The Effects of *Halal-an toyyib-an* Food Products: Conscientious as a Moderator

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Article Info	ABSTRACT
	This paper assesses the incorporation of important yet previously overlooked constructs of food products, namely wholesomeness, cleanliness, and completeness, alongside consumers' perceptions of nutritional value, quality, and reasonable pricing. The study positions the halal label as a key product-related cue representing these constructs and examines the moderating role of conscientiousness. Using 16 measurement items, data were collected from respondents to capture the independent variables, the moderator (conscientiousness), and the dependent variable, and were analyzed using least squares regression, sequential regression, and bivariate correlation techniques. The findings indicate that perceptions of high nutritional value and high quality significantly influence expectations of wholesome, clean, and complete food products, while reasonable pricing significantly affects expectations of complete halal-an food products. With the inclusion of conscientiousness as a moderating variable, the results demonstrate that conscientiousness strengthens the relationship between the independent variables and expectations of complete halal-an food products. Notably, perceived product quality shows a substantially stronger association with perceptions of complete halal-an food products compared to nutritional value and price. Further analysis reveals that high-quality perceptions of complete halal-an food products are closely linked to consumers' views on the comprehensiveness of the production process. These findings highlight that achieving the completeness of halal-an food products requires more than mere compliance with Shariah requirements, emphasizing the importance of comprehensive production practices to enhance consumer perceptions.

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INTRODUCTION

Muslims have always been identified with Islam so that shariah rulings in the form of revelation-based guidelines govern all their religious-based and spiritual acts. This includes conducting business in a fair and trustworthy manner. For muslims, religion becomes the basis of attitudes, perceptions and actions towards consuming food products

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which inextricably linked to halal-an ("permissible" and "lawful") according to Amine & Hendaoui (2012). Halal or halal-an derives from the verb "halla", implying legal, lawful and licit, and valid. For food products labelled as halal, that they are permissible and of good quality as well as safe to consume. Halal is a spiritual desire of muslims forming an integral part in lives through signaling the purchase and consumption of quality, safe and reputable food products (Borzooei & Asgari, 2013). The believe of halal does affects muslims' attitude and expectations for food products, Haleem *et. al.* (2020) conclude. The halal labeled correlates with quality and safety perceptions to serve as an indicator for quality, good and safe food products (Aziz & Vui (2012); Javeed, Mohamed Mokhtar & Bin Lebai Othman (2018).

But halal is much more than just a religious requirement. For, it's the foremost requirement encompassing every aspects of live, and as subscribed by Haleem *et. al.* (2020) from a bibliometric analysis of this topic.is a "process-oriented" approach, not a "product-oriented". Strongly, the authors suggested, for directions of future research to expand from merely halal to "toyyib-an" aspects. For in this way, it compliments fundamental requirements of halal-an, covering a much wholesome meaning.

Beyond meeting dietary conditions, by being "halal-an toyyiban" food products become more wholesomely defined and comprehensive when the food products are also nutritious, pure and are processed while observing good aspects. Mustaffa (2019) described that tayyib food refers to food that is safe, pure and not dirty in terms of nutritional contents, and the nature of tayyib food itself includes the meaning of halal.

By focusing on Malaysian consumers, Lada *et al.* (2009) studied on purchase intention of halal products. The researchers documented attitudes towards the products were affected by perception of good quality and safety. However, Zailani *et al.* (2011) reported non-compliance with the extended scope of halal-an. The consumers perceived benefits of halal label certification was not justified, cost wise. There are several constraining factors with relation to the aspects of comprehensiveness and wholesomeness of "toyyib", suggesting cost to constrain adherence (Ngah *et al.* (2017)). This is because the halal label correlates far more thorough definitions such that respondents believe to meet present halal standard is not cost-effective. Not only that, it imposes extra cost of production and logistics, which can lead to higher production costs and prices (Zailani *et al.*, 2017). Not surprisingly, the attitude of consumers towards halal-labeled food product, production, processing method, distribution and associated aspects of product quality and safety still become unsettling issues in many studies as reported by Khan, Khan, Haleem & Jami (2022); Khan, Haleem & Khan (2018); and Ali, Ali & Sherwani (2017).

In his study, Keast (2009) established a non-sensory element such as price that influences perceptions about quality, reputation and safety of food products. Consumers tend to develop perceptions about quality, reputation and safety of food products that is unobservable, by referring to signals; one of which is the "halal" label that correlates with perception of high quality, nutritious, and safe for consumption. Perception of high quality, nutritious, safe to consume, integrity and trust is at the heart of our understanding of halal labeled food products. For it can influence customers, Ishak, Awang, Hussain, Ramli, Md. Sum, Saad & Manaf (2016) document. The halal label was widely perceived with these reputations following Quoquab, Mohamed Sadom & Mohammad (2019)'s study of the role of halal label in food industry in Malaysia. Willingness to pay is influenced by sensitivity of consumer in the concrete decision context together with perceptions of higher prices for halal products (Iranmanesh, M., Mirzaei, M., Parvin Hosseini, S.M. & Zailani, S. (2020)). It is becoming increasingly difficult to ignore because of the introduction of formal halal certification

strategy, causes cost to increase, so consequently price to increase. Not surprising Kammaruddin (2012) therefore revealed muslim consumers tend to expect to pay higher price to purchase halal-certified foods to make sure that ingredients and production processes are according to "Shariah" requirements.

Many previous studies on halal food products have been conducted over the years. The studies done so far offer little insight to reflect the behavioral outcome of consumers in terms of their perceptions of halal-an in a more unified and completed way. As such, these limitations opens further avenue to delve deeper into the possibility of incorporating the important, but previously ignored and unsettling constructs of *halal-an toyyib-an* food products, and perception of nutritous, quality and reasonable pricing. This paper attempts to measure halal label as product-related being the foremost cue for nutritious, quality and reasonable pricing with a moderating effect of conscientious. In other words, to make inference regarding *halal-an toyyib-an*, the associated stimuli are nutrition, quality and reasonable pricing.

The rest of the paper is structured as follows. In the next chapter 2, an overview of the literature is provided and followed by the development of hypotheses. In chapter 3, the method and data collection process are briefly summarized and in chaper 4 test findings are analysed in details. In the final chapter 5 on conclusion, the study's implications, limitations, as well as future research directions are listed.

LITERATURE REVIEW
Halal-an toyyib-an

In respect to halal certified label in food products, many issues are gaining prominence and attention posing several challenges. With consumers' expectations rise along with the knowledge of food safety and quality, the issues of consuming certified halal food are not so forthright.These includes label's authenticity, authority, awareness, consumer perception, cost, supply chain management, inappropriate hygienic practices at production facilities, misuse of label, fake label, food quality and expired certification (Hanim *et al.,* (2015), Abdul Majid *et. al.,* (2015), Damit *et. al.,* (2017), Nurulhidayah *et. al.,* (2012) and Mohd Riza *et. al.,* (2022).

The process for halal certification examines all procedures for slaughtering an animal, ingredients used, cleaning, handling and processing as well as transportation and distribution to ensure that they meet the halal standards (Latif *et al.*, 2014). A food product can be halal if the source and substance meet shariah. But, when it becomes dirty because if obtained by theft or if fell onto the grounds, it becomes no longer *halal-an toyyib-an*.Without the halal label, it becomes difficult for Muslims to assess the halalness of food products. Therefore, halal label works to convince that service and food products comply with halal and Shariah (Shafie and Othman, 2006). Accordingly, the label provides assurance that the ingredients used and the production as well as the logistics processes are according to Shariah law.

From their study, Anam, Sany & Ismail *(*2018) discovered that halal labeled food products were perceived with highest quality and safety for consumption. None the less, such expositions of halal labeled food products were restricted. *Halal-an toyyib-an* means much more than about products' ingredients and processes that fulfilled "shariah" requirements. Similarly, Abdul Majid *et al.* (2015) believe the term "halal" can no longer be limited to just denoting food products that is "pork free". Further more elements of toyyib-an are interspersed within halal definition according to Hawwa, Nor Azzah and Mohd Abd Wahab (2024)), so that the terms "halal" and "*halal-an toyyib-an*" are used interchangeably (Abdullah, 2018).

Nutritient

Many nutrional substances of either plant or animal origins are now availably used in food products due to the industry's vast expansion. Most of the time, consumers cannot tell nutrional substances by just reading the label. This is because some manufacturers used specialized terminology or terms that any typical consumers would probably unable to know. Because they are unfamiliar, some consumers have the tendency to be wary of the ingredient used. The nutritional substance can be identified only after completely examining the contents by specific organizations (Damit *et al.*, 2017). The major issues with authenticity also arise when high-value ingredients are substituted with lower-cost materials, particularly in cases involving "value-added" products, where the potential financial rewards for substituting with lower-cost ingredients are high. Nurull (2012) reported the field of food science and technology have advanced to the point where they are becoming increasingly complicated. All kinds of ingredients are used in foods, which make it difficult for any consumer to understand unless they are directly involved in related food processing.Therefore, nutritional contents authentication cannot rely solely on Shari'ah expertise, but also on expertise from other related technical fields such as food science and technology, chemistry, and veterinary science.

As toyyib-an has deeper and more comprehensive definitions, toyyib-an compliments halalness with nutritiousness, authenticity, quality, safety and cleanliness of halal labeled food products (Hawwa et. al.,2024). Using mauḍu'i (thematic) interpretation method in addition with healthy food theory, according to (Nasa'iy Aziz , Nurdin Bakry , Muhammad Habibi Mz , Muhammad Siddiq Armia (2023)), "ulama" (religious leaders) formulated ḥalalan ṭoyyiban with implementation that should be simultaneous, because undoubtedly it has nuritious values to human body after consumption. In doing so, toyyib-an by extension indicates that all food products shall be nutritious for consumption (Bujang, Noor and Abdullah, 2016). Zuraidah, Rusliza, Juliana and Nor Asiah (2020) concludes the use of the nutrition label to guide among Muslims is still given less attention, however. Based on this arguments, the researchers test nutritient as independent variable and *halal-an toyyib-an* as dependent variable and hypothesize the following:

H1a: High nutrient does not impacts on expectation of *halal-an toyyib-an* food products.
H1b: High nutrient impacts on expectation of *halal-an toyyib-an* food products.
The hypothesis tests if high nutrient carries a significant impact on expectations of *halal-an toyyib-an* food products

High quality

Expectations about quality of food product's collective excellence or superiority without a doubt is connected with signals (Schiffman and Kanuk, 2004). The quality is not an observable criterion, but the comprehension by consumers about it is relied upon for cue for the foods'quality (Zeithaml (1988, p. 3) and (Erdem and Swait, 1998). Olson and Jacoby (1971) subscribed to the belief that consumers search for product related cue to minimise risks of choosing non-quality food products from those available on food shelfs (Ishak, Awang, Hussain. Ramli, Md Sum, Saad & Manaf (2016)). In the current study, the signaling theory fits in because it's purpose is to investigate the association of perception of food products' quality as cue which is a precautionary for *halal-an toyyib-an*. The theory states that when consumer looks for any stimuli for getting information, they expect for quality from which they can infer confirming its *halal-an toyyib-an*. Consumers associate *halal-an toyyib-an* food products with not only high nutrient but also high quality food products.

As reported by Mohd Riza *et al.* (2022), Malaysia's rapid growth in halal food industry is remarkable, but it remains vulnerable to threats such as mixing of halal and haram

food products. This pose risks of contamination of raw material purity. Falsification of halal labeling raises concerns over product quality, when it should take precedence over quantity, the authors argue.

In a related study, Ali *et al.,* 2018 found by emphasizing a product's quality, by extension enhances consumers' perceived brand quality. And that halal label also increases brand value proposition and strengthens perceptions of particular attributes and seen as an added value (Quoquab, Mohamed Sadom and Mohammad (2019). With the above arguments about quality of hahal-an toyyib-an, the researchers test quality as independent variable and *halal-an toyyib-an* as dependent variable and hypothesize the following:

H2a: High quality does not impacts on expectation of *halal-an toyyib-an* food products.
H2b: High quality impacts on expectation of *halal-an toyyib-an* food products.
The hypothesis tests if high quality carries a significant impact on expectations of *halal-an toyyib-an* food products

Reasonable pricing

Previous studies by Chatterjee (2018), and Han and Ryu (2009) measured effect of price in perception by consumers about product's attributes. But to meet halal practices and certification requirements can cause additional cost, as a result price of halal-certified foods may be higher than non-certified ones (Fuseini *et al.*, 2017; Zailani *et al.,* 2017). Muslim consumers were documented to give added consideration of the high price in forming perceptiona according to a study on mediating role of perception by Ishak, Awang, Hussain, Ramli, Md Sum, Saad & Manaf (2016). Because *halal-an toyyib-an* is an additional expectation so the products tend to be expected to be more pricey. This is when compared to food products that just meet shariah fundamental rulings. From an earlier study, Hanim *et al.,* (2015) reported reasonable pricing is one of requirements for the *halal-an toyyib-an*, making reasonable pricing - not high pricing - is at the heart of our understanding of *halal-an toyyib-an* food products.

The compliance expense arising from consulting work and certification process accounted for in obtaining halal certification. For it eventually increase the product's cost to secure labeled certification. Allocating a dedicated halal infrastructure and adopting visibility technologies for halal integrity can be costly and impose extra demand on production and logistics which may cause higher price of halal certified products (Zailani *et al., 2017*). It is expected that price-conscious consumers have lower willingness to pay for higher price of halal-certified food product. Conversely, the relationship was not supported in Zailani *et al*., 2017's study that believed customers have less intention to pay higher price. The additional costs incurred in meeting requirements for halal-certified products and consumers' price concerns considered, studies reported that Muslim consumers are more than willing to pay higher price (Verbeke *et al.,* 2013; Yunos *et al.,* 2014) because they are assured of *halal-an toyyib-an* for concerns over matters of religious convictions. Price-conscious consumers are more willing to pay higher price admitting that *halal-an toyyib-an* gives them added assurance. It should be mentioned, this conclusions however were in contrast with earlier findings of Ahmad e*t al. (2013)*.

Awan *et al.* (2015) reported consumers were more willing to spend additional money to purchase halal food products. The relationship between food attributes and willingness to pay higher prices was supported in tune with Olson and Jacoby (1973), and Rao and Monroe (1989)'s conclusions. The studies reported consumers' awareness of intrinsic cues more likely to effect both perception and expectation for relatively expensive products. The general belief is to purchase only halal labeled food product is then obvious, despite higher price. This is because of stronger halal consciousness (Siti Hasnah Hassan, Norizan Mat Saad, Tajul Ariffin Masron, and Siti Insyirah Ali (2022)).

In addition to religious concerns as reported by Yousaf and Malik (2013), consumers are best assured about nutritiousness, high quality and reasonable pricing for *halal-an toyyib-an* food products (Mokhlis, 2006) such that it may be used as a source of information together with perception about quality and nutrient. In his study, Mustaffa (2019) documented reasonably high pricing plays an important role also in defining toyyib-an food products, besides nutrient and quality. Consequently, with the above arguments about reasonable pricing as opposed to higher pricing of *halal-an toyyib-an*, the researchers hypothesizes the following.

H3a: Reasonable pricing does not impacts on expectation of *halal-an toyyib-an* food products.

H3b: Reasonable pricing impacts on expectation of *halal-an toyyib-an* food products.

The hypothesis tests if reasonable pricing carries a significant impact on expectations of *halal-an toyyib-an* food products

Conscientious as a moderator

Perceptions of nutrient, good quality and reasonable pricing of *halal-an toyyib-an* self-provides consumers with high level of confidence than fundamentally meeting shariah requirements, the credence food products not only free from any prohibited items or conditions, but much more. The *halal-an toyyib-an* goes beyond fundamental shariah parameters to invoke features that make the food products wholesome. Because the real facts of ingredients and manufacturing processes are difficult to ascertain due to asymmetric information constraint (Ishak, Awang, Hussain. Ramli, Md. Sum, Saad and Manaf (2016)), this three factors, often form the basis for building certain consciousness about *halal-an toyyib-an* of food products.

The study applies the S-O-R (Stimulus-Organism-Response) theory (Mehrabian and Russell, 1974) as a theoretical foundation. Food products, classified as credence goods, would cause consumers on the look-out for credible signs to stimulate to make a purchase (Pierre, 2008). They would search for signals to obtain knowledge that can be inferred the perceptions regarding of the halalness (Akdeniz, Calantone and Voorhees (2013) and (Ishak, Awang, Hussain Ramli, Md Sum, Saad & Manaf (2016).

The halal labeled is a valuable value-based providing extrinsic cue of products being more wholesome. It's the presupposition to the connection of high quality, nutritiousness, and reasonable high pricing with *halal-an toyyib-an* for wholesome criterion. As argued by Robbins (2006) this perception may cause consumers to want to buy for consumption, more significantly than the actual reality When *halal-an toyyib-an* food product is judged to be superior in characteristics, high quality, more nutritious, and more beneficial, then consumer becomes more willing to purchase eventhough more pricier (Anam *et. al*, 2018).

Consumers belief that requirements for *halal-an toyyib-an* impose much more, so that the halal label gives them an added assurance and trust with the food. Many studies deem trust to be a significant determinant in consumer's consciousness (Ghazali *et al.*, 2018). When those stimuli of quality, nutritious and reasonable pricing, they triggers muslim consumers to respond with trust of the *halal-an toyyib-an*. This is an internal feeling and perception of respondents of completeness and true manifestation of Islamic principles. By extension conscientious makes them preferring food that is *halal-an toyyib-an* than merely halal.

To the best of knowledge, there is no prior study that measure conscientious as a moderator between the perceptions of nutrient, quality, and reasonable pricing with *halal-an toyyib-an* food products. Therefore, on the basis of this arguments, the following hypotheses are proposed:

H4$_{1a}$: Conscientious moderate the perception of high nutritient on *halal-an toyyib-an* food products.
H4$_{1b}$: Conscientious moderate the perception of high quality on *halal-an toyyib-an* food products.
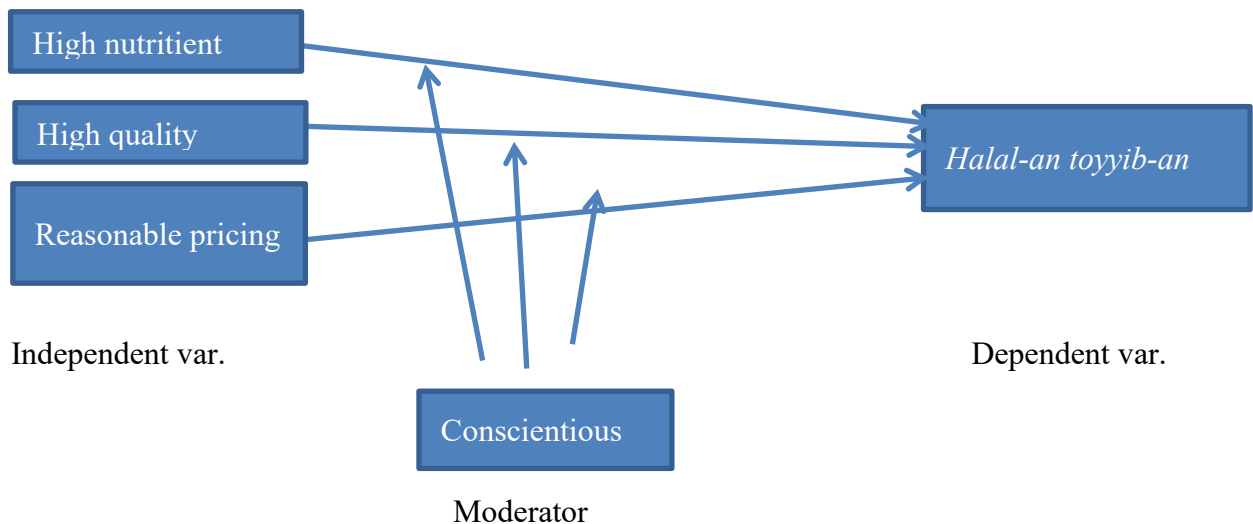H4$_{1c}$: Conscientious moderate the perception of reasonable pricing on *halal-an toyyib-an* food products.

Figure 1. Conceptual framework

METHODS
Construction of the constructs

We used 16 items to measure responses from respondents related to all the contructs, independent variables (high nutritient, high quality, and reasonable pricing), the moderator (conscientious) and the dependent variable (*halal-an toyyib-an*)

High nutrition was measured through respondents' expectations of highly nutritious food, their perception of nutritious food as a healthy choice, and the level of trust associated with the nutritional value of food products. High quality was assessed by examining whether food products meet expectations of superior quality, the extent to which high quality enhances consumer confidence, and the role of comprehensive production activities in ensuring high-quality food products.

Reasonable pricing was captured by respondents' perceptions of price fairness, the alignment between pricing and product expectations, and their willingness to purchase the product even when prices are relatively high. Conscientiousness was measured by evaluating the influence of attractive product design on purchase decisions, the role of clear information in reducing product-related doubts, the consistency of perceptions in future purchasing decisions, and the extent to which food labeling enhances trust in purchasing.

Finally, *halal-an toyyib-an* was measured by respondents' perceptions of greater confidence compared to merely meeting Shariah requirements, the perceived superiority of the food product, and the increased trust in consuming food that is considered *halal-an toyyib-an*.

The 16 items used in the questionnaires are based on likert scale; strongly agree (7), agree (6), slightly agree (5), neutral (4), slightly disagree (3), disagree (2), and strongly disagree (1). A Likert scale is one of many measurement scales that have been used extensively in many research to classify respondents' responds . The Likert scale is a rating scale that assesses how strongly respondents agree with a particular statement (Sekaran & Bougie, 2016).

Data collection and the sample

Descriptive analysis is used to construct demographic profiles of the respondents as tabulated in table 1. below.

Table 1. Descriptive analysis

Characteristics	Respondents	%
Gender		
Male	41	33
Female	84	67
Age		
17-20 years	4	3.2
21-30 years	38	30.4
31-40 years	36	28.8
41-50 years	34	27.2
Above 51 years	13	10.4
Race		
Malay	73	58.4
Chinese	34	27.2
Indian	5	4
Others	13	10.4
Religion		
Islam	94	75.2
Buddhist	21	16.8
Christian	7	5.6
Hindu	2	1.6
No religion	1	0.8
Education level		
School certificates	29	23.2
Undergraduate degree	49	39.2
Master degree	34	27.2
PhD degree	2	1.6
Others	11	8.8
Salary		
Below RM1,500	42	33.6
RM1,501 - RM3,000	29	23.2
RM3,001 - RM6,000	32	25.6
Above RM6,001	22	17.6

RESULT AND DISCUSSION

Reliability analysis

Cronbach's alpha was used to test the validity of the variables by measuring their internal consistency. The method is also one of the techniques used by researchers to determine the reliability scale between variables. In this study, Cronbach's alpha of 0.70 and

higher is considered acceptable, 0.80 and higher is considered better, and 0.90 and higher is considered best. The validity test result is shown in the table above, which is a summary of the validity test outcomes. The internal consistency of the dependent variable, *halal-an toyyib-an* ,was assessed using Cronbach's Alpha coefficient.

The obtained Cronbach'sAlpha coefficient for the *halal-an toyyib-an* variable is 0.933. This value indicates a high degree of internal consistency among the items or factors comprising the *halal-an toyyib-an* construct. It suggests that the items within this variable are highly interconnected and measure the same underlying construct. The Cronbach's alpha coefficient of 0.933 implies that approximately 93.3% of the variability in the *halal-an toyyib-an*construct can be explained by the shared variance among its items. This demonstrates a high level of reliability and consistency in the measurement of *halal-an toyyib-an*. The high Cronbach's alpha coefficient of 0.933 provides confidence in the reliability of the *halal-an toyyib-an* variable. The table 2. below indicates that the items assessing *halal-an toyyib-an* are coherent and reliably measure the same construct.

Table 2. Reliability analysis

Dimension	Items	Cronbach alpha
Nutritient	3	0.769
Quality	3	0.713
Reasonable pricing	3	0.777
Conscientious	4	0.816
Halal-an toyyib-an	3	0.933
Overall	16	0.802
Note: n= 125		

Bivariate correlation

The Pearson product correlation of "high nutrient" and "high quality" of *halal-an toyyib-an* food products is moderately-strong of positive and statistically significant ($r = 0.700$, $p < 0.001$). Hence, there is a statistically significant relationship that an increase in "high nutrient" is associated with an increase in "high quality" of *halal-an toyyib-an* food products.

Also, the Pearson product correlation of "conscientious" and "reasonable pricing"of *halal-an toyyib-an* food products is also moderately-strong of positive and statistically significant($r = 0.757$, $p < 0.001$). There is a statistically significant association between "conscientious" and "reasonable pricing" where an increase in "conscientious" is associated with an increase in "reasonable pricing".

The Pearson product correlations among the predictors are within the acceptable range of moderately-strong of plus/minus 0.7, for instance, of "reasonable pricing" and "high nutrient" of $r= 0.650$. However, any value of $r > 0.800$ is considered very strong. Since, in this case, almost all product correlations are plus/minus $r= 0.70$, the predictors are neither highly nor very strongly correlated. So, multi-collinearity is not likely a problem, as shown in table 3. below.

Table 3. Bivariate Correlation Analysis

	High nutrient	High quality	Reasonable pricing	Conscientious	*Halal-an toyyib-an*
High nutrient	1.00				
High quality	0.700	1.00			
Reasonable pricing	0.650	0.636	1.00		
Conscientious	0.745	0.756	0.757	1.00	

Halal-an toyyib-an	0.708	0.738	0.752	0.913	1.00

Correlation is significant at the 0.01 level (2-tailed)

Regression - Simple linear

H1b, high nutrient has significant impact on expectation of *halal-an toyyib-an* food products because significant value is 0.000 which is less than 0.005, F-statistics (1:125) = 123.637, p< 0.005, and t-value is 11.119 which is higher than 1.96. The high nutrient clearly has direct positive impacts on the expectation of *halal-an toyyib-an* food products. Further, R-Square 50.1 depicts that the model explains 50.1% of the variance in the expectation of *halal-an toyyib-an* food products.

The same for H2b, high quality has significant impact on expectation of *halal-an toyyib-an* food products because significant value is 0.000 which is less than 0.005, F-statistics (1:125) = 147.009, p< 0.005, and t-value is 12.125 which is higher than 1.96. The high quality clearly has direct positive impacts on the expectation of *halal-an toyyib-an* food products. Further, R-Square 54.4 depicts that the model explains 54.4% of the variance in the expectation of *halal-an toyyib-an* food products.

In addition, for the H3b, reasonable pricing has significant impact on expectation of *halal-an toyyib-an* food products because significant value is 0.000 which is less than 0.005, F-statistics (1:125) = 159.850, p< 0.005, and t-value is 12.643which is higher than 1.96. The reasonable pricing clearly has direct positive impacts on the expectation of *halal-an toyyib-an* food products. Further, R-Square 56.5 indicates that the model explains the variance in the expectation of *halal-an toyyib-an* food products by reasonable pricing for up to 56.5%, as shown in table 4. below.

Table 4. Simple Linear Regression Analysis

Hypothesis	Regression Weight	R-Square	Adjusted R-Square	Beta coefficient	F-statistics	p-value	Hypothesis supported
H1b	High nutrient-> Halal-an toyyiban	0.501	0.497	0.708	123.637	0.000	Yes
H2b	High quality->*Halal-an toyyib-an*	0.544	0.541	0.738	147.009	0.000	Yes
H3b	Reasonable pricing->*Halal-an toyyib-an*	0.565	0.562	0.752	159.850	0.000	Yes

Note: p< 0.005

Multiple linear

In the first multiple regression, dependent variable is "HT1 that *halal-an toyyib-an* food products gives more than meeting shariah compliance". Multiple linear regression is used to determine whether independent variables of "Q1 that food quality meets expectation", "N1 that nutritious is as aspected" and "P1 that food price is reasonable" have a statistically significant relationship on the dependent variables.The study's equation for regression results as follows in table 5.
Dependent variable: "HT_1 Gives more confidence than meeting shariah rulings"
Method: Least Squares
Date: 10/27/24 Time: 16:30

Sample: 1 125
Included observations: 125

Table 5. Results of Multiple Linear Regression on *Halal-an toyyib-an* Confidence beyond Shariah Compliance

Variable	Coefficient	Std. Error	t-statistic	Prob.
Constant	-0.187770	0.731330	-0.256752	0.7978
Q1_Food quality meets expectation	0.578686	0.089852	6.440462	0.0000
N1_Nutritious is as expected				
P1_Food price is reasonable	0.077664	0.111734	0.695075	0.4883
	0.418107	0.090352	4.627546	0.0000
R-Squared	0.480897			
Adjusted R-Squared	0.468028			
F-statistic	37.36476			
Prob(F-statistic)	0.000000			

In second multiple regression, the dependent variable is the consumer perception of *halal-an toyyib-an* food products. Multiple linear regression is used to determine whether the independent variables have a statistically significant relationship with the dependent variables. The study's equation for regression with no moderator is as follows:

y = constant + x1 + x2 + x3 + error term
y = consumer perception of *halal-an toyyib-an* food products
x1 = high nutrient
x2 = high quality
x3 = reasonable pricing

The model accounted for a substantial proportion of the variance in perception of *halal-an toyyib-an* food products, as indicated by the coefficient of determination ($R^2 = 0.698$, adjusted $R^2 = 0.691$).

Under Collinearity Statistics, the tolerance value for high nutrient is 0.439 which means variability in high nutrient is not explained by two other predictors such as high quality and reasonable pricing (if this value is very small like 10%, that indicates multiple correlation with other predictors is high, suggesting a possible multi-collinearity problem. However, since the value is 43.9%, there not likely a problem of multi-collinearity). Also, Variance Inflation Factor (VIF) for all predictors is beow 10. A VIF value above 10 indicates multi-collinearity.

Overall, the multiple regression equation is significant because significant value is 0.000 which is less than 0.005, F-statistics (1:125) = 93.430, $p < 0.005$. The R-Square of 0.698 indicates that the model explains 69.8% of the variance in the dependent variable that is - the expectation of *halal-an toyyib-an* food products by the predictors such as - high nutrient, high quality and reasonable pricing. This is shown in table 6. below

Table 6. Multiple linear

Regression Weight	R-Square	Adjusted R-Square	Unstandardised coefficient	F-statistics	p-value	Collinearity Statistics	
						Tolerance	VIF

	R Square	Adjusted R Square		Coefficient	F	Sig.	Tolerance	VIF
High nutrient, High quality, Reasonable pricing-> Halal-an toyyiban	0.698	0.691	Constant	-2.767	93.430	0.044		
			High nutrient	0.323		0.005	0.439	2.277
			High quality	0.436		0.000	0.453	2.208
			Reasonable pricing	0.454		0.000	0.513	1.915

Moderating effect

Next, we tested the moderating impact of conscientious using three steps sequential regression. The results are tabulated in table 7. below

Table 7. Analysis of moderating effect

	Model Summary		ANOVA
Model	R Square	Adjusted R Square	Sig.
1	0.698	0.691	0.000
2	0.845	0.840	0.000
3	0.857	0.848	0.000

Model 1 is the original regression model without the moderating impact, and model 2 is when the moderator (i.e. conscientious), is controlled. Model 3 assessed the regression equation again but with the introduction of the moderating moderator.

With the introduction of conscientious as a moderator, the R-Square has increased from 69.8% to 85.7%. This shows that conscientious moderate to strengthen the impact of the independent variables of high nutrient, high quality and reasonable pricing on *halal-an toyyib-an* food products. All the three models are significant at 5% significant level. Because with introduction of the conscientious as a moderator, the R-Square has increased from 69.8% to 85.7%, all hypotheses no. 4 are accepted, as shown below in table 8.

Table 8. Moderating effect analysis - hypotheses no. 4

Hypothesis	p-value	Hypothesis supported
H41a	0.000	Yes
H41b	0.000	Yes
H41c	0.000	Yes

Assessing further the model 3 that introduced the moderating effect of conscientious, as can be seen in the table 9. below, conscientious moderates the impact of only high nutrient on *halal-an toyyib-an* food products at 10% significant level.

Table 9. Moderating effect analysis - model 3

	Coefficient	
Model 3	Unstandardised Coefficient	Sig.
(Constant)	-10.333	0.011
High nutrient	0.067	0.854
High quality	0.549	0.051
Reasonable pricing	0.207	0.522
Conscientious	1.066	0.000

High nutrient_Conscientious	-0.001	0.954
High quality_Conscientious	-0.022	0.088
Reasonable pricing_Conscientious	-0.003	0.856

CONCLUSION

The purpose of this study is to assess the impact of high nutritional value, high product quality, and reasonable pricing on *halal-an toyyib-an* food products. The study also incorporates the examination of the moderating effect of conscientiousness. The findings indicate that high nutrition and high quality have significant positive impacts on consumers' expectations of *halal-an toyyib-an* food products; in addition, reasonable pricing also shows a significant effect on these expectations. For producers and marketers, these findings have important implications. With the inclusion of conscientiousness as a moderating variable, the results demonstrate that conscientiousness strengthens the effects of the independent variables on expectations of *halal-an toyyib-an* food products. Interestingly, consumers perceive high product quality as the most influential factor associated with *halal-an toyyib-an* food products, exerting a stronger effect compared to the other two constructs. Furthermore, perceptions of high quality in *halal-an toyyib-an* food products are closely linked to consumers' views on the comprehensiveness of production activities. These findings provide a foundation for future research to focus on the development of comprehensive production value chain activities in achieving *halal-an toyyib-an* food products, rather than merely meeting Shariah compliance.

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