



Research article

A qualitative study among youth in Malaysia: What drives the purchase of roasted chicken products by young people seeking a better quality of life?

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ABSTRACT

This study was aimed to assess internal and external factors related to youths' consumption behavior towards roasted chicken products. Qualitative interview was conducted with 30 selected respondents aged 15–20, 21–25 and 26 to 30 from a university and two high schools at Serdang, Selangor. An audio recorder was used to gather qualitative data over two months. A thematic content analysis was applied to identify the needed information, comprising of transcription, coding and theme development. Results disclosed that respondents in this study implied physiological attributes (delicious, tastiness, crispy texture, good flavour, brown colour, smoky aroma, own eating preference), personality attributes (availability, good hygiene, health concern), reference groups (friends, family members) and culture (family lifestyle, early life feeding behaviour) as significant factors that drive their purchase of roasted chicken products. This study's results also disclosed that the most prioritized factors were brown colour, health concern, friends and family lifestyle. The results of this study further identify physiological and personality attributes as internal factors, and reference groups and culture as external factors. Hence, this study concluded that internal factors (physiological, personality) and external factors (reference groups, culture) as essential factors in influencing youths' purchase of roasted chicken products. Thus, this study's outcome is beneficial for the vendors to boost their sales as well as promoting better ways of selecting foods to reduce the risk of non-communicable diseases amongst the youth in Malaysia.

1. Introduction

Diet-related health problems are increasing at an alarming speed in Malaysia. This country has been identified as a highest obesity problem country in South East Asia and sixth in Asia [1]. The prevalence of obesity amongst Malaysian youths was found to be associated with their conscious lack of knowledge about good food eating habit (e.g. excessive consumption of deep-fried foods, sugary treats and supersized portions) and unhealthy lifestyle habits (e.g. excessive screen time, low physical activity and excessive fast food consumption) [2,3]. Lack of knowledge of healthy food choices and unhealthy lifestyles have caused an increase in number of obesity and other chronic diseases amongst the Malaysian youths [4]. It is implied that Malaysian youths have a higher intake of chicken than

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other poultry meats, concur with this past study [5] who infer that youth's preference for fried chicken results in them skipping meals or relying on snack foods to satiate their hunger. The youths prefer fried products such as fried chickens and fried processed foods due to they enjoy the taste, texture and flavour of the fried food products, although fried foods contain large amount of oil, calories and fat [6]. Due to youths' preference of fried chickens which is unhealthy, this article would like to suggest the youths in choosing roasted chickens that is healthier than fried chickens. By analyzing the internal and external factors that influence the youths to purchase roasted chicken products, the sales revenue of roasted chickens can be boosted and enhanced by the vendors in order to promote healthy eating lifestyles amongst the Malaysian youths.

Healthy eating choices are very imperative to improve the quality of life of youths [7,8]. [9] revealed that less than two thirds of consumers are knowledgeable about safest and healthy cooking method. Another study has showed that, Malaysians' consumption of deep fried foods lead to their deteriorated quality of life [10]. It was implied that roasted method is better than deep frying technique due to lesser application of oil, hence this helps to achieve a better health. Roasting is a healthier cooking method compared to frying, searing and barbecuing [11]. Other dry-heat cooking methods such as barbecuing, searing and smoking will increase the release of food carcinogens due to application of extreme heat temperature [12]. Baking and roasting foods are still in safe unless the temperature for heating exceeds 150 °C [13]. Qualitative study revealed that roasting will improve youth's quality of life due to less oil application. Besides, roasting makes food taste better [14]. Another study by Ref. [15], showed eating roasted foods, which carry low calorie content, will help to reduce body weight. Most of the Malaysian youths are keen to purchase roasted chicken products and barbecued foods than roasted vegetables or seafood due to the umami flavors in the chicken meat [10]. [10] indicated that steaming, grilling, boiling and roasting are the healthy cooking methods that would help in improving people's quality of life whilst fried foods are referred to as detrimental foods due to the health risks associated with higher frequency of these foods' consumption.

There is a lack of empirical study specifically detailing the effect of roasting methods towards the quality of life. Thus, this type of research should be conducted more, in order to promote the necessity of deep-frying cooking method to be replaced with roasting method, as this will help the youths to improve their health status. Understanding the characteristics of healthy roasted chicken products may assist the food sellers to improve their foods which will later help in boosting their sales, as indicated by Ref. [16] who emphasised delicious, good flavour, good aroma, brown colour and tastiness of the roasted chicken products as the factors that influenced the youths to purchase and consume roasted chicken products frequently. Another past study found that most of the respondents implied that their friends and family members influenced them to purchase more roasted chicken products [17]. In other words, every time when they went outside, their friends or their sisters/brothers will ask them to buy extra food to eat together at home. Hence, this is how peer and family members influencing youth to purchase and consume roasted chicken more. However, both previous studies did not conduct further analysis regarding internal and external factors that influence the youths to purchase roasted chicken products. Hence, the objective of this article is to study the internal and external factors that cause youths to purchase roasted chicken products towards better quality of life. Thus, it is anticipated that these outcomes may promote better food consumption habit as well as improving youth's health status so that they adopt a better healthy lifestyle in the future.

2. Materials and method

2.1. Design

For this research, qualitative analysis is conducted to determine the internal and external factors that influence youth to purchase and consume roasted chicken products. Participants of this study were youths from two different high schools and also from a local university at Serdang, Selangor. Age ranges of the participants are from 15 to 30. Targeted youth were those who frequently purchase and eat roasted chicken products more than three times in a week. The entire 30 interviews were conducted virtually using Zoom video chatting tool due to the Covid-19 pandemic restriction. English language was used when conducting the interviews. The ice-breaker question: "When was the last time you purchased roasted chicken product?" was used to assist participants to feel comfortable before beginning the session for them to provide valuable information on what, how, and why roasted chickens are purchased.

2.2. Participants

Purposive sampling was used to select 30 participants. To choose the first category which is 15–19, two secondary schools was chosen which is school A and school B. Five youths were chosen from each school. While for age range from 20 to 24 and 25 to 30, total 10 youths were chosen from each age range at a local university in Serdang by using snow ball technique. The participants were chosen from 14 different faculties at that particular university. Semi-structured interviews were used to collect data. The participants' preferences and informed consent were used to determine whether they would have agreed for the interviews. This research has been granted the ethical approval from University Malaysia Terengganu (UMT) research ethics' committee (No. of Human Ethics Approval: UMT/JKEPM/2020/52). The informed consent form and participant information sheet has been approved by the committee and both documents were supplied to the participants prior to interview sessions. All interviews were audiotaped with the participants' agreement and, if required, with their permission.

2.3. Data collection

The interview questions were conducted in a single session. 30 participants were recruited from 4th April until 11th September. Entire respondents from three aged group 15–19, 20–24 and 25–30 were allocated and appointment was set to meet each and every

participant. 10 participants from each age category were chosen by using snow bowling sampling. Following the drafting of the questions, it was agreed to conduct a pilot interview to assess whether the aim of this study are fulfilled with these questions. After the pilot interview, the interview questions guide was eventually prepared (Table 1). The researcher initially introduced herself to the participants, briefly explained the aims of the research, how it is conducted and the duration of the interview. The interview began once the participants provided a written consent. First, demographic questions were asked, followed by the screening and core questions (Table 1). The length of the interview varied from 40 to 60 min, depending on the information supplied by the participants. Sampling and interviews were conducted from 30th September 2021 to 3rd October 2021. The data gathering process was repeated until saturation was reached. For instance, when interviews no longer bring anything new to the research, different participants who frequently buy roasted chicken products were searched and the interview was conducted with a new participant to replace them.

2.4. Data analysis

Interview was conducted using audio recorder with the assistance of semi-structured, open-ended script to guide the sessions and to obtain the 30 participants views [18]. Scripts for the interview were piloted before conducting the actual interview. Audio tapes were transcribed and independent coders, trained in qualitative data analysis. 30 respondents were participated in the general review of the transcripts. A thematic content analysis was carried out [19–21]. The codes were organised into major categories. The independent results were pooled and common themes were identified to provide reliability. Themes derived from the interview were transformed into useful variables to be examined empirically in the survey research which will be reported elsewhere. The transcript of the interviews was written within two months' time.

Table 1
Interview script.

No.	Research objectives	Questions
1.	To explore factors influencing youths' intention to purchase roasted chicken	<ol style="list-style-type: none"> 1. Could you please explain what make you to purchase roasted chicken? (Probe: Tasty/delicious, Food appearance, smoky aroma will stimulates the appetite,) 2. With whom you normally will buy roasted chicken products? 3. How do you choose roasted chicken products in the market? (Probe: By seeing its aroma, flavor, texture, familiarity etc) 4. What causes you to buy roasted chicken products? (Probe: Early life feeding/family eating lifestyle/behavior) 5. Does the current high technology development influences you to eat and buy roasted chicken products? (Probe: Social media podcasting discounts/promo, drive thru) 6. Is your preferred roasted chicken product (grilled chicken/satay/sausages) always available when you needed? (Probe: Yes/no. If no, explain) 7. Do you buy roasted chicken products from one place or many stalls? (Probe: One/various, why?) 8. How do you perceive chicken cooked with roasted methods like satay, chicken parts and sausages? (Prob: Some will have perception that having dry-heat applied cooking methods are safe to eat. (maybe due to less oil)) 9. How culture influences you to buy and consume dry-heat chicken products? (Probe: Culture (Indian traditional foods like 'Thandoori chicken', barbequing with friends)) 10. How peer influences you to consume and purchase dry-heated chicken products? (Probe: Age group factor (they mostly will hangout and will eat outside food more frequent compared to elderly)
2.	To explore factors influencing youths' quality of life.	<ol style="list-style-type: none"> 1. In your opinion, what contributes a good quality of life? Probe: <ul style="list-style-type: none"> - Food consumption - Health concern - Career & Income - Education - Family status <p><i>The following questions were used to elicit in depth responses:</i></p> <ol style="list-style-type: none"> 1. Could you say more about ? 2. What did you mean by? 2. In your opinion, how does having a good health relates to a good quality of life? (being in good health will make us to perform well, contribute a lot..) 3. In your opinion, how does food influences your quality of life? (food will give us energy to nourish our body,) 4. In your opinion, how does consumption of roasted chicken influences your quality of life? (Improve our quality of life or not effected) Why?

2.5. Trustworthiness

To increase the research's credibility, the findings were made accessible to participants, who validated how the categories and subcategories were constructed. They were also informed that participation in the research was entirely voluntary and that they might exit the interview session at any time.

3. Results

3.1. Demographic profiles

Out of 30 respondents, 10 of them are from two different Serdang high schools and the rest 20 respondents were from the university. After the screening questions, the result shows that most of the respondents would like to purchase roasted chicken products in frequent manner. 16 out of 30 respondents have said that, they have just purchased roasted chicken products 'Yesterday' and four peoples said that, they have just purchased the roasted chicken products 'Just now'. They purchased roasted chicken products from the university cafeterias, nearby hawker streets, grab food service, night market and from the restaurants. Moreover, 17 respondents out of 30 respondents have stated that, they will purchase more than 5 pieces of roasted chicken products every time when they went outside. Also, 17 youths willing to spend up to RM10 and around 7 youths are willing to expense up to RM20 to purchase roasted chicken products. Other than two respondents, the rest of the respondents would buy roasted chicken products more than 3 times per week. Hence, it can be summarised that, most of the youth are willing to spend more money to purchase and consume roasted chicken products in frequent manner.

3.2. Themes derived from the interview

3.2.1. Thoughts about roasted chicken products

Eight out of 30 respondents thought that roasted chicken products had delicious taste. This is supported by the excerpt from the interview of participant 7 who is 15 year old, primary school student who mentioned that;

'Whenever I think about roasted chicken, the delicious taste would pop into my mind. As compared to other cooking methods like normal stir-frying and steaming, roasting brings out an authentic flavour and I always enjoy eating roasted chicken with or without rice. The taste is simply mouth-watering for me. That is why it is delicious to be eaten'

Participant 7 further explained, 'Well, if it smells good and the chicken parts are still hot; I will consider that, it would be fresh and delicious'. It signifies that the participant felt that as long as the chicken parts were good taste, good smell and still hot, they were considered as delicious.

Sixteen out of 30 respondents have mentioned that smoky aroma influenced them to purchase and consume roasted chicken products. For example, participant 13, 26 years working youth, explained, 'I mean ... its flavour; the smoky char-grilled aroma stimulates make me to purchase roasted chicken products'. The participants were found to use terms 'char-grilled aroma', 'grilled smell' and 'charred smell' to imply their likeness for smoky smell of the roasted chicken products.

Thirteen out of 30 respondents have stated that they purchased and consumed roasted chickens due to their tastiness. For example, participant 6, 21 years old university student has explained, 'Tastiness means the flavour of the chicken is rich and even tastier than other chicken products like chicken curry and normal frying. Since the roasted method uses dry-heat, the original juice from the burnt chicken body parts adds tastiness. This is the tastiness that I enjoy. Really unique'. Most of the respondents stated that the taste of the roasted chickens is unique because the chickens were roasted under the high flame and lesser oil, hence the taste of the roasted chicken products is unique and tastier compared to the other cooking methods.

Four out of 30 respondents have stated that they purchased and consumed roasted chicken due to their chewy and crispy texture. For example, participant 14, 16 years primary school student has explained, 'Chewy and crispy texture I meant, when I bite the chicken, the layer of chicken would be peeled out so softly and sometimes the crispiness from the marinated ingredients will melt in my mouth that make the roasted chicken even more delicious'. The respondents also stated that the crispy texture of the roasted chicken meat was appealing, hence influencing them to purchase and consume these chicken products.

Six out of 30 respondents stated that, they purchased and consumed roasted chicken products due to their good and juicy flavour. For example, participant 8 who is 29 years old working youth has explained, 'Good flavour means the taste of the roasted chicken is pleasant as the chicken is cooked using dry heat with very little oil. The flavour permeates throughout the chicken meat, making it tastier. Eating it with rice makes it more delicious'.

The respondents agreed that the flavour of the chicken was juicy because the chickens were roasted with its own fat and juices under hot temperature and less oil.

3.2.2. Company involves in the purchasing of roasted chicken products

All 30 respondents stated that they would bring friends along when buying roasted chicken products. For instance, participant 1 aged 17 years old, a form five student has explained, 'When I'm in the campus, I'll bring my friends to go to nearby night markets or bazaar every week or to any street hawker to buy roasted chicken products. If I'm at my home town, my parents or siblings will accompany me. Yes, they will influence me to buy more roasted chicken products because they will recommend various shops that sell tasty roasted chicken products'. This shows that, friends were preferred by the respondents as their companies in purchasing roasted

chicken products.

Sixteen out of 30 respondents stated that they would bring their family members (e.g. sisters, brothers or cousins) along when purchasing roasted chicken products. For example, participant 7 explained, 'Sometimes, I will bring my siblings and mother to buy roasted chicken products. This is because; mostly my mother will pay for the money. Also, I would love to buy more food from the restaurant or night market if I went with them'. Most respondents also stated that, their family members influenced them to buy extra roasted chicken products.

Seven out of 30 respondents preferred to go alone to purchase and consume roasted chicken products. For example, participant 7 explained, 'Most of the time, I will go alone to the restaurant or hawker stalls because I'm kind of introvert person as I don't have much friends. So, whenever I feel hungry I won't invite or ask any of my friends as I'll simply go alone and buy the food that I need'.

3.2.3. Favourable characteristics of roasted chicken products

Eleven out of 30 respondents preferred roasted chicken products because of their good texture. For example, participant 12 aged 19 years old diploma student has explained, 'Good texture means, the chicken meat must be fresh and tender. When I choose roasted chicken parts, I'll use tongs to ensure that the skin of the roasted chicken is not too hard and not too soft. The texture should be well cooked in brown colour and not too much of burnt area'. Majority of the respondents agreed that good texture was doneness of the chicken meat colour where the chicken meat looks tender and golden brown with less burnt particles.

Twenty-eight out of 30 respondents stated that golden brown colour of the roasted chicken influenced them to purchase and consume roasted chicken products. For example, participant 19, 30 years old working youth has explained, 'Golden brown or mild brown colour determines the doneness of the chicken; also, the colour of the chicken is the first thing I'd see whenever I purchase it. From there I'll ensure that, the chicken is fresh and yummy'.

Nine out of 30 respondents stated that they considered the shops that practiced good hygiene as necessary criteria in buying roasted chicken products. For example, participant 3, 15 years old form three student has explained, 'I'll check the cleanliness of the shop and its food handling practices. If everything is clean but the chicken products are still not appealing for me, I won't buy food from that shop. Good hygiene practices and good quality of food products are a must for me before purchasing'.

Seven out of 30 respondents stated that they examined the blackened layer of roasted chicken products. For example, participant 6 explained, 'Sometimes, the blackened layer is quite crispy and nice to eat; but if too much means, I'll try to avoid it because it will give slightly bitter taste. So, I rather choose other chicken parts with less blackened layer'.

Thirteen out of 30 respondents stated that they considered good aroma as necessary criteria in buying and consuming roasted chicken products. For example, participant 13 explained, 'Good aroma is the main attractive part when it comes to roasted chicken. Especially, at the night market. The browning or grilling smell and smoky part of the roasted chicken and satay will make me to mouth-watering'. The participants also were found to use terms 'smoky aroma', 'good charred smell' and 'grilling smell' to imply their likeness for good aroma of the roasted chicken products.

3.2.4. Factors driving the purchase of roasted chicken products

Seven out of 30 respondents stated that early life feeding behaviour influenced them to purchase and consume roasted chicken products. For example, participant 1, 22 years old degree student has explained, 'For me, I can say that I would always eat roasted chicken products since small. I still remember that my father used to buy roasted chicken, 'kuih-muih' and roasted fish from the night market three days once. Also, my mother prefers to use roasted and grilling method compared to do deep frying the chicken at home'.

Three out of 30 respondents stated that family lifestyle influenced them to purchase and consume roasted chicken products. For example, participant 5, 25 years old degree student has explained, 'I would say my family lifestyle is such. Because, my parents will do open house at least 3 times in a month. Whenever they do open house, roasted chicken will be the main food. During the festival times, more roasted food products can be seen. Also, I and my family members would always do barbequing every weekend behind my home. So, without realizing, I and my family members are eating roasted chicken products more than 10 times in a month'.

Nine out of 30 respondents stated that eating preference influenced them to purchase roasted chicken products. For example, participant 5 explained, 'I would always prefer roasted chicken compared to fried chicken. This is because, roasted chicken is delicious and healthier compared to fried chicken. Some more, when it comes to fulfilment, roasted chicken, rice with vegetables is a best choice for me'.

Ten out of 30 respondents stated that roasted chicken products were a healthier choice compared to other cooking methods. For example, participant 17, 29 years old working youth has explained, 'We used to eat more fried products since small. But three years ago, my father has diagnosed with heart problem due to high fat level. A year later, my mother was diagnosed with liver cirrhosis. Then we started to look after our diet more seriously. We begin to eat more moist heat cooking method and skinless roasted chicken that marinated with plant oil and herbs'.

Seven out of 30 respondents stated that easy availability of roasted chicken products influenced them to purchase and consume roasted chicken products. For example, participant 5 explained, 'I literally can find roasted chicken products everywhere. At my school canteen, nearby hawker stalls, from food panda and also night market nearby my house. Whenever I and my siblings get hungry we always buy roasted satay and hotdogs from the nearby hawker stalls'.

3.2.5. Elements contributing to youths' good quality of life

Fifteen out of 30 respondents stated that good health will contribute to a better quality of life. Nine out of 30 respondents stated that good job and good salary will contribute to a good quality of life. Other than that, eight of respondents stated that having a happy family led to a good quality of life. They also stated that having a good, happy family enabled them to spend quality times together, and

shared their happiness and sorrows, regardless of where they worked and what their income was. A few of them stated that good education led to a good quality of life because having a good higher education increased their chances to obtain a good job with a good salary, and eventually led to a good life. For example, participant 17 explained, 'From my point of view I think that roasted method is one of the better choices compared to fast food. So, those who want to maintain optimum body health, they can apply roasted cooking method. By making smart food choice, we could able to improve our quality of life. Thus, good health and smart food choice will contribute for better quality of life'.

3.2.6. Youths' perception towards roasting cooking method

Half of the respondents stated that chicken cooked with roasted methods was healthier. Most of them also stated that they chose food based on their mood and cravings. The rest of the respondents stated that roasted chickens were tastier compared to stir-fried or steamed chickens. For example, participant 9 explained, 'My perception towards roasted chicken products is, it will use less oil. So, it might help us to reduce weight. So, I think roasted method is a better choice who those who wish to control their calorie intake'.

3.2.7. Opinion on the influence of consuming roasted chicken products with quality of life

Nine out of 30 respondents stated that roasted chicken improved youths' quality of life because of the protein content. The rest of them stated that roasting was a healthier choice due to lesser oil usage and less fat content. Very few respondents stated that roasted chicken products could reduce body weight due to its low content of fat and calories. For example, participant 6 explained, 'Roasted method is an alternative way to boost our health. Sometimes patients also can eat skinless roasted chicken due to fewer calories and less fat. Also, the tastiness also so good compared to other cooking methods like normal stir frying and deep frying'.

4. Discussion

In terms of respondents' thoughts about roasted chicken products, they implied that roasted chicken products were delicious, smoky aroma, tasty, chewy and crispy, good and juicy, concur with [22] who implied that appealing images of foods is one of the decisive factors in influencing consumers' food choices. The statement from this past study also clarifies the reason behind respondents' favourable characteristics of roasted chicken products which were good texture, good hygiene, golden brown colour, less blackened layer and good aroma. This is in line with [23] who stated that consumers' food choices were heavily based on the foods (visual and expected) [24]. implied that tastiness of the roasted chicken that influenced them to buy. This could be because foods' tastiness could affect consumer's visual attention which explain the reason behind youths' preference of the foods with good taste compared to nutritious food [25]. indicated that the smoky flavour of the roasted chicken is considered as a good flavour for most respondents. This could be one of the factors for respondents in this study to purchase and consume roasted chicken products frequently.

It is observed that all respondents stated that friends were their preferred companies in buying roasted chicken products. Possible clarification is the targeted respondents were youths who were mostly studying in institutions so they would be normally go out with their friends, concur with [26] who implied that friends influenced most of the respondents to purchase roasted chicken products. This is in line with a past study who implied that peer influence could change people's emotion, opinion and behaviour when they go out to purchase food. In other words, they were inclined to buy more foods if their friends were along with them [27]. Another past study revealed that, family members played an important role in determining purchase decision because each family member had a different food perception and they will choose their food accordingly [28]. In this present study, most of the respondents stated that younger sisters and cousins influenced them to buy the extra roasted chicken products as they wanted to eat together at home for dinner. Some respondents also stated that, whenever their relatives came to visit their home, they always buy extra roasted chicken products such as chicken satay and roasted chicken parts to eat together. Thus, it can imply that family members at times could influence youths in this study to purchase extra roasted chicken products. Another finding reported in this study is seven out of 30 respondents preferred to go alone to purchase and consume roasted chicken products. Possible clarification is most of the respondents either stayed alone in the hostel or they preferred not to mingle with their friends. Some respondents also preferred to go alone to purchase food because they did not want to waste time outside with their friends.

In regards to factors that drive the youths to purchase roasted chicken products, one of the possible clarifications is the respondents were attracted to the roasted chicken good taste and smoky flavour. Another clarification is roasted chicken products are a must in their daily food intake so it becomes a necessary food for them that influenced the respondents to eat the chickens frequently, either by buying outside or cook at home. This study also shows that the respondents consumed the roasted chicken products because they were conscious of their health status as they realized that consuming healthier foods help in maintaining their body weight. Availability was stated as other factor that drive the youths to purchase roasted chicken products as explained by the respondents, roasted chicken products are easily available nowadays hence they did not face difficulties in purchasing and consuming roasted chicken products.

From respondents' good quality of life point-of-view, this study shows that respondents implied that good quality of life meant that good health because this enabled them to be independent, able to work efficiently and they also indicated that, good health was derived from healthier cooking methods, good foods like fruits and vegetables, and living a stress-free lifestyle. The respondents also were found to highlight that good job is the one of the indicators of good quality of life because by having a good job, they believed they would able to get a high salary and financially free from their debts and burden. Another respondent stressed out that a happy family is a must to obtain a good quality of life. It is implied based on these youths' point of view that good health, good income, good salary, a happy family and good education assured them a good quality of life. It can be concluded that these respondents apparently believe that good health is essential for a better quality of life, and healthy food transpires healthy life. However, few of them mentioned

roasted foods as the healthiest cooking method.

With regards to youths' perception towards roasting cooking methods, it is observed that the respondents perceived the roasting cooking methods as healthy method because of less oil usage in roasting chickens, hence less fat contained in the roasted chicken products. This shows that their perception on healthy cooking methods is correct but they normally failed to apply this knowledge in their daily lifestyle, shown through their statements that they enjoyed fried chicken more compared to roasted chicken, although they emphasised that roasted chickens are health and consumption of these chicken products lead to a better quality of life.

Based on these results and discussions, this study implied that physiological attributes (delicious, tastiness, crispy texture, good flavour, brown colour, smoky aroma, own eating preference), personality attributes (availability, good hygiene, health concern), reference groups (friends, family members) and culture (family lifestyle, early life feeding behaviour) were important elements that drive respondents' purchase of roasted chicken products.

Internal factors mean consumer related factors where it comes from the way of thinking and consumer's own lifestyle like physiological factors and personality [29]. These internal influences will work when consumer started to think about their cravings, food preference and any other concern towards their health [30]. These factors will help them to identify their feelings towards the food and it will make them to develop ideas, beliefs, and finally action, which is the food choice decision will be decided by them [31]. Physiological factors include motivation, perception, learning, attitudes and beliefs [32]. Motivation means something that motivates consumer to purchase certain products. Perception means how consumer perceives on certain products [16]. Moreover, consumer's belief and attitude play important role in purchasing behaviour [33]. Consumer attitude is a feeling positive or unfavourableness towards an object. Individual with a positive attitude is more likely to purchase a product [34]. Perhaps the attitude formed as the result of a positive or negative personal experience [35]. However, human beliefs are not accurate and can change according to situations [36].

Personality means an individual personality that affects purchasing decision. As an example, those who follow perfect hygiene procedure will always find shops and environment that are clean and neat for them [37]. Other than that, personality also materializes into some traits such as adaptability [38]. Means they sometimes adapt to the place where they are staying, studying or working. If the surround place is selling more roasted chicken products mean, they prefer to buy the same food from the same place frequently because the convenience is up to their level. Therefore, internal factors like personality and psychological factors have influenced youth to purchase and consume more roasted chicken products frequently [38].

While external factors mean products related factors. Means source of influence usually occurs from exterior to an individual in spite of from the inside influences [39]. Cultural factors comprise of set of values and ideologies of a particular community or group of individuals [40]. In short, culture is nothing but values of an individual. What an individual learns from his parents and relatives as a child becomes his culture [41]. Other than that, family lifestyle means purchasing food from outside frequently due to the busy schedule will make the children to get addicted with the taste of the food from outside restaurants and thus they will follow the same culture when they started to move out form house for study purpose or for working [42].

Reference groups are classified as primary group and secondary group. Primary groups include, friends, family members, relatives and colleague [43]. They sometimes will influence the buying decisions of consumers. Secondary groups share indirect relationship with the consumer [44]. In brief, external factors like cultural factors and reference group has influencing youth to purchase and consume roasted chicken products. This study's results also recognise physiological and personality attributes as internal factors, and reference groups and culture as external factors. The internal and external factors were summarised in the Pareto charts below. This is to identify what type of factors does influence the youths in this study in regards to their consumption behaviour towards roasted chicken products.

As illustrated in Table 2 and Fig. 1, it is shown that the most prioritized physiological factor is brown colour. This was consistent with [16] who implied brown colour as one of the factors that influenced the youths to purchase and consume roasted chicken products frequently because brown colour indicated a perfectly roasted chicken. Therefore, it is implied that roasted chicken products with brown coloured are the most important criteria for most respondents in this study in deciding to purchase roasted chicken products. This is due to brown colour at the roasted chicken product surface provided a more attractive appearance and appealing to customers [45].

As illustrated in Table 3, it is shown that the most prioritized personality factor is health concern. This was consistent with [30] who implied that health concern is one of the criterion considered by consumers when purchasing any foods products because they preferred foods that are beneficial for their well-being. This study's findings implied that health concern reason motivated most respondents in this study to buy roasted chicken products due to their perception that it is a healthier food products and good for their health. Health concern in a vital factor for food purchase because consumers had a great concern regarding their health [46].

Table 2
Priority physiological factors.

Physiological factors	Frequency	Cumulative Total	Cumulative Percentage
Brown colour	28	28	33%
Smoky aroma	16	44	52%
Tastiness	13	57	68%
Own eating preference	9	66	79%
Delicious	8	74	88%
Good flavour	6	80	95%
Crispy texture	4	84	100%

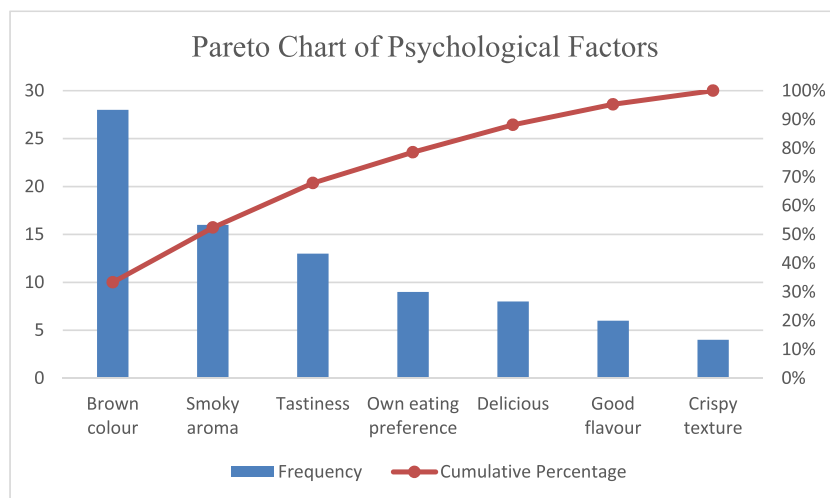


Fig. 1. Psychological factors.

Table 3
Priority personality, reference groups and culture factors.

Personality factors	Frequency
Health concern	10
Good hygiene	9
Adaptation or availability	7
Reference groups factors	
Friends	30
Family members	16
Culture factors	
Family lifestyle	3
Early life feeding behaviour	7

Based on Tables 3 and it is observed that the most prioritized reference group factor is friends. This was consistent with [17] who implied that friends had a positive influence on respondents' purchases of roasted chicken products. This study's findings implied that friends could be the reason behind youths' interest in roasted chicken products, consistent with [47] who stated that friends had a positive effect in encouraging consumers to try, purchase or consume certain food products.

Table 3 also depicted that the most prioritized culture factor is family lifestyle. This was consistent with [42,41] who implied that family lifestyle had a positive influence on respondents' purchases of roasted chicken products. This study's findings implied that family lifestyle could be the reason behind respondents' interest in purchasing roasted chicken products. Possible explanation on how family lifestyle influenced the youths to purchase and consume roasted chicken products is parents provided their children with roasted chicken products frequently, hence there is a possibility that they continue to consume roasted chicken products until they were grown up.

5. Strength of the study

This study is able to identify the factors of consumption behaviour towards roasted chicken products amongst the youths which yet to be discovered in the past. The findings of this study provide significant factors that will be transformed into measurement items to be further study empirically through survey method. In the future, the framework of youth' consumption behaviour can be developed particularly focusing on the intake of roasted chicken products.

6. Limitation and solution

This study has some limitations. The interview was conducted via online so the exact body language and eye contact of the participants when answering the questions were not thoroughly observed. Besides, this study was carried out in a small area and very specific to one group of consumers. Similar future research may be conducted in a bigger geographical area in Malaysia, with more respondents and among various consumer groups to better comprehend the consumer behaviour towards foods with potential food carcinogens.

7. Conclusion

In a nutshell, physiological attributes (delicious, tastiness, crispy texture, good flavour, brown colour, smoky aroma, own eating preference), personality attributes (availability, good hygiene, health concern), reference groups (friends, family members) and culture (family lifestyle, early life feeding behaviour) influenced youths' purchase of roasted chicken products, and the most prioritized factors were found to be brown colour, health concern, friends and family lifestyle. This study also identify physiological and personality attributes as internal factors, and reference groups and culture as external factors. Therefore, this study concluded that internal factors (physiological, personality) and external factors (reference groups, culture) as important elements in driving youths' purchase of roasted chicken products.

The findings of this study may offer new and potentially useful information regarding youth's food consumption and how it leads to their quality of life. This had strengthened the body of knowledge of consumer behaviour related to the intake of food with potential food carcinogens. Thus, it is anticipated that the outcome of this study may convey the message to those who produced food particularly roasted chicken that youths agree that roasted chicken must have a good texture, golden/brown colour not black colour and has good aroma and also prepared at good hygiene level. This study also disclosed youth opined that chicken cooked with roasting method is healthier and tastier than chicken cooked with other cooking methods because it involves less oil. To them, this will contribute to better health status. This significant finding could be beneficial to the government and non-government bodies to promote healthy cooking methods for commercial and domestic food preparation to ensure healthy food choice is made by the youth towards better quality of life.

Author contribution statement

Siti Nurafifah Jaafar: Conceived and designed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Enthira Purushoth Thaman: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Yusnita Hamzah; Azizulyadi Yaakop; Asma' Ali: Conceived and designed the experiments; Wrote the paper.

Data availability statement

Data included in article/supplementary material/referenced in article.

Declaration of competing interest

The authors declare no conflict of interest.

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