E-B Environment - Behaviour Proceedings Journal

AicE-Bs2026Sokcho

e-IPH e-International Publishing House Ltd., United Kingdom

https://www.amerabra.org/index.php/aice-bs2026sokcho-04-06-jun-2026/

14th Asia-Pacific International Conference on Environment-Behaviour Studies

Kyungdong University Global (KDU Global),Sokcho (Goseong), South Korea, 04-06 Jun 2026

Home-Based Food Businesses Food Safety Questionnaire Development: Expert review approach and content Validation Index analysis

Zahidatul Farihah Zakaria[1*], Noor Suzana Osman[1 2], Ibrahim Abu Bakar[1 2]

**Corresponding Author*

[1] Department Of Nutrition Sciences, Kulliyyah of Allied Health Sciences, IIUM Centre for Natural & Health Sciences, Kuantan Campus, Jalan Sultan Haji Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

[2] Food Security and Population Health Nutrition Research Group (FOSTER), Kulliyyah of Allied Health Sciences, IIUM Centre for Natural & Health Sciences, Kuantan Campus, Jalan Sultan Haji Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

zahid28@gmail.com, noorsuzana@iium.edu.my, iab@iium.edu.my

Tel: +60192923195

Abstract

Home-based food businesses (HBFBs) play an important role in Malaysia's economy by providing low-cost food for the market. Nevertheless, it often lacks standardized tools to assess food safety practices on its premises and in its production. Therefore, HBFBs food safety structured questionnaires were developed to validate HBFBs content validation and reviewed by experts to confirm its relevancy, clarity, and suitability of 73 items of HBFBs food safety in Pahang, Malaysia. The content validity of structured questionnaires established by using content validity index (CVI), scale content validity index (S-CVI), probability of chance agreement (Pc), and modified kappa (K*).

Keywords: Content validity; Expert review; Home-based food business; Food safety CVI

DOI: https://doi.org/10.21834/e-bpj.v11i37.7956

1.0 Introduction

Home-based food businesses (HBFBs) are small-scale operations at a private home, using domestic equipment. Its production is intended solely to supply small quantities of food for sale to the public. Public areas, such as nearby neighborhoods and schools, are often identified as the target market because operating costs are relatively low. The home serves both as a residence and a place of business, with utility bills lower than those in commercial areas. Those factors have contributed to the final product being priced reasonably and quite affordable for communities and school kids. Home-based food businesses have experienced rapid growth globally in recent years due to the COVID-19 pandemic. Despite the pandemic, it has created economic opportunities and flexible working hours.

In Malaysia, this sector is rapidly growing and contributes to homemakers' household income and the local food supply, as highlighted by (Pallianysamy, 2025). Even though HBFBs are a good option for food businesses and are allowed in Malaysia, they still pose some health risks. Furthermore, food is fully prepared in the limited space of the home kitchen, sometimes in large volumes, and the kitchen is not always clean. Moreover, the preparation of food using inappropriate equipment and utensils, as well as its packaging and labeling, does not comply with the required rules. Food preparation activities sometimes overlap with other activities at home. Food handlers may also not receive proper food-handling training or vaccinations against foodborne pathogens. These situations exposed the food to contamination and put the customers at health risks. The main objective of HBFBs is to ensure that food products produced in a home environment are safe, hygienic, and meet legal and regulatory standards. This is achieved by designing appropriate items and to validate items verified by expert reviews and content validation index analysis.

eISSN: 2398-4287 © 2026. The Authors. Published for AMER by e-International Publishing House, Ltd., UK. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/). Peer–review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers).
DOI: https://doi.org/10.21834/e-bpj.v11i37.7956

2.0 Literature Review

The HBFBs are in high demand among food entrepreneurs nowadays due to their convenience, allowing them to sell their food from their own homes. HBFBs is a term used to describe entrepreneurs who totally prepare and sell food from their homes (Reuschke & Mason, 2020). HBFBs' target market focused only on nearby residential areas such as residential communities and schools. However, technology has expanded, turning it into a gig market where consumers can order food at any time and from any location as long as there is an internet connection. Despite positive growth, concerns about food safety practices in home-based businesses remain a pressing issue. HBFBs have raised significant concerns about food safety, as home food preparation may not adhere to standardized hygiene and sanitation standards. Abd Razak et al. (2022) found that poor hygiene practices and limited regulations and monitoring by enforcement officers at HBFBs are due to their location in private areas, where the Ministry of Health Malaysia has no procedure for checking home operations using standard raiding practices in commercial areas. Previous studies have highlighted factors influencing food safety behavior among HBFBs' food handlers. HBFB's food handlers know about food safety, but their practices do not align with their knowledge, as highlighted by (Nur Izyan et al., 2019). Fauzi & Abdul-Mutalib (2021) support this statement, finding that knowledge was 97.5% (very high) but did not always result in positive changes in behavior.

Questionnaire development is a systematic process for designing structured items. It is to ensure the design of accurate measurement instruments for the intended objective. Questionnaire development involves identifying constructs through a literature review to generate relevant items aligned with the specific objective. Items shall be verified by an expert with relevant expertise in this study, as expert review is important for evaluating the appropriateness and comprehensiveness of the questionnaire items (Yusoff, M.S.B., 2019). The expert review process contributes to content validity by identifying missing items, redundant items, and clarifying exact phrases in the questionnaires. The instrument requires content validation to ensure that all items are relevant, clear, and represent the study objectives. For this study, experts used relevancy, clarity, and suitability to assess the appropriateness of the constructed items. The content validity index (CVI) is a quantitative measure used to assess the degree of agreement among experts on relevant items. CVI is reported at two levels: Item-Level Content Validity Index (I-CVI) and Scale-Level Content Validity Index (S-CVI) (Polit & Beck, 2006). I-CVI represents the portion of experts who rate the item as relevant. S-CVI reflects overall content validity across the questionnaire. Higher CVI values indicate stronger agreement among experts regarding the appropriateness of items.

There are procedures, work instructions, and risk-based evaluations and assessments for commercial food premises in Malaysia. However, few instruments have been developed for HBFBs' food safety, aside from a general guideline. Existing instruments may not fully capture contextual factors relevant to HBFBs operations. To address this gap, develop and validate a structured questionnaire to assess food safety practices among home-based food operators, using expert review and content validation index analysis to establish a valid measurement tool for future research and to encourage HBFB operators to adopt food safety practices.

3.0 Methodology

3.1 Study Design

This study applied a methodological design to assess the content validity and instrument validation of HBFB's food safety using the content validity index (CVI). The study was conducted for a week to select an eligible expert reviewer. A set of questionnaires was developed based on objectives and respondents' levels of understanding and suitability.

3.2 Instrument Development

The questionnaire was developed based on a literature review, guidelines from food safety authorities, and existing validated instruments, as highlighted by (Wang, K. et al. 2026), who note that questionnaires are commonly developed using existing instruments, expert input, and validated practices. Each item is designed to measure relevancy, clarity, and suitability. Questionnaires to home-based food operators are divided into A, B, C, and D. Section A is for expert background, Section B instructions for expert, Section C items for questionnaires, where 3 main sections are Section I: Background Information, Section II: Cleanliness Score/ Demerit System, Section III: Product Information, Section IV: Labeling Information, and Section D overall feedback for experts. 73 items were presented for expert review on their clarity, relevance, and suitability.

3.3 Expert Panel Selection

Selected expert review based on position, expertise, and years of working experience. However, variables such as the experts' age and race were excluded because they were not relevant to this study. Seven panel experts were selected for their expertise in food safety, food technology, and public health, and for at least 1 year of experience working with the Malaysian health department. For this research, food technologists and health inspectors were selected as expert reviewers to ensure their knowledge aligns with food safety practices in accordance with Malaysian food safety rules and regulations. The threshold I-CVI ≥ 0.78 for 6–10 experts. It is not arbitrary and is based on well-cited methodological papers, which is acceptable as mentioned by (Polit & Beck, 2006).

3.4 Content Validation Procedure

Experts were provided with a set of hard-copy questionnaires for home-based food operators. A simple, clear instruction on the cover page stated that experts must fill in their names, positions, and years of experience. Informed consent was obtained before the experts filled out the questionnaire. Next, experts were required to rate each item using a 4-point scale;1 = not relevant/ not clear/ not suitable; 2 = somewhat relevant/ somewhat clear/ somewhat suitable; 3 = relevant/ clear/ suitable; 4 = highly relevant/ highly clear/ highly suitable,

as in Table 1. An empty column was provided at the end of each item for recommendations. They were also encouraged to provide qualitative feedback for improvement.

Table 1 Scale to guide experts for scoring method

Scale	Relevancy	Clarity	Suitability
1	Not relevant	Not clear	Not suitable
2	Somewhat relevant	Somewhat clear	Somewhat suitable
3	Relevant	Clear	Suitable
4	Highly relevant	Highly clear	Highly suitable

3.5 Data Analysis

For this study, Excel was utilized to list 73 items in a vertical format. If the item is marked as 1 = not relevant/ not clear/ not suitable; 2 = somewhat relevant/ somewhat clear/ somewhat suitable, it is considered as zero (0) if the item is marked as 3 = relevant/ clear/ suitable; 4 = highly relevant/ highly clear/ highly suitable, considered as one (1). Zero (0) and one (1) filled up in the Excel sheet. Content Validity Index (CVI) was calculated based on a given formula where the total cumulative score of each item was divided by seven (7) experts. CVI ≥ 0.78 is considered acceptable when there are three or more experts (Polit et al., 2007). Therefore, I-CVI ≥ 0.78 was decided to be retained, while I-CVI ≤ 0.78 would be revised or deleted.

73 items broken down into five domains, namely D1 owner background (items 1-8), D2 premise background (items 9-37), D3 cleanliness score/ demerit system (items 38-65), D4 product information (items 66-68), and D5 information of labeling (items 69-73). The calculation is applied to relevancy, clarity, and suitability. The next step is to calculate the scale content validity index (S-CVI), focusing on S-CVI/Average (S-CVI/Ave) and S-CVI/Universal Agreement (S-CVI/UA). The purpose of S-CVI/Ave was to measure the overall agreement among experts across all items, ensuring a general and stable estimate of content validity. In comparison, the purpose of the S-CVI/UA was to measure the proportion of items that all experts agreed were valid.

The pre-final stage is the calculation of the probability of chance agreement (Pc), as below, where N is the total number of experts, A is the number of experts who rated the items as relevant, and ! is factorial. Pc used to compute the modified kappa (K*), which adjusts the I-CVI to account for agreement that might occur by chance.

$$Pc = \frac{N!}{A!\,(N-A)!} \times 0.5^N$$

The final stage is the calculation of modified K* as below. K* interpretation >0.74 is excellent, 0.60–0.74 is good, and 0.40–0.59 is fair, as highlighted by (Zamanzadeh et al., 2015). K* < 0.40 is not included in the Cicchetti classification and is considered poor agreement.

$$K^* = \frac{ICVI - Pc}{1 - Pc}$$

4.0 Results

The CVI results are shown in Table 2. CVI results for relevancy: 17 items ranged between 0.43-0.71, 56 items ranged between 0.86-1.00. CVI for clarity: 16 items ranged between 0.57-0.71, and 57 items ranged between 0.86-1.00. CVI for suitability: 15 items ranged between 0.57-0.71, and 58 items ranged between 0.86-1.00.

Table 2: Content validation index (CVI)

Item	Relevancy	Clarity	Suitability
Domain 1: Owner background (D1)			
Item 1-3, 5-6 & 8	1.00	1.00	1.00
Item 4 & 7	**0.71***	0.86	**0.71***
Domain 2: Premise background (D2)			
Item 9-10, 12, 14, 30-35 & 37	1.00	1.00	1.00
Item 11	**0.71***	1.00	**0.71** *
Item 13	**0.43** *	0.86	**0.57** *
Item 15	**0.71** *	**0.71** *	0.86
Item 16-17, 22	**0.57** *	**0.71** *	**0.57** *
Item 18-20, 23, 25, 27	**0.71** *	**0.71** *	**0.71** *
Item 21	**0.57** *	**0.71** *	**0.57** *
Item 24, 28-29	0.86	0.86	0.86
Item 26	**0.57** *	**0.57** *	**0.57** *
Item 36	1.00	**0.71***	0.86
Domain 3: Cleanliness score/ demerit system (D3)			
Item 38, 40, 56	0.86	**0.71***	0.86
Item 39, 45, 50-52, 55, 58, 62-65	0.86	0.86	0.86
Item 41-42 & 61	0.86	1.00	1.00
Item 43-49, 54-60	1.00	1.00	1.00
Item 53	1.00	0.86	1.00

Domain 4: Product information (D4)			
Item 66-67	0.86	0.86	0.86
Item 68	**0.71***	0.86	0.86
Domain 5: Information of labeling (D5)			
Item 69-73	1.00	1.00	1.00

*NOTE: 0.86- 1.00 (Appropriate), * 0.43 - 0.71 (Revise)*

4.1 Relevancy

According to Table 2, Item 13 result for CVI was 0.43, and Items 16, 17, 21, and 26 were 0.57. Items 11, 15, 18, 19, 20, 22, 23, 25, 27, and 68, the result was 0.71. Items 11, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27 are categorized under Domain 2 (D2). Item 68 is categorized under Domain 4 (D4). In Table 3: D2, S-CVI/Ave was 0.82 while S-CVI/UA was 0.41. From the perspective of Pc and K*, the interpretation was poor, yielding 0.273 and 0.214.

For D2, items 16, 17, 21, and 26 accounted for the results of 0.82 for S-CVI/Ave and 0.41 for S-CVI/UA. From the perspectives of Pc and K*, the interpretations were fair, at 0.273 and 0.410, respectively. Three experts on E1, E2, and E3 provided positive feedback on item 21 by requesting further clarification. For D4, Item 68 results at 0.81 for S-CVI/Ave and 0.0 for S-CVI/UA. The results for Pc and K* were good, within the same range. This item will be retained and revised.

Table 3 Summary of Relevancy CVI: I-CVI and S-CVI by two approaches of S-CVI/UA and S-CVI/Ave, and modified K* for items of all domains

Domain	Item Range	I-CVI Range	S-CVI/Ave	S-CVI/UA	Decision		Pc Range	K* Range	Interpretation			
					Appropriate Item	Revise Item			Excellent Item	Good Item	Fair Item	Poor Item
D1	1-8	0.71-1.00	0.94	0.75	1,2,3,5,6,8	4,7	0.008-0164	0.658-1.000	1, 2, 3, 5, 6, 8, 66, 67, 69, 70, 71, 72, 73	4, 7		
D2	9-37	0.43-1.00	0.82	0.41	9,10,12,14, 24, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37	11, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29	0.008-0.273	0.214-1.000	9, 10, 12, 14, 24, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37,	11, 15, 18, 19, 20, 22, 23, 25, 27	16, 17, 21, 26	13
D3	38-65	0.86-1.00	0.92	0.43	38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65		0.008-0.055	0.849-1.000	38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65			
D4	66-68	0.71-0.86	0.81	0.00	66, 67	68	0.055-0.164	0.658-0.849	66-67	68		
D5	69-73	1.00	1.00	1.00	69, 70, 71, 72, 73		0.008	1.000	69-73			

NOTE: I-CVI= 0.86- 1.00 (Appropriate), 0.43 - 0.71 (Revise), K >0.74 is excellent, 0.60-0.74 is good, 0.40-0.59 is fair, and < 0.40 is poor*

4.2 Clarity

According to Table 2, item 26 had a CVI of 0.57. Items 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 27, 36, 38, 40, and 56, the result was 0.71. Items 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, and 36 are categorized under Domain 2 (D2). Items 38, 40, and 46 are categorized under Domain 3 (D3). Table 4, D2, S-CVI/Ave was 0.85 while S-CVI/UA was 0.41. From the perspectives of Pc and K*, the interpretation was fair, yielding 0.273 and 0.410, respectively.

For D2, items 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, and 36 yielded results of 0.85 for S-CVI/Ave and 0.41 for S-CVI/UA. From the perspectives of Pc and K*, the interpretations were fair at 0.164 and 0.658. Five experts from E1, E2, E3, E5, and E6 provided positive feedback on these items by requesting further clarification. Therefore, these items will be retained and revised. For D3, items 38, 40, and 56 yielded S-CVI/Ave results of 0.91 and S-CVI/UA results of 0.46. In Table 4, from the perspective of Pc and K*, the interpretation was good at 0.164 and 0.658.

Table 4: Clarity summary of I-CVI and S-CVI by two approaches of S-CVI/UA and S-CVI/Ave for items of all domains

Domain	Item Range	I-CVI Range	S-CVI/Ave	S-CVI/UA	Decision		Pc Range	K* Range	Interpretation			
					Appropriate (Item)	Revise (Item)			Excellent Item	Good Item	Fair Item	Poor Item
D1	1-8	0.86-1.00	0.96	0.75	1, 2, 3, 4, 5, 6, 7, 8		0.008-0.055	0.849-1.000	1,2,3,4,5,6,7,8			
D2	9-37	0.57-1.00	0.85	0.41	9,10,11,12,13,14,24,28,29,30,31,32,33, 34,36,37	15,16,17,18,19,20,21,22,23,25,26,27,35	0.008-0.273	0.410 – 1.000	9,10,11,12,13,14,24,28,29,30,31,32,33,34,36,37	15,16,17,18,19,20,21,22,23,25,27,35	26	
D3	38-65	0.71-1.00	0.91	0.46	39,41,42,43,44,45,46,47,48,49,50,51,52, 53,54,55,57,58,59,60,61,62,63,64,65,	38,40,56,	0.008 – 0.164	0.658 – 1.000	39,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55 57,58, 59,60,61,62 ,63,64,65	38,40,56		
D4	66-68	0.86	0.86	0.00	66,67,68,	,	0.055	0.849	66,67,68			
D5	69-73	1.00	1.00	1.00	69,70,71,72,73,		0.008	1.000	69,70,71,72,73			

NOTE: I-CVI= 0.86- 1.00 (Appropriate), 0.43 - 0.71 (Revise), K >0.74 is excellent, 0.60-0.74 is good, 0.40-0.59 is fair, and < 0.40 is poor*

4.3 Suitability

According to Table 2, Items 13, 16, 17, 21, and 26 yielded a CVI of 0.57. Items 11, 18, 19, 20, 21, 22, 23, 25, and 27 yielded a score of 0.71. All these items are categorized under Domain 2 (D2). S-CVI/Ave and S-CVI/UA in Table 5 reported results of 0.83 and 0.38, respectively. From the perspective of Pc and K*, the interpretation was fair, resulting in 0.05 and 0.547 for items 13, 16, 17, 21, and 26. Two experts, E3 and E7, commented on Item 3 regarding the local authority questionnaire. This question was removed as it was supported by poor performance in the relevant category. Items 16, 17, and 21 will be retained, as there were no comments on them. Items 11, 18, 19, 20, 21, 22, 23, 25, and 27, from the perspective of Pc and K*, had good interpretations of 0.712.

Table 5 Summary of Suitability CVI: I-CVI and S-CVI by two approaches of S-CVI/UA and S-CVI/Ave, and modified K* for items of all domains

Domain	Item Range	I-CVI Range	S-CVI/Ave	S-CVI/UA	Decision		Pc Range	K* Range	Interpretation			
					Appropriate Item	Revise Item			Excellent Item	Good Item	Fair Item	Poor Item
D1	1-8	0.71 – 1.00	0.93	0.75	1,2,3,5,6,8	4,7	0.008 - 0.164	0.658 - 1.000	1,2,3,5,6,8	4,7		
D2	9-37	0.57 – 1.00	0.83	0.38	9,10,12,14,15,24,28,29,30,31,32,33,34,35, 36,37	11,13,16,17,18,19,20,21,22,23,25,26,27	0.008 - 0.055	0.410 – 1.000	9,10,12,14,15,24,28,29,30,31,32,33,34,35,36,37	11,18,19,20,21,22,2325,26,27	13,16,17	
D3	38-65	0.71 – 1.00	0.92	0.46	39,40,41,42,43,44,45,46,47,48,49,50,51,52, 53,54,55,56,57,58,59,60,61,62,63,64,65	38	0.008 - 0.164	0.658 - 1.000	39,40,41,42,43,44,4546,47,48,49,50,51,5253,54,55,56,57,58,59,60,61,62,63,64,65	38		
D4	66-68	0.86	0.86	0.00	66,67,68		0.055	0.849	66,67,68			
D5	69-73	1.00	1.00	1.00	69,70,71,72,73		0.008	1.000	69,70,71,72,73			

NOTE: I-CVI= 0.86- 1.00 (Appropriate), 0.43 - 0.71 (Revise), K >0.74 is excellent, 0.60-0.74 is good, 0.40-0.59 is fair, and < 0.40 is poor*

5.0 Discussion

The findings demonstrate that the questionnaire possesses strong content validity after expert evaluation. The feedback from seven experts played a crucial role in improving item clarity and ensuring alignment with food safety constructs. It aligns with previous studies that emphasize the importance of expert review in instrument validation, as noted by Polit et al. (2007) for public health and food safety research. 73 items were divided into five domains namely: D1: Owner background, D2: Premise background, D3: Cleanliness score/ demerit system, D4: Product information and D5: Information labelling.

In terms of relevancy, two experts' feedback, E3 and E7, stated that local authority questions were irrelevant for HBFBs because the premises themselves were not declared as commercial food businesses. In fact, local authority homes shall be used only as

residential areas and shall not be considered small business entities. Item 13 should be eliminated from the questionnaires due to poor performance on the modified K* test, resulting in a score of 0.214. 72 items that resulted in > 0.4 will be retained in the questionnaires by modifying or rewording them. For D2, items 11, 15, 18, 19, 20, 22, 23, 25, 27 represented the result of 0.82 for S-CVI/Ave and 0.41 for S-CVI/UA. From the perspective of Pc and K*, the interpretation was good at 0.164 and 0.658. E3, E5, and E6 each gave feedback for each listed item. Their comments concerned the generality of the item options, which were not specified in the question. These items will be modified and reworded. Clarity, four experts, E1, E2, E3, and E6, each gave feedback for item 38. Their comments concerned the generality of the item options, which were not specified in the question. These items will be modified and reworded. One expert's feedback: E3 mentioned that there is no standard for grease traps under the Food Act because the premises themselves were not declared a commercial food business. However, this question will be retained and revised as new knowledge for this research. Suitability: four experts from E1, E2, E3, and E6 provided positive feedback on these items and requested further clarification. Therefore, these items will be retained and revised.

6.0 Conclusion and Recommendations

This study demonstrates the use of expert evaluation to assess item significance based on relevancy, clarity, and suitability, thereby improving HBFBs' food safety questionnaires before they are distributed to respondents. The findings indicate the instrument achieved acceptable levels of content validity based on the CVI, Pc, and modified K*. This study found that a validated questionnaire item is suitable for assessing food safety practices among HBFB operators. This study supports the objective of HBFBs focused on food safety to ensure food products produced in a home environment are safe, hygienic, and meet legal and regulatory standards by specifically exploring the issue through the design of appropriate items and to validate items verified by expert reviews and content validation index analysis. However, this study is limited to feedback from seven experts and focuses solely on content validity measures. Future research should include face validation and reliability testing to ensure the questionnaire is reliable for use in the population. Overall, the items in the proposed questionnaires provide a useful foundation for food safety assessment and may support further research interventions related to this study.

Acknowledgements

The authors would like to express their sincere appreciation to the panel of experts for their valuable contributions in evaluating the questionnaire items during the content validation process. Their expertise greatly enhanced the quality of this instrument.

Paper Contribution to Related Field of Study

This study provides a validated questionnaire for assessing food safety practices among HBFBs, developed through expert review and CVI. The instrument is a reliable tool for research and practical applications aimed at improving food safety standards.

References

Abd Razak, S. S. A., Tuan, L. Y., & Lau, T. C. (2022). Food safety legal issues in home-based food business. *International Journal of Academic Research in Business and Social Sciences, 12*(1), 2600–2610. https://doi.org/10.6007/IJARBSS/v12-i1/12133

Fauzi, F. J. M., & Abdul-Mutalib, N. A. (2021). *Knowledge and practice of home-based food handlers in Hulu Selangor, Malaysia regarding food safety*. Biology and Life Sciences Forum, 6(1), 12. https://doi.org/10.3390/Foods2021-10930

Nur Izyan, F. R., Zuraini, M. I., Maria, M. S., Lovelyna, B. J., Maimunah, M., & Saidatul Afzan, A. A. (2019). A preliminary study on food safety knowledge, attitude and practices among home-based food providers in Klang Valley, Malaysia. *Malaysian Applied Biology, 48*(2), 157–160

Polit, D.F., & Beck, C.T. (2006). *The content validity index: Are you sure you know what's being reported? Critique and recommendations.* Research in Nursing & Health, 29(5), 489–497

Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. *Research in Nursing & Health*, *30*(4), 459–467. https://doi.org/10.1002/nur.20199

Pallianysamy, S., Abdul-Mutalib, N. A., Ungku Zainal Abidin, U. F., Mahmud @ Ab Rashid, N. K., & Ahmad, N. H. (2025). Home-based foods in Malaysia: A food safety perspective. *Pertanika Journal of Tropical Agricultural Science, 48*(3), 667–683. https://doi.org/10.47836/pjtas.48.3.01

Reuschke, D., & Mason, C. (2020). The engagement of home-based businesses in the digital economy. Futures, February, 102542. https://doi.org/10.1016/j.futures.2020.102542

Wang K, Mirosa M, Hou Y, Bremer P. Measuring Food Safety Culture: A Systematic Review of Questionnaire Dimensions and Validation Practices. Compr Rev Food Sci Food Saf. 2026 May;25(3):e70472. doi: 10.1111/1541-4337.70472. PMID: 41940711; PMCID: PMC13051759

Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. Education in Medicine Journal, 11(2), 49–54. https://doi.org/10.21315/eimj2019.11.2.6

Zamanzadeh, V., Ghahramanian, A., Rassouli, M., Abbaszadeh, A., Alavi-Majd, H., & Nikanfar, A.-R. (2015). Design and implementation content validity study: Development of an instrument for measuring patient-centered communication. *Journal of Caring Sciences, 4*(2), 165–178. https://doi.org/10.15171/jcs.2015.017