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Perceived value dimension in repetitive fish consumption in Indonesia by using an extended theory of planned behavior

Yulist Rima Fiandari, Surachman Surachman, Fatchur Rohman and Ananda Sabil Hussein

Department of Management, Faculty of Economics and Business, University of Brawijaya, Malang, Indonesia

Abstract

Purpose – This study aims to establish the findings by confirming the extent to which an extended version of the TPB estimation relates to repetitive fish consumption. This study is important for the sustainable consumption of fish in society. The purpose of this paper is to examine the relationship that explains perceived value, consisting of monetary and non-monetary values, in shaping attitudes on repetition of fish consumption.

Design/methodology/approach – The sampling of this study was conducted for eight months of 365 people who consumed fish for at least one year. This research was conducted in Malang City, Indonesia. Data analysis applied structural equation modelling by measuring perceived values, attitudes, social norms, behaviour control, intentions and frequency of fish consumption.

Findings – It mostly follows the extended theory of planned behaviour (TPB) sections, with exception on the relationship of subjective norms to intentions and attitudes, subjective norms and perceived value towards repetition of fish consumption. The results of the study indicate that attitudes are preceded by the formation of perceived values. The perceived value significantly affects attitude formation. The perceived value of fish consumption is explained by health and monetary values. A positive attitude does not always precede consumption. Subjective norms provide a weak role in the repetition of fish consumption, while behaviour control plays an important role in realising action on repetitive fish consumption.

Originality/value – This study helps explain the extended TPB, and intentions towards the behaviour of repetitive fish consumption. Attitudes are preceded by the formation of perceived values in the TPB in intention repetitive fish consumption.

Keywords Structural equation modelling, Perceived value, Extended theory of planned behaviour, Repetitive fish consumption

Paper type Research paper

Fish, as one of the major sources of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), has been shown to protect human health against coronary heart disease and stroke. The research results by Burr et al. (1989) show that fish consumption lowers the mortality rate caused by coronary heart disease. Several studies have shown that consuming fish can help reduce the risk of cardiovascular disease (Haimeur et al., 2019). The results of research by Alhassan et al. (2017) also show that there is evidence that consuming fish oil provides a significant improvement in levels of triglycerides and HDL that help reduce cardiovascular risk. Unfortunately, the level of Indonesian fish consumption per capita is lower than that of some other ASEAN countries, reaching 41.11 and 43.94 kg/capita in 2015 and 2016, respectively (Ministry of Marine Affairs and Fisheries, 2018). This level of consumption is lower than those of Malaysia and Singapore. Data from the Ministry of Maritime Affairs and Fisheries show that Malaysian fish consumption per year reaches 70 kg/capita, and Singapore’s fish consumption per year reaches 80 kg/capita (Detik, 2017). To improve fish consumption and policy in society, there is a need to understand repetitive fish consumption. The repeated consistency of fish consumption is needed to form a healthy society.
Mowen and Michael (2001) argue that consumer behaviour is concerned with the buying and selling process, which involves the acquisition, consumption, and use of goods and services. The decision to buy fish cannot be separated from various driving factors. One factor in the purchase decision of fish is related to attitudes, social norms and perceived behaviour control (Tuu et al., 2008). Research by Tuu et al. (2008) relates to the theory of planned behaviour (TPB), proposed by Fishbein and Ajzen in 1991. The TPB reveals that attitudes, social norms and perceived behaviour control affect the intentions of influencing behaviour. Research by Tomic et al. (2015) points out that the TPB can predict the intentions behind the household consumption of fresh fish in Croatia. All original TPB constructs, which include attitude, subjective norms and perceived behaviour control, significantly predict the intentions of fish consumption. Research on TPB is also conducted in the consumption of other foods. Johe and Bhullar’s (2016) research employs the TPB on the consumption of organic foods. Research using the TPB has also been conducted to determine the behavioural intention of organic food consumption (Swidi, 2014). Such attitudes as the mediating variable affect the intentions of organic food consumption. Perceived behaviour control and subjective norms as mediating variables have no impact on consumption intentions.

In its development, the body of research concerning TPB suggests that the established studies are experiencing shortcomings. Scholderer and Trondsen (2008) explain that this theory does not determine the beliefs that underlie attitudes, subjective norms or perceived behaviour control. Mullan et al. (2012) reveal that the existing TPB literature has limitations to consider. The TPB does not distinguish between variables that can predict intent and repetitive behaviour as well as knowledge. Another disadvantage concerns the antecedent attitudes as a single variable that directly affects intention. French et al. (2005) contend that the attitude variable is not strong enough to prove a direct relationship between attitudes and intentions in performing sports activities using tools. The intention to perform an action is insufficient to influence a person to perform. Attitude measurement can predict consumer acceptance of food. However, the reasons for food choices remain questionable (Cha et al., 2010).

This study aims to establish these findings by confirming the extent to which an extended version of the TPB estimation relates to repetitive fish consumption. On the other hand, studies that evaluate perceived values and the TPB on fish consumption are still rare. Different TPB research results signify a gap for development theory, which this research seeks to fill. Attitudes must be preceded by a variable that encourages the formation of such attitudes. This attitude is preceded by the formation of values that describe the perspective of perception that has a specific content. The second thing to be examined in this study is that the value variable is not a single variable. Value variable consists of monetary value dimensions and non-monetary values.

Researchers determine a person’s value as the basis for action. Therefore, this research attempts to connect information and cognition with one’s perceived value. The more positive a person’s perceived value is, the more positive the intention value, which further leads to a stronger impetus driving one’s actions. This is in line with research conducted by Jamal and Sharifuddin (2014), who delve into the purchase of halal food products, showing that the perceived positive value will strengthen consumer intention to purchase.

The relationship between value and attitude is also put forward by Homer and Kahle (1988). Their study shows that values as the basis for the attitude formation will lead to a particular action. The relationship is known as the value-attitude-behaviour theory. Hussein’s (2012) research shows the perceived value in the breastfeeding process, exclusively capable of significantly affecting attitudes. The perceived value positively requires a person to manifest behaviour and will be the basis for their attitude.

**Literature review and theoretical background**

The TPB approach has been widely used in food consumption research (Brug et al., 2006; Kothe and Mullan, 2014). The TPB, according to Ajzen (1991), involves internal (within the
individual) and external (outside the individual) aspects. The internal factors include attitude antecedents and behaviour control, while the external factors include social norms antecedents. All three factors form the intention to perform an action. Intentions capture the motivational factors that influence behaviour.

Attitude is a function of belief that performing certain behaviours will give positive or negative actions. The subjective norm describes a belief in the judgement of an action that comes from an environment of family, peers and neighbours. Armitage and Conner (2001) put forward that an appropriate environment will accrue a positive value on behaviour control. Perceived behaviour control will strengthen one’s intention to take action.

Every researcher has a different point of view involving perceived value. Perceived value, according to Zeithaml (1988), is defined as consumer evaluation based on the benefits of a product, particularly concerning the received or perceived value compared with the sacrifices one has to make. Perceived value, according to Zeithaml (1988), results from monetary and non-monetary factors. Holbrook and Corfman (1985) propose views on values seen as situational perceptions which depend on the context in which evaluative judgements occur. This helps explain the diversity of meaning values. Perceived value will affect consumer attitudes (Swait and Sweeney, 2000). A study by Oh (2000) on perceived value indicates a strong relationship to consumer intention in deciding which restaurant to go to. Other studies have shown that perceived value also affects predictive intentions (Petrick and Backman, 2002).

Perceived value, according to Zeithaml (1988), has two constructs, encompassing monetary and non-monetary values. Dagevos and Ophem (2013) reveal the value contained in food also consists of several parts, including product, process, location and emotional values. Dumitrescu and Nganje (2013) explain the perceived value of pasta food in the development of Zeithaml’s value; the perceived value of pasta in Greece and Romania evolved into the original food aspects of a country, price, food content, nationality and gender aspects. Health value denotes the realisation of non-monetary value:

**H1.** Health and monetary values are positively associated with perceived value.

**Influence of perceived value on attitude**

A number of studies reveal a relationship between perceived values and attitudes. Perceived value indicates a person’s feelings on the satisfaction of a particular object or something that shows the sustained value of the predetermined expectations and choices (Chen, 2016). Medeiros et al. (2016) show that value as the consumer’s perception is directly related to their willingness to pay:

**H2.** Perceived value has a significant effect on attitude.

**Effect of attitudes on consumption intentions**

Research by Smith et al. (2008), delving into soft-drink consumers on attitude variables, reveals a positive relationship between attitude and consumption. Respondents who report having a more positive attitude have a greater intention to purchase. The attitude variable has a positive and significant value as the predictor to the intention in environmental preservation activities (Louis et al., 2008):

**H3.** Attitudes have a significant effect on consumption intentions.

**Influence of perceived value to consumption intention**

Chen and Chao (2011) investigate respondents’ work and reveal that the perception of benefits is the most important attitude variable for both motorcycle and car users. Park and
Kim (2014) argue that, when respondents have perceived value on the importance of navigation, their intention to use technology increases:

**H4.** Perceived value has a significant effect on consumption intention.

Research by Smith et al. (2008), concerning soft-drink consumers on the subjective norm variable, shows a positive relationship between attitude and consumption intention. Another study conducted by Brouwer and Mosack (2015) suggests that a subjective norm with a positive value will affect the respondents’ intention pertinent to healthy food consumption:

**H5.** Subjective norm has a significant effect on consumption intention.

Fila and Smith (2006) prove that controlling the respondents’ behaviour positively affects their desire to live with a healthy diet. Chen and Tung’s (2014) study shows that perceived behaviour control on the respondents positively influences their intention to visit hotels, which emphasises environmental concerns and sustainable tourism development:

**H6.** Perceived behaviour control has a significant effect on fish consumption intention.

Research by Tuu et al. (2008) indicates a positive relationship between behaviour control and fish consumption behaviour, in line with the study of Mullan et al. (2013), which suggests that positive perceived behaviour control will create the impetus for fruit consumption:

**H7.** Perceived behaviour control significantly influences repetitive fish consumption.

Chen et al. (2012) suggest that respondents with a deeper understanding of environmental issues have a higher probability of engaging in environmentally friendly consumption behaviours:

**H8.** Attitudes significantly influence the repetitive fish consumption.

Jun and Arendt’s (2016) research on the behaviour of healthy food consumption in restaurants has shown that a positive intention will encourage a person to consume. It is, therefore, suspected that a positive intention will be manifested in consumption:

**H9.** The intention of fish consumption significantly influences repetitive fish consumption.

The concept of research is described in Figure 1.

**Methodology**

This study was conducted over eight months, from June 2017 to February 2018, in Indonesia. The respondents were consumers who consumed fish for at least one year. In total, 500 questionnaires were distributed to the respondents. The conceptual framework of the study illustrated the links among perceived value, behavioural planning theory intentions and the repetition of fish consumption.
The sample was determined by non-probability sampling since the probability of each population element to be selected into the sample was unknown (Cooper and Shindler, 2003). Leary (2004) contends that non-probability sampling applies for most research aiming to test the hypothesis as to how a particular variable relates to behaviour. The criteria in determining respondents resulted in the involvement of subjects of the age of 17, male and female, who had graduated from at least senior high school. Data collection in this study was conducted using printed questionnaires distributed to the subjects. The distribution and collection of questionnaires were assisted by several volunteers. The study was conducted in the Malang regency and municipality.

**Measurement**

All variables except attitude are measured using the Likert scale (five-point scale). The perceived value in this study includes one’s perceptions concerning health and monetary value. The health value describes the benefits a person considers regarding health, adapted from a concept proposed by Sparks et al. (2001), which defines the identity of health as the awareness of health values, an essential component of one’s self-concept. According to Yang and Peterson (2004), Agarwal and Teas (2016), Dunstan et al. (2008) and Lund (2013), monetary value is a benefit obtained by a person compared with the sacrifice (price) he has to make (Zeithaml, 1988). The monetary value in this study is based on Yang and Peterson (2004), Wu and Liang (2009) and Sullivan Mort and Drennan (2005).

Attitude is measured using a semantic scale (Ajzen, 2006). The attitude indicators under investigation are based on Johe and Bhullar (2016), Olsen et al. (2008), Mullan et al. (2013) and Tomic et al. (2015). The subjective norm in this study measures the influence of social environment and is often described as the perceived social pressure or expectation of people in general or of a particular group or individual (Olsen et al., 2008). The subjective norm indicator under investigation refers to the studies of Olsen et al. (2008), Mullan et al. (2013) and Verbeke and Vackier (2005). Perceived behaviour control shows an individual’s perception of his or her own ability to achieve a certain outcome. In this study, the behaviour control research indicator is based on the research by Tuu et al. (2008) and Verbeke and Vackier (2005).

Intention indicates that someone is willing to try and perform a behaviour. Fish consumption describes the intensity of consumers in consuming fish in the previous month on a weekly basis. Based on the research by, the study employs the question item: “I consume fish ___ times a week”.

**Results**

**Sample**

In total, 500 questionnaires were distributed, of which 46 were not returned, 54 were not filled in completely and 35 were not legible for further analysis. Therefore, only 365 questionnaires were analysed in this study.

**Measurement of validity and reliability construct**

Construct validity used in this study consists of content validity, face validity, convergent validity and discriminant validity. Content validity measuring items’ instruments can form constructs. Face validity measures how precisely the language context is used to represent an item. Content validity and face validity measurements are carried out by an expert. Convergent validity is used to confirm the level of proximity of items in the construct, and the minimum score for standardised loading should be 0.5 or higher (Hair et al., 2014). Discriminant validity is used to measure how far a construct has differences with other constructs. High discriminant validity values provide evidence that
a construct is unique and able to capture the measured phenomenon. The discriminant validity value is good if the correlation value between constructs has a value below 0.85 (Kline, 2005).

Data analysis
The evaluation of the construct under investigation is estimated by confirmatory factor analysis, to confirm the relationship between variables has no regression. In the result for confirmatory factor analysis, significance probability reached 0.001, RMSEA reached 0.043, GFI reached 0.933, AGFI reached 0.911, CMIN/df reached 1.676 and RMR reached 0.025; all achievements meet the standard fit for CFA (Hair et al., 2006). The next step is to do structural testing of the fit model. This analysis is carried out by the model fitness test (goodness-of-fit test) to examine the significance of factor weight. The significance of the regression coefficient was calculated using the t-test, it was called the critical ratio test in AMOS. CR is a parameter estimate divided by the standard error. Parameters that are not significant indicate that the variable has less role in the model developed; the minimum test statistic is 1.96 based on probability level 0.05, as shown in Table II (Byrne, 2010; Singh et al., 2018).

The model has met the goodness of fit according to the value of significance probability below 0.05, which is 0.000. The RMSEA value obtained is under 0.08, at 0.043. The value of GFI obtained is above 0.90, equal to 0.908. The value of CMIN/df obtained is below the maximum value of 2.00, equal to 1.664. The value of RMR obtained is below the maximum value of 0.05, being 0.022. The results of the goodness-of-fit test indicate that the criteria show good model evaluation results, meaning the conceptual model has been supported by fact. The results reveal the factor-loading values of each variable shown in Table I. A good construct is acknowledged if the standardised value of an indicator loading factor has a value greater than 0.50 (Hair et al., 2006; Kim et al., 2008).

Construct reliability (CR) as part of the method to measure reliability and consistency internal content from the construct. CR for this research is assessed by McDonald’s Ω. A reliability between 0.6 and 0.7 can be acceptable and represents that indicators have good CR. reliability CR more than 0.7 indicates adequate indicators (Hair et al., 2014; Zinbarg et al., 2005). Results show the CR reached more than 0.6 (see Table I), which can show that the indicator is adequate.

AVE is the average squared total standardised factor loading. The minimum value for AVE is 0.5 or higher, which is a good standard adequate convergence. AVE values less than 0.5 represent the items questions failed to explain the variance (Hair et al., 2014). The results showed in Table I indicate that the AVE value was 0.839 on health value; 0.699 on monetary value; 0.555 on attitude; 0.670 on subjective norms; 0.790 on perceived behaviour control; and 0.698 on intention.

Discriminant validity
Discriminant validity has the function to evaluated variables to examine whether the constructs are indeed different from another construct; the standard for discriminant validity is not more than 0.85 (Kim et al., 2015; Hair et al., 2014; Kline, 2005). This research uses correlation below 0.85. Based on Table II, the relationship between attitude and perceived value reached 0.823; relationship between subjective norms and perceived value reached 0.478; relationship between subjective norms and attitude reached 0.553; and relationship between intention and perceived behaviour control reached 0.550.

Table III shows the significance level among the variables’ relationships, while Table I shows the loading factor values of each variable. The significant relationships among variables are indicated by asterisks on p or p-values less than 0.05.
<table>
<thead>
<tr>
<th>Constructs</th>
<th>Perceived value</th>
<th>Attitude</th>
<th>Subjective norms</th>
<th>Perceived behaviour control</th>
<th>Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived value</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attitude</td>
<td>0.823</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Subjective norms</td>
<td>0.478</td>
<td>0.553</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Perceived behaviour control</td>
<td>0.614</td>
<td>0.431</td>
<td>0.377</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>5. Intention</td>
<td>0.526</td>
<td>0.622</td>
<td>0.408</td>
<td>0.550</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table II. Correlation between constructs

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable relation</th>
<th>Path coefficient</th>
<th>CR</th>
<th>p</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Health value ↔ PV</td>
<td>0.578</td>
<td>6.525</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>H2</td>
<td>Monetary value ↔ PV</td>
<td>0.532</td>
<td>5.836</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>H3</td>
<td>Attitude ↔ PV</td>
<td>0.858</td>
<td>3.359</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>H4</td>
<td>Intention ↔ Attitude</td>
<td>0.661</td>
<td>2.444</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>H5</td>
<td>Intention ↔ SN</td>
<td>-0.302</td>
<td>-0.805</td>
<td>0.421</td>
<td>Not significant</td>
</tr>
<tr>
<td>H6</td>
<td>Intention ↔ PBC</td>
<td>0.101</td>
<td>1.147</td>
<td>0.251</td>
<td>Not significant</td>
</tr>
<tr>
<td>H7</td>
<td>RPF ↔ PBC</td>
<td>0.176</td>
<td>2.199</td>
<td>0.028</td>
<td>Significant</td>
</tr>
<tr>
<td>H8</td>
<td>RPF ↔ Attitude</td>
<td>-0.048</td>
<td>-0.521</td>
<td>0.603</td>
<td>Not significant</td>
</tr>
<tr>
<td>H9</td>
<td>RPF ↔ Intention</td>
<td>0.137</td>
<td>1.538</td>
<td>0.124</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

Table III. The test results of direct influence

Notes: PV, perceived value; SN, subjective norms; PBC, perceived behaviour control; RPF, repetitive fish consumption. ***p < 0.001
According to Table III, the variables indicate perceived value consists of health value and monetary value are significant; perceived value has a significant relationship with attitude, attitude has a significant relationship with intention and perceived behaviour control has a significant relationship with intention at \( p < 0.01 \). Perceived behaviour control has a significant relationship with repetitive fish consumption at \( p < 0.05 \). The variables indicating insignificant value are the relationships between variables of perceived value and intention, subjective norm variables and intention, attitude and fish consumption, and the respondent’s variable intention and behaviour to consume fish. The results of this study are illustrated in structural models to clarify the relationships among variables, as shown in Figure 2.

**Research results**

**Discussion**

This study aims to establish these findings by confirming the extent to which an extended version of the TPB estimation relates to repetitive fish consumption. The model formed has been through confirmatory factor analysis, validity and reliability test and fit model testing, which have met the applicable provisions. This research provided perceived value owned by someone will shape attitudes. An action or behaviour is based on one’s perception, which can be observed from perceived value. Perceived value, according to Zeithaml (1988), is the consumer’s overall assessment regarding the usefulness of a product based on its perceived benefits received compared with other products and the costs it incurs. The results of this study confirm the perceived value theory proposed by Zeithaml (1988). The perceived value consists of two dimensions, derived from monetary value and non-monetary value.

The research results put forward perceived value with regard to health value and monetary value. This is also in line with the research by Ozturk and Qu (2008), which examines the perceived value of tourism destinations and outlines dimensions concerned with costs, accommodation, food and beverage facilities, hygiene level and customer service. The values indicated by Ozturk and Qu (2008) differ from those disclosed by Zeithaml (1988), indicating that perceived value has multiple points of view and is dynamic.

The respondents, in general, chose to consume fish because of health concerns. Other special benefits of fish consumption were unknown to the respondents. This is observed from the low perceived value (NP) on questions about how much the respondents know about the specific benefits of consuming fish. Respondents felt a difference after doing fish consumption compared to when respondents did not consume fish. Respondents felt that, after consuming fish, there was enthusiasm to carry out their activities, so that respondents felt consuming fish

![Figure 2. Final result research perceived value combined TPB in fish consumption](image-url)
was important. Health value plays an important role in the formation of the perceived value, in line with the research of Jianying et al. (2014), which reveals health as an important aspect framing respondent perception in the selection of wine consumption in China.

Price becomes an important aspect for consumers, as shown in its relationship with the respondents' perceived value. The respondents appraised the price of fish in relation to the benefits compared with other foods. Respondents have limited ability to purchase fish. Fish at affordable prices can be purchased by consumers, while fish that have high prices tend not to be chosen by consumers. Consumers only purchase fish that has high prices when desired as a menu variation. Indonesia, as a maritime country, has a variety of fish that are sold from cheap prices to high prices. Each product has a different priority level for each person. This affects product price, on which everyone has a different perception. Consumers familiar with a product whose price tends to be constant will often purchase it (Ville and Raijas, 2003). The price of fish, which tends to be stable, affordable and abundant, will encourage consumers to make repeated purchases. Expensive fish prices block consumers from making purchases. Birch et al. (2012) conducted a study on sea fish consumption in Australia, revealing that a high-price factor will prevent consumers from making purchases.

The benefits of fish consumption felt by respondents at affordable prices have an important role to play in forming a positive attitude, which contributes to repetitive fish consumption. This is the value formed in respondents who repeat fish consumption. Values can explain the effects of human behaviour (Homer and Kahle, 1988) and play a role in one's adaptation to the environment (Piner and Kahle, 1984). Cheng and Lu (2013) reveal that a cognitive process in consumer behaviour in the field of tourism involves cognition-affect-attitude-intention, with which one's assessment is supported by perceptions underlying an action. Perceived value is the value one possesses or believes for an action or product capable of providing benefits compared with the sacrifices that must be made.

The research results show a correlation between perceived value and attitude as part of the variable forming the TPB in the intention of repetitive fish consumption. This result is in line with the research by Shin et al. (2017), which indicates the relationship between perceived value and attitude. A person with a positive value of a product will display a positive impulse to purchase. The relation between values and attitude has also been described by Homer and Kahle (1988), who aver that value is a foundation in attitude formation that will encourage a person in performing certain actions. The value orientation becomes the antecedent that underlies one's attitude and behaviour in various interests (Moreaux et al., 2018).

Respondents feel that fish consumption is an enjoyment, which means that fish has a good taste, and is undisturbed by fishbones. The good taste felt by respondents when consuming fish made the respondents eager to consume and not make fishbones a barrier to consuming fish. Taste is considered an important quality sensor in explaining fish consumption (Aikman et al., 2006). The embodiment of a feeling of like or dislike is another driving factor under investigation. The results of this study confirm the TBP, which reveals that attitudes as affective manifestations help determine the intention to perform an action. The results are also in line with Smith et al. (2008), who prove the influence of attitudes towards purchasing intentions. They confirm that the greater the positive attitude, the stronger the intention to purchase.

Attitude is the strongest variable in linking intentions (Paul et al., 2015; Wan et al., 2017). A positive attitude also reinforces the intention to purchase organic food products (Basha et al., 2015). This is in line with the study by Honkanen et al. (2005), which points out that attitude is positively related to the intention to consume seafood. A positive attitude towards food in the local sector supports intentions in local food consumption in Australia and Chile (Bianchi and Mortimer, 2015). Hung et al. (2016) reinforce that attitude drives consumer purchase, thus a direct influence of attitude on fish consumption. Various benefits felt by the respondents also encourage repeated fish consumption.
The findings show that the perceived value does not have significant relation to fish consumption intention. Other factors are essential in encouraging fish consumption. For instance, behaviour control has a significant value in that the perceived value is not able to form the intention of fish consumption on its own. The respondents’ perception to the fact that fish provide more needed nutrients than other foods outweighs the price of fish. This is in line with the concept of the perceived value theory, proposed by Zeithaml (1988). Someone has perceived value if the element of benefit is more dominant than the sacrifice he has to make, reflected by the price of fish. These findings reinforce the benefits faced by consumers and the impetus for long-term repeated consumption. The duration of fish consumption in this study dominates ranges from 16 to 20 years.

These findings indicate that the subjective norm is less influential on consumption intentions, meaning that the influence of the nearest circle does not affect fish consumption intention. The research findings are inversely proportional to the TPB concept, which shows subjective norms influence one’s actions. This is in line with studies showing subjective norms do not encourage local food consumption in both Australia and Chile. The intention of purchasing food and the decision to buy are determined by a person’s values and beliefs (Bianchi and Mortimer, 2015).

These results are also in line with Paul et al. (2015) study, which claims that the subjective norm is the weakest variable in determining intent, suggesting that the approval of the nearest group is not a primary consideration in taking action. Subjective norms do not directly influence consumption intention, especially that of organic food (Johe and Bhullar, 2016), and do not affect the prediction of intent to consume breakfast (Mullan et al., 2012). The low influence of subjective norms on food selection proves that the decision in determining food has a relatively insignificant impact (Mahon et al., 2006), as supported by Ajzen (1991), who states that the intention to act is determined by personal factors related to attitude and behaviour control. This reinforces that, in repetitive consumption behaviour, one’s internal factors, rather than external factors, affect consumption.

The results of this study are different from those Tomic et al. on the influence of subjective norms on fish consumption. Similar to Lee et al. (2009), the present study reveals that subjective norms play a role in mobile phone usage. On the same wavelength, research by Giampietri et al. (2018) confirms that subjective norms influence purchasing decisions.

Perceived behaviour control is a belief in a person’s ability to act. Perceived behaviour control in Armitage and Conner’s (2001) study an influential predictor of intentions. Respondents who do not perceive fish consumption as a burden find no difficulty in consuming fish, and feel that fish availability increases consumption intention. As such, the easier it is for the consumer to consume fish, the stronger the intention of repeated fish consumption becomes.

Tomic et al. reveal perceived behaviour control related to fish consumption intentions. Giampietri et al. (2018) reveal that perceived behaviour control plays a role in shaping one’s behavioural intentions. Behaviour controls reinforce respondents to consume organic food (Johe and Bhullar, 2016). Perceived behaviour control plays a role in the consumption of vegetables and fruits as well as breakfast (Mullan et al., 2012), and predicts the intent in setting healthy diets (Close et al., 2018). The benefits of fish consumption are confirmed to encourage fish consumption. The results of this study are not in line with the research of Smith et al. (2008), which acknowledges that perceived behaviour control does not affect purchase intentions. Perceived behaviour control also has no effect on driving behaviour in Bangkok (Choocharukul and Fujii, 2007).

The higher one’s behaviour control is, the stronger the consumption intention will be. Perceived behaviour control shows the resultant effect of fish consumption behaviour, thus showing the relationship between a person’s behaviour control and resultant self-control. Stronger behaviour controls will show greater self-control to actualise fish consumption behaviour.
The study has found that positive values do not directly influence consumption, signifying the gap between attitude and action. This study finds that attitude formed directly affects the formation of intentions in the TPB. The results of this study indicate that perceived behaviour control plays a role in the formation of intention and repetition of fish consumption. Kuchinka et al. (2018) reveal that, if an inconsistency exists between consumers’ positive attitude and sustainable consumption behaviour, an attitude–behaviour gap results. An independently judged attitude alone cannot predict behaviour. The research results by Lakatos et al. (2016) show that consumers with positive attitudes towards the product on an ongoing basis do not always show continuous purchasing behaviour. Lakatos et al. (2016) also suggest that Romanian consumers with a positive attitude towards environmental protection issues display inconsistent consumption of products that provide environmental protection. Hines et al. (1987) identify other factors that influence actions other than attitudes. These factors include the knowledge of environmental issues, environmental preservation, the locus of control, commitment and the level of responsibility in protecting the environment. Locus of control is a manifestation of a person’s perception to manifest behaviour and deals with the control of one’s own behaviour.

The study conducted by Hines et al. (1987) reveals the role of behaviour control driving one’s action, reinforcing the findings of this study – that attitudes serving as independent factors hardly encourage behaviour formation. As such, other factors are needed to realise an action. The behavioural intention of measuring one’s relative strength in conducting attitudes consists of the belief in behavioural consequences (Ajzen, 2015). The results of this study indicate the relation between the desire and joy in fish consumption. Jun and Arendt’s (2016) research on the behaviour of healthy food consumption in restaurants shows that positive value intention encourages consumption. Therefore, the greater the intention of consumption, the stronger the desire of consumption. Saba and Natale (1998) show that intentions influence the consumption of olive oil and other seed oils.

This study is in line with that of Bogers et al. (2004), who examine fruits and vegetable consumption in the Netherlands, which is not predicted by intention. This is demonstrated by the habit of consuming vegetables as part of dinner dishes and fruits between dinners. Consumption behaviour is therefore considered a habit, explaining the weak relationship between intention and behaviour.

Consumption related to habit, as observed from the fish-consumption respondents, with frequency of three times a week, reaches 32.60 per cent. This is followed by four-time weekly consumption, five-time weekly consumption and more than five-time weekly consumption, reaching 18.08, 15.62 and 12.60 per cent, respectively. The level of the respondents’ consumption is quite high, and fish consumption has become a habit.

Implications
This research is beneficial for the government, entrepreneurs in the fisheries sector and academics. The results of this study can help develop the TPB on the importance of perceived values in shaping attitudes. Positive attitudes are not directly related to action, so other factors, such as perceived behaviour control, should be considered to actualise behaviour.

Another action is to provide examples of products to be consumed by the community directly so that people can benefit from fish consumption. The provision of products can be made at various levels of school education to reinforce direct fish consumption benefits and introduce them to those people unaware of its benefits, which will increase the chances of repeated consumption. The price factor is important in the country with the most middle to lower income. This is due to the limited ability of consumers to make purchases if the price of fish is high.
Limitation and future research
Research that is only conducted in one place cannot be used as a basis for the results of research to be generalised. This research has delved into the frequency of fish consumption in society, but not the distinguished types and variety of prices of fish consumed. High levels of fish variation will boost fish consumption. By contrast, low levels of fish variation can lower fish consumption.

References


Zinbarg, R.E., Revelle, W., Yovel, I. and Li, W. (2005), “Cronbach’s a, Revelle’s, b and McDonald’s w- their relations with each other and two alternative conceptualizations of reliability”, *Psychometrika*, Vol. 70 No. 1, pp. 1-11.

Further reading


Corresponding author
Yulist Rima Fiandari can be contacted at: yulistrima.fiandari@gmail.com

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