consumers show a positive acceptance than men on low-fat dairy products. This is also supported by Wardle *et al.* (2014), who suggest that the high acceptance of low-fat products came from the female respondents. Furthermore, the higher educational level has often been associated with functional food users.

Conclusion

Buffalo milk can be categorized among functional foods due to its health benefits, such as reducing the risk of cardiovascular diseases and cancer, and enhancing bone mass. Understanding the factors that influence purchase intentions towards buffalo milk and its related products is essential for marketers to devise more effective strategies. This study employed the Theory of Planned Behaviour (TPB) to identify key determinants influencing Malaysians' willingness to purchase and consume buffalo milk and its products. However, the findings indicate that TPB may not fully align with the conceptual framework used.

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Specifically, only perceived behavioral control from the TPB model was found to have a significant effect on purchase intention.

To address these limitations, the study extended the model by incorporating additional behavioral factors, such as trust and awareness, which significantly shape consumer perceptions, beliefs, and actions. In light of these insights, the Theory of Reasoned Action (TRA) is recommended as a more appropriate framework for this context. TRA aims to explain voluntary behavior by examining individuals' motivations to act (Doswell et al., 2011). This theory has previously been applied to assess behavioral intentions related to functional foods and dairy products (Haris et al., 2017; Nguyen et al., 2020). Moreover, the results underscore that consumers' knowledge about buffalo milk and its products plays a crucial role in fostering acceptance and driving favorable purchase intentions. Therefore, marketers are encouraged to provide informative content to educate consumers about buffalo milk's benefits, thereby enhancing product awareness and acceptance.

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