

Research Article

Food Choice and Consumer Purchase Decision: Theoretical Review and Proposed Model

Norhidayah Azman¹; Albattat, Ahmad²; Jacqueline Tham³

Post Graduate Centre, Management and Science University, University Drive, Off Persiaran
Olahraga, Section 13, 40100, Selangor, Malaysia
Email: norhidayah_azman@msu.edu.my

Abstract

This paper presents and analyses ideas and models for understanding consumer behaviour in relation to food choice behaviour. Six of the most influential model and theories to understanding food choice are explained in: (a) behavioural change theory, (b) random utility model, (c) food choice model, (d) theory of reasoned action (e) theory of planned behaviour, (f) knowledge, attitude, and practise model, and (g) consumer buying decision model. The inclusion of these six sets of models and theories demonstrates their significance in the food choice literature as well as their use in policy research. Despite the abundance of empirical research, that incorporate all six models and theories for the study of food choice, this model and theories were selected as the main proposed conceptual framework for the intended conceptual framework. Following an examination of the models and theories, generalisations regarding the current state of the food choice literature are made.

Keywords: *Consumer, food choice, food product, purchase decision*

Introduction

Food choice, often known as food choice, is the study of the variables that affect decision-making (Snuggs & McGregor, 2021; Chen & Antonelli, 2020; Rojas-Rivas et al., 2021). Food choice is influenced by a complicated collection of variables that vary from person to person and are influenced by culture, history, and upbringing (Bracale & Vaccaro, 2020; Rahman & Luomala, 2020). If the consumer is on a tight budget, they may search for pricing information, and if they have a food allergy, they may look for allergen information. However, additional factors that correlate to personal tastes may also affect meal selection example, sustainability labels for fair trade, organic labels, or health-related information such as health claims (Chen & Antonelli, 2020; Dashti, Scheer, Saxena & Garaulet, 2019; Boncinelli, Dominici, Gerini & Marone, 2019). Personal variables that influence food choice

include habits (“I usually purchase this”) and taste (Marty, de Lauzon-Guillain, Labesse & Nicklaus, 2021; Rojas-Rivas et al., 2021; Chen & Antonelli, 2020). It may also be influenced by our mood and other circumstances like as hunger or being in a hurry.

Several areas of study, including psychology, physiology, consumer behaviour and economics, to investigate this connection. One challenge in researching food selection is that it is almost hard to control for all of the variables that may affect decision in a real-world food choice environment, such as a restaurant or supermarket, or even at home (Gravert & Kurz, 2021; Vermeir et al., 2020; Huang, Bai, Zhang & Gong, 2019). As a result, numerous research have attempted to explain food choices using controlled laboratory experiments (Dubois et al., 2021; Crosetto, Lacroix, Muller & Ruffieux, 2020; Hill et al, 2019). There is no easy answer to this issue, but one method is to undertake both laboratory and natural setting research, utilising the laboratory to develop hypotheses and test relationships that would uncover salient variables affecting choice that might readily transfer to actual settings, then altering these salient aspects in a natural choice environment (Dubois et al., 2021; Crosetto, Lacroix, Muller & Ruffieux, 2020; Hill et al, 2019). This study seeks to explore the Theoretical models of behaviour, which contain both individual and environmental factors affecting the development or modification of behaviours, including, and explaining food selection or food choice.

Literature review

2.1.Behavioural Change Theory

This theory is being developed by Prochaska and DiClemente (1986), In an effort to explain these patterns of behaviour, Prochaska and DiClemente (1986) created a trans theoretical model of behavioural change, which argues that behaviour change happens in five different phases, through which individuals travel in a cyclical or spiral pattern. The first of these phases is known as pre-contemplation. At this point, there is no intention on the side of the person to alter his or her behaviour in the near future. The second stage is termed contemplation, and it occurs when individuals are aware that a problem exists and are actively contemplating taking action to solve the issue. They have not, however, committed to acting at this time. The third stage is referred to as preparation, and it includes both intents to change and some behaviour, which is typically modest and frequently has limited effectiveness. The fourth stage is action, in which people change their behaviour, experiences, or surroundings in order to overcome difficulties or achieve their objectives. The fifth and final stage, maintenance, is when individuals strive to avoid relapse and maintain the achievements made during the action stage. The maintenance stage is distinguished by the

stability of behaviour change and the prevention of relapse (Rojas-Rivas et al., 2021; Shen, Long, Shih & Ludy, 2020; Feitsma, 2019).



Figure 1: Behavioural Change Theory. Sources: (Prochaska & DiClemente, 1986)

2.2. Random Utility model

Random utility (RU) models allow for consumer selections between mutually incompatible discrete options (for example, brand selection) (Hanemann 1984; Baltas & Doyle 2001). As shown by their observable choices, customers are believed to maximise utility (example; From a collection of options in the market, customers choose the food product with the most desirable set of characteristics). The utility function of a consumer is believed to be deterministic for that person and therefore contains some components that the researcher cannot observe, such as taste preferences (Hanemann 1984). Thus, the utility function may be split into two components: (a) a deterministic component that is defined as a function of observable attributes of alternative goods and/or individual characteristics; and (b) a stochastic component that accounts for unobserved variables affecting food choice, interpersonal differences in value owing to taste heterogeneity, and measurement errors (Baltas and Doyle 2001).

The choice of organic food products vs nonorganic or conventional foods (Gracia and de Magistris 2008) and preferences for extra-virgin olive oil were analysed using random utility models (Cicia, Del Giudice & Scarpa, 2002). However, academics have run across a variety of practical issues when attempting to use Random Utility models. To begin, there is a trade-off between simplicity and realism in the choices considered (Baltas and Doyle 2001). If the quantity of available choices becomes overwhelming, it may become uncontrollable. On the other side, a simple design may result in poor validity. For instance, if a researcher evaluating numerous brands of instant coffee overlooks the fact that each brand is often available in a range of pack sizes and caffeinated and decaffeinated variations, estimates are likely to be of little use. Second, the majority of empirical research has focused on the reciprocal exclusivity situation, in which consumers choose a single brand or product within a category.

Consumers, on the other hand, may choose a subset of brands within a product category; for instance, a consumer may purchase two varieties of cheese simultaneously (Hanemann 1984).

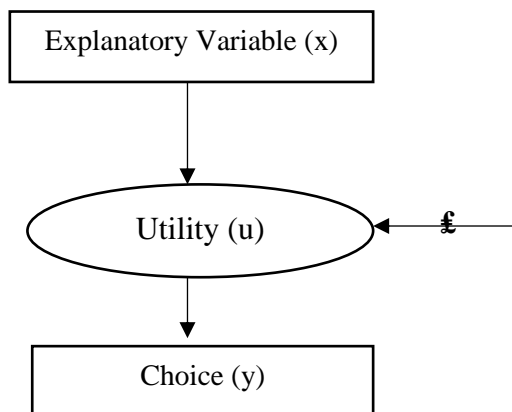


Figure 2: Random Utility Theory. Sources: (Hanemann, 1984; Baltas & Doyle, 2001)

2.3. Food Choice Process Model

The food choice process model was created by Furst et al. (1996). It is one of the most prominent grounded theory and qualitative research-based method. The model is made up of three major components: the life cycle, influences, and personal systems (Figure 3). The term "life course" relates to one's previous and present eating experiences. Furst et al. (1996) believe that in order to understand contemporary patterns of food intake, one must first understand trajectories, which are defined as a person's persistent ideas, emotions, tactics, and actions throughout the course of their life. According to Devine, Connors, Bisogni & Sobal, (1998), trajectories emerge in particular social and historical settings and become durable, exhibiting their own velocity and continuity. The family unit is considered as the most important social and historical context, and a person's upbringing affects their food consumption patterns even after they leave their parental home. However, the authors caution against simplistic historical determinism, noting that researchers should also document transitions - events in a person's life that "lead to changes in or solidify the continuation of behaviours, including food choice patterns" (Sobal, Bisogni, Devine & Jastran, 2006). For instance, illness may act as a critical transition, upsetting habits (Falk et al. 2000). Furst et al (1996) model includes influences on values, resources, the social context, and the food situation. Ideals are the symbolic implications associated with food, such as social status and whether an item is deemed "suitable food." The authors note that although some people are

more 'food-centered,' deriving pleasure, security, and symbolic value from cooking, others have a lower 'food salience.'

Money, equipment, and space are classified as intangible resources, whereas physical resources (money, equipment, and space) are classified as physical resources (skills and time, knowledge and culinary). Both of these groups are believed to be major determining factors. The social framework encapsulates the core of interpersonal relationships, social roles, and meaning. Furst et al. (1996) see families as the most influential set of interpersonal relationships influencing food choice, with individuals 'enacting or being assigned specific family food responsibilities' (Furst et al. 1996). The concepts of the third dimension are the individual dietary system, which refers to the mental processes through which individuals interpret influences on their food choices into how and what they consume in a particular setting. This section is divided into two main sections: value debates, which include evaluating the relative benefits of different factors, and strategies. Furst et al. (1996) identify six main food-related values: sensory perceptions, financial concerns, convenience, health/nutrition, relationship management, and quality.

Devine et al. (1998) explain fruit and vegetable consumption patterns using Furst et al., (1996) model. It has also impacted studies on the dietary choices of senior customers (Falk et al. 1996; Bove, Sobal & Rauschenbach, 2003) and newly married couples (Falk et al. 1996). The food choice process model incorporates a much larger number of variables than the economic household model and is meant to be exhaustive (Sobal et al. 2006). For instance, the emphasis on life histories contrasts with Becker's (1965) and Bonke's (1992) economic models, which exclude past behaviour and personal health (illness) as explanatory variables. However, the model is based on a small data set - 29 interviews with residents of New York State (USA). Each interview lasted about 20–30 minutes, which is brief by qualitative research norms for in-depth interviews and seems inadequate to capture an individual's life path, influences, and personal eating systems. While the model aspires to universality, its cross-national applicability has not been rigorously tested. It is difficult to pinpoint the exact role performed by each model component; as Sobal et al. (2006) admit, 'the model dimension are not mutually exclusive of one another due to their overlap and interaction.' As a consequence, proving causality is difficult. Despite these limitations, it is important to recognise that qualitative research may be beneficial in elucidating consumer motivations and attitudes about food selection.

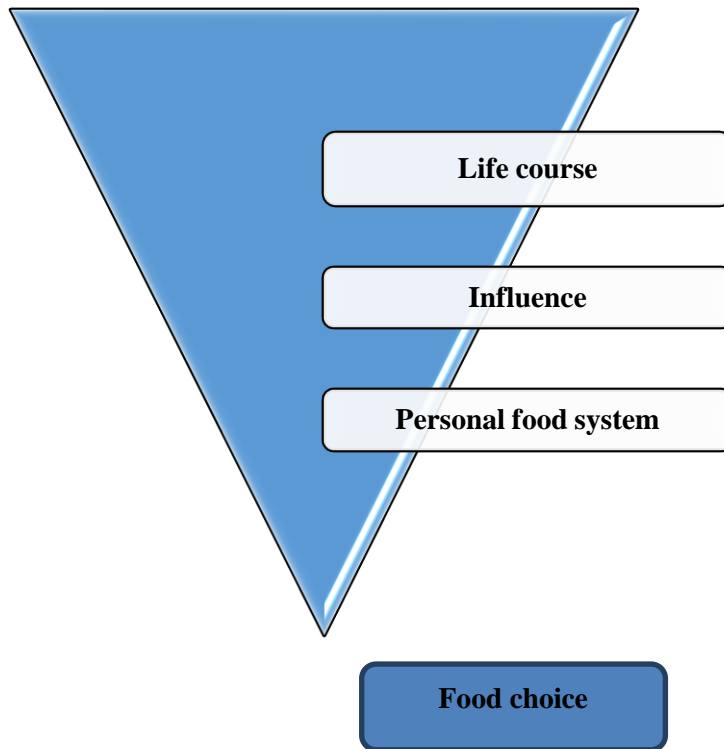


Figure 3: Food Choice Process Model. Sources: (Furst et al., 1996).

2.4.Theory of Reasoned Action (TRA)

Ajzen and Fishbein's (1980) establish Theory of Reasoned Action is predicated on the notion that the immediate predictor of behaviour is a behavioural intention. Intentions to engage in certain behaviours are affected by both the individual's attitude toward that behaviour and the values of others. Attitudes include both views about the outcomes of behaviour (behavioural beliefs) and an appraisal of the repercussions of such behaviour (outcome evaluation). Subjective norms are social pressures to behave in a certain way, as well as a desire to adhere to others' choices. Although the TRA was not specifically designed to model food choice, it has been extensively used for this purpose. McCarthy et al. (2003), for instance, use the TRA to mimic beef consumption in Ireland. They found that both attitudes and subjective norms are significant predictors of behavioural intentions, with the latter being significantly linked with their behavioural measure. Additional research using the TRA to examine food preferences found significant correlations between the model's main components (Saunders and Rahilly 1990). On the other hand, the TRA was created only to mimic purely volitional behaviour, that is, circumstances in which successful execution of a behaviour requires only the formation of an intention to perform that behaviour (Conner and Armitage 2006).

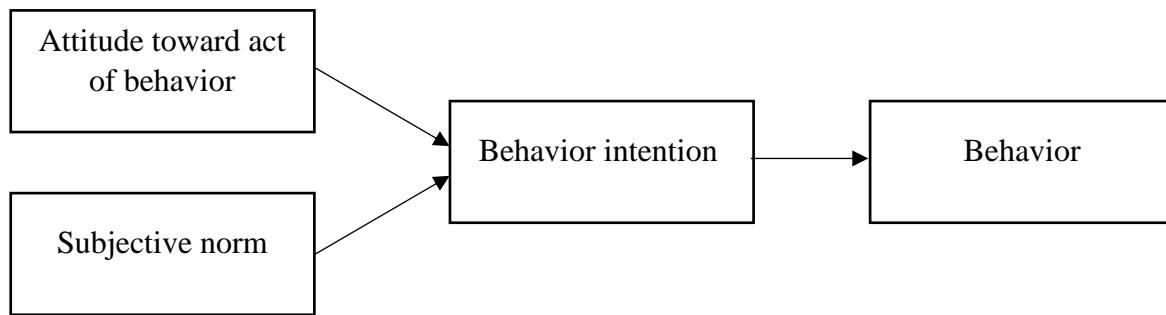


Figure 4; Theory of reasoned action. Sources: (Ajzen and Fishbein, 1980)

2.5.Theory of Planned Behaviour (TPB)

Ajzen (1991) developed the notion of planned behaviour to handle circumstances in which volitional control is insufficient (TPB). The TPB builds on the TRA by introducing a new concept, perceived behavioural control (PBC), which is believed to be a predictor of both behavioural intentions and behaviour. PBC considers both internal control aspects (knowledge, skills, and abilities) and external control elements (dependence on others/environmental variables). According to the TPB, intentions are influenced by three factors: (a) whether the individual is in favour of performing the specific behaviour (attitude toward the behaviour), (b) the amount of social pressure the individual feels to perform the behaviour (subjective norm), and (c) whether the individual feels in control of the action in question (self-efficacy in relation to the behaviour) (perceived behavioural control).

It should be highlighted that the TPB maintains a 'reasoned action' approach to consumer behaviour, believing that consumer intents and behaviour flow logically from the behavioural, normative, and control beliefs that people have about their behaviour. While people's beliefs may be unfounded, inaccurate, or even irrational, it is believed that attitudes, subjective norms, and perceptions of behavioural control emerge spontaneously and rationally from these beliefs, generate corresponding behavioural intentions, and ultimately result in behaviour consistent with the overall tenor of the beliefs. As a consequence, this theory argues that, on average, explicit attitudes about available options are the drivers of customer decisions (Ajzen 1991). The TPB has developed into the most widely utilised theoretical framework for food choice modelling (Conner and Armitage 2006). Cox et al. (1998) and Nguyen, Otis & Potvin (1996) utilise the TPB to explain variations in fruit and vegetable intake, as well as fat consumption. In Cox et. al., (1998) study of fruit and vegetable consumption, the TPB explained between 33% and 47% of the variation in

behavioural intentions. All three variables, attitudes, subjective norms, and PBC, were significant predictors, with attitudes being the most important. Nguyen, Otis & Potvin (1996) found that all three components were significant in explaining intentions to eat fatty meals, with attitudes being the most important. Additional study on fruit and vegetable consumption (Povey et. al. 2000) establishes a strong correlation between behavioural intentions and actual behaviour.

The TPB was selected as the primary theoretical framework for the Focus Balkans project owing to the large body of empirical research validating the model, particularly in the study of food choice. While many studies have shown the validity of the TPB method, different improvements have been proposed to improve the model's fit. Self-identity and perceived need are often added as extra factors (Conner & Armitage, 2006). Individuals may be more likely to eat healthily if they believe themselves to be 'health conscious,' or to select environmentally friendly products, such as organics, if they regard themselves to be 'green consumers.' Sparks and Shepherd & Towler (1992) examined the latter notion and found that, in addition to the other components of the TPB model, self-identity did contribute significantly to explaining intentions to consume organic vegetables. Conner and Armitage's (1998) meta-analysis suggests, however, that the contribution of self-contribution identities to the explanation of variations in behavioural intentions may be relatively limited, accounting for much less than the TPB's "conventional" components. Paisley and Sparks (1998) extended the TPB with a second adjustment, perceived need.

While the TPB may measure attitudes, it does not assess whether individuals believe such behaviour is necessary. For instance, a person may think that a low-fat diet is good in general, though is unnecessary for him/herself. In studies that have incorporated it, perceived need has been found to significantly enhance the prediction of behavioural intentions (Paisley and Sparks 1998; Povey et. al., 2000). Individuals who exhibit ambivalence about an object – having both positive and negative views toward it – are more likely to have weaker attitude–intention links. In terms of food, for example, a person may have mixed feelings about 'junk food,' like the flavour but despise the excessive fat content. According to Conner and Armitage (2006), ambiguous attitudes are likely to modify the relationship between attitudes and intention/behaviour, such that' stronger (example; less ambivalent) attitudes are more predictive. In study on meat and chocolate eating, Sparks et al. (2001) found some empirical support for this concept. While academics think that attitudes are critical for behaviour

modification, it is critical to emphasise that the model does not explain how attitudes are created or changed. This is particularly critical for food organisations and business professionals seeking to change their behaviour. It is conceivable that the formation and change of attitudes may be best characterised in terms of life cycle, trajectory, and transition Furst et. al., (1996). On the other hand, including this into TPB modelling would need a totally new research approach.

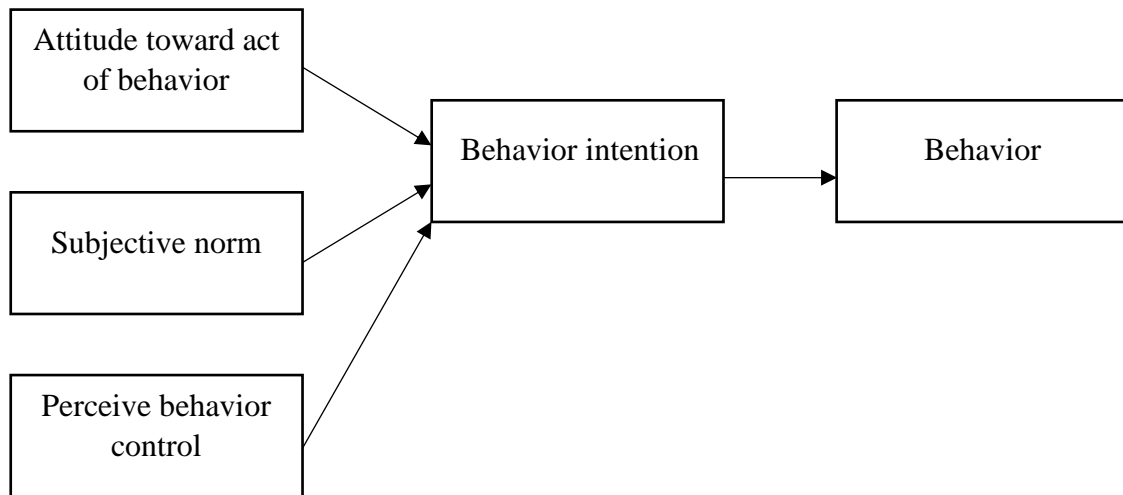


Figure 5; Theory of planned behaviour. Sources; (Ajzen, 1981)

2.6.Knowledge, Attitude and Practice.

The theoretical basis for the creation of the predicted connections was the knowledge, attitude, and practise (KAP) model. According to the KAP model, knowledge positively affects an individual's attitude, which in turn influences practises or behaviour. According to Launiala (2009), this model was originally used to evaluate family planning and population in the mid-nineteenth century (Launiala, 2009). According to the KAP model, any practises (behaviours) are defined by the individual's attitude and knowledge about the behaviours.

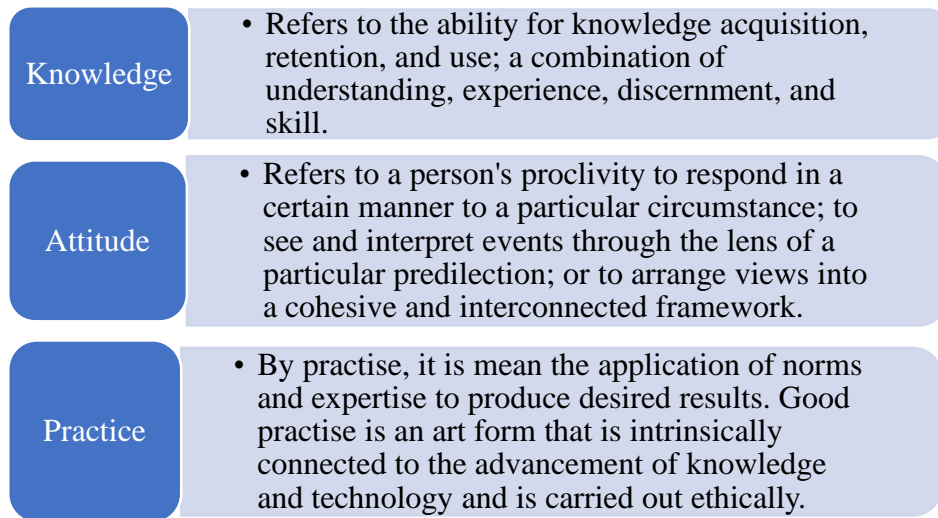


Figure 6; KAP model. Sources; (Launiala, 2009)

2.7.Customer buying decision.

The Consumer Buying Decision model was developed by Engel, Kollat, and Blackwell by combining the Theory of Reasoned Action (TRA) with Blackwell's Model of Buyer Behaviour. To begin, theory focused exclusively on the cognitive elements of consumer behaviour, such as processing of information and decision making (Engel, Blackwell & Kollat, 1993). Problem solving and decision making are influenced by both personal experience and knowledge about the utility and availability of certain goods. Consumer buying decision model explain consumer behaviour in a market, where the customer's primary job is to choose among a variety of offered products (Engel, Blackwell & Kollat, 1993).

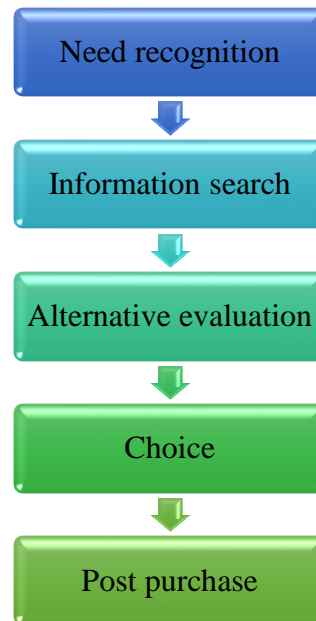


Figure 7; Customer decision making Model. Sources; (Engel, Blackwell & Kollat, 1993)

a) Problem recognition

What occurs to start the process is referred to as problem recognition (Engel, Blackwell & Kollat, 1993). The purchasing process begins with a person or organisation recognising that they have an issue or a requirement (Crawford, 1997). The customer detects a distinction between his or her current condition and a desired one. According to Shiffman and Kanuk (2004), need recognition occurs when consumers confront a disparity between their actual and desired states. When a consumer is exposed to either internal or external cues, need recognition occurs. Internal stimuli are events that occur as a result of the customer's experience, such as hunger or thirst, while external stimuli are influences from outside sources, such as a recommendation for a new restaurant, the design of a package, and so on.

b) Information search

Consumers will seek information after identifying a need or desire. Searches centred on utilising information sources to aid in decision-making (Engel, Blackwell & Kollat, 1993). According to Kotler (1997), there are four types of consumer information sources: 1) personal sources (for example, family, friends, neighbours, and acquaintances); 2) commercial sources (for example, advertising, salesman, dealer, packaging, and display); 3) public sources (for example, mass media, consumer-rating organisations); and 4) experiential sources (example; handling, examining, using the product). Furthermore, Shiffman and Kanuk (2004) state that information search may be done both internally and outside. Internal

information search is the process of remembering information from memory, while external information search is the act of seeking information in the outside world. External information sources are classified into two types: non-marketing-controlled and marketing-controlled. Where it is not connected with a marketer pushing a product, it is referred as non-marketing controlled. It means that the consumer is receiving the information they need from their friends, family, personal doctor, and so on. The sources of information for marketing-controlled information searches are supplied by the product's manufacturer via advertising, sales promotion, sales personnel, and so on (Shiffman and Kamul. 2004).

c) Alternative evaluation.

Following the search for information, the next stage is to evaluate different options. The criteria employed by the customer to evaluate alternatives and the state of intention to purchase are referred to as alternative assessment criteria (Engel, Blackwell & Kollat, 1993) The method of assessing alternatives varies not just from client to customer, but also from person to individual depending on the circumstances (Crawford, 1997). When deciding, customers are likely to concentrate on the product characteristics and attributes that are most essential to their current requirements. The consumer will use the data to create a set of criteria. These occur when there are many options, and the consumer must choose the best product characteristic that they are searching for. After the client has decided on the product, they continue to the next step, which is purchasing (Shiffman and Kanuk, 2004)

d) Purchase decision.

According to Peter and Olsen, in 1999, buying may refer to acquiring the preferred alternative. The client will feel some degree of pleasure or discontent after buying the goods (Kotler, 1997). The degree of pleasure or discontent is mainly determined by the compatibility between the buyer's expectations of the product and the perceived performance of the product. If the product's perceived performance meets or exceeds its anticipated performance, the customer is likely to be very pleased (Crawford, 1997; Assael & Henry, 1998; Blackwell, Miniard & Engel, 2001).

e) Post purchase

Finally, the last step in customer decision making is post purchase behaviour. When buying product, customer expect certain outcome from the purchase. These happen when the customer is satisfied with the “additional offering” product and want to continue buy this

product. outcomes can be satisfaction or doubt that a correct decision was made (Engel et al., 1993). After purchasing the product, the customer will experience some level of satisfaction or dissatisfaction (Kotler, 1997). The level of satisfaction or dissatisfaction is largely a function of the compatibility between the buyer's expectation of the product and the products perceive performance. If the products perceive performance either matches or excess its expected performance then the buyer is likely to feel highly satisfied (Crawford, 1997; Assael, 1998; Blackwell, Miniard & Engel, 2001). If the consumer satisfied, he or she will exhibit a higher probability of repeat purchase of the product. Whereas dissatisfied consumer may stop purchasing the product and are likely to spread the word among their friends.

Discussions

Food selection is a very complicated process (Duan et al., 2020; Iswardani, Pramana & Saputra, 2019; Mudalige et al., 2019). It is affected by physiological and psychosocial impulses, is an unconscious and conscious process, is influenced by both intrinsic and extrinsic factors, and has been approached from a diverse range of model, theoretical perspectives and disciplines—psychologists, neuroscientists, behavioural economists, public health researchers, social scientists, and are all represented in the endeavour to better understand (van der Waal et al., 2021; Coskun & Norman, 2021; Beer, Dimmock, Jacksonv & Guelfi, 2020; Kim & Lee, 2020). The job of untangling and analysing the reasons that drive these decisions seems overwhelming (Carolan, 2021).

There have been efforts to create frameworks for better understanding food choice. It may be stated that food selection can be explained by how marketing efforts generate customer recognition and product awareness. It will affect the interest and assessment of the food product based on the recognition. Some moderating effect may influence the final buying choice prior to the final purchase (behaviour). The ultimate choice, which is the actual behaviour, may result in either buying or non-purchasing action. If a customer is pleased with his or her buying behaviour, he or she is more likely to repeat the purchase or to spread the purchasing behaviour.

Figure 7 is shaped by food choice theory in order to better understand how consumers make food selections in their everyday lives. Consumer decision-making research (Peter et al. 1999; Solomon et al. 2006; Bettman 1979; Bettman et al. 1998) focuses on the mechanisms that determine product choice in situations when many choices are accessible, as well as how

knowledge about the alternative products influences choice. Attitude formation and change research is concerned with how consumers process information they are exposed to, make sense of it, and determine whether the information contained in a food product has any positive or negative significance for them, which is typically regarded as a necessary condition for the information to have any effect on their behaviour (Eagly and Chaiken 1993; McGuire 1985; Petty and Cacioppo 1981).

The basic instrument of Figure 7 is based on behavioural change theory (Prochaska and DiClemente, 1986), random utility theory (Hanemann 1984; Baltas and Doyle 2001), Theory of planned behaviour (Ajzen and Fishbein 1980; Ajzen 1991) and classic step model of consumer decision making (Engel et al. 1968). When the consumer is exposed to the factor that motivate them to make the food choice can be expected to have any effect. According to the theory of behavioural change (Prochaska and DiClemente, 1986), food choice model (Furst et al. (1996) and model of consumer of decision making (Engel et al. 1968) there need some motivation or problem that require the consumer need to make food choice in their daily life. The factor that can motivate the consumer to make a food choice is.

3.1. Biological determinants of food choice

a. Hunger and satiety

The fundamental factors of food choice are the consumer's physiological requirements. Humans need energy and nutrients to live and will react to hunger and satiety cues (satisfaction of appetite, state of no hunger between two eating occasions). The central nervous system regulates the balance of hunger, appetite stimulation, and food intake. The macronutrients, which include carbs, proteins, and fats, produce different degrees of satiety (Ziegler et al., 2021; Recio-Román, Recio-Menéndez, & Román-González, 2020; Chen & Antonelli, 2020; Farris et al., 2019; Garlasco, Osimo, Rumiati & Parma, 2019). According to the previous research, fat has the least satiating capacity, carbs have an intermediate impact, and protein is the most satiating. Dietary energy density has been proven to have a powerful impact on satiety; low energy density diets produce more satiety than high energy density diets. The high energy density of high-fat and/or high-sugar meals may also contribute to 'passive overconsumption,' which occurs when extra energy is consumed inadvertently and without the consumption of additional mass. The amount of food or portion size eaten may be a significant satiety indicator (Ziegler et al., 2021; Recio-Román, Recio-Menéndez, & Román-González, 2020; Chen & Antonelli, 2020; Farris et al., 2019; Garlasco, Osimo,

Rumiati & Parma, 2019). Many individuals are oblivious to what constitutes proper portion sizes, and as a result, they unintentionally eat too much energy (Ziegler et al., 2021; Recio-Román, Recio-Menéndez, & Román-González, 2020; Chen & Antonelli, 2020; Farris et al., 2019; Garlasco, Osimo, Rumiati & Parma, 2019).

b. Palatability

The pleasure one feels while eating a specific dish is proportionate to its palatability (Barakchian, Beharelle & Hare, 2021; Georgii et al., 2020; Chen & Antonelli, 2020; Gautier et al., 2019). It is determined by the sensory characteristics of the meal, which include taste, smell, texture, and appearance. Foods that are sweet and rich in fat have an obvious sensory attraction. It is not surprising, therefore, that food is frequently eaten for the enjoyment value it provides rather than as a source of nutrition. Several studies have been conducted to examine the effect of palatability on appetite and food consumption in humans. Food intake rises as palatability rises, although the impact of palatability on appetite in the post-consumption period is unknown. Increasing dietary diversity may lead to an increase in food and energy consumption, as well as a change in energy balance in the short term (Barakchian, Beharelle & Hare, 2021; Georgii et al., 2020; Chen & Antonelli, 2020; Gautier et al., 2019). However, the long-term consequences on energy regulation remain unclear.

c. Sensory aspects

Taste is frequently cited as a significant impact on food consumption. In actuality, the term "taste" refers to the total of all sensory stimulation generated by the intake of a meal (Palmer et al, 2020; Pearce et al., 2020; Dai, Cone & Moher, 2020; Gianini et al., 2019). This encompasses not just the flavour of the meal but also its fragrance, look, and texture. These sensory factors are believed to affect spontaneous meal choice in particular. Taste and familiarity affect eating behaviour from an early age. A preference for sweetness and a distaste for bitterness are considered inherent human characteristics that are present from birth. Taste preferences and food aversions are formed as a result of experiences and are affected by our attitudes, beliefs, and expectations meal (Palmer et al, 2020; Pearce et al., 2020; Dai, Cone & Moher, 2020; Gianini et al., 2019).

3.2 Social determinants of food choice

a. Influence of social class

What consumers eat is shaped and limited by conditions that are primarily social and cultural in nature. According to population research, there are significant variations in food and nutrient consumption among socioeconomic classes (Sheehy-Skeffington, 2020; Qi & Ploeger, 2019; Wertheim-Heck & Raneri, 2019; Ting & Lee, 2019). Poor diets may result in undernutrition (micronutrient insufficiency) and overnutrition (energy overconsumption resulting in overweight and obesity); issues that affect various sections of society and require varying degrees of knowledge and intervention techniques (Sheehy-Skeffington, 2020; Qi & Ploeger, 2019; Wertheim-Heck & Raneri, 2019; Ting & Lee, 2019).

b. Cultural influences

For the majority of individuals, eating is a cultural experience. Culture is made up of beliefs, attitudes, habits, and traditions that are learned via learning that begins with early childhood experiences, most of which is not explicitly taught and is so deeply absorbed that it is unconscious but "goes deep" (Shen, Long, Shih, & Ludy, 2020; Thgersen, Pedersen, & Aschemann-Witzel, 2019). Food habits are among the most ingrained and profoundly established elements of many cultures and cannot be readily altered, or if forcefully modified, may result in a cascade of unanticipated and unpleasant responses (Shen, Long, Shih, & Ludy, 2020). Food selection and its connection to culture as a fundamental component of the consumer serve as a focal point for emotional association, a conduit for love, prejudice, and rejection, and often have symbolic associations. Food sharing represents a high level of social closeness and acceptance (Shen, Long, Shih, & Ludy, 2020). Food has a social or ceremonial function in a wide variety of civilizations. Certain meals are highly regarded; others are kept for special occasions such as festivals or religious feasts; and yet others act as a barometer of social status. Food is classified culturally as 'inedible', 'edible by animals', 'edible by human beings but not by one's own type of human being', 'edible by human beings but not by one's own kind of human being', 'edible by self' (Teigiserova, Hamelin & Thomsen, 2020). Certain meals are regarded 'heavy' in certain cultures, 'light' in others, 'foods for strength' in others, 'luxury' in others, and so on.

The task for the food manufacture is to be culturally flexible, to demonstrate cross-cultural communication skills, to stay aware of nonverbal signals indicative of cultural motivations,

and to move as fast as possible toward establishing a trusting interpersonal connection. Different cultures may promote or discourage the eating of certain foods by members of their communities. Additionally, various meals may be actively promoted or discouraged at different periods of life. This is because certain meals have both advantages and drawbacks at particular points in life and under certain circumstances (Shen, Long, Shih, & Ludy, 2020; Thgersen, Pedersen, & Aschemann-Witzel, 2019). For instance, the majority of cultures prohibit the use of alcohol during pregnancy or breastfeeding. This is owing to the beverage's harmful effects. Foods and nutrition may also be influenced by culture, depending on the individual's religious views. Foods are cooked for a big number of people at regular times of the day in traditional eastern civilizations. The reverse is true in western societies, where food is made less often during the day and usually the same meal is consumed several times throughout the day (Thgersen, Pedersen, & Aschemann-Witzel, 2019).

c. Social context

The effect that one or more people have on the eating behaviour of others, whether direct purchasing food or indirect learning from peer behaviour, conscious where the transfer of beliefs or subconscious, is referred to as social impacts on food intake (Hogreve, Matta, Hettich & Reczek, 2021; Higgs & Ruddock, 2020; Shin & Mattila, 2019; Manipa, V., van der Laan, Brancucci & Smeets, 2019). Even when dining alone, social factors affect food choice since attitudes and habits are formed via contact with others. However, measuring social effects on food intake is challenging since the affects that individuals have on the eating habits of others are not confined to one kind, and people are not always conscious of the social influences that are exerted on their eating habits. Social support may influence food preferences and healthy dietary changes. Social support from inside the family and from co-workers, respectively, was linked with increases in fruit and vegetable intake and the preparatory stage of changing eating habits. Social support may improve health promotion by creating a feeling of belonging and assisting individuals in becoming more competent and self-efficacious (Hogreve, Matta, Hettich & Reczek, 2021; Higgs & Ruddock, 2020; Shin & Mattila, 2019; Manipa, V., van der Laan, Brancucci & Smeets, 2019). The family is generally acknowledged to have an important role in dietary choices. According to research, eating choices are shaped at home. Adopting dietary methods that are acceptable to family and friends may help the person while also having an impact on the eating habits of others since they may be a source of support in making and maintaining dietary change.

d. Social setting

Although the bulk of food is consumed at home, a growing percentage is consumed away from home, such as at schools, at work, and in restaurants. The environment in which food is consumed may influence food selection, especially in terms of what foods are available (Samaddar et al., 2020; Roy, Soo, Conroy, Wall & Swinburn, 2019; Wertheim-Heck & Raneri, 2019). The availability of nutritious foods at home and "away from home" boosts intake of such foods. However, access to nutritious food choices is restricted in many workplaces and schools. This is especially true for individuals who work irregular hours or have certain needs, such as being vegetarian. With the majority of adult men and women working, the impact of work on health behaviours such as dietary choices are an important topic of research available (Samaddar et al., 2020; Roy, Soo, Conroy, Wall & Swinburn, 2019; Wertheim-Heck & Raneri, 2019).

3.3 Firm marketing effort

A firm's marketing effort is defined as a marketing plan that includes the marketing strategy, promotional, and advertising activities for the time. Firm marketing efforts often relate to product, pricing, location, and promotion (Barrett, Foster & Beck, 2020; Melovic et al., 2020; Chou, Horng, Liu & Lin, 2020; Sigurdsson et al., 2020; Houghtaling et al., 2019). Numerous studies have emphasised the importance of the promotional mix in markets as a valuable success indicator. Financial, sales and customer retention are enhanced through a marketing mix that includes gaining experience with the opportunities and challenges inherent in specific export markets, improving communication, personalising relationships, and cultivating a team spirit with international customers, and providing timely response and immediate support to the venture in promotion's needs. (Barrett, Foster & Beck, 2020; Melovic et al., 2020; Chou, Horng, Liu & Lin, 2020; Sigurdsson et al., 2020; Houghtaling et al., 2019). Marketers use promotion to educate, convince, or remind customers in order to impact their view or provoke a reaction. The majority of businesses employ some kind of promotion. Promotional tactics differ greatly depending on the company's objectives. Creating awareness, encouraging people to try goods, giving information, keeping loyal consumers, boosting product usage, finding prospective customers, and educating potential service clients what is required to "co-create" the services offered are all promotional objectives. Visible food product information and graphic elements on food labels, such as the product's name, brand, logo, and color combinations, share information, among several other things, the image and quality of products and play a significant role in determining a

product's success in comparison to competitors at the point-of-sale, where all products are displayed side by side promotion (Barrett, Foster & Beck, 2020; Melovic et al., 2020; Chou, Horng, Liu & Lin, 2020; Sigurdsson et al., 2020). Over time, ingenious methods for increasing sales have been devised, such as the usage of so-called kaleidoscope packaging, which entails regular changes of a product's package to drive desire for the packaging rather than the product. Youngsters are often targeted in this manner, such as when breakfast cereal makers put several famous television characters on boxes to urge children to collect them all (Lamb et al, 2010:261). Firm marketing activities are helpful for communicating with customers and are intended to influence and even initiate consumers' demands, as well as impact consumers' product choices (what they buy and why), as well as product and store loyalty promotion (Barrett, Foster & Beck, 2020; Melovic et al., 2020; Chou, Horng, Liu & Lin, 2020; Sigurdsson et al., 2020; Houghtaling et al., 2019).

3.4 Recognition

Only after the consumer have been exposed and motivated to the factor that influence them to make the food choice, then the consumer will feel the recognition where they need to do decision making process to choose the food in the market (Ushiyama et al., 2021; Chen & Antonelli, 2020; Vermeir & Roose, 2020; Moura et al., 2020). At this stage, consumer recognising that they have an issue or a requirement (Chen & Antonelli, 2020). The customer detects a distinction between his or her current condition and a desired one. According to Vermeir & Roose (2020), need recognition occurs when consumers confront a disparity between their actual and desired states. When a consumer is exposed to either internal or external cues, need recognition occurs. Internal stimuli are events that occur as a result of the customer's experience, such as hunger or thirst, while external stimuli are influences from outside sources, such as someone recommending a new reassurance, the design of a packaging, and so on. A complex mix of internal and external variables may affect and even cause consumers' food product attribute demands to be recognised. External stimuli such as product brand names, logos, colours of the package, container kinds, and labels may either attract customers' attention to food items or induce anxiety and even rejection. When preparing for a nice dinner for distinguished visitors, for example, generic brands are seen as inferior to, and less acceptable than, national names (Vermeir & Roose, 2020). This happens at the shop, in the media, and even while visiting a friend's home. A product may be refused based simply on its packing, even if it had never been used before. Internal, personal factors of a physical and physiological character, such as low blood sugar levels, hunger, or simple

curiosity while viewing product displays in a shop, may also trigger a product desire. Product labels are thus especially important to initiate and address consumers' needs (Moura et al., 2020), while packaged foods, which often includes labelling information into the container itself, offers significant promotional reinforcement and acts as a trigger at the point-of-purchase (Chen & Antonelli, 2020).

3.5 Information search

Consumers will seek information after identifying a need or desire (Chen & Antonelli, 2020; Recio-Román, Recio-Menéndez & Román-González, 2020; Marty, Jones, & Robinson, 2020). Searches centred on utilising information sources to aid in decision-making (Chen & Antonelli, 2020). According to Almeida-García, Domínguez-Azcue, Mercadé-Melé, & Pérez-Tapia (2020), there are four types of consumer information sources: 1) personal sources (for example, family, friends, neighbours, and acquaintances); 2) commercial sources (for example, advertising, salesman, dealer, packaging, and display); 3) public sources (for example, mass media, consumer-rating organisations); and 4) experiential sources (i.e., handling, examining, using the product). Furthermore, Marty, Jones, & Robinson (2020), state that information search may be done both internally and outside. Internal information search is the process of remembering information from memory, while external information search is the act of seeking information in the outside world. External information sources are classified into two types: non-marketing-controlled and marketing-controlled. Where it is not connected with a marketer pushing a product, it is referred as non-marketing controlled. It means that the consumer is receiving the information they need from their friends, family, personal doctor, and so on. The sources of information for marketing-controlled information searches are supplied by the product's manufacturer via advertising, sales promotion, sales personnel, and so on (Marty, Jones, & Robinson 2020)

3.6 Alternative evaluation

Typically, food product characteristics are assessed by consumers who are influenced by a variety of variables such as circumstance, knowledge, participation, and motivation (Engel et al., 1993). This procedure will produce cues, which are pieces of information used to establish quality expectations (Steenkamp, 1990). The intrinsic quality cues encompass the product's physical qualities and are linked to the product's technical specifications, which also include physiological parameters, i.e., traits that can be assessed objectively. Extrinsic quality cues reflect all of the product's other features, such as brand name, price, distribution, outlet,

packaging, and so on. Consumers' use of quality signals to infer anticipated quality may be very complex and, at first glance, seem rather illogical.

Furthermore, the degree of cognitive and behavioural attention consumers expend on issue solving/decision making is extremely dynamic and complicated.; as a result, consumers require a large amount of information to form an opinion and establish a set of criteria against which to use to evaluate particular food product in the market. Aaker et al. (1992) assert that a key characteristic is one that provides a significant advantage in terms of satisfying customer requirements. According to Aaker (1991), since most product characteristics offer customer advantages, there is generally a one-to-one comparison across food products on the market. According to Kotler (2002), the most noticeable characteristics or features of a product to the customer may not always indicate that they are the most essential ones.

In contrast to the majority of other food product goods, specific food product characteristics are clearly stated on the labels of packaged foods to allow for objective, logical product evaluation in the market (Gravert & Kurz, 2021; Trafialek, Czarniecka-Skubina, Kulaitienė& Vaitkevičienė, 2020; Qi, Hu, & Peng, 2020). Food choice may be done on the spur of the moment, depending on brand familiarity (Gravert & Kurz, 2021), or after a more comprehensive evaluation of available alternatives (Trafialek, Czarniecka-Skubina, Kulaitienė& Vaitkevičienė, 2020). A consumer's evoked set of food items would consist of products with the most desired qualities, such as simplicity of preparation, nutritional content, or country of origin, when evaluate a suitable product from a variety of options (Trafialek, Czarniecka-Skubina, Kulaitienė& Vaitkevičienė, 2020). Through the application of a specific decision rule, food product characteristics and advantages are usually evaluated in terms of their relative significance (such as a preference for organic goods, country of origin, and expiration date). A non-compensatory criterion, for example, would require that the food be organically produced and that no other appealing feature, such as a cheap price, would compensate for it (Gravert & Kurz, 2021; Trafialek, Czarniecka-Skubina, Kulaitienė& Vaitkevičienė, 2020; Qi, Hu, & Peng, 2020). When compared to other food product categories, food choice review is usually completed quite quickly. Attributes of new goods in a known product category are often compared to products previously bought by customers (Qi, Hu, & Peng, 2020), and this may be done without forewarning at the time of purchase.

3.7 Intention to purchase

Intention is a mental state that reflects a commitment to carry out an action or acts in the future. Intention entails mental processes such as planning and foresight. Intentions may be stated and clearly defined, but they can also be discovered when they are undeclared or disguised by circumstances that decide, specify, or explain the meaning of an event or other occurrence. Purchase intention is a kind of decision-making that investigates why a customer might purchase a specific food product (Lim & An, 2021; Saleki, Quoquab & Mohammad, 2020; Jeong & Kim, 2020). Saleki, Quoquab & Mohammad (2020), describe purchase intention as a scenario in which a customer is likely to buy a certain product under particular conditions. The purchasing choice of a customer is a complicated procedure. Purchase intent is often linked to customer behaviour, perceptions, and attitudes. Purchase behaviour is an important point for customers to access and assess a particular product. According to Lim & An (2021), purchase intention is an excellent instrument for predicting the purchasing process. Perceive behaviour control, subjective norm and attitude may all affect purchase intent. Furthermore, customers are influenced by internal or external incentives throughout the purchasing process (Jeong & Kim, 2020). Even if one has a strong purpose, the presence of a moderating element such as price and consumer knowledge may alter one's behaviour, whether it be good or bad.

3.8 Purchase decision

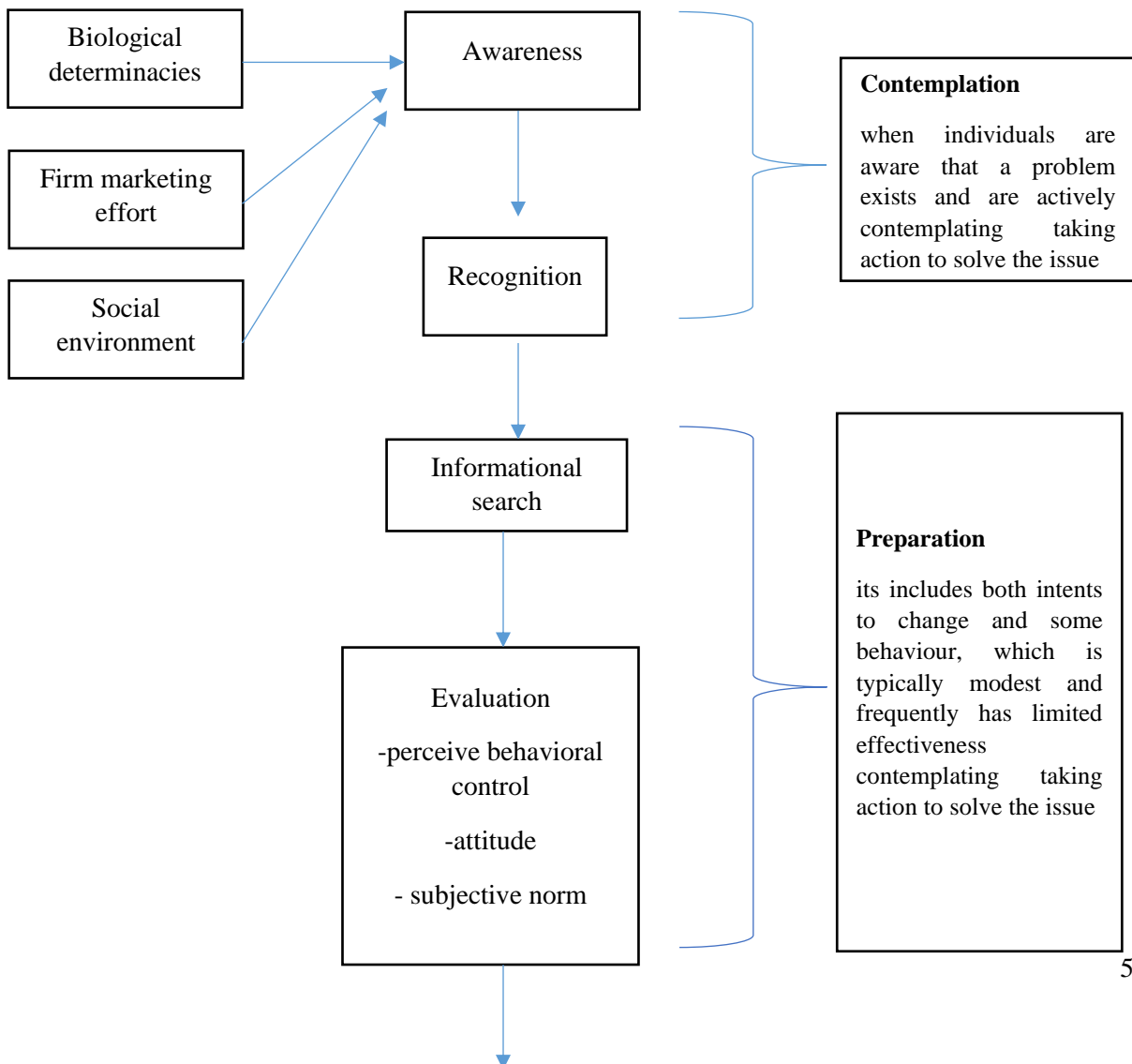
Decisions to purchase may be made using a compensating decision rule, in which customers assess food products before making a purchase decision, depending on relevant characteristics, and a rating is calculated for each food product. The estimated rating for each food product that may be selected indicates its merits and advantages as a possible selection (Hawkins et al., 1992; Schiffman & Kanuk, 2007). In contrast, When a non-compensatory decision rule is chosen, a reasonable level threshold or tolerable overall performance is determined either for each characteristic (conjunctive rule) or for all attributes in the consideration sets (disjunctive rule), or by ranking attributes according to what consumers consider important (lexicographic rule), or by a combination of these methods (Engel et al., 1995) According to Chen & Antonelli (2020), consumers will experience some level of pleasure or dissatisfaction while making food choices that result in real behaviour such as purchasing a food product (Moruf, Ogunbambo, & Moruf, 2020). The degree of pleasure or discontent is mainly determined by the buyer's reasonable expectations and the perceived performance of the food product. If the food product's perceived performance meets or

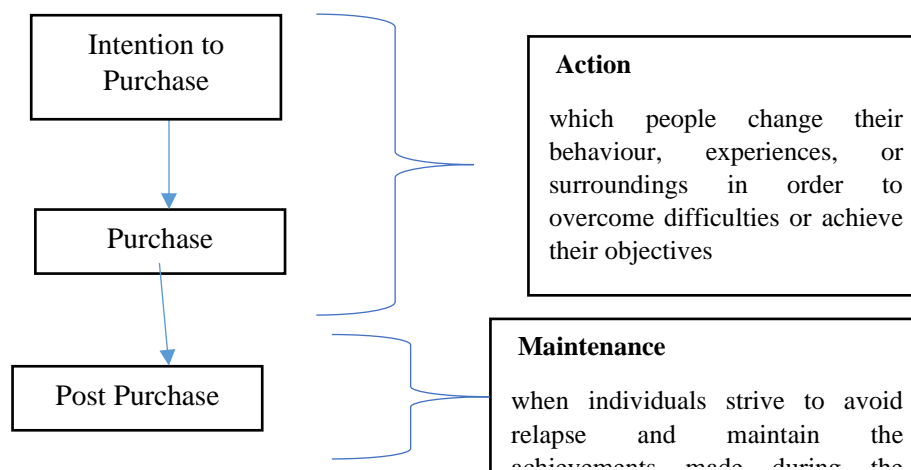
exceeds the customer expectations, the customer is likely to be very pleased (Chen & Antonelli, 2020; Moruf, Ogunbambo, & Moruf, 2020).

3.9 Post purchase

Finally, post-purchase behaviour is the final stage in the consumer decision-making process. When a consumer purchases a food product, he or she expects a certain result. These occur when a client is pleased with the “additional offering” product and want to continue purchasing it. Satisfaction or uncertainty that a right choice was taken may be the result (Izquierdo-Yusta, Gómez-Cantó, Martínez-Ruizm& Pérez-Villarreal, 2020). The consumer will feel some degree of pleasure or discontent after buying the food product (Gera, & Jain, 2020). If the customer is pleased, he or she is more likely to buy the product again. Dissatisfied customers, on the other hand, are likely to quit buying the goods and share the news to their friends

Proposed Model





Conclusion

There are many factors on food choice, which offer a plethora of opportunities to intervene and enhance people's eating choices. Understanding food choice may offer fresh information about the variables that might affect a consumer's food choice based on physiological and psychological considerations (e.g., hunger or mood). However, for the customer who pays close attention to the economic determinacies of the food product that fits into the product characteristics, variables such as accessibility and ease of the product may encourage them to convert their behavioural intention to real behaviour. This research also emphasised the connection between intentions and actual behaviours as mediated by variables that may influence the consumer's ultimate behaviour. Academics may be best positioned to study these problems, but they may certainly benefit from a greater understanding of how purchase intentions mediated by other variables are utilised in practise, as well as partnerships with practitioners to find solutions to these consumer food choice concerns. As a result, a stronger connection between academic research on consumer food choice and practitioner experience would be advantageous, with the potential to significantly improve our knowledge of how to effectively utilise buy intentions to predict sales.

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