

**ASSOCIATIONS OF NIGHT MARKET
CONSUMER FOOD SAFETY KNOWLEDGE,
ATTITUDES AND PERCEPTIONS TOWARDS
FOOD HANDLERS' HYGIENE PRACTICES
WITH BUSINESS FAMILIARITY AND
PURCHASE INTENTION**

AMALINA SHAHIRAH BINTI MD NOOR

**MASTER OF SCIENCE
UNIVERSITI MALAYSIA TERENGGANU**

2026

AMALINA SHAHIRAH BINTI MD NOOR

MASTER OF SCIENCE

2026

**ASSOCIATIONS OF NIGHT MARKET
CONSUMER FOOD SAFETY KNOWLEDGE,
ATTITUDES AND PERCEPTIONS TOWARDS
FOOD HANDLERS' HYGIENE PRACTICES
WITH BUSINESS FAMILIARITY AND
PURCHASE INTENTION**

AMALINA SHAHIRAH BINTI MD NOOR

**Thesis Submitted in Fulfilment of the Requirement for the
Master of Science
in the Faculty of Food Science and Agrotechnology
Universiti Malaysia Terengganu**

2026



Pusat Pengurusan Siswazah (PPS)

Borang Pengesahan Penyerahan Tesis / Disertasi/ Laporan Kertas Projek *Declaration Form for Submission of Theses/ Dissertation / Project Paper*

Tajuk / *Title* : Associations of Night Market Consumer Food Safety Knowledge, Attitudes and Perceptions towards Food Handlers' Hygiene Practices with Business Familiarity and Purchase Intention

Nama Pelajar / *Student's Name* : Amalina Shahirah Binti Md Noor

No. Matrik / *Matric No.* : P5573

Saya dengan ini mengaku membenarkan Tesis/Disertasi/Laporan Kertas Projek ini disimpan di Perpustakaan Sultanah Nur Zahirah, Universiti Malaysia Terengganu ("UMT") dan mengakui bahawa UMT mempunyai hak-hak seperti berikut:

I hereby declare that I have allowed this Theses/Dissertation/Project Paper to be kept by Perpustakaan Sultanah Nur Zahirah, Universiti Malaysia Terengganu ("UMT") and acknowledged that UMT reserves the rights as follows:

1. Hak cipta Tesis/Disertasi/Laporan Kertas Projek ini adalah hak milik UMT.
The copyright of this Theses/Dissertation/Project Paper belongs to UMT.
2. UMT berhak untuk membuat salinan Tesis/Disertasi/ Laporan Kertas Projek ini untuk tujuan akademik.
UMT shall have the right to make copies of this Theses/Dissertation/Project Paper for the academic purpose.
3. UMT berhak membuat salinan Tesis/Disertasi/Laporan Kertas Projek ini sebagai bahan pertukaran antara institusi pengajian tinggi.
UMT shall has the right to make copies for this Theses/Dissertation/Project Paper as an exchange between higher learning institutions.
4. Hak-hak UMT yang dinyatakan dalam perkara 2 dan 3 di atas adalah tertakluk kepada kategori Tesis/Disertasi/Laporan Kertas Projek seperti yang dinyatakan di dalam ini.

The rights of UMT stated in items 2 and 3 above are subject to the category of the Thesis/Dissertation/Project Paper Report as stated herein.

Sila tanda (/) bagi pilihan kategori di bawah:

Please tick (/) from the categories below:

(/) Tidak Terhad / *Open Access*

() Terhad / *Restricted*

Mengandungi maklumat terhad yang telah ditentukan oleh organisasi/badan di mana penyelidikan ini dijalankan.

Contains restricted information as specified by the organization/body where research was done.

() Sulit / *Confidential*

Mengandungi maklumat yang dikategorikan di bawah keselamatan atau kepentingan Malaysia seperti yang termaktub dalam Akta Rahsia Rasmi 1972

Contains information categorized under the security or interests of Malaysia as stipulated in the Official Secrets Act 1972.



.....
Tandatangan Pelajar /
Student's Signature



PROF. MADYAR, SITI NUR AFFENDI JAIFAR
Penyarah
Fakulti Sains Makanan dan Agroteknologi
Universiti Malaysia Terengganu
21030 Kuala Nerus, Terengganu

.....
Tandatangan Penyelia /
Supervisor's Signature
(Nama dan Cop Rasmi/ *Name & Official Stamp*)

Catatan: Jika Tesis/Disertasi/Laporan Kertas Projek ini SULIT @ TERHAD, sila lampirkan surat dari pihak berkuasa/organisasi berkenaan dengan menyatakan sekali sebab dan tempoh Tesis/Disertasi/Laporan Kertas Projek ini perlu dikelaskan sebagai SULIT atau TERHAD.

Note: If this Theses/Dissertation/Project Paper is CONFIDENTIAL @ RESTRICTED, please attach the letter from the relevant authority/organization stating its reason and duration of this Theses/Dissertation/Project Paper should be classified as CONFIDENTIAL or RESTRICTED

DEDICATION

Dedicated this thesis to:

My all: Abah & Mak.

My pillar of strength through every storm and struggle

The Proud Legacy of Md Noor and Warnizan – a bond that endures forever.

I owe you guys, big time

Thanks a lot

May Allah bless

Abstract of thesis presented to the Senate of Universiti Malaysia Terengganu in fulfillment of the requirements for the degree of Doctor of Philosophy

**ASSOCIATIONS OF NIGHT MARKET CONSUMER FOOD SAFETY
KNOWLEDGE, ATTITUDES AND PERCEPTIONS TOWARDS FOOD
HANDLERS' HYGIENE PRACTICES WITH BUSINESS FAMILIARITY
AND PURCHASE INTENTION**

AMALINA SHAHIRAH BINTI MD NOOR

2026

Main Supervisor : Siti Nur' Afifah Jaafar, Ph.D

Co-Supervisor : Abdul Rais Abdul Rahman, Ph.D

School/Institute : Faculty of Food Science and Agrotechnology

Night markets are evening setups made up of various stalls that sell food and other daily essentials. According to the Oxford University Press Dictionary, they are similar to street food vendors but operate only at night, providing a lively and convenient dining experience for many people. However, because they are informal, night markets often face unique challenges especially related to food safety, hygiene, and how consumers perceive them. As cities grow and globalization continues, street food has become an important part of everyday life in many countries, including Malaysia. This study focuses on how consumers' food safety knowledge, food safety attitudes, and their perceptions of food handlers' hygiene practices associated with business familiarity and their intention to make purchases. These three factors are the independent variables, while business familiarity and consumers' purchase intention are the dependent variables. The overall goal of this study is to understand consumers' views on food safety, their attitudes, their opinions on how hygienic food handlers are, how familiar they are with night market vendors, and how all these factors affect their buying decisions. The study also had three specific objectives: RO1, to see how different demographic backgrounds relate to the study variables; RO2, to explore the

link between the independent variables and business familiarity; and RO3, to examine the association between the independent variables and business familiarity towards purchase intention. A total of 163-night market customers from Kuala Terengganu and Kuala Nerus took part in this study through a questionnaire. The results showed that most consumers had good knowledge about food safety, with 97.5% correctly identifying proper food storage and handling practices. Female respondents had higher knowledge levels than males, and race was found to affect food safety attitudes and business familiarity. Consumers with more positive food safety attitudes and better perceptions of hygiene were more familiar with vendors. People preferred to buy from vendors who followed strict hygiene practices, such as wearing gloves and keeping their stalls clean. However, familiarity associated with purchasing behavior, many consumers continued to buy from vendors they already knew even if those vendors were not always completely hygienic. This shows that both cleanliness and personal trust in vendors play important roles in consumer choices. For future studies, it is recommended to include different locations, including both urban and rural areas, as well as a wider range of cultural and socioeconomic backgrounds, to get a better understanding of how different types of consumers view food safety and make their food-buying decisions.

Abstrak tesis yang dikemukakan kepada Senat Universiti Malaysia Terengganu
sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**HUBUNGAN DI ANTARA PENGETAHUAN KESELAMATAN MAKANAN,
SIKAP DAN PERSEPSI PENGGUNA PASAR MALAM TERHADAP
AMALAN KEBERSIHAN PENGENDALI MAKANAN DENGAN
KEBIASAAN PERNIAGAAN DAN NIAT PEMBELIAN**

AMALINA SHAHIRAH BINTI MD NOOR

2026

Penyelia : DR. Siti Nur' Afifah Jaafar, Ph.D

Penyelia Bersama : DR. Abdul Rais Abdul Rahman, Ph.D

Pusat Pengajian/Institut : Fakulti Sains Makanan dan Agroteknologi

Pasar malam merupakan himpunan gerai yang beroperasi pada waktu malam dan menjual pelbagai jenis makanan serta barangan harian. Menurut Kamus Oxford University Press, pasar malam adalah serupa dengan penjaja makanan jalanan tetapi hanya dibuka pada waktu malam, memberikan suasana makan yang meriah dan mudah kepada orang ramai. Namun begitu, disebabkan sifatnya yang tidak formal, pasar malam sering menghadapi cabaran berkaitan keselamatan makanan, kebersihan, dan persepsi pengguna. Seiring dengan perkembangan bandar dan pengaruh globalisasi, budaya makanan jalanan telah menjadi sebahagian penting dalam kehidupan seharian di banyak negara, termasuk Malaysia. Kajian ini memberi tumpuan kepada bagaimana pengetahuan keselamatan makanan pengguna, sikap mereka terhadap keselamatan makanan, dan persepsi terhadap amalan kebersihan pengendali makanan mempengaruhi tahap keakraban mereka terhadap peniaga dan niat untuk membeli. Tiga elemen ini merupakan pemboleh ubah bebas, manakala keakraban dengan perniagaan dan niat pembelian merupakan pemboleh ubah bersandar. Objektif umum kajian ini adalah untuk memahami pandangan pengguna terhadap keselamatan makanan, sikap mereka, persepsi terhadap kebersihan pengendali makanan, tahap

keakraban dengan peniaga, dan bagaimana semua faktor ini mempengaruhi keputusan pembelian mereka. Kajian ini juga mempunyai tiga objektif khusus: RO1, untuk melihat kaitan antara latar belakang demografi dengan pemboleh ubah kajian; RO2, untuk meneliti hubungan antara pemboleh ubah bebas dengan keakraban terhadap perniagaan; dan RO3, untuk mengkaji hubungan antara pemboleh ubah bebas dan keakraban terhadap niat pembelian. Seramai 163 pengguna pasar malam dari kawasan Kuala Terengganu dan Kuala Nerus telah mengambil bahagian dalam kajian ini melalui borang soal selidik. Hasil kajian menunjukkan majoriti pengguna mempunyai pengetahuan keselamatan makanan yang baik, dengan 97.5% menjawab dengan betul tentang kaedah penyimpanan dan pengendalian makanan. Responden wanita menunjukkan tahap pengetahuan yang lebih tinggi berbanding lelaki, dan bangsa pula didapati mempengaruhi sikap terhadap keselamatan makanan serta keakraban dengan peniaga. Pengguna yang mempunyai sikap yang lebih positif terhadap keselamatan makanan dan persepsi yang baik terhadap kebersihan pengendali makanan didapati lebih akrab dengan peniaga. Mereka cenderung membeli daripada peniaga yang mengamalkan kebersihan seperti memakai sarung tangan dan memastikan gerai sentiasa bersih. Namun, tahap keakraban juga mempengaruhi tingkah laku pembelian — ramai pengguna masih membeli daripada peniaga yang mereka kenali walaupun tahap kebersihan tidak begitu baik. Ini menunjukkan bahawa kedua-dua faktor kebersihan dan kepercayaan terhadap peniaga memainkan peranan penting dalam keputusan pembelian pengguna. Kajian masa depan disarankan untuk merangkumi kawasan yang lebih pelbagai termasuk kawasan bandar dan luar bandar serta latar belakang budaya dan sosioekonomi yang berbeza bagi mendapatkan pemahaman yang lebih menyeluruh tentang persepsi keselamatan makanan dan tingkah laku pembelian pengguna.

ACKNOWLEDGEMENTS

In the name of Allah, the Most Gracious, the Most Merciful. First and foremost, I extend my deepest gratitude to Almighty Allah for His endless blessings, guidance, and strength, which have enabled me to successfully complete this research and thesis. Without His grace, this journey would not have been possible. I would also like to express my heartfelt appreciation to my beloved parents for their unconditional love, prayers, and unwavering support throughout this journey. To my dear siblings, who have always been my source of strength and encouragement, I am truly grateful for your presence in my life. A special appreciation goes to my main supervisor, Dr. Siti Nur' Afifah Jaafar, for her invaluable guidance, patience, and dedication in shaping this research, and to my co-supervisor, Dr. Abd Rais Abd Rahman, for his insightful advice and continuous support. I am also immensely thankful to my close friends for their encouragement, motivation, and for standing by me through every challenge. With all the support, guidance, and perseverance, I am truly grateful to have successfully completed this research and thesis. This accomplishment is a testament to the unwavering faith, patience, and determination that have carried me through. May this work serve as a meaningful contribution to knowledge and inspire future efforts in the field.

APPROVALS

I certify that an Examination Committee has met on 6th August 2025 to conduct the final examination of Amalina Shahirah binti Md Noor, on her Master of Science thesis entitled “**Associations of Night Market Consumer Food Safety Knowledge, Attitudes and Perceptions Towards Food Handlers' Hygiene Practices with Business Familiarity and Purchase Intention**” in accordance with the regulations approved by the Senate of Universiti Malaysia Terengganu. The Committee recommends that the candidate be awarded the relevant degree. The members of the Examination Committee are as follows:

Dr. Asma' Ali, Ph.D.
Associate Professor,
Faculty of Food Science and Agrotechnology,
Universiti Malaysia Terengganu.
(Chairperson)

Dr. Azizul Yadi Yaakop, Ph.D.
Associate Professor,
Faculty of Business Economics and Social Development,
Universiti Malaysia Terengganu.
(Internal Examiner)

Dr. Norfezah Md Nor, Ph.D.
Associate Professor,
Faculty of Hotel Management and Tourism,
Universiti Teknologi Mara.
(External Examiner)

Dr. Amir Izzwan bin Zamri,
Ph.D
Associate Professor/Dean,
Faculty of Food Science and Agrotechnology,
Universiti Malaysia Terengganu.

Date:

This thesis has been accepted by the Senate of Universiti Malaysia Terengganu in fulfilment of the requirement for the degree of Master of Science.

Dr. Amir Izzwan bin Zamri,

Ph.D

Associate Professor/Dean,

Faculty of Food Science and Agrotechnology,

Universiti Malaysia Terengganu.

Date:

DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UMT or other institutions.

AMALINA SHAHIRAH BINTI MD NOOR

Date:

TABLE OF CONTENT

	PAGE
DEDICATION	iv
ACKNOWLEDGEMENTS	ix
APPROVALS	x
DECLARATION	xii
TABLE OF CONTENT	xiii
LIST OF TABLES	xvi
LIST OF FIGURES	xvii
LIST OF FORMULAS	xviii
LIST OF APPENDICES	xix
 CHAPTER	
1 INTRODUCTION	1
1.1 Preamble	1
1.2 Background of the Study	1
1.3 Problem Statement and Justification	4
1.4 Research Objectives	7
1.5 Significance of Study	9
1.5.1 Practical Significance	9
1.5.2 Theoretical Significance	10
1.6 Conceptual and Operational Definition of the Important Terms in this Study	11
1.6.1 Night market	11
1.6.2 Food safety	11
1.6.3 Foodborne disease	12
1.6.4 Knowledge	12
1.6.5 Attitude	13
1.6.6 Perception	13
1.6.7 Consumer	14
1.6.8 Business Familiarity	14
2 LITERATURE REVIEW	16
2.1 Preamble	16
2.2 Food Safety	16
2.2.1 Food safety in Night Market	18
2.3 Foodborne disease	19
2.4 Theory of Knowledge, Attitude and Practices (KAP)	24
2.5 Consumer Knowledge Towards Food Safety	25
2.6 Consumers' Attitude Towards Food Safety	26
2.7 Perception Towards Food Handlers' Hygiene Practices	27
2.8 Food handlers Hygiene Practices	28
2.9 Business familiarity	29
2.10 Purchase Intention	31
2.11 Purchase intention influence by business familiarity	33
2.12 Association Demographic Profiles and Consumers' Food	

	Safety Knowledge	34
2.13	Association Demographic Profiles with Consumers' Food Safety Attitudes	36
2.14	Association Demographic Profiles with Consumers' Perceptions of Food Handlers' Hygiene Practices	37
2.15	Association Demographic Profiles with Business Familiarity	39
2.16	Association Demographic Profiles with Purchase Intention	40
2.17	Association between night market consumers food safety knowledge towards business familiarity	42
2.18	Association between night market consumers food safety attitude towards business familiarity	44
2.19	Association between night market consumers perception on food handlers' hygiene practice towards business familiarity.	45
2.20	Association between night market consumers food safety knowledge towards consumers purchase intention.	47
2.21	Association between night market consumers food safety attitude towards consumers purchase intention.	48
2.22	Association between night market consumers perception on food handlers' hygiene practices towards consumers purchase intention.	50
2.23	Association between the business familiarity towards night market consumers purchase intention.	52
2.24	Theory of Planned behaviour	53
2.25	Conceptual Frameworks	55
2.26	Research hypothesis formulation	58
	2.26.1 Association between demographic profile and consumers food safety knowledge, attitude, perceptions on food handlers' hygiene practices, business familiarity and purchase intention.	58
	2.26.2 Association between consumers food safety knowledge, attitude, consumers perceptions on food handlers' hygiene practices with business familiarity.	62
	2.26.3 Association between consumers food safety knowledge, attitude, consumers perceptions on food handlers' hygiene practices and business familiarity with consumers purchase intention	64
3	METHODOLOGY	67
3.1	Preamble	67
3.2	Research Philosophy	68
3.3	Research Design	68
3.4	Sampling Plan	69
	3.4.1 Sampling Element	69
	3.4.2 Sample Size	70
3.5	Research Instrument	73
	3.5.1 Common Method Bias (CMB)	74

3.6	Pilot test	75
3.6.1	Reliability	76
3.6.2	Validity	76
3.6.3	Pilot test results	77
3.6.4	Reliability of Measured Items	78
3.6.5	Validity of Measured Items	79
3.7	Main Data Collection	80
3.8	Data Analysis	81
3.8.1	Descriptive Analysis	82
3.8.2	Inferential Analysis	82
3.8.3	Regrouping items	83
4	RESULTS AND DISCUSSION	86
4.1	Preamble	86
4.2	Socio-demographic profile	86
4.3	Descriptive data of the study variables	92
4.3.1	Consumers' knowledge towards food safety	92
4.3.2	Consumers' food safety attitude	99
4.3.3	Consumers' perception towards food handlers' hygiene practices	103
4.3.4	Consumers' familiarity in night market	106
4.3.5	Consumers' Purchase Intention	110
4.4	Association between gender and study variables	113
4.5	Association between race and study variables	117
4.6	Association between Independent variable and business familiarity	120
4.7	Association between independent variables and business familiarity towards purchase intention	122
5	CONCLUSION AND RECOMMENDATIONS	126
5.1	Preamble	126
5.2	Summary of findings	126
5.3	Limitation of the study	128
5.4	Recommendation for Future Study	129
5.5	Managerial and theoretical implication	130
	REFERENCES	133
	APPENDICES	161
	BIODATA OF AUTHOR	186

LIST OF TABLES

Table		Page
1.1	Incidence Rate and Mortality of Communicable Disease, 2021 (Per 100 000 population).	20
2.1	Source of Foodborne Pathogens. (Adapted from Stephen J. Forsythe. 2020)	22
3.1	Research Instrument Partition	74
3.2	Cronbach's Alpha Value of Measured Item	78
3.3	Correlation Coefficient Value of Measured Item	79
3.4	Modifications in items scale	84
4.1	Socio-Demographic Profile of The Respondent	86
4.2	Consumers' Knowledge towards Food Safety	92
4.3	Consumers' Attitude towards Food Safety	99
4.4	Consumers perception towards food handlers' hygiene practices	103
4.5	Consumers' Familiarity in Night Market	106
4.6	Consumers' purchase intention	110
4.7	Association between gender and study variables	113
4.8	Association between race and study variables	117
4.9	Association between Independent variable and business familiarity	120
4.10	Association between independent variables and business familiarity towards purchase intention	122

LIST OF FIGURES

Figure		Page
2.1	Graphical depiction of the theory of planned behaviour	54
2.2	Conceptual Framework	57
3.1	Research Framework	81
4.1	Level of Consumers' Food Safety Knowledge	98
4.2	Level of Consumers' Food Safety Attitude	102
4.3	Level of Consumers' Perception towards Food handlers' Hygiene Practices	105
4.4	Level of Consumers Familiarity	108
4.5	Level of Consumers' Purchase Intention	112

LIST OF FORMULAS

Equation		Page
1	Yamane Formula	72
	$n = \frac{N}{1 + N(e)^2}$	

LIST OF APPENDICES

Appendix	Page
Questionnaire	161

CHAPTER 1

INTRODUCTION

1.1 Preamble

This chapter is about the overview of night market consumerism and food safety knowledge. It begins by narrating the nature of night market business, food safety factors that are known to influencing the purchase intention. Secondly, the problem statement as well as knowledge gap were highlighted relating to food safety knowledge practices. Following this, the research objectives were constructed in order to achieve the goal of addressing the central issue and knowledge gap relating to food safety knowledge when purchasing night market food. Finally, the potential significance of the study was discussed.

1.2 Background of the Study

Night markets, as defined by the Oxford University Press Dictionary, are collections of stalls operating at night, offering food and other essentials. Typically, open from 5:00 PM to midnight, these markets serve as a unique form of retail, often extending along streets in public or private venues (Kang et al, 2022). Night markets share similarities with street food vendors but operate exclusively in the evening, creating a lively and convenient dining experience. Known globally for their affordability, variety, and appeal, night markets are an integral part of the culinary landscape in many regions, especially in Asia (Hsieh & Chang, 2006).

Furthermore, night markets serve as platforms for entrepreneurship, offering opportunities for small businesses and contributing significantly to the informal economy (Ramli & Jamri, 2021; Chin & Harun, 2015). Each night market has its own unique character and offerings, often reflecting the local culture and traditions of the region. Some famous night markets include the Shilin Night Market in Taipei, Taiwan, the Temple Street Night Market in Hong Kong, and the Chatuchak Weekend Market in Bangkok, Thailand.

The appeal of night markets lies in their physical and personnel perceptions, generating a unique and attractive environment for tourists (Chuang et al., 2014). However, the impact of night markets extends beyond economic and cultural dimensions. For instance, they have been found to contribute to environmental pollution and air quality issues, as well as to the spread of phthalate ester contamination in street dust (Lee et al., 2019; Amesho et al., 2021). Additionally, the COVID-19 pandemic has influenced the night market experience, affecting vendors' attitudes and perceptions towards international tourists and shaping tourists' perceived travel risks and intentions to visit night markets (Tilaki et al., 2021; Wang et al., 2022).

The night market concept has also been associated with gentrification and revitalization efforts in urban areas, reflecting its role in urban development and transformation (Pottie-Sherman, 2013). Moreover, the night market experience is influenced by physical features, customer experience, and technology adoption, shaping tourists' image and overall value perceptions (Lim et al., 2021). Night markets are not only places to shop and eat but also serve as social hubs where locals and tourists alike gather to experience the sights, sounds, and flavors of the evening. Overall, night markets are spaces that encompass economic, cultural, environmental, and social dimensions, attracting diverse consumer groups and playing a significant role in urban life and tourism.

However, the informal nature of night markets poses unique challenges related to food safety, hygiene, and consumer perceptions. The off-premise preparation of food outdoors increases the risk of cross-contamination and exposure to contaminants (Catedral, 2018). While street food vendors face similar concerns, scholarly research

highlights weak links in food safety supervision and hygiene practices, leading to public health risks from foodborne illnesses (Mohd Nawawee et al., 2019). Factors such as inadequate infrastructure, lack of storage facilities, and proximity to polluted areas exacerbate these risks, making street and night market food safety a critical concern (Adane et al., 2018).

As urbanization and globalization continue to transform culinary landscapes, street food culture has become a defining characteristic of daily life in many countries, particularly in Malaysia. Night markets serve as vibrant social hubs where diverse food offerings attract both locals and tourists seeking authentic culinary experiences. However, alongside their popularity lies a critical concern: food safety. The informal nature of night markets presents unique challenges regarding hygiene practices and consumer trust.

Foodborne illnesses remain a significant public health issue globally. The World Health Organization estimates that one in ten individuals is affected annually by contaminated food (WHO, 2022). In Malaysia, the Ministry of Health enforces regulations that apply to all food handlers, including those operating in night markets. These regulations are designed to ensure adherence to strict hygiene standards and safe food handling practices across all types of food vendors. However, compliance can be inconsistent due to the informal nature of night market operations, leading to potential risks for consumers (Norhaspida Yatim et al., 2023).

Consumer awareness and understanding of food safety are crucial in this context. Research indicates that consumers who possess knowledge about food safety are more likely to engage in safe dining behaviours and make informed choices about where to eat (Yasami et al., 2020). This knowledge influences their attitudes towards food handlers' hygiene practices and can significantly impact their purchasing decisions. When consumers perceive vendors as knowledgeable and committed to maintaining high hygiene standards, they are more inclined to trust and purchase from them. Conversely, negative perceptions can lead to hesitation or avoidance, ultimately affecting vendors' livelihoods (Cheesman et al., 2023).

Moreover, familiarity with local businesses plays a vital role in shaping consumer purchase intentions. Consumers who are well-acquainted with a vendor's practices whether through personal experience or community reputation are more likely to support those businesses. This sense of familiarity fosters trust and loyalty, encouraging repeat patronage. In contrast, unfamiliarity may create apprehension about food safety, complicating the dynamics of consumer behaviour in night markets (Kamarudin et al., 2024).

1.3 Problem Statement and Justification

Foodborne illnesses pose a significant global health challenge, affecting one in ten individuals annually and contributing to over 200 diseases caused by contaminated food (WHO, 2022). The impact is comparable to major diseases such as malaria and HIV/AIDS, with children under five being particularly vulnerable, accounting for one in six diarrhoea-related fatalities. However, the true burden of foodborne illnesses is often underestimated due to underreporting and challenges in establishing direct links between food contamination and health issues (Apruzzese et al., 2019). In 2015, WHO reported over 600 million cases globally, leading to approximately 420,000 deaths annually, with the issue being most prevalent in low- and middle-income countries where food safety knowledge and risk perceptions vary widely.

In Malaysia, foodborne illnesses are a growing concern, particularly in informal food settings such as night markets, which play a vital role in the local food culture. Recent data from the Malaysian Medical Association reported 14,293 cases of food poisoning due to waterborne and foodborne illnesses in 2022 (The Malaysian Insight, 2024). In Kuala Terengganu alone, food poisoning cases increased by 73% from the previous year with contributing factors including unhygienic food handling practices and improper storage of raw materials (Kamarudin, 2024). These trends highlight the urgent need for improved food safety measures in informal food settings.

Demographic profiles, particularly gender and race, are critical in shaping consumers' food safety knowledge, attitudes, perceptions of hygiene, business

familiarity, and purchase intentions, making these factors essential to examine in this study. Research has shown that socio-demographic characteristics such as gender, education, and training experience are significantly associated with food safety knowledge, attitudes, and practices, with findings indicating that higher education and training positively influence food safety behaviors among food employees (Sihombing et al., 2018). Robust evidence of gender-specific differences in food consumption (Vuciterna et al., 2025). Furthermore, disparities in food safety knowledge and behaviors are often linked to race and socioeconomic status, highlighting the importance of addressing these differences to promote equitable health outcomes and consumer trust (Carstens et al., 2022). By focusing on gender and race, this research aims to identify and address these disparities, providing valuable insights for developing targeted interventions and inclusive strategies that promote safe food practices and informed consumer choices.

Despite their cultural and economic significance, Malaysian night markets face ongoing food safety challenges that impact consumer confidence and public health. Studies indicate that inadequate food safety knowledge among street food vendors contributes to unsafe practices, such as the reuse of cooking oil and improper food storage (Theng et al., 2017; Azman et al., 2012). Furthermore, while many vendors acknowledge the importance of food safety, non-compliance with hygiene standards remains prevalent (Abdul Aziz et al., 2023; Musa et al., 2023). These gaps in food safety knowledge directly influence consumer perceptions and purchase intentions, as concerns about food safety risks can deter consumers from patronizing night market vendors (Soon et al., 2020).

Consumer perception plays a critical role in dining choices, particularly in informal settings like night markets. Factors such as perceived cleanliness, vendor reputation, and awareness of food safety measures significantly influence consumer confidence and purchasing behavior. Research suggests that younger consumers tend to be more vigilant about food safety compared to older generations, indicating a need for more effective communication strategies (Yu et al., 2017). Additionally, studies emphasize the importance of public health awareness in shaping consumer trust and improving the overall dining experience in night markets (Nathan et al., 2018).

Familiarity with local businesses is another key factor influencing consumer trust and purchase intentions. Consumers who are aware of a vendor's commitment to food safety are more likely to make purchases due to increased confidence in the quality and safety of the food (Lee, 2020). Studies have shown that consumer education on food safety enhances perceptions of vendor reliability, which in turn influences purchasing decisions (Zanetta et al., 2022; Zorba & Kaptan, 2011). However, while extensive research has examined food safety in informal settings, much of it focuses on food quality, attractiveness, and service standards rather than consumer familiarity with food safety practices (Setiyorini et al., 2019; Chuang et al., 2014; Huang, 2012).

In contrast, research in structured food environments such as farmers' markets, institutional food services, and retail outlets highlights the role of familiarity in shaping consumer attitudes toward food safety. Studies have shown that food safety concerns significantly influence purchasing behavior in farmers' markets (Yu et al., 2017), and familiarity with local food systems enhances consumer trust (Conner et al., 2010). Furthermore, food safety knowledge among institutional food handlers has been identified as a crucial factor in maintaining hygiene standards (Aung et al., 2019). However, these studies primarily focus on regulated settings and do not extend to informal food environments like night markets, where food handling practices are less standardized.

While previous research has explored food safety knowledge, attitudes, and perceptions in night markets, the specific role of consumer familiarity with food safety practices remains underexamined. Night markets present unique challenges, such as informal food handling practices, varying levels of regulatory oversight, and diverse vendor backgrounds (Catedral, 2018), necessitating further investigation. Given these distinct characteristics, it is essential to explore how consumer familiarity with food safety practices influences trust and purchase intentions in night markets. Addressing this gap provides an opportunity for empirical research that can enhance consumer confidence and inform policy measures aimed at improving food safety standards in informal food settings.

Beyond public health implications, foodborne illnesses also carry significant economic consequences, including increased healthcare costs and reduced productivity due to illness-related absenteeism (Cheesman et al., 2023). In developing countries like Malaysia, where food safety regulations may be less stringent, frequent outbreaks can erode consumer confidence and negatively impact local businesses (New et al., 2017). The economic burden extends beyond healthcare costs, as foodborne illnesses can also lead to income loss for vendors reliant on consumer patronage.

At the core of this issue lies the interplay between food safety knowledge, attitudes, consumer perceptions, business familiarity, and purchase intentions. Understanding these dynamics is crucial for enhancing consumer confidence, promoting safe eating practices, and ensuring the sustainability of night markets as cultural and economic hubs. This study examines the relationship between consumer awareness, vendor practices, and food safety risks in Kuala Terengganu's night markets. By addressing these factors, the research aims to provide actionable insights to improve public health, strengthen consumer trust, and support the long-term viability of night markets in Malaysia.

1.4 Research Objectives

Upon highlighting the central issue and knowledge gap, the general objectives are to identify consumers food safety knowledge, attitude, perception toward food handlers' hygiene practice, business familiarity and purchase intention. To support the general objective, the following specific objective were formulated.

RO1 To determine the association between demographic profile towards study variables

RO1a To determine the association between gender towards consumers food safety knowledge.

RO1b To determine the association between race towards consumers food safety knowledge.

RO1c To determine the association between gender towards consumers food safety attitude.

RO1d To determine the association between race towards consumers food safety attitude.

RO1e To determine the association between gender towards consumers perception on food handlers' hygiene practices

RO1f To determine the association between race towards consumers perception on food handlers' hygiene practices.

RO1g To determine the association between gender towards business familiarity.

RO1h To determine the association between race towards business familiarity.

RO1i To determine the association between gender towards purchase intention.

RO1j To determine the association between race towards purchase intention.

RO2 To examine the association between independent variables towards business familiarity

RO2a To examine the association between consumers food safety knowledge towards business familiarity.

RO2b To examine the association between consumers food safety attitude towards business familiarity.

RO2c To examine the association between consumers perception on food handlers' hygiene practice towards business familiarity.

RO3 To investigate the association between the independent variables and business familiarity towards consumers purchase intention.

RO3a To investigate the association between consumers food safety knowledge towards consumers purchase intention.

RO3b To investigate the association between consumers food safety attitude towards consumers purchase intention.

RO3c To investigate the association between consumers perception on food handlers' hygiene practices towards consumers purchase intention.

RO3d To investigate the association between the business familiarity towards consumers purchase intention.

1.5 Significance of Study

1.5.1 Practical Significance

This study provides important practical contributions for improving food safety in Kuala Terengganu's night markets. Malaysia reports a high incidence of foodborne illnesses, and this research offers insights that can help reduce such preventable health risks. By examining how consumers' food safety knowledge, attitudes, and perceptions shape their purchasing decisions, the findings can support the development

of effective public health strategies aimed at protecting the community—particularly vulnerable groups like children.

The study also highlights the essential role of food handlers' hygiene practices and business familiarity. Insights generated can guide targeted vendor training programs, strengthen hygiene compliance, and improve trust between consumers and vendors. Practical outcomes include helping food vendors adopt safer practices that not only safeguard consumers but also support the continuity and credibility of their businesses.

From an economic standpoint, night markets are central to Kuala Terengganu's cultural identity and local livelihood. Unsafe practices can reduce consumer confidence and lead to financial losses for vendors. By addressing these safety issues, the study helps sustain the economic vitality of night markets. Policymakers, local health departments, and regulatory bodies can also use the findings to design more effective interventions such as structured food safety training, awareness campaigns, and enforcement mechanisms tailored to informal market environments.

1.5.2 Theoretical Significance

The study contributes to the existing body of knowledge by addressing a gap in food safety literature within the context of Malaysian night markets—an area often overlooked in previous research, which mainly focuses on formal food establishments. By examining the relationships between consumers' food safety knowledge, attitudes, and perceptions and their purchasing behaviour, this research deepens understanding of how these constructs interact in informal food environments.

It further enhances theoretical perspectives on consumer behaviour by demonstrating how trust, risk perception, and familiarity with vendors influence purchase intention. The study also provides a conceptual foundation for future research exploring food safety dynamics in informal markets across Malaysia and other developing regions. Through its findings, the research strengthens theoretical models

related to food safety, consumer psychology, and public health behaviour, thereby enriching academic literature and offering opportunities for further scholarly exploration.

1.6 Conceptual and Operational Definition of the Important Terms in this Study

1.6.1 Night market

1.6.1.1 Conceptual definition:

A night market was defined as a small business that was open at night and sold a variety of goods as well as prepared food. Due to its handy location, which was frequently in close proximity to residential areas, and its flexible operation hours, it had increasingly become the favoured destination for consumers to purchase their necessities (Ahmad, et al, 2021). Malaysian night markets are simpler to set up and run because they are built around the idea of open-air shopping and because of this structure, traders do not have a fixed place of business and may occasionally shift locations (Isa, et al, 2020).

1.6.1.2 Operational definition:

In this research, night market refers to mobile stalls that operate in open-air areas. A night market in a particular street or centre can be operated one day or more within a week.

1.6.2 Food safety

1.6.2.1 Conceptual definition:

According to WHO (2022), 'Food safety' refers to the absence of any risks, whether they be acute or chronic, that could endanger a consumer's health. Food safety is typically understood as the scientific field that outlines how to prepare, handle, and

store food products in a manner that can reduce the risk of contracting a foodborne illness (Pan, et al, 2019).

1.6.2.2 Operational definition:

In this research, food safety is the condition where food sold in night market is safe to be consumed. This also includes the hygienic condition of food, food handlers and environment.

1.6.3 Foodborne disease

1.6.3.1 Conceptual definition

Foodborne disease refers to illnesses that are caused by the consumption of food contaminated with harmful microorganisms such as bacteria, viruses, parasites, and fungi (Li et al., 2022).

1.6.3.2 Operational definition

In this research, Foodborne disease refers to the effect of unhygienic practices from the food handlers. Besides, level of consumers' food safety knowledge and attitudes also can lead to foodborne disease.

1.6.4 Knowledge

1.6.4.1 Conceptual definition:

Knowledge is defined as the information, understanding and skills that were gained through education or experience. It is the state of knowing about a particular fact or situation (Oxford English Dictionary). The conceptual definition of knowledge

encompasses the understanding and integration of information, skills, and experiences to facilitate effective decision-making and problem-solving (Buder, 2017)

1.6.4.2 Operational definition:

In this research, knowledge refers to the understanding of respondent on food safety related information. It is regardless whether the respondent obtained the food safety related information from people, newspaper, magazines, books or mass media.

1.6.5 Attitude

1.6.5.1 Conceptual definition:

Attitude is the way that someone thinks and feels about somebody or something. It is the way that someone behaves toward somebody or something that shows how that particular people think and feel. A conceptual definition of attitude can be understood as a psychological construct that encompasses an individual's evaluative reactions and interactions towards an object, person, group, or situation (Dalege et al., 2016). It represented the confident or aggressive behaviour that shows someone does not care about other people's opinions and insists to do things in an individual way (Oxford English Dictionary).

1.6.5.2 Operational definition:

In this research, attitude is defined as the intention of respondent to apply food safety knowledge that they have, into an action.

1.6.6 Perception

1.6.6.1 Conceptual definition:

Perception can be understood as a multifaceted cognitive process involving the active construction of mental symbols from sensory information, as well as purposeful

information-seeking and attention to environmental factors (Mareno, 2013). This process extends to various domains, such as emotion perception, theory of mind, and symptom perception, highlighting the complex and overlapping nature of perception with other cognitive processes (Mitchell & Phillips, 2015; Lee & Riegel, 2018).

1.6.6.2 Operational definition:

In this research, perception is the adherence of respondent perceptions towards night market food handlers' hygiene practices.

1.6.7 Consumer

1.6.7.1 Conceptual definition:

According to Oxford English Dictionary, consumer is defined as 'a person who purchases goods and services for personal use'. It also carries the meaning of a person or thing that eats or uses something. Consumers also can be understood as individuals or groups engaged in the acquisition, consumption, and disposition of goods, services, time, and ideas, influenced by a range of psychological, social, and economic factors (Jacoby, 1975).

1.6.7.2 Operational definition:

In this research, the term 'consumer' represents the people who bought food at the night markets. It can be a current purchase or prior experience in purchasing food from night markets.

1.6.8 Business Familiarity

1.6.8.1 Conceptual definition

Familiarity can be measured through reliability, social consciousness, and identification, reflecting the trust and commitment that consumers associate with familiar offerings (Melewar et al., 2017). Business familiarity refers to the level of knowledge, understanding, and experience that individuals or organizations have in relation to a particular business environment, market, or industry. It encompasses the

degree to which entities are acquainted with the operational, cultural, legal, and social aspects of conducting business within a specific context. The concept of business familiarity is crucial in shaping decision-making processes, risk assessment, and strategic planning, particularly in international business and market expansion attempts.

1.6.8.2 Operational definition

In this research, business familiarity act as a dependent variable between the independent variable which is food safety knowledge, attitude and perception towards food handlers' hygiene practices and also act as independent variable for the dependent variable which is purchase intention.

CHAPTER 2

LITERATURE REVIEW

2.1 Preamble

This chapter explores key topics related to food safety and consumer behavior. It starts with an overview of general food safety, focusing on its importance, especially in night markets and other food marketplaces. It then looks into consumers' knowledge, attitudes, and perceptions of food safety, particularly regarding food handlers' hygiene practices. The chapter also examines purchase intention and how business familiarity influences consumers' decisions. Additionally, it discusses the connections between demographic factors and consumers' food safety awareness, attitudes, perceptions, business familiarity, and purchase intention. The relationships between these factors and how they shape consumer behavior are further explored. Finally, the chapter introduces the Theory of Planned Behavior as the foundation for the study's conceptual framework and research hypotheses.

2.2 Food Safety

Food safety is typically understood as the scientific field that outlines how to prepare, handle, and store food products in a manner that can reduce the risk of contracting a foodborne illness (Pan, et al, 2019). Food safety refers to the measures and practices implemented to ensure that food is safe for consumption, meaning it will not cause harm or illness to those who eat it. It encompasses various aspects of food handling, preparation, storage, and distribution to prevent contamination and the growth of harmful bacteria, viruses, parasites, or chemical substances that could pose

risks to human health. The collection of procedures that must be followed for food to be safe is referred to as food safety. It guarantees that the food we eat is secure for consumption. It covers every aspect of ensuring the quality of the food. Food cleanliness is the first aspect of food safety to be ensured, followed by its quality and how food vendors advertise their products. These results depend on the attitude vendors have towards food safety ideas, their level of knowledge on food safety, and how strictly they adhere to hygiene practise rules. Food handling, preparation, and storage should be done according to scientific principles to prevent foodborne illness (Verma, *et al*, 2022)

The significance of food safety is also evident in various sectors such as healthcare facilities, where the evaluation of food safety knowledge and practices among food service staff is vital for maintaining and enforcing food safety standards (Alqurashi et al., 2019). Furthermore, the impact of food safety extends to international trade, making it essential to understand consumer perceptions and behavior towards food safety (Bouranta et al., 2019). This underscores the need for effective food safety management and the development of a strong food safety culture within organizations (Griffith et al., 2010). A positive food safety culture, characterized by leadership, communication, staff commitment, resources, and risk awareness, is crucial for ensuring the implementation of effective food safety practices (Griffith et al., 2010). Food safety is a significant issue that has an impact on global trade and public health. More social and economic costs are incurred by food safety accidents in low- and middle-income nations (Hoffmann, *et al*, 2019).

The importance of food safety is also reflected in consumer behavior and decision-making, as consumers' confidence in food safety significantly influences their consumption choices (Wei, 2018). Moreover, as countries transition from traditional to modern food systems, the economic significance of food safety becomes increasingly important, emphasizing the need to address food safety challenges in rapidly developing food systems (Unnevehr, 2022). Additionally, technological advancements, such as UPLC-MS, are being employed to enhance food safety measures and address the higher incidences of food contamination globally (Ashraf et al., 2021). In addition, two key factors, namely the modernisation of food systems

brought on by the emergence of supermarkets that impose food safety rules, have raised the need for safe food in developing countries (Reardon, *et al*, 2019). It is especially important that safe food products are available and easily accessible because doing so improves food security as stated in the 1996 World Food Summit declaration: “Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. In addition to health benefits, safe food is fundamental for low-income countries’ access to increasingly high-value regional and global food markets (Ehrich and Mangelsdorf, 2018).

In conclusion, food safety is a complicated issue that encompasses various aspects, including consumer behaviour, regulatory practices, technological advancements, and organizational culture. It is crucial for safeguarding public health and requires a comprehensive approach involving all stakeholders in the food chain to ensure the safety and quality of the food supply. At the same time, ensuring food safety requires a combination of proper hygiene practices, adherence to regulations and guidelines, regular monitoring and inspection, and continuous education and training for food handlers and consumers alike. By following these principles, the risk of foodborne illness can be minimized, and consumers can have confidence in the safety of the food they eat.

2.2.1 Food safety in Night Market

Food safety at night markets refers to the set of practices and measures aimed at ensuring the cleanliness, quality, and safety of food products sold and consumed within these marketplaces. This includes the implementation of proper hygiene practices, knowledge of food safety regulations, and the prevention of foodborne illnesses. The hygiene knowledge and practices of night market food vendors play a crucial role in maintaining food safety standards, as they are responsible for handling and preparing the food products (Sun et al., 2012). Surveillance for foodborne disease outbreaks highlights the need for food safety improvements targeting worker health

and hygiene in food service settings, emphasizing the importance of monitoring and preventing disease outbreaks (Dewey-Mattia et al., 2018).

Additionally, food safety and food hygiene training studies in the commercial sector contribute to enhancing the understanding and implementation of food safety practices among food vendors and handlers (Egan et al., 2007). The global burden of foodborne diseases underscores the significance of ensuring food safety to prevent illness and protect consumers from the risks associated with contaminated food (Lee & Yoon, 2021). Furthermore, the incidence of foodborne illness and food safety risks for populations of low socioeconomic status and minority race/ethnicity emphasizes the need for equitable access to safe and hygienic food in all market settings (Quinlan, 2013). Effective food safety education programs for food handlers and consumers are essential for promoting safe food practices and preventing foodborne illnesses (Nyachuba, 2010).

Moreover, the prevalence and antimicrobial resistance of pathogens in retail chicken meat and giblets highlight the importance of monitoring and controlling microbial contamination in food products sold at night markets (Sodagari et al., 2015). Overall, food safety at night markets encompasses a range of measures and practices aimed at ensuring the safety and quality of food products, protecting consumers from foodborne illnesses, and promoting public health. Understanding consumers' food safety knowledge and practices is crucial for developing effective public health programs and promoting public health in night markets. These insights are essential for policymakers, public health authorities, and market vendors to ensure the safety and quality of food products and to promote consumer well-being.

2.3 Foodborne disease

Foodborne diseases are a significant public health concern, often resulting from the consumption of food contaminated with pathogens such as bacteria, viruses, parasites, or poisonous chemicals. These diseases pose a substantial burden on public health and are a major cause of morbidity and mortality worldwide (Gould et al.,

2013). Foodborne pathogens are the primary causative hazards of foodborne disease outbreaks, with bacteria and poisonous plants being identified as the main contributors to such outbreaks (Li et al., 2018). These diseases typically affect the gastrointestinal tract and can lead to symptoms such as gastroenteritis, vomiting, diarrhoea, and abdominal pain. Foodborne diseases are a significant public health concern globally and can result from the ingestion of contaminated food or water.

According to Ministry of Health Malaysia, in 2021 the incidence rate for food poisoning is the highest communicable disease which is 18.40/100 000 population compared to other communicable diseases in Malaysia. Table 1.1 below show the statistical data for several communicable diseases that happened in Malaysia. The table shows that food poisoning has the highest incidence rate on 2021. It can be the proof that food can bring hazardous towards consumers.

Table 1.1: Incidence Rate and Mortality of Communicable Disease, 2021
(Per 100 000 population)

Communicable Disease	Incidence Rate
Cholera	0.20
Dysentery	0.61
Food poisoning	18.40
Hepatits A	0.07
Typhoid And Paratyphi	0.31

The impact of foodborne diseases on public health is substantial, leading to a considerable burden on healthcare systems and economies. The burden of foodborne diseases is not well defined in many countries or regions, and it is often underreported, leading to challenges in accurately assessing the impact of these diseases (Flint et al., 2005). The high incidence of foodborne diseases poses a serious threat to public health and the social economy, with significant economic burdens and health implications (Li et al., 2021).

Foodborne diseases are a leading cause of foodborne illnesses, resulting in a substantial number of hospitalizations and deaths each year. An estimated 48 million cases of foodborne illness occur annually in the United States alone, underscoring the widespread impact of these diseases (Gould et al., 2013). Furthermore, foodborne diseases bring about huge economic burdens to human beings, emphasizing the multifaceted impact of these illnesses (Chen et al., 2024). The burden of foodborne gastroenteritis due to specific pathogens, such as nontyphoidal *Salmonella enterica*, *Shigella*, and *Vibrio parahaemolyticus*, has been a subject of estimation and assessment in various regions (Chen et al., 2024). Surveillance and monitoring of foodborne diseases are essential for understanding the epidemiology and impact of these illnesses.

Foodborne diseases have significant effects on consumers, encompassing both health and socio-economic implications. The health effects of foodborne diseases can be severe, leading to hospitalizations and, in some cases, fatalities. Vulnerable populations, such as the young, elderly, pregnant women, and immunocompromised individuals, are at a higher risk of experiencing severe illness due to foodborne pathogens (Pezzuto et al., 2016). Additionally, foodborne diseases have economic and international trade impacts, necessitating effective disease management strategies (Hedman et al., 2020).

The effects of foodborne diseases are not limited to physical health; they also have psychological and behavioural implications. Consumers may experience fear and anxiety related to food safety, leading to changes in food consumption patterns and purchasing behaviors (Soon et al., 2020). Furthermore, the occurrence of foodborne diseases in the home remains a persistent problem, with more than 35% of foodborne diseases occurring in domestic settings (Soon et al., 2020). This underscores the impact of foodborne diseases on consumer behavior and household practices. The economic implications of foodborne diseases are substantial, with costs associated with medical treatment, productivity losses, and healthcare expenditures. The reported incidence of foodborne diseases is estimated to represent only a fraction of the actual incidence, indicating the potential underestimation of the economic burden (Heredia & García,

2018). Moreover, foodborne diseases can have far-reaching economic impacts on the agricultural, food production, and food service sectors (Mayer et al., 2023).

Table 2.1: Source of Foodborne Pathogens. (Adapted from Stephen J. Forsythe. 2020)

Food	Pathogen
Meat, poultry and eggs	• <i>Salmonella</i> • <i>Campylobacter</i> • <i>Escherichia coli</i> (<i>E. coli</i>) • <i>Listeria monocytogenes</i> • <i>Clostridium perfringens</i> • <i>Staphylococcus aureus</i>
Fruits and vegetables	• <i>Salmonella</i> • <i>Escherichia coli</i> (<i>E. coli</i>) • <i>Listeria monocytogenes</i> • <i>Norovirus</i> • <i>Hepatitis A</i> • <i>Cryptosporidium</i> • <i>Cyclospora</i>
Milk and dairy products	• <i>Salmonella</i> • <i>Escherichia coli</i> (<i>E. coli</i>) • <i>Listeria monocytogenes</i> • <i>Staphylococcus aureus</i> • <i>Mycobacterium bovis</i> • <i>Brucella spp.</i>
Powdered infant formula	• <i>Salmonella</i> • <i>Cronobacter sakazakii</i> (formerly known as <i>Enterobacter sakazakii</i>)

	• <i>Escherichia coli</i> (<i>E. coli</i>) • <i>Listeria monocytogenes</i> • <i>Clostridium botulinum</i> • <i>Bacillus cereus</i>
Shellfish and seafood	• <i>Vibrio vulnificus</i> • <i>Vibrio parahaemolyticus</i> • <i>Vibrio cholerae</i> • <i>Norovirus</i> • <i>Hepatitis A virus</i> • <i>Salmonella</i> • <i>Listeria monocytogenes</i> • <i>Clostridium botulinum</i> • <i>Escherichia coli</i> (<i>E. coli</i>) • <i>Cryptosporidium</i>
Cereals, grains, legumes and nuts	• <i>Mycotoxins</i> • <i>Salmonella</i> • <i>Escherichia coli</i> (<i>E. coli</i>) • <i>Clostridium botulinum</i> • <i>Listeria monocytogenes</i>
Spices	• <i>Salmonella</i> • <i>Escherichia coli</i> (<i>E. coli</i>) • <i>Clostridium perfringens</i> • <i>Bacillus cereus</i> • <i>Staphylococcus aureus</i> • <i>Aspergillus flavus</i> (may produce aflatoxins)
Water	• <i>Escherichia coli</i> (<i>E. coli</i>) • <i>Salmonella</i> spp. • <i>Campylobacter jejuni</i> • <i>Giardia lamblia</i>

-
- *Cryptosporidium spp.*
 - *Norovirus*
 - *Rotavirus*
 - *Hepatitis A virus*
 - *Shigella spp.*
 - *Vibrio cholerae*
-

2.4 Theory of Knowledge, Attitude and Practices (KAP)

The Knowledge-Attitude-Practice (KAP) theory is a behavioral intervention framework widely used in health education, public health, and nursing management to understand and promote positive changes in human behavior (Kang and bagaoisan, 2024). It posits that knowledge is the foundation for forming correct attitudes, which in turn drive changes in practice or behavior (Wang et al., 2020). The ultimate goal is to achieve health improvements by systematically enhancing knowledge, shaping attitudes, and encouraging beneficial practices (Namdar Areshtanab et al., 2024).

The core components of the Knowledge-Attitude-Practice (KAP) model are knowledge, attitude, and practice. Knowledge refers to an individual's understanding and awareness of a particular topic, such as disease prevention or healthy lifestyle choices, and is considered the starting point for any behavioral change (Teoh et al., 2023). Attitude represents beliefs, feelings, or predispositions toward a subject, and is influenced by knowledge; attitudes play a crucial role in motivating individuals to adopt new behaviors (Zarei et al., 2024). Practice involves the actual behaviors or actions taken by individuals as a result of their knowledge and attitudes, with effective practices being the desired outcome of KAP interventions (Liao et al., 2022). Together, these components form the foundation of the KAP model, guiding efforts to promote positive behavioral changes in health and other domains. While the KAP model typically highlights practice as the behavioral outcome, this study specifically examines the associations between night market consumers' food safety knowledge, attitudes, and perceptions toward food handlers' hygiene practices, and how these factors relate to business familiarity and purchase intention.

By focusing on perception, the study aims to uncover how consumers' interpretations and understanding of food safety issues associated with attitudes and, ultimately, their decisions regarding business familiarity and purchase intention in night market settings. Perception, within the context of the KAP model, refers to the way individuals interpret, understand, and make sense of information related to food safety and hygiene practices (Ab et al, 2023). It is shaped by their existing knowledge and attitudes, and involves subjective judgments influenced by personal experiences, cultural beliefs, and information received from various sources (Ab et al, 2023). In night market settings, consumers' perceptions of food handlers' hygiene practices may be based on visible cues, such as cleanliness of the stall or the vendor's behavior, as well as indirect information, such as recommendations from others or media reports (Shen et al., 2025). These perceptions play a key role in shaping consumers' attitudes toward vendors and directly affect their business familiarity and purchase intentions (Isanovic et al., 2022). By focusing on perception, this study can provide deeper insights into the cognitive and affective factors that drive consumer behavior in relation to food safety in night markets.

2.5 Consumer Knowledge Towards Food Safety

Consumer knowledge of food safety in street food is a critical aspect of ensuring the safety and quality of food products. Understanding consumers' knowledge, attitudes, and perceptions (KAP) related to food safety is essential for promoting public health and preventing foodborne illnesses.

According to Soon et al. (2020), they found that consumers had a good level of food safety knowledge, along with positive attitudes and self-reported safe food handling practices. Alhashim et al. (2022) also discovered that the majority of food truck consumers possessed the necessary knowledge regarding food safety, which might help them make healthier food choices, practice good food hygiene, and ultimately reduce the chances of foodborne diseases.

Additionally, Ma et al. (2019) found that consumers had appropriate levels of food safety knowledge. Access to education and information about food safety practices empowers consumers to make informed choices, while regulatory oversight and certification programs help instil confidence in the safety of street food.

2.6 Consumers' Attitude Towards Food Safety

Food safety attitude is an important factor influencing food safety practices. However, Soon et al. (2020) found that the relationship between food safety knowledge and attitude was insignificant, indicating that both variables independently influence practices.

Consumers' attitudes towards food safety in the context of street food can vary significantly, influenced by cultural norms, personal experiences, and access to information. Some consumers prioritize freshness, flavor, and authenticity, while others are more concerned about the risks associated with unregulated vendors operating in open-air environments.

Ma et al. (2019) found that food safety attitudes among the youngest consumers were significantly better than those of older age groups. Trust plays a crucial role, as consumers rely on positive past experiences or recommendations to assess the cleanliness and hygiene practices of street food vendors. Cultural influences also shape perceptions, with some societies embracing street food as a culinary tradition and others prioritizing strict food safety standards.

Moreover, Magdalena Niewczas & Dobrowolska (2022) emphasized that food safety is the most important characteristic of food for consumers, reinforcing the influence of consumer attitudes and behaviors on food safety.

2.7 Perception Towards Food Handlers' Hygiene Practices

Perception can be understood as a multilayered cognitive process involving the active construction of mental symbols from sensory information, as well as purposeful information-seeking and attention to environmental factors (Mareno, 2013). This process extends to various domains, such as emotion perception, theory of mind, and symptom perception, highlighting the complex and overlapping nature of perception with other cognitive processes (Mitchell & Phillips, 2015; Lee & Riegel, 2018). Consumer perception significantly influences purchase intention across various contexts. The potential references provide valuable insights into the factors influencing purchase intention and the impact of consumer perceptions on purchasing behavior. There is a detailed explanation of the potential (Çakici & Tekeli, 2021). Consumers' perception of food safety and foodborne pathogens is influenced by various factors, including the sources of contamination, the prevalence of pathogens, and the potential health risks associated with food consumption. Understanding these factors is crucial for assessing and managing the risks posed by foodborne pathogens in different settings, including night markets and other food retail environments.

Research indicates that many food handlers in night markets do not adhere to proper hygiene standards. For instance, a study conducted at a night market in Larantuka City revealed that 69.2% of food handlers failed to meet personal hygiene requirements, such as wearing appropriate work attire and washing hands regularly before handling food (Assan et al, 2022). This lack of compliance poses significant risks to food safety and consumer health. In contrast, some studies in Malaysia suggest that certain vendors do practice good hygiene. For example, young consumers reported that many vendors wore aprons and gloves while handling food, which contributed to a perception of cleanliness (Sa'min et al, 2024). However, there remains a notable inconsistency in hygiene practices among vendors, with some failing to protect food from exposure to contaminants like dust and insects (Sa'min et al, 2024).

According to Letuka et al. (2021), they found that among the respondents for Street food handlers' food safety knowledge, attitudes and self-reported practices and consumers' perceptions about street food vending in Maseru, Lesotho studies, due to hygienic concerns, only 6% of consumers said they never purchase food from street

vendors. The observation checklist revealed that there was a lack of clean water supplies and hand washing stations, and that the vendors were operating in unsanitary manner facilities. Additionally, there are studies in Brazil about knowledge and risk perceptions of foodborne disease by consumers and food handlers at restaurants with different food safety profiles found that there is evidence of an optimistic bias among food handlers and customers. There is a clear correlation between food service risk and the optimistic inclination of consumers. When it comes to food safety, customers are unable to distinguish between restaurants based on sentimentality, familiarity, social identification, and additional elements to assist consumers in selecting a restaurant (de Andrade et al., 2019).

2.8 Food handlers Hygiene Practices

Food handlers' hygiene practices are paramount to maintaining food safety standards and preventing the spread of foodborne illnesses. They must adhere to strict protocols to ensure that food is prepared and handled in a sanitary manner. This includes thorough handwashing with soap and warm water before handling food, after using the restroom, and after any activity that could potentially contaminate hands. Personal cleanliness is also crucial, with food handlers required to wear clean attire, including hairnets or hats to prevent hair from falling into food, and to avoid touching their face, hair, or body while handling food. In studies of Ma, et al (2019), they got that street food suppliers have generally poor food handling practices, and most are operating under unsanitary conditions. Which is they being relatively poor in carrying out safe food handling, with only 26.7% using or being fully equipped with hand-washing facilities, although more than 60% of vendors wore clean and tidy clothes and masks.

Additionally, the use of protective gear such as gloves and aprons may be necessary in certain food handling environments. Proper training and education on hygiene practices, including the handling of raw foods and the importance of cleaning and sanitizing workspaces and equipment, are essential. By following these hygiene practices diligently, food handlers contribute to a safer and healthier food supply for

consumers. In other studies, they found the food handlers had poor food safety knowledge but all the food handlers (100%) exhibited good knowledge of general sanitary practices such as regular hand washing (Letuka et al., 2021). At the same time, Ngoc et al. (2020) got in the observation of personal hygiene and handling practices of food vendors showed that most of them do not follow good hygiene practices. Among all this studies, it shows that food handlers are not all follow the good hygiene practices during handle food. Meanwhile, there are studies also found that good food safety knowledge increased the likelihood of good food safety behaviours among food handlers by 2.25 times compared to counterparts. (Abdisa et al., 2024)

2.9 Business familiarity

The relationship between business familiarity and food safety in night markets is a critical factor influencing consumer behavior and vendor practices. As consumers become more familiar with night markets through frequent visits, they develop a deeper understanding of vendors' operations, including their food safety measures. Regular consumers are more likely to trust vendors who consistently demonstrate safe food handling practices, which can positively influence their purchasing decisions (Catedral, 2018). This familiarity also enhances consumer awareness of food safety issues. For instance, consumers often assess the cleanliness of utensils, the use of personal protective equipment, and the hygiene of food preparation areas before making purchases (Henderson, 2019). This heightened awareness creates a feedback loop where consumer familiarity drives vendors to improve their food safety standards to meet customer expectations.

On the vendor side, business familiarity with consumer preferences and expectations plays a significant role in shaping food safety practices. Vendors who understand that customers value hygiene and proper food handling are more likely to adopt better sanitation practices. Studies have shown that vendors who receive positive feedback regarding their hygiene efforts are motivated to maintain high standards, thereby fostering customer loyalty (Chen, 2013). Additionally, vendors familiar with the importance of food safety often seek training on proper food handling techniques,

which further enhances compliance with guidelines such as those provided by the World Health Organization (WHO) (Catedral, 2018). This demonstrates how business familiarity can directly influence the development of a strong food safety culture among vendors.

Consumer perceptions of food safety compliance are also shaped by their level of familiarity with specific vendors and stalls. Familiarity allows consumers to form opinions based on repeated interactions, enabling them to identify improvements or lapses in food safety practices over time (Ahmad et al., 2023). For example, frequent visitors may notice whether vendors consistently use clean utensils or maintain proper storage conditions for perishable items. These perceptions significantly impact purchasing decisions, as consumers are more likely to support vendors who prioritize hygiene. Moreover, demographic factors such as age and occupation influence how consumers evaluate food safety in night markets. Younger consumers, who tend to visit night markets more frequently, often exhibit greater scrutiny regarding cooking practices and cleanliness compared to older demographics (Ahmad et al., 2023).

Furthermore, studies have highlighted the importance of food safety knowledge among both consumers and vendors in night markets. Research indicates that while many consumers have a basic understanding of food safety principles, gaps remain in their knowledge about specific practices that could mitigate risks (Abdul Rahim et al., 2024). This lack of comprehensive knowledge can lead to varying perceptions regarding the safety of street foods. Vendors who are well-informed about food safety protocols are better equipped to meet consumer expectations and enhance their market reputation (Zakaria & Ishak, 2017).

In conclusion, business familiarity and food safety are deeply interconnected in night markets. As consumers become more familiar with night market environments, their expectations for food safety increase, encouraging vendors to adopt better hygiene practices. Simultaneously, vendors who understand consumer expectations are more likely to invest in training and compliance measures that enhance their reputation and attract loyal customers. This dynamic underscore the

importance of fostering both consumer awareness and vendor education to create a safer and more enjoyable dining experience in night markets.

2.10 Purchase Intention

Originally, the term "intention" has been used to describe to the factors that influence and motivate consumers to buy goods and services (Hawkins & Mothersbaugh, 2010). Septiani and Chaerudin, (2020) said that purchase intention describes a customer's propensity or willingness to purchase a specific good or service. It is a fundamental idea in marketing and consumer behaviour that expresses the attitude and preparedness of the consumer to make a purchase. Purchase intention can be strongly influenced by elements including brand image, perceived quality, and price perception. Businesses and marketers can better anticipate customer behaviour and adjust their strategies to suit consumer requirements and preferences by having a thorough understanding of purchase intention (Septiani, D. and Chaerudin, R. 2020).

Furthermore, examining purchase intentions can give firms useful information about how consumers make decisions and assist them in creating marketing and sales plans that work. The best predictors of conduct are intention and general opinion, which moderate the impacts of attitude, subjective norms, and behavioural control. Purchase behaviour and intention to make purchases are the two key components of the TPB model (Lavuri, *et al*, 2022). According to TPB, the combination of normative, behavioural, and control beliefs about a particular behaviour shapes behavioural intention (Ajzen, 1991; Hosta & Zabkar, 2021; Wang & Scrimgeour, 2021). Wiatrowski et al (2021) said that consumers' preferences, pro-quality factors, such as quality of services, quality of meals, hygiene, and food safety, and economic factors, such as the price of a meal, are of primary importance. Moreover, there are studies stated that the choice of consumers to shop at street markets instead of going to supermarkets was based mainly on their perception of product freshness & quality (stressed by those aged 59 years or younger and by females) and prices.

Verdu et al, (2021) initiate that youngest age group showed the most interest in hygiene practices. Also, they were able to recognize the marked association between food safety-related aspects such as market hygiene vs. food handlers' training. One study found that majority (36%) of the participants agreed to a 5–9% increase in food product prices in return for improved safety, followed by 14.5% who agreed to a 10–19% increase in food prices (Almaghrabi, 2023). In addition, according to Herawati et al, (2023) studies, they found that from the 31 food handlers surveyed. Which is 72.1% indicated that street food hygiene and sanitation requirements were met, while 27.9% reported they were not. Similarly, 76.7% stated that food handlers adhered to the standards, with 23.3% disagreeing. Regarding *Escherichia coli* contamination, 20.9% reported its presence, while 79.1% reported no contamination. Statistical analysis revealed significant correlations between sanitation hygiene and *Escherichia coli* contamination ($p\text{-value} = 0.00$), as well as between food handlers' behavior and *Escherichia coli* contamination ($p\text{-value} = 0.00$). Overall, the results suggest a noteworthy relationship between hygiene practices, food handlers' behaviour, and *Escherichia coli* contamination in street food.

Furthermore, there are also research has shown that food safety concern and health consciousness positively influence attitudes and purchase intentions towards organic food products (Michaelidou & Hassan, 2007; LeAnh & Nguyen, 2020; Yuan & Xiao, 2021; Yazar & Burucuoğlu, 2019; Lian & Yoong, 2019). Moreover, the moderating effect of food safety knowledge on organic food purchase intention has been emphasized, particularly in the context of the COVID-19 pandemic, where consumers are more selective about their food consumption to maintain good health (Latip et al., 2021).

Additionally, the relationship between food safety concern and purchase intention has been examined in the context of sustainable products, where food safety concern was found to significantly impact attitudes and purchase intentions (Abutaleb & El-Bassiouny, 2020). Moreover, the influence of food safety concern on consumer attitudes and purchase intentions has been studied in emerging markets, such as Saudi Arabia and Vietnam, indicating the global relevance of this relationship (LeAnh & Nguyen, 2020; Alshammari, 2020; Ngo et al., 2021).

2.11 Purchase intention influence by business familiarity

Understanding the factors that influence consumer purchase intentions in these markets is essential for vendors aiming to attract and retain customers. Hameed & Kanwal (2018) said that familiarity in purchase intention refers to the degree to which a consumer is acquainted or familiar with a particular product or brand and how this familiarity influences their intention to purchase it. Familiarity can stem from various sources, including previous consumption experiences, exposure to marketing efforts, recommendations from others, or simply brand recognition. In many cases, consumers tend to exhibit a higher purchase intention towards products or brands they are familiar with, as familiarity often breeds trust and confidence in the product's quality, reliability, and consistency.

Familiarity can also reduce perceived risk associated with the purchase, leading to a more positive attitude towards buying the product. Marketers often leverage strategies to increase familiarity with their products through advertising, promotions, sampling programs, and maintaining a strong brand presence. By understanding the role of familiarity in purchase intention, businesses can tailor their marketing efforts to cultivate brand awareness and build strong connections with consumers, ultimately driving sales and loyalty (Hameed & Kanwal, 2018)

The consumption of street food is influenced by familiarity. According to research, people tend to favour foods they are more familiar with (Mak et al, 2012). According to Melewar et al. (2017), in the context of street food, familiarity can affect consumers' attitudes and behavioural intentions. Furthermore, familiarity is one of the elements influencing meal choices, according to a study on young consumers' consumption behaviours of street foods (Sanlier et al, 2018). Food neophobia, or the fear of sampling new foods, has also been proven to have an impact on consumers' intention to consume street food, according to research using the extended theory of planned behaviour (Khanna et al., 2021). This suggests that consumers' decision-making processes may be mediated by their familiarity with street food. In addition, consumers' attitudes and behaviours might be affected by their familiarity with a particular location and its street food.

In a study on young domestic travellers' recurrence for Penang Street cuisine, Yeap et al, (2019) discovered that place attachment, or the emotional bond to a place, mediates the association between frequent trips to a destination and attitude towards street food. This implies that consumers' perceptions about street food might be influenced by their familiarity with a destination and its street cuisine. Moreover, business familiarity can significantly influence purchase intention by shaping consumers' perceptions and attitudes towards products, brands, and purchasing decisions. When consumers are familiar with a business, its products, and its brand image, they are more likely to develop a positive perception of the business, leading to increased purchase intention.

Familiarity with a business can enhance trust, confidence, and perceived value, which are key factors influencing consumers' willingness to make a purchase. For example, in the study by Ghazali et al., (2019), the findings revealed that flow and nostalgia had indirect effects on players' continuance intention, which significantly influenced their purchase intention. This suggests that familiarity with the game and positive experiences can influence players' intentions to continue playing and make in-game purchases.

2.12 Association Demographic Profiles and Consumers' Food Safety Knowledge

Consumers' knowledge of food safety is heavily influenced by demographic factors such as age, education level, and employment status. Research has shown that younger consumers, particularly those in their teens and early adulthood, tend to have lower food safety awareness compared to older individuals. This could be due to a combination of factors, including limited exposure to food safety education, lack of responsibility in food preparation, and a greater inclination toward convenience over hygiene considerations (Moy et al., 2018). Conversely, older consumers, particularly those responsible for household food preparation, tend to exhibit higher awareness of foodborne illnesses and hygiene practices.

Education also plays a critical role in shaping consumers' knowledge of food safety. Individuals with higher educational attainment are generally more informed about food safety risks, proper food handling procedures, and hygiene standards. Aifaa (2023) highlighted that education level is a key determinant in food safety culture, with more educated consumers being more likely to scrutinize vendor hygiene practices and make informed food choices. In contrast, consumers with lower education levels may have limited awareness of foodborne pathogens, cross-contamination risks, and temperature control requirements, making them more susceptible to unsafe food practices.

Employment status further influences food safety knowledge. Individuals working in the food service industry or health-related fields tend to have a better understanding of hygiene standards, as they may receive formal training on food safety protocols. On the other hand, individuals in non-food-related occupations may lack direct exposure to food safety education, leading to knowledge gaps in recognizing potential food hazards. Additionally, as Catedral (2018) pointed out, many night market vendors have minimal formal education, which can contribute to poor food safety practices. Consumers with higher food safety awareness may therefore be more critical of food vendors' hygiene standards and selective in their purchasing decisions.

Moreover, gender also plays a notable role in the food safety knowledge and practices of street food consumers and vendors, though findings can vary by region and context. Study from Spain show that female consumers tend to be more health-conscious, showing a higher inclination to consider food safety and quality aspects like cleanliness and ingredient freshness (Verdu et al., 2021). For example, in some settings, female consumers were found to be twice as likely to achieve good food safety knowledge scores, and they generally showed more concern for healthy and safe food handling. In addition study from Kuala Kangsar, Perak found that there is a significant association between food safety knowledge and gender of street food consumer (Porusia et al., 2023).

Overall, demographic factors such as age, education, and employment status significantly shape food safety knowledge. Older and more educated consumers

generally have a stronger understanding of food safety, while younger and less educated individuals may require targeted education programs to bridge knowledge gaps. Strengthening food safety education, particularly among younger consumers and those in non-food-related occupations, can help enhance overall awareness and encourage safer food handling behaviours.

2.13 Association Demographic Profiles with Consumers' Food Safety Attitudes

Attitudes toward food safety are shaped by socio-demographic factors such as gender, ethnicity, and cultural background. Research consistently suggests that women exhibit greater concern for food safety compared to men. Yu et al. (2017) found that female consumers are more likely to engage in proper food handling practices, prioritize hygiene when selecting food vendors, and be more skeptical of food safety claims. This heightened awareness may be attributed to the traditional role of women in food preparation and household nutrition, making them more cautious about foodborne illnesses. Ruby et al. (2019) further emphasized that women are more likely to scrutinize vendor practices and avoid food establishments that do not meet their hygiene expectations. In Malaysia, gender was significantly linked to both food safety knowledge and attitudes, with women generally scoring higher (Porusia et al., 2023). In Ethiopia, female street food vendors demonstrated better food safety practices and attitudes than males (Werkneh et al., 2023).

Ethnicity also plays a vital role in shaping food safety attitudes, particularly in Malaysia's multicultural society. Rajkumar et al. (2021) found that different ethnic groups exhibit varying levels of concern for food safety, which may be influenced by cultural beliefs, religious dietary laws, and historical experiences with foodborne diseases. For instance, some ethnic communities may have stricter dietary practices that require higher hygiene standards, making them more selective in their food choices. Consumers from ethnic groups with stronger food safety traditions may also be more likely to avoid street food vendors perceived as unhygienic. Studies in China and other developing countries show that food safety knowledge and attitudes can vary by region and ethnic group, often influenced by education and access to training (Lihua

Ma et al., 2019). Studies of ethnic Chinese street vendors in Kolkata, India show that ethnic background influences food safety knowledge and hygiene practices (Ghatak and Chatterjee, 2023). Vendors followed traditional Chinese food preparation methods, which affected their understanding and implementation of food safety, sometimes leading to vague or incomplete knowledge about contamination and hygiene.

Cultural background further affects attitudes toward food safety, particularly in how consumers evaluate vendor hygiene practices. For some communities, traditional food preparation methods and trust in long-established food vendors may take precedence over formal hygiene certifications. However, increased awareness of foodborne illnesses and global food safety concerns have contributed to a shift in consumer attitudes, with more individuals demanding transparency and accountability from food vendors. This shift highlights the need for food safety education initiatives tailored to diverse cultural groups to enhance public awareness and encourage safer food consumption behaviors.

All in all, demographic factors such as gender and ethnicity significantly influence food safety attitudes. Women tend to demonstrate greater concern for food safety, while ethnic and cultural factors shape consumers' trust in food vendors. Given these variations, targeted awareness campaigns and culturally sensitive food safety initiatives can help promote positive food safety attitudes among diverse consumer groups.

2.14 Association Demographic Profiles with Consumers' Perceptions of Food Handlers' Hygiene Practices

Consumer perceptions of food handlers' hygiene and safety practices are influenced by education, ethnicity, income level, and external factors such as the COVID-19 pandemic. Research has shown that consumers with higher education levels tend to assess food handlers' hygiene more critically. Lee et al. (2017) found that many night market vendors lack adequate knowledge of foodborne pathogens, which can lead to poor food handling practices. Educated consumers are more likely

to observe vendor behaviors such as proper handwashing, glove use, and cross-contamination prevention before making a purchase decision.

Consumers with food sensitivities, low-risk appetite and food safety concerns are more likely to check food hygiene ratings or information. Those habits are influencing their confidence in local authorities' food hygiene inspections (Flanagan and Soon-Sinclair, 2024). Study at United Kingdom found that gender is significantly associated with consumers perception regarding food hygiene (Flanagan and Soon-Sinclair, 2024). The findings link with a study in India where female consumers were more likely to consider hygiene as a reason to avoid street food while male consumers prioritized other factors such as taste or convenience (Vyasa and Kushwaha, 2017).

Ethnicity also affects consumer perceptions of food handlers, as cultural expectations and past experiences shape trust in vendor practices. Some ethnic groups may be more cautious about food safety due to traditional dietary laws or previous exposure to foodborne illnesses (Rajkumar et al., 2021). This means that vendors serving diverse communities must adhere to strict hygiene practices to maintain consumer trust and loyalty.

Income level further influences perceptions of food handlers. Higher-income consumers are generally more selective about food hygiene and may prefer vendors who demonstrate clear compliance with safety protocols. In contrast, lower-income consumers may prioritize affordability over perceived hygiene standards, leading them to tolerate lower food safety practices if the price is attractive. However, the COVID-19 pandemic has significantly heightened consumer awareness of hygiene, with Ramli & Jamri (2021) reporting that more consumers now scrutinize food handling practices before making a purchase. This shift underscores the importance of strengthening hygiene standards across all income groups to maintain consumer confidence.

Ultimately, education, ethnicity, and income levels significantly shape how consumers perceive food handlers' hygiene and safety practices. With growing consumer awareness especially following the COVID-19 pandemic vendors must

prioritize cleanliness and transparency to maintain trust and meet the expectations of more informed consumers.

2.15 Association Demographic Profiles with Business Familiarity

Familiarity with a vendor or business plays a crucial role in shaping consumer trust and purchase behavior. Factors such as age, repeat visits, and cultural background contribute to business familiarity. Study from United State found that associations in demographic variables such as ethnicity, gender, family size, age, education, marital status, income related to attitudes towards business outsourcing (Parmer, 2015). For example, older consumers and long-time consumers of a specific night market tend to develop stronger relationships with vendors, leading to greater trust in their food safety practices (Hameed & Kanwal, 2018). This aligns with Yeap et al. (2019), who found that frequent visitors to a food destination form an emotional attachment to vendors, reinforcing business familiarity and loyalty. Moreover, younger consumers (especially 18–24) are more receptive to promotions and more likely to develop familiarity with businesses through frequent engagement, often driven by budget constraints and social media influence (Defra et al., 2025).

In addition, demographic factors such as gender and education level also influence how business familiarity is formed among consumers. From a gender perspective, women tend to prioritise health, hygiene, and price, making them more attentive to a vendor's reputation before developing familiarity with a business (Bathla and Kumar, 2025). In contrast, men are often influenced by taste, speed of service, and convenience, which may accelerate the development of familiarity if their purchasing experiences are consistent and satisfying (Badari et al., 2023). Education level is also a strong predictor of consumer behaviour. Individuals with higher levels of education are generally more cautious and discerning when evaluating promotions, vendor reputation, and food safety practices before establishing loyalty to a particular business (Defra et al., 2025). They are more likely to assess a vendor's credibility based on transparent information, hygiene standards, and consistent product quality, resulting in a more analytical and evidence-based process of building business familiarity.

Marital status also plays a role in shaping consumers' responsiveness to promotions and, consequently, their level of business familiarity. Single and partnered individuals tend to be more influenced by promotional strategies compared to married consumers, which may lead to higher engagement with vendors and stronger familiarity with specific businesses (Badari et al., 2023). Ethnicity, while often less influential than other demographic factors such as age or education, can still contribute to variations in consumer decision-making. In certain contexts, ethnic background shapes consumer profiles, with some groups more likely to display characteristics such as being "quality-concerned" or "planning-oriented," which subsequently affects how they evaluate vendors and form familiarity (Badari et al., 2023). These patterns highlight the importance of considering cultural and lifestyle differences when analysing consumer behaviour within night market environments.

Cultural background also plays a role in business familiarity. Traditional street food vendors who have been operating for generations often attract consumers who associate their offerings with cultural heritage and authenticity (Melewar et al., 2017). Familiarity with a vendor can enhance consumer confidence in food safety, even in the absence of formal hygiene certifications. This suggests that trust-building strategies, such as transparent food preparation processes and consistent quality, can strengthen consumer relationships and drive repeat purchases.

To summarize, business familiarity is influenced by consumer demographics such as age, frequency of visits, and cultural background. Consumers who repeatedly visit a vendor tend to develop stronger trust, even in the absence of formal food safety certifications. To build long-term consumer relationships, vendors should focus on consistency, transparency, and communication regarding their hygiene practices.

2.16 Association Demographic Profiles with Purchase Intention

Consumers' willingness to purchase food from night market vendors is influenced by gender, familiarity, and perceived risk. Familiarity with a business is a key factor in increasing purchase intention, as consumers who recognize a vendor are

more likely to trust their food safety standards (Hameed & Kanwal, 2018). Women, who tend to exhibit higher food safety concerns, may be more hesitant to purchase from vendors with poor hygiene practices, whereas men may be more influenced by price and convenience (Ruby et al., 2019).

Education level is an important demographic factor influencing purchase intention, with higher education commonly associated with stronger willingness to purchase, for example, in contexts involving sustainable, eco-friendly, or green products (wang et al., 2020). In addition, lifestyle choices and product knowledge, which are often influenced by educational background, significantly affect green purchase intentions, indicating that education enables consumers to engage with ecological concerns more effectively (Paták et al., 2021). Galić (2022) emphasized that education's positive associated with purchase intentions for products like organic food reflects a broader trend where consumers with higher education levels tend to be more selective in their purchasing decisions.

Moreover, cultural and emotional attachment to a specific night market or food destination can also drive purchase decisions. Yeap et al. (2019) found that place attachment significantly influences repeat visits and positive attitudes toward street food, reinforcing consumer loyalty. Additionally, marketing strategies such as social media engagement, food safety certifications, and promotional offers can further enhance consumer confidence and encourage purchases.

To sum up, demographic factors such as gender, business familiarity, and cultural attachment play a critical role in influencing purchase intention. Women tend to prioritize hygiene, while men may be more driven by price and convenience. Additionally, familiarity with a vendor enhances trust and increases the likelihood of repeat purchases. Vendors should leverage these insights by adopting transparent hygiene practices and building long-term consumer relationships to maintain strong purchase intention among diverse consumer groups.

2.17 Association between night market consumers food safety knowledge towards business familiarity

Night markets are often characterized by a diverse range of food offerings, which can lead to varying levels of food safety knowledge among consumers. Hygiene knowledge and practices among food vendors in night markets are crucial for ensuring food safety (Sun et al., 2012). The interaction between consumers' food safety knowledge and their perceptions of vendor practices can impact their willingness to purchase food from these vendors. If consumers possess a strong understanding of food safety principles, they are more likely to scrutinize vendor practices and make informed choices, thereby influencing their purchasing behavior (Khairuzzaman et al., 2014).

Moreover, the familiarity of consumers with specific businesses can enhance their trust in the food safety measures implemented by those vendors. For instance, Yu et al. (2022) found that consumers' knowledge and handling practices related to food safety significantly affect their purchasing decisions, particularly in environments where food safety risks are perceived to be higher, such as night. This suggests that consumers who are more familiar with a vendor's practices may exhibit greater confidence in the safety of the food being offered, thereby increasing their likelihood of patronage markets (Yu et al., 2022).

Additionally, the role of food safety communication cannot be overlooked. Effective communication of food safety practices and the establishment of trust between consumers and vendors can bridge the gap between knowledge and behaviours. Le et al, (2022) emphasize that timely communication about food safety risks can improve consumer knowledge and trust in food management systems. This is particularly relevant in night markets, where vendors often operate in informal settings and may lack formal training in food safety protocols (Catedral, 2018).

Furthermore, the impact of food safety knowledge extends beyond individual purchasing decisions to influence broader market dynamics. As consumers become more aware of food safety issues, they may shift their preferences towards vendors who demonstrate higher standards of hygiene and safety practices. This shift can

compel vendors to improve their practices to meet consumer expectations, thereby enhancing the overall food safety culture within night markets (Khairuzzaman et al., 2014).

Zhou and Husnain (2022) explored the role of consumer awareness regarding organic food and its impact on food safety. Their findings indicated that while consumer knowledge about traceability and organic food could foster positive associations with food safety, the relationship was not universally applicable across all consumer segments. This highlights the variability in how knowledge translates into consumer behavior, suggesting that familiarity with specific vendors or food types may play a more significant role in some contexts than in others (Zhou & Husnain, 2022).

Another relevant study that focused on predicting intentions for safe food handling among adult consumers in Sibuloh, Malaysia. The research employed the extended theory of planned behaviour and found that consumers' attitudes, subjective norms, and perceived behavioral control were significantly linked to their intention to practice safe food handling. This indicates that familiarity with food safety practices can enhance consumers' intentions to engage in safe handling behaviors, although the study did not explicitly measure the direct relationship between knowledge and familiarity (Ruby et al., 2019).

Additionally, Lim et al. (2016) conducted a study on the Bum Bum Island community in Semporna, Sabah, evaluating the relationship among food safety knowledge, attitudes, and behaviors. Their findings revealed that while knowledge positively influenced attitudes, the direct correlation between knowledge and behavior was less clear. This suggests that consumers' familiarity with local food practices may play a role in shaping their behaviors, but further investigation is needed to clarify these dynamics (Lim et al., 2016).

Moreover, a study on food allergen knowledge, attitudes, and practices among Malaysian consumers highlighted that while knowledge is essential, it does not always translate into safe practices. This indicates that familiarity with food safety measures

may not be sufficient to ensure safe food handling behaviors among consumers (Soon, 2018).

In summary, the association between night market consumers' food safety knowledge and their familiarity with businesses is significant. Consumers' understanding of food safety directly influences their purchasing decisions, trust in vendors, and the overall food safety culture in night markets. Enhanced communication and education regarding food safety practices can further strengthen this relationship, ultimately leading to improved consumer confidence and healthier food choices.

2.18 Association between night market consumers food safety attitude towards business familiarity

Night markets, often characterized by their vibrant atmosphere and diverse food offerings, play a significant role in the culinary landscape, particularly in Asian cities. Understanding how consumers perceive food safety in these environments can provide insights into their purchasing behaviors and attitudes towards food vendors. Research indicates that consumers' perceptions of food safety are significantly influenced by their familiarity with food vendors. For instance, familiarity with food safety authorities has been identified as a key factor affecting food safety knowledge among consumers, which in turn influences their attitudes towards food safety practices (Roy, 2023). This suggests that consumers who are more acquainted with the vendors or the regulatory frameworks governing food safety may exhibit more positive attitudes towards food safety in night markets.

Moreover, the image of food quality and safety in night markets can significantly affect consumers' behavioral intentions. Setiyorini et al. (2019), found that while food image positively influences purchasing intentions, dimensions such as food safety and health benefits did not show a significant impact on behavioral intentions in their study. This highlights a potential disconnect between consumers' perceptions of food safety and their actual purchasing behaviors, which could be influenced by their familiarity with the vendors and the overall market environment.

In addition, the attitudes of food handlers themselves play a crucial role in shaping consumers' perceptions of food safety. Studies have shown that positive attitudes among food handlers towards food safety can lead to better food safety practices, thereby enhancing consumer confidence (Azanaw et al., 2021; Mathenge et al., 2018). This is particularly relevant in night markets where food is often prepared and served in close proximity to consumers, making the vendors' practices highly visible and influential on consumer attitudes.

Furthermore, generational differences in shopping behaviors also contribute to varying perceptions of food safety in night markets. Research indicates that different generational cohorts prioritize perceived freshness, quality, and safety differently when making purchasing decisions in night markets (Gindi et al., 2016). This suggests that familiarity with specific vendors or market practices may vary across age groups, influencing their overall attitudes towards food safety.

In conclusion, the association between night market consumers' food safety attitudes and their familiarity with businesses is complex and influenced by various factors including knowledge of food safety, vendor practices, and generational perceptions. As night markets continue to thrive as cultural and culinary hubs, understanding these dynamics will be essential for improving food safety practices and enhancing consumer confidence.

2.19 Association between night market consumers perception on food handlers' hygiene practice towards business familiarity.

The relationship between consumer familiarity with food vendors in night markets and their perceptions of food handlers' hygiene practices is a critical area of study, particularly given the informal nature of these food environments. Consumers' familiarity with specific vendors can significantly influence their perceptions of food safety and hygiene, which in turn affects their dining choices. Familiarity with food vendors often leads to increased trust in their hygiene practices. Consumers who regularly visit certain stalls may develop a sense of loyalty and confidence in the food safety measures employed by those vendors. This phenomenon is supported by

findings indicating that consumers' past experiences with food handlers can shape their perceptions of hygiene and safety (Fatimah et al., 2011). For instance, when consumers have positive experiences regarding the cleanliness and hygiene practices of a vendor, they are more likely to return and recommend the stall to others, thereby reinforcing a cycle of trust and familiarity (Verdú et al., 2021).

Moreover, the perception of hygiene in night markets is often influenced by the visibility of food handling practices. Consumers tend to assess hygiene based on observable behaviors, such as the cleanliness of the food preparation area and the personal hygiene of food handlers. Research has shown that consumers are more likely to favor food establishments where they can see food being prepared and where hygiene practices are visibly maintained (Fatimah et al., 2011). This visibility can enhance consumer confidence, particularly in settings like night markets where food is often prepared in close proximity to the public.

The impact of social media and public communication on consumer perceptions cannot be overlooked. Educational initiatives and consumer feedback shared through social media platforms can significantly influence public perceptions of food safety in night markets. Consumers who are informed about hygiene practices and food safety issues are more likely to make choices that prioritize their health (Verdú et al., 2021). This suggests that vendors who actively engage with their customers and promote their hygiene practices through social media may enhance their reputation and attract more customers.

Furthermore, the demographic profile of consumers plays a role in shaping their perceptions. Studies indicate that younger consumers, particularly millennials, tend to have heightened awareness and concern regarding food safety, which can influence their perceptions of hygiene in night markets (Yu et al., 2017). These consumers often seek out vendors who demonstrate high standards of cleanliness and food safety, reflecting a broader trend towards health-conscious dining choices.

In conclusion, the association between consumer familiarity with food vendors in night markets and their perceptions of food handlers' hygiene practices is complex

and influenced by various factors, including past experiences, visibility of hygiene practices, social media engagement, and demographic characteristics. Enhancing food safety practices and promoting transparency in hygiene can foster consumer trust and improve perceptions, ultimately benefiting both vendors and consumers in these vibrant food environments.

2.20 Association between night market consumers food safety knowledge towards consumers purchase intention.

The association between night market consumers' food safety knowledge and their purchase intentions is a complex issue that encompasses various dimensions of consumer behavior, food safety perceptions, and market dynamics. Research indicates that consumers' food safety knowledge significantly influences their purchasing decisions, particularly in environments like night markets where food safety concerns are heightened due to the nature of food preparation and service.

Firstly, consumers with higher food safety knowledge tend to exhibit a greater intention to purchase food from vendors who demonstrate safe food handling practices. For instance, studies have shown that consumers are more likely to choose food vendors who are perceived to have good hygiene practices and food safety knowledge (Sun et al., 2012). This is particularly relevant in night markets, where food is often prepared in open environments, increasing the risk of contamination (Catedral, 2018). The level of food safety knowledge among consumers can thus serve as a critical factor in their decision-making process, as they seek to mitigate perceived risks associated with foodborne illnesses.

Moreover, the context of the COVID-19 pandemic has further amplified the importance of food safety knowledge. Consumers have become increasingly selective about their food choices, prioritizing safety and hygiene over other factors (Latip et al., 2021). This shift in consumer behavior underscores the role of food safety knowledge as a moderating factor in purchase intentions, particularly in settings where health concerns are paramount. Research indicates that consumers' heightened

awareness of food safety during health crises leads to an increased intention to purchase organic and safe food options (Latip et al., 2021)

Additionally, the relationship between food safety knowledge and purchase intentions is not merely linear; it is influenced by various factors including consumer trust, perceived risk, and the credibility of information sources. For example, consumers often rely on their own experiences and the reputation of vendors when assessing food safety (Ha et al., 2020). This indicates that while knowledge is crucial, the context in which it is applied such as the trustworthiness of vendors and the perceived safety of the food environment also plays a significant role in shaping purchase intentions.

Furthermore, the presence of food safety certifications and labeling can enhance consumers' confidence in their food choices, thereby positively influencing their purchase intentions (Akinwehinmi et al., 2021). In night markets, where formal food safety regulations may be less stringent, the visibility of such certifications can serve as a critical factor in reassuring consumers about the safety of their food, thus driving their purchasing behaviour.

In conclusion, the association between night market consumers' food safety knowledge and their purchase intentions is complex and influenced by multiple interrelated factors. Higher food safety knowledge correlates with increased purchase intentions, particularly in contexts where consumers are more health-conscious. Trust in vendors, perceived risks, and the presence of safety certifications further mediate this relationship, highlighting the need for effective communication and education regarding food safety in night market settings.

2.21 Association between night market consumers food safety attitude towards consumers purchase intention.

Research indicates that consumers' attitudes towards food safety significantly impact their purchasing behaviors, particularly in informal settings like night markets.

Firstly, consumers' perceptions of food safety are crucial in shaping their purchase intentions. For instance, a study by Gindi et al. highlights that perceived freshness, quality, and safety of food are significant drivers in consumers' decisions to purchase fresh fruits and vegetables in night markets (Gindi et al., 2016). This aligns with findings from Soon et al., which demonstrate a positive relationship between food safety attitudes and practices among consumers, suggesting that those with a strong positive attitude towards food safety are more likely to engage in safe purchasing behaviors (Soon et al., 2020). Furthermore, Chen's research indicates that lower perceptions of food safety can lead consumers to seek behaviors that mitigate their concerns, thereby affecting their purchase intentions (Chen, 2013).

Moreover, the role of trust in food safety cannot be overlooked. Chang and Wong's study reveals that a positive attitude towards food safety correlates with increased trust in food safety practices, which in turn influences consumers' purchasing decisions (Chang & Wong, 2015). This is supported by Wang et al. (2021), who found that institutional trust significantly affects consumers' health and safety perceptions, ultimately impacting their repurchase intentions for traceable fresh food. Thus, trust acts as a mediator between consumers' attitudes towards food safety and their actual purchasing behaviors.

Additionally, the context of night markets presents unique challenges and opportunities for food safety perceptions. Cathedral's research indicates that food vendors in night markets may prioritize speed and convenience over stringent food safety measures, which can compromise food safety standards (Catedral, 2018). This scenario creates a complex environment where consumers must navigate their food safety concerns against the allure of the night market experience, which is often characterized by diverse and affordable food options (Chuang et al., 2014).

Furthermore, the impact of food safety knowledge on consumer behavior is also significant. A study by Akabanda et al. emphasizes that the knowledge, attitudes, and practices of food handlers directly influence food safety outcomes, which in turn affect consumer confidence and purchasing decisions (Akabanda et al., 2017). This

suggests that enhancing food safety knowledge among vendors could lead to improved consumer attitudes and increased purchase intentions.

In conclusion, the association between night market consumers' food safety attitudes and their purchase intentions is influenced by a combination of perceived safety, trust, and knowledge. Consumers are likely to make purchasing decisions based on their perceptions of food safety, which are shaped by their experiences and the practices of food vendors. Therefore, addressing food safety concerns through improved vendor practices and consumer education could enhance consumer confidence and increase purchase intentions in night markets.

2.22 Association between night market consumers perception on food handlers' hygiene practices towards consumers purchase intention.

Research indicates that consumers' perceptions of food safety are significantly influenced by the hygiene practices of food handlers. For instance, studies have shown that food handlers' knowledge and personal hygiene practices directly correlate with consumers' trust in the food being sold, which in turn affects their purchase intentions. Ma'Mun et al. (2019) found that personal hygiene practices among food handlers were significantly associated with their education and age, suggesting that better-educated food handlers tend to maintain higher hygiene standards, which positively influences consumer perceptions. Similarly, Verdú et al. (2021) highlighted that consumers evaluate food handlers' training and the general hygiene status of food stalls, establishing a clear link between perceived hygiene and consumer trust.

Moreover, the training and education of food handlers play a crucial role in shaping their hygiene practices. Abdi et al. (2020) emphasized that factors such as time pressure and the availability of resources can hinder food handlers' ability to maintain proper hygiene, which ultimately affects food safety. This is resonated by findings from Sun et al. (2012) who noted that night market food vendors often lack adequate training in hygiene practices, which can lead to poor food safety outcomes. The implication is that enhancing food safety training for food handlers could lead to

improved hygiene practices, thereby increasing consumer confidence and purchase intentions.

Furthermore, the socio-demographic profile of consumers also influences their perceptions of food safety. Past research indicates that consumers' awareness of food safety issues, including the hygiene practices of food handlers, significantly impacts their purchasing decisions (Aung et al., 2023). This is consistent with findings from Joo et al. (2015) who noted that consumers are more likely to purchase food from vendors they perceive as maintaining high hygiene standards. The perception of risk associated with food safety is critical; as consumers become more aware of potential foodborne illnesses, their willingness to purchase from vendors with questionable hygiene practices diminishes (Seo & Lee, 2021).

In addition to hygiene practices, the physical environment of night markets can also affect consumer perceptions. Catedral's study highlighted that the outdoor setting of night markets, combined with minimal educational achievements among vendors, often leads to inadequate hygiene practices, increasing the risk of food contamination (Catedral, 2018). This environmental context is crucial, as consumers are likely to associate the cleanliness of the food preparation area with the safety of the food being sold.

In conclusion, the association between consumers' perceptions of food handlers' hygiene practices and their purchase intentions at night markets is influenced by a combination of the food handlers' knowledge and practices, consumer socio-demographic factors, and the environmental context of food preparation. Improving food safety training for food handlers and enhancing the overall hygiene standards at night markets could significantly boost consumer confidence and increase purchase intentions.

2.23 Association between the business familiarity towards night market consumers purchase intention.

Familiarity, as a psychological construct, plays a significant role in shaping consumer behavior, particularly in environments like night markets where interpersonal interactions and brand perceptions are crucial. Research indicates that emotional interactions, which can be influenced by familiarity, significantly affect purchase intentions. Wang et al. highlight that perceived usefulness mediates the relationship between emotional interaction and purchase intention, suggesting that consumers' familiarity with a brand or product can enhance their perceived reliability and usefulness, thus influencing their purchase decisions (Wang et al., 2021). This aligns with the notion that familiarity breeds trust, which is essential in environments where consumers may be hesitant to make purchases due to uncertainty about product quality or vendor reliability.

Moreover, the dynamics of employee-customer familiarity also play a critical role in influencing purchase intentions. Li's study emphasizes that the degree of familiarity between employees and customers can significantly impact customer behavior, suggesting that businesses that foster strong relationships with their clientele can enhance purchase intentions (Li, 2024). This is particularly relevant in night markets, where personal interactions are frequent and can lead to increased consumer trust and loyalty.

Additionally, the role of brand image cannot be overlooked. Ahmad et al. (2023) assert that a strong brand image significantly influences consumers' purchase intentions, particularly in competitive markets. In the context of night markets, where numerous vendors may offer similar products, a well-established brand image can differentiate a business and attract consumers who are more likely to trust familiar brands over unknown ones.

Furthermore, consumer engagement emerges as a critical factor in shaping purchase intentions. Research by Ilicic and Webster indicates that consumer attachment to brands can significantly affect purchase intentions, although their study primarily focuses on celebrity endorsements rather than direct brand familiarity (Ilicic

& Webster, 2011). This suggests that while businesses in night markets can enhance consumer engagement through targeted marketing efforts, the specific influence of brand familiarity on purchase intentions may require further investigation.

In summary, the association between business familiarity and consumers' purchase intentions in night markets is influenced by emotional interactions, employee-customer relationships, brand image, and consumer engagement. Businesses that understand and leverage these factors can enhance their marketing strategies, leading to increased consumer trust and higher purchase intentions.

2.24 Theory of Planned behaviour

The Theory of Planned Behavior (TPB) is a widely recognized framework for understanding and predicting human behavior across various domains. It posits that behavioral intention mediates the relationship between attitude, subjective norm, and perceived behavioral control, ultimately influencing behavior (Steinmetz et al., 2016). TPB includes five core elements: attitude, subjective norm, perceived behavioral control, behavioral intention, and behavior (Liu et al., 2020). It has been extensively applied to health-related behaviors (Godin & Kok, 1996), entrepreneurial intentions (Simatupang & Bajari, 2021), traffic behaviors (Perzadeh et al., 2021), and sports spectator behavior (Lu et al., 2011). The theory has been found to be essential for understanding and predicting human behavior, enabling a vast array of applications (Wang et al., 2022). Additionally, TPB has been used to study behaviors such as online shopping (Sutisna & Handra, 2022), road safety (Jalaludin et al., 2021), and adherence to infection control guidelines (Lindh et al., 2015).

The efficiency of TPB varies across different behavior categories (Godin & Kok, 1996), and its application has been extended to various fields such as financial management (Dhewi & Hadiwidjaja, 2022), COVID-19 prevention (Yastica et al., 2020), and tax evasion (Fadhilah, 2019). Furthermore, TPB has been tested and validated in different contexts, including its application in predicting romantic partner abuse (Betts et al., 2011), fraud procurement (Putra, 2018), and adherence to health

behavior (Sniehotta, 2009). The theory has also been used to stimulate and educate engineers to innovate through individual continuous learning (Liu et al., 2020), and to evaluate community-based programs in promoting safe road crossing behaviors in youth (Perzadeh et al., 2021).

Other than that, studies by Mehiriz, Kaddour, (2024) found that the intention to take preventive measures against heatwaves and the intention to do so effectively are positively influenced by attitudes, norms, and perceived control. It is concluded that the idea that perceived control mitigates the impact of attitudes and norms on intentions is false. Additionally, the outcomes imply that older people are not as inclined as people in other age groups to take precautions against the heat. Adoption of heat-protective practices does not appear to be considerably improved by health factors associated with vulnerability to hot weather. In conclusion, the Theory of Planned Behavior is a versatile and widely applied framework that provides valuable insights into human behavior across diverse domains. Its comprehensive nature and applicability make it a valuable tool for understanding and predicting various behaviors.

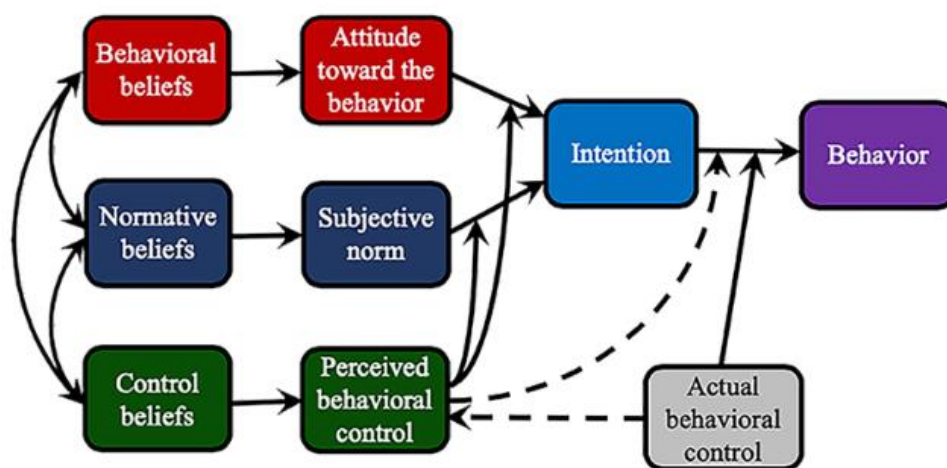


Figure 2.1 Graphical depiction of the theory of planned behaviour

2.25 Conceptual Frameworks

The research framework indicated that the dependent variables of this study are business familiarity and purchase intention and the independent variables are knowledge of food safety, attitude towards food safety and perception towards food handlers. Conceptual frameworks are essential tools in research and academic work, providing a structure for understanding and analyzing complex phenomena. They are defined as networks or planes of linked concepts (Jabareen, 2009), and they play a crucial role in aligning theoretical and conceptual components with the identified concept (Shehadeh et al., 2021). These frameworks can be applied across various disciplines, such as medicine, psychology, and urban health, to facilitate a deep understanding of phenomena and artifacts within specific contexts (Arifin et al., 2020).

The conceptual framework in consumer behavior integrates various cultural, psychological, and environmental factors to provide a comprehensive understanding of consumers' purchasing decisions. It has been instrumental in extending existing theories, developing new theories, and comprehensively analyzing consumer behavior within diverse contexts. For instance, studies have extended the planned behavioral theory to encompass green consumer behavior, highlighting the association of personal norms, environmental consciousness, and intention towards green products (Chan, 2001). Additionally, the conceptual framework has been utilized to bridge the gap between consumers' perceptions and their actual buying behavior within specific cultural contexts (Rehman, 2017). Moreover, it has been instrumental in developing a better understanding of ethnocentric consumers' behavior, particularly in the context of global consumer culture (Rakic et al., 2018).

Figure 2.3 illustrated the conceptual framework for this study. The research objectives are systematically aligned with the conceptual framework through the development of clearly defined hypotheses that reflect the proposed relationships among the study variables. The conceptual framework integrates demographic factors, consumers' food safety knowledge, attitudes, and perceptions towards food handlers' hygiene practices, business familiarity, and purchase intention, thereby ensuring coherence between theory, objectives, and empirical testing.

Demographic variables, specifically gender and race, are positioned as antecedent factors in the framework, based on prior literature suggesting that socio-demographic characteristics influence consumers' food safety knowledge, attitudes, perceptions, familiarity with food businesses, and purchasing behaviour. This theoretical assumption is operationalised through Hypothesis 1 (H1), which examines the associations between demographic profile and all key study variables, including food safety knowledge, attitude, perception towards hygiene practices, business familiarity, and purchase intention.

Food safety knowledge, attitude, and perception towards food handlers' hygiene practices are identified as the core independent variables of this study. Their inclusion is grounded in the Knowledge–Attitude–Practice (KAP) model, which posits that consumers' understanding of food safety issues shapes their attitudes and perceptions, subsequently influencing behavioural outcomes. Hypothesis 2 (H2) reflects this theoretical positioning by proposing associations between these independent variables and business familiarity, recognising familiarity as an important mechanism through which consumers develop trust and confidence in night market food vendors.

Furthermore, Hypothesis 3 (H3) extends the framework by examining the direct associations between the independent variables and purchase intention, as well as the relationship between business familiarity and purchase intention. This structure acknowledges that consumers' purchasing decisions are influenced not only by their food safety knowledge, attitudes, and perceptions, but also by their level of familiarity with food businesses operating in night markets. Collectively, these hypotheses provide a clear and logical pathway that links the research objectives to the conceptual framework and supports the empirical investigation of consumers' purchase intention.

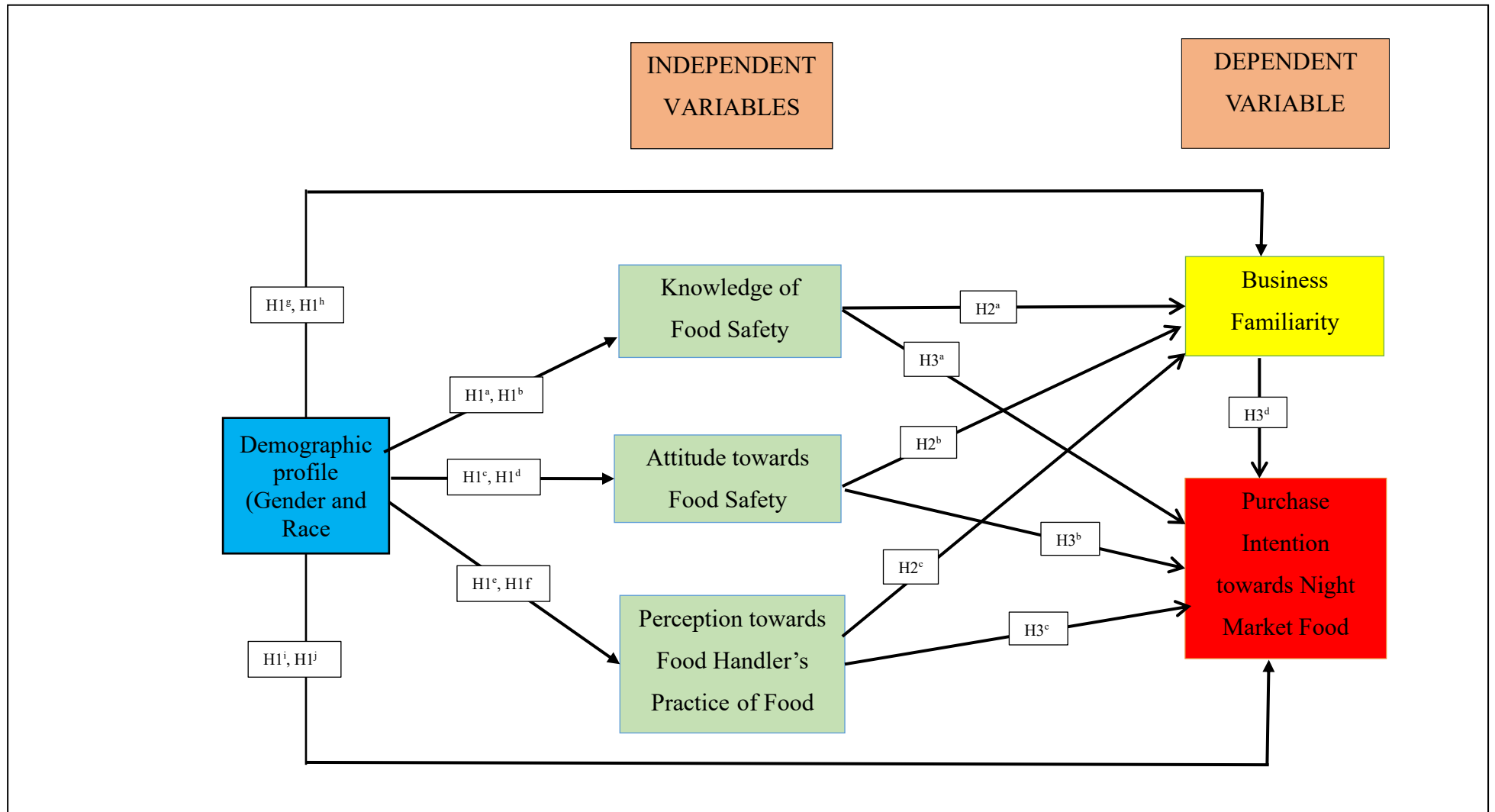


Figure 2.2 Conceptual Framework

2.26 Research hypothesis formulation

2.26.1 Association between demographic profile and consumers food safety knowledge, attitude, perceptions on food handlers' hygiene practices, business familiarity and purchase intention.

The study findings indicate that demographic factors significantly influence consumers' food safety knowledge, attitudes, perceptions of food handlers' hygiene practices, business familiarity, and purchase intentions. Age, education level, employment status, gender, ethnicity, cultural background, and income level all play a crucial role in shaping how consumers assess food safety and make purchasing decisions at night markets.

Consumers' food safety knowledge varies based on age, education, and employment status. Research has shown that younger consumers, particularly teenagers and young adults, tend to have lower food safety awareness compared to older individuals (Moy et al., 2018). This is often due to limited exposure to food safety education, less responsibility in food preparation, and a greater focus on convenience rather than hygiene. Conversely, older consumers, especially those responsible for household food preparation, generally exhibit greater awareness of foodborne illnesses and hygiene practices. Educational level can influence food safety knowledge, as individuals with higher education are often more exposed to information about food safety risks, proper handling, and hygiene standards (Aifaa, 2023). However, it is important to note that formal education alone does not guarantee food safety knowledge, as awareness also depends on personal experiences, training, and targeted education. Individuals with lower education levels may have limited knowledge about foodborne pathogens, cross-contamination risks, and temperature control, making them more susceptible to unsafe food practices. Employment status further influences food safety awareness. Those working in food service or health-related industries often have better understanding due to formal training, while those in non-food-related occupations may lack such exposure (Catedral, 2018). This knowledge gap affects

their ability to recognize potential food hazards and influences their purchasing behavior.

Attitudes toward food safety are shaped by gender, ethnicity, and cultural background. Studies consistently indicate that women exhibit greater concern for food safety compared to men. Yu et al. (2017) found that female consumers are more likely to engage in proper food handling practices, scrutinize vendor hygiene, and avoid food establishments that do not meet hygiene expectations. This heightened concern is attributed to women's traditional roles in food preparation and household nutrition. Furthermore, Ruby et al. (2019) emphasized that women are more critical of vendor practices and are less likely to purchase from vendors with poor hygiene. Ethnicity also plays a crucial role in shaping food safety attitudes, particularly in multicultural societies such as Malaysia. Different ethnic groups exhibit varying levels of concern for food safety, influenced by cultural beliefs, religious dietary laws, and historical experiences with foodborne illnesses (Rajkumar et al., 2021). Some ethnic communities uphold stricter hygiene standards due to religious food preparation guidelines, making them more selective about their food choices. Cultural background also affects how consumers assess vendor hygiene, as some communities trust long-standing vendor relationships over formal hygiene certifications. However, increasing awareness of foodborne illnesses and global food safety concerns have led to a shift in attitudes, with more consumers demanding transparency and accountability from food vendors.

Consumer perceptions of food handlers' hygiene are influenced by education level, ethnicity, income, and external factors such as the COVID-19 pandemic. Research shows that highly educated consumers tend to be more critical of food handlers' hygiene practices. Lee et al. (2017) found that many night market vendors lack adequate knowledge of foodborne pathogens, which can lead to poor food handling practices. Educated consumers are more likely to observe vendor behaviors such as proper handwashing, glove use, and cross-contamination prevention before making a purchase. Ethnicity also affects consumer perceptions of food handlers, as cultural expectations and past experiences shape trust in vendor practices (Rajkumar et al., 2021). Income levels further influence these perceptions. Higher-income

consumers are generally more selective about food hygiene and prefer vendors who demonstrate clear compliance with safety protocols, while lower-income consumers may prioritize affordability over hygiene standards. However, the COVID-19 pandemic has significantly heightened hygiene awareness among consumers across all income groups. Ramli & Jamri (2021) reported that more consumers now scrutinize food handling practices before purchasing food, emphasizing the need for vendors to strengthen hygiene measures to maintain consumer trust.

Business familiarity plays a crucial role in shaping consumer trust and purchase behavior. Factors such as age, repeat visits, and cultural background contribute to business familiarity. Older consumers and long-time consumers of a specific night market tend to develop strong relationships with vendors, leading to greater trust in their food safety practices (Hameed & Kanwal, 2018). Frequent visitors to a food destination form an emotional attachment to vendors, reinforcing business familiarity and loyalty (Yeap et al., 2019). Cultural background also influences business familiarity, as traditional street food vendors with long-standing reputations attract consumers who associate them with authenticity and cultural heritage (Melewar et al., 2017). Familiarity with a vendor enhances consumer confidence in food safety, even in the absence of formal hygiene certifications. This suggests that vendors should implement trust-building strategies, such as transparent food preparation processes and consistent quality, to strengthen consumer relationships and encourage repeat purchases.

Purchase intention at night markets is influenced by gender, familiarity, and perceived food safety risks. Familiarity with a business is a key factor in increasing purchase intention, as consumers who recognize a vendor are more likely to trust their food safety standards (Hameed & Kanwal, 2018). Gender differences also affect purchasing behavior. Women, who tend to exhibit higher food safety concerns, may be more hesitant to purchase from vendors with poor hygiene practices, whereas men may be more influenced by price and convenience (Ruby et al., 2019). Additionally, cultural and emotional attachment to a specific night market or food destination can drive purchase decisions. Yeap et al. (2019) found that place attachment significantly influences repeat visits and positive attitudes toward street food, reinforcing consumer

loyalty. Moreover, marketing strategies such as social media engagement, food safety certifications, and promotional offers can further enhance consumer confidence and encourage purchases.

Overall, the study highlights that demographic factors significantly shape consumers' food safety knowledge, attitudes, perceptions of food handlers' hygiene, business familiarity, and purchase intentions. Older and more educated consumers, as well as those in food-related professions, tend to have higher food safety awareness, while younger individuals and those with lower education levels may require targeted food safety education programs. Women generally show greater concern for food safety, while ethnic and cultural differences influence trust in food vendors. Business familiarity strongly impacts purchasing behavior, as consumers are more likely to buy from vendors they know and trust. To enhance consumer confidence and encourage safe purchasing behavior at night markets, vendors should prioritize hygiene, adopt transparent food safety practices, and build long-term customer relationships through consistency and trust-building efforts. Based on the past studies review, it is predicted that:

H¹ There is an association between demographic profile and study variables

H^{1a} There is an association between gender and consumers food safety knowledge.

H^{1b} There is an association between race and consumers food safety knowledge.

H^{1c} There is an association between gender and consumers food safety attitude.

H^{1d} There is an association between race and consumers food safety attitude.

H^{1f} There is an association between gender and consumers perceptions towards food handlers' hygiene practices.

H^{1g} There is an association between race and consumers perceptions towards food handlers' hygiene practices.

H^{1h} There is an association between gender and business familiarity.

H¹ⁱ There is an association between race and business familiarity.

H^{1j} There is an association between gender and purchase intention.

H^{1j} There is an association between race and purchase intention.

2.26.2 Association between consumers food safety knowledge, attitude, consumers perceptions on food handlers' hygiene practices with business familiarity.

Night markets are lively culinary hubs offering diverse food options, but they also pose significant food safety concerns. Consumers' food safety knowledge directly influences their purchasing behavior and trust in vendors. Studies show that consumers with strong food safety knowledge tend to scrutinize vendor practices before purchasing, ensuring that hygiene standards are met (Khairuzzaman et al., 2014). Sun et al. (2012) emphasized that proper hygiene knowledge and practices among vendors are essential for maintaining food safety in night markets. However, consumer familiarity with a vendor can override objective hygiene concerns, as familiarity fosters trust in food safety measures (Yu et al., 2022). Consumers who frequently visit the same vendors tend to believe in their hygiene standards, even in high-risk environments, increasing their likelihood of patronage. Effective food safety communication also plays a crucial role in reinforcing consumer trust. Le et al. (2022) found that timely communication of food safety risks improves consumer knowledge

and confidence in food management systems, a factor particularly relevant in informal food settings where vendors may lack formal hygiene training (Catedral, 2018).

Beyond knowledge, consumer attitudes toward food safety are also shaped by vendor familiarity. Roy (2023) found that familiarity with food safety authorities contributes to higher food safety knowledge, which in turn leads to more positive attitudes toward hygiene practices. However, Setiyorini et al. (2019) discovered that while food image positively influences purchasing decisions, perceived food safety and health benefits do not significantly impact consumer behavior. This indicates a potential gap between consumer awareness of food safety and their actual purchasing choices. Additionally, food vendors' attitudes toward hygiene impact consumer trust—studies by Azanaw et al. (2021) and Mathenge et al. (2018) revealed that vendors who display positive food safety attitudes are more likely to maintain high hygiene standards, ultimately reinforcing consumer confidence. Generational differences also influence consumer attitudes; younger consumers prioritize food safety and hygiene more than older demographics, who may rely on long-term vendor familiarity instead (Gindi et al., 2016).

Another key factor in purchasing behavior is consumer perception of food handlers' hygiene practices, which is closely tied to familiarity with vendors. Studies indicate that consumers who frequently purchase from the same vendors develop a sense of trust in their hygiene practices, making them more likely to return and recommend those vendors to others (Fatimah et al., 2011). Hygiene perception is also strongly influenced by the visibility of food handling practices. Consumers favor vendors who demonstrate hygiene through observable measures such as maintaining clean food preparation areas and following sanitary handling procedures (Fatimah et al., 2011). Social media and public discussions further shape consumer perceptions of food safety. Verdú et al. (2021) shows that vendors who actively engage with customers online and highlight their hygiene practices tend to attract more trust and loyalty. Additionally, younger consumers, particularly millennials, have been found to be more concerned about food safety and are more likely to choose vendors who visibly uphold high hygiene standards (Yu et al., 2017).

Overall, the relationship between food safety knowledge, attitudes, and perceptions of hygiene in night markets is complex and influenced by vendor familiarity. While consumers with strong food safety knowledge tend to be more cautious, familiarity often fosters trust that may lead to overlooking hygiene concerns. Past research demonstrates that food safety education, vendor transparency, and social media engagement can significantly enhance consumer trust and improve hygiene practices in night markets. Understanding these dynamics is crucial in fostering a safer food environment, encouraging vendors to prioritize hygiene while maintaining the trust and loyalty of their customers. Based on the past studies review, it is predicted that;

H²: There is an association between independent variables with business familiarity.

H^{2a} There is an association between consumers food safety knowledge with business familiarity

H^{2b} There is an association between consumers food safety attitude with business familiarity

H^{2c} There is an association between consumers perceptions towards food handlers' hygiene practices with business familiarity

2.26.3 Association between consumers food safety knowledge, attitude, consumers perceptions on food handlers' hygiene practices and business familiarity with consumers purchase intention

The study findings consistently highlight that consumers' purchase intentions at night markets are strongly influenced by their knowledge of food safety, attitudes toward food safety, perceptions of food handlers' hygiene, and familiarity with vendors. Consumers with higher food safety knowledge are more cautious when selecting food vendors, preferring those who demonstrate proper hygiene and safe food handling practices. Research indicates that well-

informed consumers actively avoid vendors with poor hygiene, especially in high-risk environments like night markets where food is prepared in the open (Sun et al., 2012; Catedral, 2018). This trend became even more pronounced during the COVID-19 pandemic, as heightened awareness of foodborne illnesses led consumers to prioritize safety over other factors when making purchasing decisions (Latip et al., 2021).

In addition to knowledge, consumer attitudes toward food safety play a crucial role in shaping their purchasing behaviors. Individuals with strong positive attitudes toward food safety are more likely to trust and buy from vendors they perceive as hygienic and responsible (Soon et al., 2020; Chen, 2013). Trust also emerges as a key factor in this relationship—when consumers believe that vendors and authorities uphold food safety standards, they feel more confident making purchases (Chang & Wong, 2015; Wang et al., 2021). Conversely, low trust in food safety regulations or vendor practices can deter consumers from purchasing, even if the food appears appealing.

Another significant finding is that consumers closely observe food handlers' hygiene practices before deciding where to buy food. Cleanliness, proper attire, and safe food handling techniques increase consumer trust, while poor hygiene raises concerns about foodborne illnesses and reduces purchase intentions (Ma'mun et al., 2019; Verdú et al., 2021). Studies also indicate that well-trained food handlers are perceived as more hygienic, which boosts consumer confidence in food safety (Abdi et al., 2020; Sun et al., 2012). The physical environment of night markets further shapes consumer perceptions, as outdoor settings and minimal hygiene enforcement can lead to increased food safety concerns (Catedral, 2018).

Beyond hygiene and food safety, familiarity with vendors significantly influences purchasing decisions. Consumers tend to buy more frequently from vendors they recognize and trust, as familiarity creates a sense of reliability and consistency (Wang et al., 2021). Research suggests that vendors who build strong relationships with customers through repeated interactions and

personalized service increase their chances of attracting repeat buyers (Li, 2024). Additionally, a strong brand image helps vendors stand out in competitive night markets, encouraging consumers to choose them over unfamiliar competitors (Ahmad et al., 2023).

In summary, the study findings suggest that trust, hygiene, and familiarity are the key drivers of consumer purchase intentions in night markets. Consumers prioritize food safety knowledge, positive attitudes toward hygiene, and confidence in food handlers when deciding where to buy food. Additionally, they are more likely to purchase from vendors they know and trust. To enhance consumer confidence and purchasing behavior, efforts should focus on educating both consumers and vendors on food safety, improving hygiene standards, and fostering strong vendor-consumer relationships. The literature review explorations bring to predictions that:

H³ There is an association between independent variables and business familiarity with purchase intention.

H^{3a} There is an association between consumers food safety knowledge with purchase intention.

H^{3b} There is an association between consumers food safety attitude with purchase intention.

H^{3c} There is an association between consumers perceptions towards food handlers' hygiene practices with purchase intention.

H^{3d} There is an association between business familiarity with purchase intention.

CHAPTER 3

METHODOLOGY

3.1 Preamble

This chapter outlines the research methodology employed in the study, beginning with the research philosophy adopted, which is positivist in nature. This philosophy emphasises the use of objective and measurable data in examining relationships between variables and provides the foundation for the study's quantitative approach. The chapter then presents the research design, highlighting its numerical focus and emphasis on hypothesis testing. Following this, the sampling plan is described, including the selection of respondents using convenience sampling and the determination of an appropriate sample size based on Yamane's formula. The research instrument, a structured questionnaire, is introduced, with an explanation of its development and adaptation from previous studies to ensure cultural relevance and applicability. The chapter also discusses the pilot test conducted to assess the reliability and validity of the questionnaire, along with the statistical techniques used to analyze its effectiveness. Finally, the data collection process and analytical methods, including descriptive and inferential statistics, are detailed to illustrate how the study examines relationships between sociodemographic factors, food safety awareness, and purchasing behaviour.

3.2 Research Philosophy

This study adopts a positivist research philosophy, which emphasises the use of objective and measurable data in examining relationships between variables. A quantitative research design was employed, using structured questionnaires to collect data from night market consumers. The data obtained were analysed using statistical techniques, including descriptive and inferential analysis, to examine the associations between consumers' food safety knowledge, attitudes, perceptions towards food handlers' hygiene practices, familiarity, and purchase intention. The reliance on numerical data and statistical testing is consistent with the assumptions of the positivist approach, making it suitable for addressing the objectives of this study.

3.3 Research Design

A fundamental component of research design is the identification and operationalization of variables, which includes distinguishing between independent and dependent variables, as well as understanding their relationships, such as direct, indirect, moderating, and reciprocal interactions. This conceptual framework is essential for developing research hypotheses and models, which guide the research process (Brough & Hawkes, 2018). Furthermore, the precision in defining terms related to research such as "research-informed design" and "evidence-based design," is crucial for clarity and effectiveness in communication among practitioners and researchers (Stichler, 2016).

The present study aimed to identify consumers food safety knowledge, attitude, perception toward food handlers' hygiene practice, business familiarity and purchase intention in Kuala Terengganu and Kuala Nerus. Quantitative method was selected for this research because this method enables researchers to quantify variables, establish patterns, and test hypotheses, thereby contributing to the development of generalizable knowledge (Saha, 2022). Quantitative research methods have been extensively employed in studies related to food safety and consumer behaviour. For example, Ncube et al. (2020) demonstrated the effectiveness of structured questionnaires to quantitatively assess food safety knowledge, attitudes, and practices among restaurant

food handlers in a lower-middle-income context, finding significant correlations between knowledge and practices. Moreover, Iqbal et al. (2021) reported positive relationships between health consciousness and consumers' purchase intentions towards organic food, employing a quantitative framework to measure these influences. This reflects the broader applicability of quantitative methods in identifying and analysing trends across various demographics and contexts, reinforcing their relevance in the current study. This study was performed between June until September 2024 in Kuala Terengganu. Only respondent that frequently goes to night market was selected.

3.4 Sampling Plan

The sampling plan includes decisions about the sampling method, sample size, and the criteria for selecting participants or data points (Palinkas et al, 2015). There are various sampling methods that researchers can employ, which can be broadly categorized into probability and non-probability sampling techniques (Collins et al, 2007).

3.4.1 Sampling Element

This study is using convenience sampling, individuals who often eat food from night markets was selected. The respondent is either a man or a woman who is the primary consumer of food from the night market in the chosen home. Convenience sampling, also known as haphazard or accidental sampling, is a nonprobability sampling method that involves selecting individuals from the target population based on practical criteria such as easy accessibility, geographical proximity, availability at a given time, or willingness to participate (Etikan et al., 2016). This method is commonly used in various fields, including social sciences, medicine, and psychology, due to its cost-effectiveness and ease of implementation (Antoun et al., 2015).

However, convenience sampling has limitations in terms of representativeness and generalizability. While it may be more accessible and less expensive than other sampling methods, convenience samples are often less representative of the overall population compared to probability samples or national probability samples (Berinsky et al., 2012). Additionally, convenience sampling can introduce biases, such as self-selection bias, as individuals who volunteer to participate may differ systematically from those who do not (Brodaty et al., 2014). Despite these limitations, convenience sampling remains prevalent in research, particularly in online settings such as crowdsourcing platforms like Amazon's Mechanical Turk (Berinsky et al., 2012). Online convenience samples have been found to offer certain advantages over traditional convenience sampling, but they also present challenges related to sample quality and representativeness (Landers & Behrend, 2015). In summary, convenience sampling is a widely used nonprobability sampling method that offers practical advantages in terms of accessibility and cost-effectiveness. However, researchers must carefully consider its limitations, including potential biases and reduced representativeness, when interpreting and generalizing findings from convenience samples.

The respondents for this study were selected through an initial screening question to determine whether they had visited night markets around Kuala Terengganu and Kuala Nerus within the past two weeks. Only those who met this criterion were invited to participate in the study. They were first provided with a detailed explanation of the research, including its objectives and significance, to ensure their informed participation. Once they agreed to take part, they were given access to the questionnaire, which was administered through a Google Form for ease of response and data collection.

3.4.2 Sample Size

Sample size is a critical aspect of research design, particularly in determining the number of participants or observations needed to ensure the reliability and validity of the study findings. The determination of sample size is influenced by various factors

such as the research question's scope, the nature of the topic, the quality of the data, and the study design (Sim et al., 2018). It is essential to recognize that different study designs require different methods of sample size calculation, and a single formula cannot be universally applied to all designs (Charan & Biswas, 2013).

Pre-study calculation of sample size is crucial, as a sample that is too small may fail to detect an effect, while an excessively large sample may be a waste of resources (Noordzij et al., 2011). It is also emphasized that sample size principles, guidelines, and tools have been developed to enable researchers to set and justify the acceptability of their sample size, underscoring the importance of sample size as a marker of the quality of research (Vasileiou et al., 2018).

Additionally, in quantitative research, the estimation of sample size is vital for ensuring the study's statistical power and the ability to detect meaningful effects (Serdar et al., 2021). Overall, the determination of sample size is a fundamental step in research planning, requiring careful consideration of various factors to ensure the study's validity and reliability.

This study used Yamane formula in order to determine sample size of respondents. Yamane's formula, developed by Taro Yamane, is widely used for determining the sample size in research. It is an approximation of known sample size formulas such as Krejcie and Morgan and Cochran formulas for proportion at a 95% confidence level and a population proportion of 0.5 (Adam, 2020). The formula is expressed as $n = N / (1 + N(e^2))$ where n is the required sample size, N is the number of people in the population, and e is the allowable error percentage (Seangrung et al., 2020). This formula has been applied in various fields such as social sciences, medicine, and business to determine sample sizes for research studies (Ntarangwe et al., 2021, Ojaka et al., 2023, Njuguna et al., 2019, Rashid et al., 2020, Uwamariya et al., 2021).

Yamane's formula is particularly useful for finite population sizes, as it provides a straightforward method for calculating the sample size required for a study (Umana et al., 2020). The formula's simplicity and applicability have made it a popular

choice for researchers aiming to obtain representative sample sizes from populations of varying sizes. Its utilization in diverse research areas underscores its versatility and effectiveness in ensuring adequate sample sizes for meaningful and reliable research outcomes.

According to Department of Statistic Malaysia Official Portal, population of Kuala Terengganu State now are 411821 people based on estimates data year 2020. Hence, the calculation of sample size is shown below:

Sample size using Yamane Formula:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{411821}{1 + 411\,821(0.08)^2}$$

$$n = 156.1907$$

~ 160 respondents

In determining the appropriate sample size for a population of 411,821, the formula $n = N / (1 + N(e)^2)$ was used, where N represents the total population and e is the margin of error. With a margin of error of 8% (0.08), the calculation resulted in $n = 411,821 / (1 + 411,821 \times 0.08^2) = 156.19$, which rounds up to 160 respondents. The choice of an 8% margin of error was made to balance accuracy and feasibility. A smaller margin of error (e.g., 5%) would require a much larger sample size, increasing costs and time, whereas a larger margin of error (e.g., 10%) would reduce the required sample size but at the expense of precision. By selecting 8%, the sample remains manageable while still providing reliable insights. This ensures that the study can be conducted efficiently without compromising the validity of the results.

3.5 Research Instrument

This research is classified as quantitative method which emphasizes objective measurement or numerical analysis of data collected using computational techniques. This KAP food safety study was using closed-ended questionnaire among night markets food consumers. A closed-ended question restricts the respondent to select answers from a list already given by the survey team. This research has received ethical approval. The ethical approval reference number is UMT/JKEPM/2024/206.

This research used questionnaire as research instrument in order to reach the objective of study. It is formalized set of questionnaires to obtain information from respondents. Development of questionnaire was done by adapting measurement items and scales from previous research Theng *et al.* (2017) and Legendre *et al.* (2019). However, some modification was made to the questionnaire in order to make it applicable to Malaysian culture and understanding.

This questionnaire is divided into six sections, each aimed at understanding various aspects related to night markets and food safety. In Section A, basic information about respondents, such as age, gender, occupation, and their habits regarding night market visits and knowledge of food safety, is gathered. Section B assesses respondents' knowledge of food safety at night markets through 31 questions, answered with 'yes,' 'no,' or 'not sure.' In Section C, attitudes toward food safety are explored using 20 questions with response options ranging from 'strongly disagree' to 'strongly agree.' Section D focuses on perceptions of food handlers' hygiene practices, with 16 questions utilizing the same response scale as Section C. Section E how familiarity with night markets influences purchase intentions is examined using questions similarly structured to those in Sections C and D. Lastly, in Section F, explores respondents' intentions to purchase food at night markets based on food handlers' hygiene practices, with 16 questions offering 'yes,' 'no,' or 'not sure' responses. Items were compiled in table 3.1.

Table 3.1 Research Instrument Partition

Section	Content	Response scale	Source
A	Demographic information and food safety awareness	Various (e.g., age, gender, educations)	Theng <i>et al.</i> (2017)
B	Knowledge of food safety practices	‘True,’ ‘false,’ or ‘Not Sure’	Theng <i>et al.</i> (2017)
C	Attitudes toward food safety	Likert scale: ‘Strongly Disagree’ to ‘Strongly Agree’	Theng <i>et al.</i> (2017)
D	Perceptions of food handlers’ hygiene practices	Likert scale: ‘Strongly Disagree’ to ‘Strongly Agree’	Theng <i>et al.</i> (2017)
E	Influence of familiarity with night markets on purchasing intentions	Likert scale: ‘Strongly Disagree’ to ‘Strongly Agree’	Legendre <i>et al.</i> (2019)
F	Impact of hygiene perceptions on intention to buy food	‘Yes,’ ‘No,’ or ‘Not Sure’	Legendre <i>et al.</i> (2019)

3.5.1 Common Method Bias (CMB)

Common Method Bias (CMB) was considered in this study as the data were collected using a self-administered questionnaire from a single source. CMB refers to systematic measurement error that may occur when data for independent and dependent variables are collected from the same respondents at the same time, potentially distorting observed relationships (Podsakoff et al., 2003). To minimize the risk of CMB, several procedural remedies were applied. First, the questionnaire employed different scale types, where food safety knowledge and purchase intention

was measured using dichotomous items, and attitudes, perceptions and business familiarity were measured using Likert-scale items. The use of mixed scale formats helps reduce response pattern bias and method variance. Second, the constructs were conceptually separated, with items grouped according to their respective variables and adapted from established instruments to ensure clarity and avoid overlap. Third, respondents were assured of anonymity and informed that there were no right or wrong answers, reducing evaluation apprehension and social desirability bias. Overall, although the data were collected using a single instrument, the likelihood of common method bias affecting the study findings is considered minimal due to these preventive measures.

3.6 Pilot test

Pilot test for this study was conducted on May 2024 at Kuala Terengganu. This sampling will be conduct to examine the reliability and validity in selected items of questionnaire. The reliability of a scale shows how free it is from random error. Cronbach's alpha is a widely used statistic for assessing the internal consistency of a scale or questionnaire. It provides an estimate of the average correlation among all the items that make up the scale (Tavakol & Dennick, 2011). Pilot testing in surveys is a crucial step in the research process, aimed at determining the validity and reliability of the survey instrument. It involves a preliminary evaluation of the survey to identify and correct any errors or issues before the full-scale implementation.

Pilot testing is essential for ensuring that the survey questions are clear, understandable, and relevant to the research goals (Giwah et al., 2019; Goldenhar et al., 2019). It also helps in assessing the usability and functionality of the survey instrument (Hellem et al., 2021; Devane et al., 2019). Moreover, pilot testing allows for the refinement of the survey instrument based on feedback from the target audience, ensuring that it meets the needs of the participants (Barthold et al., 2022; Hadibhai et al., 2018). The process of pilot testing involves testing the sample frame, questions, research methods, and instruments to ensure robustness and validity (Nicholls et al., 2016). Additionally, pilot testing can involve pretest interviews and

feedback elicited from the participants, which can lead to necessary changes in the survey design (Barthold et al., 2022). It is important to note that pilot testing should be mainly descriptive, as hypothesis testing requires a powered sample size, which is usually not available in pilot studies (Arain et al., 2010).

3.6.1 Reliability

Reliability of a questionnaire is a critical aspect in research, ensuring the consistency and stability of the instrument in producing consistent results on repeated trials Tsang et al. (2017). It is essential to estimate the reliability of a questionnaire each time it is administered, including during pilot testing and subsequent validation stages. Various methods such as test-retest reliability, internal consistency reliability, and split-half reliability can be employed to assess the stability, consistency, and accuracy of the questionnaire in different contexts and over time (Zhang et al., 2022). Additionally, the use of psychometric properties like exploratory factor analysis and confirmatory factor analysis can contribute to evaluating the reliability of a questionnaire (Zhang et al., 2022).

The internal reliability value of a questionnaire, as indicated by Cronbach's alpha, is a widely used estimator of reliability, particularly in the field of medical education. However, it is important to note that a high value of Cronbach's alpha may not always indicate desirable reliability, especially when developing a test of scientific knowledge or understanding. Furthermore, the cultural and language adaptations of a questionnaire are crucial to ensure its reliability in different populations. Overall, ensuring the reliability of a questionnaire is essential to produce valid and trustworthy research data.

3.6.2 Validity

A valid questionnaire is essential for obtaining accurate and reliable data in research and clinical settings. Validity refers to the extent to which a questionnaire

measures what it is intended to measure (Carvalho et al., 2020). There are different types of validity, including content validity, construct validity, and criterion-related validity. Content validity ensures that the questionnaire items comprehensively cover the topic of interest (Haynes et al., 1995). Construct validity assesses the extent to which the questionnaire measures the theoretical construct it is supposed to measure (Tsang et al., 2017). Criterion-related validity evaluates the degree to which the questionnaire is associated with an external criterion (Schmidt & Steindorf, 2006).

To establish the validity of a questionnaire, various methods can be employed. These include expert review, where the questionnaire is evaluated by specialists in the field to ensure that it adequately measures the intended construct (Momayyezi & Fallahzadeh, 2020). Additionally, assessing the association of the questionnaire with other variables related to the construct can provide evidence of construct validity (Tsang et al., 2017). Furthermore, ensuring that the questionnaire is culturally appropriate and linguistically sound is crucial for maintaining content validity, especially when translating the questionnaire into different languages (Marzuki et al., 2018).

Reliability is also crucial for a questionnaire, as it indicates the consistency of the instrument in measuring the construct of interest. Reliability can be assessed using measures such as Cronbach's alpha, which evaluates the internal consistency of the questionnaire items (Tavakol & Dennick, 2011). In conclusion, ensuring the validity and reliability of a questionnaire is fundamental for obtaining accurate and meaningful data. Employing rigorous methods such as expert review, statistical analysis, and cultural adaptation can help establish the validity and reliability of a questionnaire, ultimately enhancing the quality of research and assessment tools.

3.6.3 Pilot test results

The pilot test was carried out around Kuala Terengganu. The pilot test was designed to examine respondents' knowledge of the questionnaires. The pilot test data was obtained from 30 respondents and analysed using SPSS version 29 to determine

the validity and reliability of the assessment items. The reliability test was conducted in Section C, Section D, and Section E of the questionnaire. Questions for Section C related to the Night Market Consumers' Food Safety Attitude, Section D is about Night Market Consumers' Perception Towards Night Market Food Handlers Hygiene Practices, and Section E questions about Night Market Consumers' Familiarity Effects toward Purchase Intention. All of the parts listed above used 5-point Likert scales.

3.6.4 Reliability of Measured Items

Table 3.2 indicates the Cronbach's Alpha values for the questionnaires. The results shows that the Cronbach's Alpha value for questions in Section C is 0.879, Section D is 0.991 and Section E is 0.949. The result shows that all α values exceed 0.7, which is considered acceptable reliability based on the rule of thumb (Nunnally & Bernstein, 1994).

Table 3.2: Cronbach's Alpha Value of Measured Item

Section	Item	Number of Item	Cronbach's Alpha
Section C	Night Market Consumers' Food Safety Attitude	20	0.879
Section D	Night Market Consumers' Perception Towards Night Market Food Handlers Hygiene Practices	16	0.991
Section E	Night Market Consumers' Familiarity Effects toward Purchase Intention	11	0.949

3.6.5 Validity of Measured Items

Table 3.3 shows that all items in Section C, Section D, and Section E are significantly correlated among each other items at $p < 0.05$. However, Section C falls in a moderate relationship because the r value is within the range of 0.400^{**} - 0.907^{**} . The r values for Section D are 0.665^{**} - 0.977^{**} and Section E are 0.596^{**} - 0.850^{**} which are considered to fall in a strong relationship (Cohen, 1988)

$r = 0.10$ to 0.29 or -0.10 to -0.29 (small)
 $r = 0.30$ to 0.49 or -0.30 to -0.49 (medium)
 $r = 0.50$ to 1.00 or -0.50 to -1.00 (large)

Table 3.3: Correlation Coefficient Value of Measured Item

Section	Item	Number of Item	Correlation Coefficient
Section C	Night Market Consumers' Food Safety Attitude	20	$(0.400^{**}-0.907^{**})$
Section D	Night Market Consumers' Perception Towards Night Market Food Handlers Hygiene Practices	16	$(0.665^{**}-0.977^{**})$
Section E	Night Market Consumers' Familiarity Effects toward Purchase Intention	11	$(0.596^{**}-0.850^{**})$

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

3.7 Main Data Collection

The primary data collection phase was conducted from June until September 2024. Initially, potential participants were approached and queried regarding their habits of purchasing and consuming food from night markets. It was ensured that only individuals with first-hand experience in consuming night market food were selected to provide responses to the questionnaire. The researcher commenced by providing a comprehensive introduction to the research objectives and methodologies, aiding respondents in understanding the context and purpose of the study.

Throughout the questionnaire completion process, respondents were provided with necessary assistance to clarify any uncertainties or ambiguities that arose. Once respondents finished answering the questionnaire, the completed forms were promptly collected. Subsequently, a thorough check was conducted to ensure that all questions had been duly addressed, minimizing any potential data discrepancies or omissions. As a gesture of appreciation for their participation, respondents were granted a token before departing from the data collection site. The procedural steps involved in gathering data from night market consumers are visually shown in Figure 3.1 for clarity and transparent.

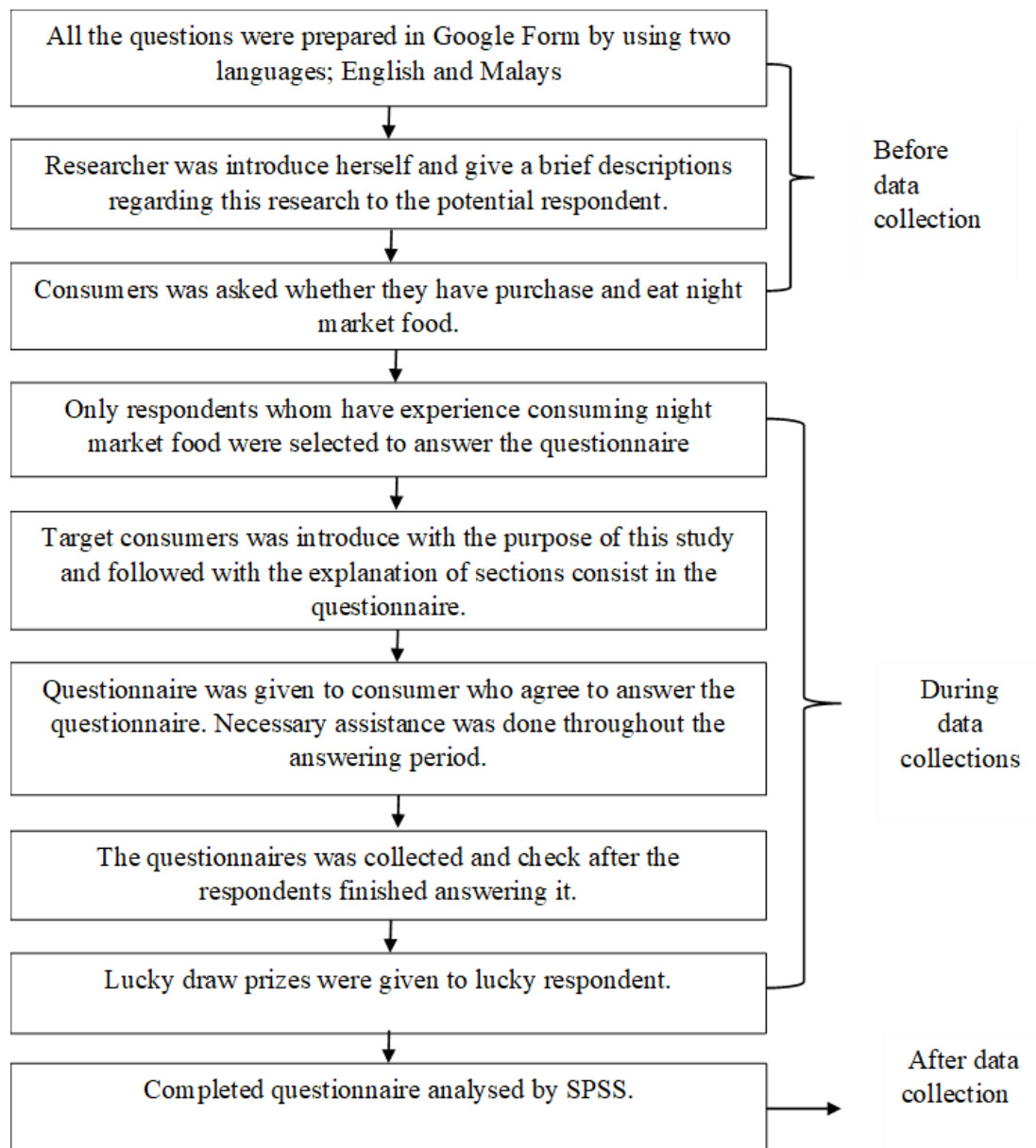


Figure 3.1 Research Framework

3.8 Data Analysis

The accuracy of the data is ensured through thorough verification and checking processes. This involves performing data cleaning procedures, which include analysing descriptive and frequency statistics, as well as coding and entering the data. The main objective of data cleaning is to identify and rectify any potential errors or inconsistencies in the dataset, while also addressing missing data points and outliers.

The data obtained from the questionnaire in this study are analysed using Statistical Software Package for Social Sciences (SPSS) Version 26. Various analytical techniques are employed, including descriptive methods such as computing means and standard deviations, as well as inferential analysis like regression, to summarize and interpret the collected data.

3.8.1 Descriptive Analysis

The collected data were analysed using IBM SPSS Statistics. Descriptive analysis was conducted to summarize the sociodemographic profile of the respondents, including variables such as age, gender, education level, and other relevant characteristics. This analysis provided an overview of the sample distribution and key trends in the demographic composition.

In addition to sociodemographic analysis, descriptive statistics (e.g., mean, standard deviation, frequency, and percentage) were used to examine the study variables, including consumers' food safety knowledge, attitudes, perceptions towards food handlers' hygiene practices, business familiarity, and purchase intention. This helped in understanding the general tendencies and variations within the data.

The analysis aimed to identify patterns and relationships between these variables, offering insights into consumers' awareness and behaviour regarding food safety and hygiene. The findings from the descriptive analysis serve as the foundation for further statistical testing and interpretation in subsequent sections of the study.

3.8.2 Inferential Analysis

A Chi-Square test was performed to explore the association between consumers' socio-demographic characteristics and study variables. The chi-square test is a statistical method commonly used to analyse group differences when the dependent variable is measured at a nominal level McHugh (2013). It is particularly useful for determining the association between categorical variables and for assessing

the goodness of fit of a model to the observed data. This test is widely applied in various fields such as behavioural research, psychology, biology, and statistics. It is also utilized in structural equation modelling to evaluate model fit and local misspecifications.

The Chi-Square test statistic (χ^2) quantifies the difference between the observed frequencies in the cross-tabulation and the expected frequencies, which are calculated under the null hypothesis of no association between the variables. A higher χ^2 value indicates a greater difference between observed and expected frequencies, suggesting a potential association between the variables.

To facilitate the analysis, cross-tabulation table was constructed, which provides a clear visual representation of the frequency distribution of the variables under investigation. The table displays the observed counts for each category combination, to assess the relationship between the variables more intuitively. The cross-tabulation serves as the foundation for the Chi-Square test, as it summarizes the data in a format that highlights potential associations.

In addition, to further assess the strength of the association between the variables, Cramér's V was observed, a measure of association for nominal variables Cramer's, (1999). Cramér's V ranges from 0 to 1, where 0 indicates no association and 1 indicates a perfect association.

3.8.3 Regrouping items

There are scales of items that were regroup and recode to new a value in order to measure the level of the study variables. Table 3.4 below shows the modification that was made to the variables.

Table 3.4 Modifications in items scale

Items	Original	Modified
Age	1 = "18-25"	= "< 35"
	2 = "26-35"	2.00 = "> 35"
	3 = "36-45"	
	4 = "46-55"	
	5 = ">56"	
Race	1 = "Malay"	1.00 = "Malay"
	2 = "Indian"	2.00 = "non-Malay"
	3 = "Chinese"	
	4 = "Others"	
Education	1 = "PMR"	1.00 = "<Diploma"
	2 = "SPM"	2.00 = ">Bachelor degree"
	3 = "STPM"	
	4 = "Matriculation"	
	5 = "Certificate"	
	6 = "Diploma"	
	7 = "Bachelor degree"	
	8 = "Master"	
	9 = "PHD"	
	10 = "Others"	
Monthly Income	1 = "< RM 1500"	1.00 = "< RM1500"
	2 = "RM 1501 - RM 2500"	2.00 = "> RM1501"
	3 = "RM 2501 - RM 3500"	
	4 = "RM 3501 - RM 4500"	
	5 = "RM 4501 - RM 5500"	
	6 = "RM 5501 - RM 6500"	
	7 = "RM 6501 - RM 7500"	
	8 = "RM 7501 - RM 8500"	
	9 = "RM 8501 - RM 9500"	
	10 = "> RM 9501"	
Occupation	1 = "Management"	1.00 = "Working"
	2 = "Education"	2.00 = "Not working"
	3 = "Supervisor"	
	4 = "Clerical"	
	5 = "Labour"	
	6 = "Services"	
	7 = "Medication"	
	8 = "Engineering"	
	9 = "Student"	
	10 = "housewife"	
	11 = "Not working"	
	12 = "Businessman"	
Food Safety Knowledge	Score Value (1-31)	1.00 = "poor" (1-15) 2.00 = "good" (16-31)

Food Attitude	Safety	1 = "Extremely Disagree"	1.00 = "negative" (1-3)
		2 = "Disagree"	2.00 = "positive" (4-5)
		3 = "Not sure"	
		4 = "Agree"	
		5 = "Extremely agree"	
Perceptions towards food handlers' hygiene practices	food	1 = "Extremely Disagree"	1.00 = "negative" (1-3)
		2 = "Disagree"	2.00 = "positive" (4-5)
		3 = "Not sure"	
		4 = "Agree"	
		5 = "Extremely agree"	
Familiarity		1 = "Extremely Disagree"	1.00 = "not familiar" (1-3)
		2 = "Disagree"	2.00 = "familiar" (4-5)
		3 = "Not sure"	
		4 = "Agree"	
		5 = "Extremely agree"	
Purchase intention		Score Value (1-14)	1.00 = "unwilling to buy" (1-7)
			2.00 = "willing to buy" (8-14)

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Preamble

This chapter presents the findings from the analysis of data collected from the respondents. The results are derived from quantitative information obtained through the Google Form questionnaire. Firstly, the socio-demographic profile is examined using frequency analysis. This is followed by a descriptive analysis of the study variables to determine the mean and standard deviation of the questionnaire items. Lastly, the chapter includes the results of the chi-square analysis, which assesses the association between variables in this study.

4.2 Socio-demographic profile

The respondents involved in this study consisted of 163 individuals who had visited night markets around Kuala Terengganu and Kuala Nerus. The socio-demographic profile of the respondents is presented in table 4.1.

Table 4.1 Socio-Demographic Profile of The Respondent

Characteristic	Number of respondents (n=163)	Percentage (%)
<u>Gender</u>		
Male	42	25.8
Female	121	74.2
<u>Age</u>		

18-25 years old	65	39.9
26-35 years old	46	28.2
36-45 years old	33	20.2
46-55 years old	12	7.4
>56 years old	7	4.3
<u>Race</u>		
Malay	159	97.6
Indian	1	0.6
Chinese	2	1.2
Others	1	0.6
<u>Education level</u>		
PMR	3	1.8
SPM	8	4.9
Matriculation	2	1.2
STPM	9	5.5
Diploma	33	20.2
Bachelor Degree	91	55.8
Master	12	7.4
PHD	5	3.2
<u>Monthly income</u>		
< RM 1500	73	44.7
RM 1501- RM 2500	27	16.6
RM 2501 – RM 3500	14	8.6
RM 3501 – RM 4500	12	7.4
RM 4501 – RM 5500	7	4.3
RM 5501 – RM 6500	5	3.1
RM 6501 – RM 7500	7	4.3
RM 7501 – RM 8500	5	3.1
RM 8501 – RM 9500	7	4.3
>RM 9501	6	3.6
<u>Occupation</u>		
Management	18	11.0
Education	23	14.1
Supervisor	1	0.6
Clerical	10	6.2
Labour	3	1.8
Services	32	19.7
Student	55	33.7
Housewife	8	4.9
Business	4	2.5
Not working	9	5.5
<u>Frequency goes to night market</u>		
Once a month	93	57.1
Two times a month	44	27.0

Three to four a month	23	14.1
More than five a month	3	1.8
<u>Formal Education about food safety</u>		
Yes	58	35.6
No	105	64.4
<u>Types of education (for those who have formal education)</u>		
Food handlers' training	28	50.9
Courses related to quality and food safety	8	14.6
Subject taken during study	19	34.5
<u>Reading Sources about food safety</u>		
Newspaper	Yes (48)	No (115) Yes (29.4) No (70.6)
Television	Yes (79)	No (84) Yes (48.5) No (51.5)
Article from KKM	Yes (102)	No (61) Yes (62.6) No (37.4)
Media Social	Yes (147)	No (16) Yes (90.2) No (9.8)

This section presents the demographic characteristics of the 163 respondents who participated in the study. The findings reveal that the majority of respondents were female (74.2%), while males accounted for only 25.8% of the sample. The present data showing that female consumers more interested in answering survey consistent with past findings which they also show within the findings, majority of their respondents are females. (e.g. Soon et al., 2020; Theng et al., 2017). Women's motivations to participate in surveys are frequently tied to their values surrounding community and social welfare. Studies have shown that women are likely to engage in surveys that address social issues, reflecting their desires to contribute to discussions on topics that affect their communities (McMahon et al., 2023).

Regarding age distribution, the highest proportion of respondents fell within the 18-25 years category (39.9%), followed by those aged 26-35 years (28.2%). Meanwhile, a smaller percentage of respondents were aged 36-45 years (20.2%), 46-55 years (7.4%), and above 56 years (4.3%). The results showing that the majority of the respondent are from younger consumers. This study has demonstrated that younger demographics are more likely to utilize online tools for information and

communication as the survey was in google form. Which indicates that young individuals are particularly drawn to the internet for resourceful information, appreciating the immediacy and accessibility of online platforms, which allow them to easily engage in surveys where their perspectives can contribute to real issues (Pretorius et al., 2019).

In terms of racial distribution, the study predominantly comprised Malay respondents (97.5%), with only 1.2% Chinese, 0.6% Indian, and 0.6% categorized as others. Terengganu is located in Malaysia, which has a predominantly Malay population. This is corresponding with data in Malaysia Statistics Agency which by 2024 the dominant race population in Terengganu is Malay (1,162.3 million). Based to the statistics, Malays make up a significant portion of the population in Terengganu, thus naturally leading to a higher representation in local studies conducted in the region (Koechlin et al. (2016).

Majority of the respondent holding a Bachelor's degree (55.8%), followed by Diploma holders (20.2%) and Master's degree holders (7.4%). A smaller percentage of respondents had an SPM qualification (4.9%), STPM (5.5%), PMR (1.8%), and Matriculation (1.2%). Only a small portion of the respondents had a PhD qualification (3.2%). The high participation of Bachelor's and Diploma holders suggests that individuals with higher education levels are more likely to engage in research, recognizing its role in shaping policies, especially in health and social sciences (Wilson et al., 2023). In contrast, lower participation among less-educated individuals may be due to challenges in accessing online surveys, including lower digital literacy and limited internet access (Jang & Vorderstrasse, 2018). Difficulty navigating online platforms further discourages participation, leading to their underrepresentation in research (McAllister et al., 2019).

The respondents' monthly income levels indicated that 44.8% earned less than RM1500, making it the largest income group. Those earning between RM1501-RM2500 constituted 16.6%, followed by RM2501-RM3500 (8.6%) and RM3501-RM4500 (7.4%). The least common income groups were those earning more than RM9501 (3.7%). The high percentage of respondents in the low-income category may

be due to a large presence of students and early-career individuals, who typically have lower earnings. Moreover, the economic conditions in Terengganu, especially in less urbanized areas, greatly influence job availability and wage levels. Many residents work in low-income sectors with non-competitive salaries, contributing to the high percentage earning below RM1500 (Phan et al., 2024). Research suggests that individuals in low-income settings tend to prioritize basic needs like food security over food safety concerns, resulting in lower engagement with food safety issues (Phan et al., 2024).

The largest proportion of respondents for occupation is students (33.7%), followed by those in the service industry (19.6%). Other groups included those working in education (14.1%) and management (11.0%). Small portions of respondents were clerical workers (6.1%), housewives (4.9%), and business owners (2.5%). Those in labour (1.8%) and supervisory roles (0.6%) were the least represented. High student participation aligns with the presence of multiple higher education institutions in the study area which Kuala Terengganu and Kuala Nerus for example Universiti Malaysia Terengganu, Universiti Sultan Zainal Abidin and Institut Perguruan Kampus Dato' Razali Ismail and Politeknik Kuala Terengganu. The concentration of these institutions naturally increases the student population in the region (Alsultan et al., 2023). As students often engage in part-time employment or informal market activities to supplement their income or facilitate their living expenses, they are likely to frequent night markets more regularly. Consequently, their prevalent presence in the area translates into higher participation rates in studies conducted in such environments (Yu et al., 2017).

The study also examined the frequency of visits to night markets, revealing that more than half of the respondents (57.1%) visit night markets once a month, while 27% go twice a month. Only 14.1% visit three to four times a month, and a small fraction (1.8%) go more than five times a month. One primary reason for the observed frequency relates to socio-economic status and disposable income levels among respondents. A significant portion (44.8%) reported earning less than RM1500 per month, suggesting that many might view night market visits as an economically viable dining option (Phan et al., 2024). However, dining at night markets, while affordable

may still be seen as an occasional treat rather than a regular habit. Higher costs associated with frequent dining out could lead those on lower incomes to limit their night market visits to once or twice a month to better manage their budgets (Kyung et al., 2023).

When asked about formal education in food safety, 64.4% of respondents indicated that they had never received any formal training, while only 35.6% had undergone some form of food safety education. Among those who received education, the majority (50.9%) attended food handlers' training, while 34.5% learned through subjects taken during their studies, and 14.5% attended courses related to food safety and quality. Unfortunately, there are 3 of the respondents missed to answer the types of the education they were attend due to this question are not compulsory to answer. The low level of formal food safety education among respondents suggests insufficient outreach beyond the food service industry. Many rely on informal sources, lacking structured training. Socio-economic factors also limit access, as lower-income individuals may not prioritize or afford formal education (Yu et al., 2017). Most respondents who received training (50.9%) attended food handlers' programs, indicating its accessibility over consumer-focused education. However, this knowledge may remain job-specific, not translating into broader consumer awareness (Alhashim et al., 2022).

The study also explored the respondents' sources of food safety information. The majority (90.2%) obtained information from social media, followed by articles from the Ministry of Health (62.6%). Television and newspapers were fewer common sources, with 48.5% and 29.4% of respondents using them, respectively. The high accessibility of social media makes it a key information source, especially for younger users. Smartphones and the internet enable real-time access to food safety tips and updates (Seow et al., 2022). These platforms also encourage community discussions on health. Government and health organizations leverage social media to spread food safety information, with Ministry of Health articles receiving significant attention. This aligns with Henderson et al. (2017) findings, emphasizing social media's role in food regulation, mainly for crisis communication rather than routine updates.

4.3 Descriptive data of the study variables

4.3.1 Consumers' knowledge towards food safety

Night market Consumers' Knowledge towards food safety are presented in table 4.2.

Table 4.2 Consumers' Knowledge towards Food Safety

No.	Question	Desired Response	Correct, n (%)	Wrong, n (%)
1	The use of gloves when handling food at night markets can reduce the risk of food contamination.	Yes	131(80.4)	32(19.6)
2	Washing hands before handling food at night markets can reduce the risk of food contamination.	Yes	162(99.44)	1(0.6)
3	Wearing a hat or head covering when handling food at night markets can prevent contamination.	Yes	131(80.4)	32(19.6)
4	Wearing closed shoes for food handlers at night markets gives a good impression to customers.	Yes	162(99.4)	1(0.6)
5	Food handlers at night markets must keep their nails short and clean while handling food.	Yes	156(95.7)	7(4.3)
6	Wearing an apron is a good practice.	Yes	150(92)	13(8)
7	Food handlers should be free from coughing and remain clean.	Yes	162(99.4)	1(0.6)

8	Food handlers should take leave if they have contagious skin diseases.	Yes	162(99.4)	1(0.6)
9	Smoking among food handlers is not a good practice.	Yes	29(17.8)	134(82.3)
10	Newspapers are a good food packaging material.	No	0(0)	163(100)
11	Cross-contamination occurs when microbes from contaminated food transfer to the hands of food handlers or kitchen utensils and then to other foods.	Yes	162(99.4)	1(0.6)
12	Spoiled food can be identified through appearance, smell, and taste.	No	7(4.3)	156(92.7)
13	Cleaning and sanitizing utensils can increase the risk of food contamination.	No	10(6.1)	153(93.9)
14	Cleaning utensils is not the same as sanitizing them.	Yes	161(98.8)	2(1.2)
15	Washing utensils with detergent can prevent cross-contamination.	Yes	55(33.7)	108(66.2)
16	Eating and drinking at the workplace increase the risk of food contamination.	Yes	112(68.7)	51(31.2)
17	Typhoid fever can be transmitted through food.	Yes	143(87.7)	20(11.3)
18	Food prepared more than 4 hours in advance reduces the risk of contamination.	No	24(14.7)	139(85.3)
19	Raw vegetables have a higher risk of contamination than partially cooked meat.	Yes	128(78.5)	35(21.5)
20	Reheated food increases the risk of food contamination.	Yes	29(17.8)	134(82.2)

21	Freezing food kills all bacteria that cause foodborne illnesses.	No	73(44.8)	90(55.2)
22	Salmonella sp. is a foodborne pathogen.	Yes	82(50.3)	81(49.7)
23	Children, adults, pregnant women, and the elderly have the same risk of food poisoning.	No	82(50.3)	81(49.7)
24	Staphylococcus sp. is a foodborne pathogen.	Yes	118(72.4)	45(27.6)
25	Food preparation areas should be far from waste disposal sites.	Yes	110(67.5)	53(32.5)
26	Covered trash bins at night markets are important.	Yes	78(47.9)	85(52.1)
27	Using suitable vehicles to transport food is important.	Yes	160(98.2)	3(1.8)
28	Cooked food should be covered to prevent contamination.	Yes	157(96.3)	6(3.7)
29	Reusing cooking oil for frying chicken is harmful to health.	Yes	150(92)	13(7.9)
30	Beverages in large containers should be prepared using clean water.	Yes	162(99.4)	1(0.6)
31	Food that needs to stay hot should be kept at a temperature of 65°C.	Yes	155(95.1)	8(4.9)

Table 4.2 shows the assessment of consumers' knowledge on food safety was based on 31 questions covering various aspects of food hygiene, handling, and contamination risks. More than 50% of the respondent answered question correctly. The results indicate that most respondents had a strong understanding of basic food safety principles. For instance, an overwhelming 99.4% of respondents correctly notified that washing hands before handling food reduces contamination risks. This aligns with the Centres for Disease Control and Prevention (CDC) guidelines, which emphasize hand hygiene as a critical measure in preventing foodborne illnesses (CDC,

2023). This finding supported by past studies which majority of the respondent answered correct for the washing hands before handling food reduces the risk of food contamination (Theng et al., 2017). Same with study that conducted at Malaysia, there are 98.9% that answer correct for the same questions (Soon et al., 2020). This show that majority of the respondent were aware about the contamination that might happened because of bad food handling practice. Besides, study from Nigeria found that a larger percentage of respondents, particularly those from urban areas recognized the importance of handwashing in preventing foodborne diseases (Adebowale & Kassim, 2017).

However, despite strong knowledge in some areas, notable misconceptions were evident. For example, 82.3% of respondents wrongly believed that smoking among food handlers was acceptable, highlighting a gap in understanding about indirect contamination risks. Even though the known dangers of direct food contamination, consumers may mistakenly believe that indirect contamination risks, such as smoking among food handlers, are acceptable. The acceptance of smoking among food handlers highlights a significant risk for indirect contamination, which can introduce harmful substances into food and increase the likelihood of foodborne illnesses (Tappes et al., 2020). This misconception undermines efforts to maintain hygienic food handling environments and poses a direct threat to public health. Previous studies have highlighted a gap in understanding about these indirect contamination risks (Sadiku et al., 2020). A study on food sanitation and hygiene practices among food handlers in Hyderabad found that food handlers play a crucial role in ensuring food safety throughout the production, processing, storage, and preparation stages (Kumari et al., 2019). This finding illustrates a fundamental lack of awareness regarding how harmful substances can be transferred from hands to food (Franklyn & Badrie, 2015).

Furthermore, 100% of respondents incorrectly considered newspapers as a suitable food packaging material, which is concerning given the potential for ink contamination and microbial transfer (Petrescu et al., 2019). The belief that newspapers are suitable for food packaging exposes consumers to chemical and microbial contamination, as newspapers are not designed for food contact (Zahir et al.,

2025). This practice can compromise food safety, leading to increased risk of illness and undermining consumer trust in food products (Ali et al 2022). Petkoska et al. (2020) reveals that newspapers are not designed to meet the stringent requirements for food packaging. Newspapers are primarily composed of wood pulp and inks, which can potentially leach harmful chemicals into food products. Furthermore, the porous nature of newspaper material does not provide adequate protection against moisture, oxygen, and microbial contamination, all of which are essential for preserving food quality and safety (Avila et al., 2022). In fact, a recent study on a promising new material for food packaging, an active and intelligent carrageenan film with natural antimicrobial agents, has shown great potential in extending the shelf life of food products while ensuring food safety for consumers. (Guillard et al., 2018)

Additionally, only 44.8% recognized that freezing food does not eliminate all bacteria, demonstrating a misunderstanding of microbial survival in low temperatures (Nguyen et al., 2018). It is because harmful bacteria like *Listeria monocytogenes* and *Escherichia coli* can survive and even thrive in frozen foods (Smith et al., 2020; Johnson et al., 2021). The misunderstanding that freezing eliminates all bacteria can lead to unsafe food handling practices, as harmful pathogens like *Listeria monocytogenes* and *Escherichia coli* can survive in frozen foods (Sharma et al., 2021). This misconception may result in consumers consuming contaminated food, increasing the incidence of foodborne diseases (Tappes et al 2020).

Another area of weak knowledge was in food spoilage detection. While many people assume that spoiled food can always be identified through appearance, smell, and taste, only 4.3% correctly disagreed with this statement, suggesting that most respondents might rely on sensory evaluation rather than scientific indicators of spoilage. Relying solely on appearance, smell, and taste for spoilage detection can result in the consumption of food contaminated with pathogens that do not alter sensory attributes (Rahman, 2019). This practice increases the risk of undetected foodborne illness and highlights the need for scientific food safety education. Similarly, only 50.3% correctly identified *Salmonella* sp. as a foodborne pathogen, indicating a need for greater awareness of microbial threats. Nevertheless, sensory evaluation has its limitations which are critical especially when dealing with

pathogenic bacteria like Salmonella and E. coli that often do not manifest noticeable changes in sensory attributes, thus complicating their detection without proper testing methods (Saleh & Lee, 2023; Sachithanathan et al., 2012). This is aligned with study by Yang & lee, (2019) which said that pathogens can frequently be present in food without causing any observable spoilage. Addressing these misconceptions through targeted educational programs and awareness campaigns is essential such measures can enhance consumer knowledge and promote safer food consumption behaviors. By highlighting the limitations of sensory evaluation and explaining the risks posed by specific pathogens, consumers can be better prepared to make informed food safety decisions (Alberts & Stevenson, 2017).

These misconceptions align with broader issues relating to consumer food safety knowledge. For example, the belief that food appearing to be fine in terms of appearance or odour is safe to consume is prevalent, and many consumers mistakenly think that washing raw poultry can effectively eliminate harmful germs (Lee et al., 2012). Huang et al. (2012) illustrates that cultural factors significantly influence food safety perceptions, suggesting that simplistic food safety messages might help clarify misconceptions in diverse populations. Food safety initiative should particularly target individuals involved in food handling to reduce the incidence of foodborne illnesses (Adebowale & Kassim, 2022).

The identified misconceptions among respondents such as the acceptance of smoking among food handlers, the use of newspapers for food packaging, the belief that freezing eliminates all bacteria, and the reliance on sensory evaluation for spoilage detection, reveal critical gaps in consumer food safety knowledge. These misconceptions not only undermine efforts to maintain hygienic food handling practices but also pose significant risks to public health by increasing the likelihood of foodborne illnesses (Vivas et al., 2010). Addressing these gaps through targeted educational programs, clearer public health messaging and stricter enforcement of food safety standards is essential for improving consumer awareness and reducing the incidence of foodborne diseases. By highlighting the broader impact of these misconceptions, this study underscores the need for ongoing efforts to enhance food safety knowledge and promote safer food consumption behaviors in the community,

aligning with previous studies that emphasize the role of consumer education in reducing foodborne risks

The results from Table 4.2 were used to assess each respondent's food safety knowledge by assigning a score based on their answers. Respondents were then categorized into two groups: 'Good' and 'Poor' knowledge levels. These classifications are visually represented in Figure 4.1, which illustrates the overall distribution of respondents according to their level of food safety knowledge.

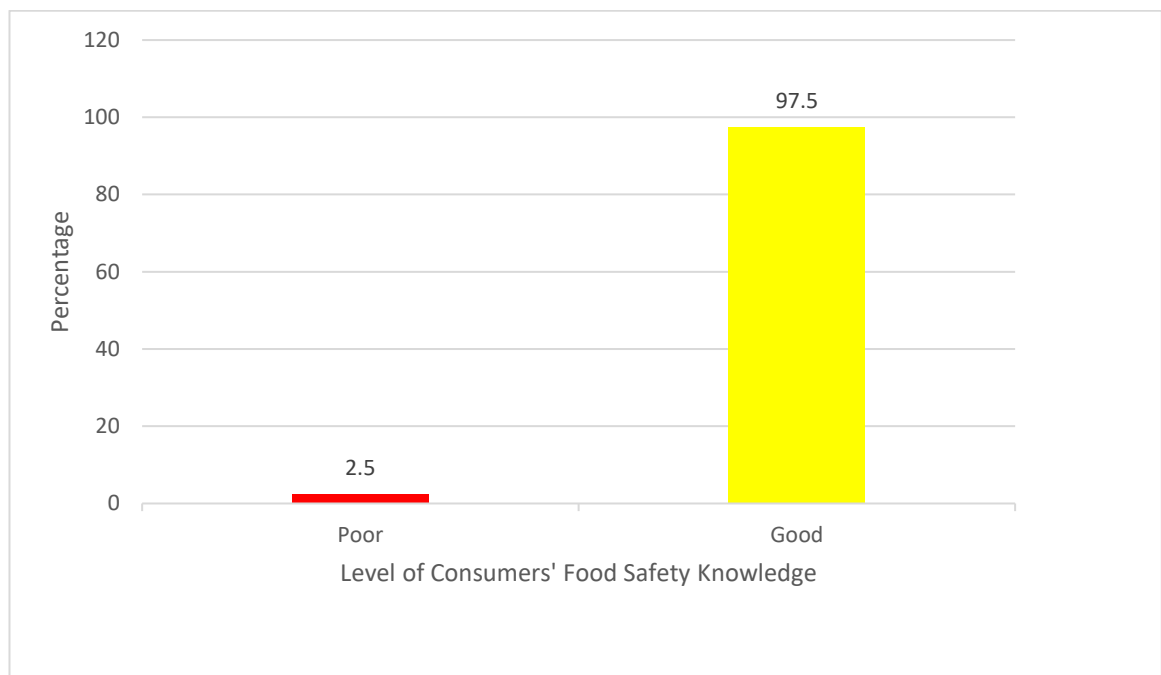


Figure 4.1 Level of Consumers' Food Safety Knowledge

Figure 4.1 illustrating consumers' food safety knowledge reveals that the huge majority of respondents (97.5%), have a good understanding of food safety practices, while only a small fraction (2.5%), demonstrate poor knowledge in this area. This is supported by Soon et al. (2020) who found that consumers had a good level of food safety knowledge, along with positive attitudes and self-reported safe food handling practices. Besides, Alhashim et al. (2022) also discovered that the majority of food truck consumers possessed the necessary knowledge regarding food safety, which might help them make healthier food choices, practice good food hygiene, and ultimately reduce the chances of foodborne diseases. Moreover, the study from Vietnam also indicates that the consumers of food safety knowledge was in average

level (Ngoc et al., 2020). However, different for the study also from Vietnam which the findings showing that consumers had the highest knowledge about food handling practices but they have lower knowledge about environmental requirements for food facilities (Nguyen et al., 2018). This indicates that most consumers are well-informed about proper food handling, storage, and hygiene, which is crucial in preventing foodborne illnesses.

The minimal percentage of those with poor knowledge suggests that awareness campaigns and educational efforts have been largely effective, though there remains a small gap that could benefit from further targeted initiatives to ensure comprehensive food safety awareness among all consumers. There are ongoing initiatives in Malaysia aimed at enhancing food safety awareness. Besides, the Malaysian government plays a significant role in these efforts. For instance, the Ministry of Health (MOH) regularly issues food safety advice, particularly during significant events like Ramadan, to ensure safe food practices during the fasting month. Additionally, the National Plan of Action for Nutrition of Malaysia III (2016-2025) includes activities designed to educate the population on food safety, labelling, and consumer rights, emphasizing the creation of awareness and promotion of safe food handling practices.

4.3.2 Consumers' food safety attitude

Night market Consumers' attitude towards food safety are presented in table 4.3.

Table 4.3: Consumers' Attitude towards Food Safety

No.	Statement	Mean	Std. Deviation
1	Wearing gloves can reduce contamination.	1.01	0.078
2	Washing hands before handling food at night markets can reduce food safety risks.	1.85	0.944
3	Wearing a hat while handling food at night markets can reduce food safety risks.	4.31	1.056

4	Wearing shoes while handling food at night markets can reduce food safety risks.	4.69	0.740
5	Having short and clean nails while handling food at night markets can reduce food safety risks.	4.56	0.869
6	Wearing a clean apron while handling food at night markets can reduce food safety risks.	4.40	0.947
7	Coughing and sneezing while handling food at night markets can reduce food safety risks.	4.75	0.695
8	Having the flu while handling food at night markets can reduce food safety risks.	4.60	0.798
9	Smoking while handling food at night markets can reduce food safety risks.	1.58	1.304
10	Wearing a face mask while handling food at night markets can reduce food safety risks.	1.43	1.088
11	Storing raw food separately while handling food at night markets can reduce food safety risks.	1.46	1.124
12	Sanitizing knives and cutting boards regularly while handling food at night markets can reduce food safety risks.	4.41	1.023
13	Placing a full trash bin near the work table while handling food at night markets can reduce food safety risks.	4.45	0.897
14	Defrosting chicken by directly soaking it in tap water without wrapping while handling food at night markets can reduce food safety risks.	4.52	0.919
15	Sanitizing work surfaces while handling food at night markets can reduce food safety risks.	1.67	1.309
16	Using a clean towel while handling food at night markets can reduce food safety risks.	2.21	1.279
17	Washing eggs while handling food at night markets can reduce food safety risks.	4.45	0.964
18	Changing cooking oil that has been reused multiple times while handling food at night markets can reduce food safety risks.	4.55	0.876
19	Regularly cleaning tables used to place food while handling food at night markets can reduce food safety risks.	4.45	0.970

20	Leaving food exposed while handling food at night markets can reduce food safety risks.	4.50	0.965
----	---	------	-------

*5-point Likert scale 1= Strongly Disagree 2= Disagree 3= Not Sure 4= Agree 5= Strongly Agree

Based on table 4.3, the responses demonstrated that most consumers exhibited positive attitudes towards food safety practices. For instance, the highest-rated practices included short nails reduce food safety risk ($M=4.56$, $S.D.=0.869$), wearing closed shoes ($M=4.69$, $S.D.=0.740$), and turning away when coughing ($M=4.75$, $S.D.=0.695$), indicating strong agreement on fundamental hygiene behaviours. The findings similar with Roy et al. (2024) which they also found the positive food safety attitude among consumers in Bangladesh. Besides, Theng et al. (2017) also indicates that majority consumers in Malaysia have positive attitude towards food safety. This probably because of majority of the consumers in this current study and past studies have good level of food safety knowledge. These findings align with past research indicating that positive attitudes significantly relate to better food safety practices and knowledge across various cultural contexts (Hossen et al., 2021; Roy et al., 2024).

However, certain areas indicated a more relaxed attitude towards food safety. For example, attitudes towards wearing hat ($M=4.31$, $S.D.=1.056$) were moderate, suggesting that not all respondents viewed hat use as essential for preventing contamination. This lag in agreement toward headgear use could potentially be linked to a lack of awareness or training regarding its role in hygiene. The attitude towards smoking while handling food ($M=1.68$, $S.D.=1.304$) was particularly concerning, implying that some respondents did not strongly associate smoking with contamination risks. Furthermore, attitudes towards wearing face masks ($M=1.43$, $S.D.=1.088$) were also relatively weak, reflecting a possible underestimation of airborne contamination risks. There is substantial evidence highlighting the critical association between consumer education and upholding high food safety standards, suggesting that a gap in knowledge persists among certain consumer segments, especially concerning airborne and direct contamination risks (Soon et al., 2020). Figure 4.2 serves as a continuation of the findings presented in Table 4.3, illustrating the overall distribution of consumers' food safety attitudes in percentage values. While Table 4.3

provides detailed insights into specific food safety practices and attitudes, Figure 4.2 visually represents the proportion of respondents with positive and negative attitudes.

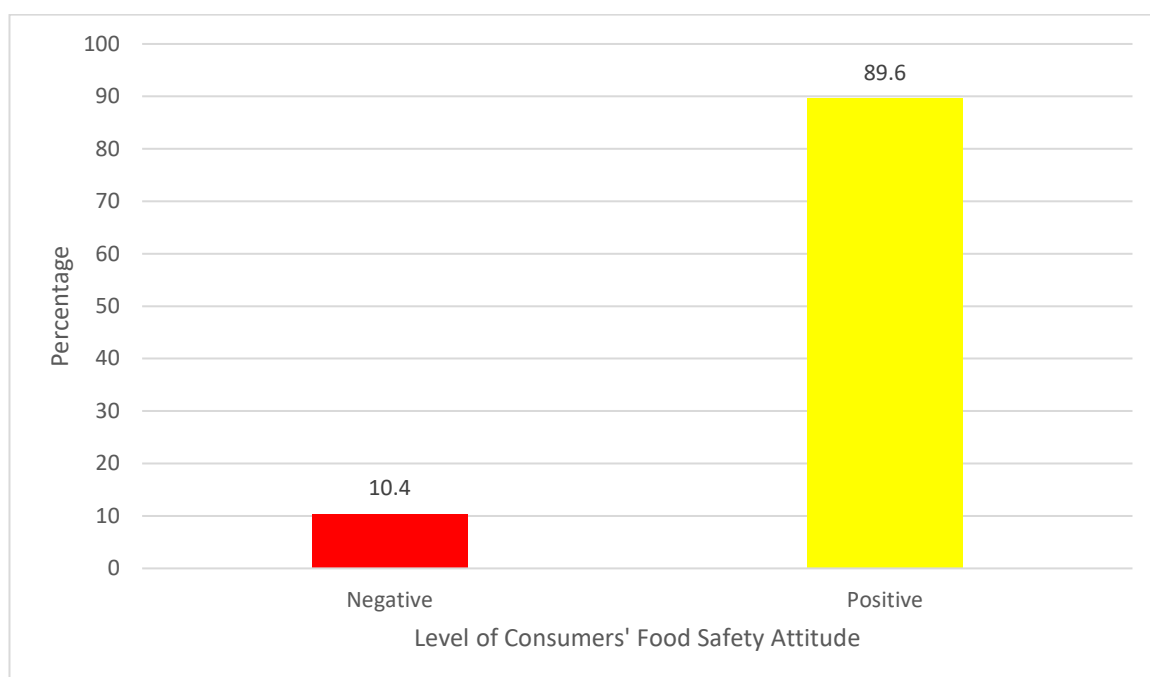


Figure 4.2 Level of Consumers' Food Safety Attitude

Figure 4.2 shows the level of the consumers' food safety attitude in percentage value. Majority of the respondent (89.6%) shows positive attitude. While 10.4% have negative attitudes towards food safety. Research indicates that a significant association exists between food safety knowledge and consumer attitudes. For instance, Soon et al. (2020) found that respondents in Malaysia reported good levels of food safety knowledge and positive self-reported practices regarding food handling, suggesting that increased knowledge positively correlates with favourable attitudes towards food safety. Similar results have been reported among Saudi consumers, where higher levels of food safety knowledge were linked to improved attitudes and practices regarding safe food consumption (Alhashim et al., 2022). This suggests that the majority of respondents in the current study may be influenced by a solid foundation in food safety knowledge, contributing to their positive attitudes.

Moreover, the role of health consciousness and safety concerns in shaping consumer attitudes cannot be overlooked. Research has shown that consumers who prioritize health and safety tend to have more positive attitudes toward food. For

example, Michaelidou and Hassan (2007) emphasize that health consciousness plays a significant role in consumer attitudes towards food products. In particular, the findings of Huo et al. (2023) highlight that health and safety motivations significantly influence consumer attitudes, which might explain why a large majority in the current study reported positive attitude.

Conversely, the limited group displaying negative attitudes may be influenced by factors such as lack of information or past experiences with food safety issues, leading to distrust and skepticism about food quality (Ge & Zhao, 2023). Factors like socio-economic conditions, access to information about food safety practices, and personal experiences may contribute to this negative viewpoint, as noted in various studies exploring consumer perceptions in distinct contexts (Rohr et al., 2005).

4.3.3 Consumers' perception towards food handlers' hygiene practices

Night market Consumers' attitude towards food safety are presented in table 4.4.

Table 4.4 Consumers perception towards food handlers' hygiene practices

No.	Questions	Mean	Std. Deviation
1	I feel that wearing gloves is important in food preparation.	4.47	0.951
2	I feel that washing hands is very important in food preparation.	1.52	1.178
3	I feel that wearing a hat is very important in food preparation.	4.42	1.005
4	I feel that wearing shoes is very important.	4.74	0.727
5	I feel that having short nails is very important in food preparation.	4.60	0.836
6	I feel that wearing an apron is very important in food preparation.	4.45	0.890
7	I feel that turning away while coughing is very important in food preparation.	4.74	0.750
8	I feel that not smoking near food is very important in food preparation.	4.63	0.761

9	I feel that wearing a face mask is very important in food preparation.	4.43	1.191
10	I feel that cleaning the work table is very important in food preparation.	4.63	0.937
11	I feel that sanitizing knives and cutting boards is very important.	4.65	0.750
12	I feel that covering trash bins is very important in food preparation.	4.69	0.741
13	I feel that covering food is very important in food preparation.	4.65	0.813
14	I feel that washing eggs is very important.	4.71	0.753
15	I feel that controlling pests is very important.	4.71	0.743

*5-point Likert scale 1= Strongly Disagree 2= Disagree 3= Not Sure 4= Agree 5= Strongly Agree

Table 4.4 shows that the consumers' perceptions of food handlers' hygiene practices were generally strong, as indicated by high mean scores for several key factors. For example, for wearing gloves ($M=4.47$, $S.D.=0.951$), washing hands ($M=4.52$, $S.D.=1.178$), and wearing shoes while handling food ($M=4.74$, $S.D.=0.727$) were all perceived as highly important. Additionally, short and clean nails ($M=4.60$, $S.D.=0.836$) and wearing aprons ($M=4.45$, $S.D.=0.890$) were also viewed favourably by most respondents. Moreover, consumers' perceptions of the importance of wearing a face mask while handling food ($M=4.43$, $S.D.=1.191$) were slightly lower than other hygiene practices. This suggests that while respondents valued physical cleanliness, they may not fully recognize the role of airborne contamination. Similarly, sanitizing knives and cutting boards ($M=4.65$, $S.D.=0.750$) and cleaning the work table ($M=4.63$, $S.D.=0.937$) were highly rated, reinforcing the idea that consumers appreciate visible hygiene efforts from vendors. This finding concurs with study from Malaysia which also found that most of the respondent agree to strongly agree for the majority of the statements for example 82% of the respondent strongly agree that food handlers should keep their nails short and clean (Pauzi et al., 2024). Similarly with Odeyemi (2013) indicates that most of the respondent have a same opinion such as 67% from the respondent agree for the short and clean nails also 64% agree about hand glove statement. Figure 4.3 serves as a continuation of the findings presented in Table 4.4 by

visually representing consumers' perceptions of food handlers' hygiene practices in percentage values.

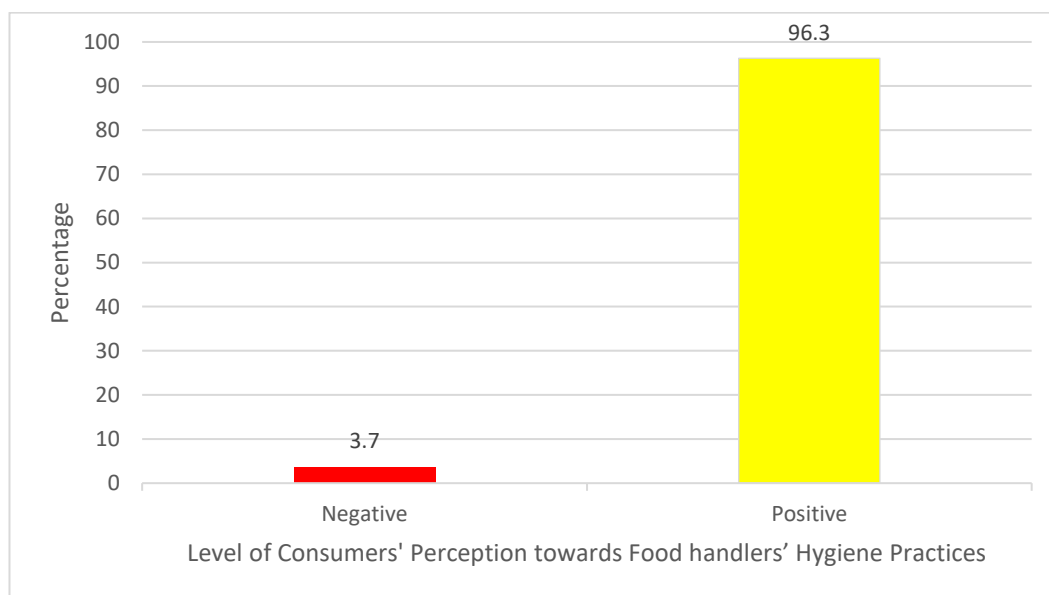


Figure 4.3 Level of Consumers' Perception towards Food handlers' Hygiene Practices

Figure 4.3 demonstrates that 96.3% of consumers hold positive perceptions of food handlers' hygiene practices, while only 3.7% express negative views. This high level of confidence underscores the importance of effective food safety communication, proper hygiene practices, and well-trained food handlers in shaping consumer trust. This aligns with studies from Miroso et al. (2020) and Yu et al. (2017) highlight the critical role of transparent food safety communication in fostering consumer confidence. Yu et al. (2017) found that 86% of farmers' market consumers in the United States reported minimal concerns about food safety. It is suggesting that when consumers are assured of proper hygiene measures, their trust in food handlers remains high.

Perceived risk also plays a crucial role in consumer decision-making, particularly in settings where hygiene practices may not be as strictly regulated. Seo and Lee (2021) found that consumers closely evaluate hygiene standards in street food environments and positive perceptions of hygiene practices significantly increase the likelihood of repeat purchases. This finding reinforces the idea that consumer trust is

closely linked to visible and well-maintained hygiene practices. Moreover, personal hygiene practices are essential to prevent pathogen transmission from handlers to consumers, noting that food handlers with higher levels of knowledge are more likely to adhere to hygiene standards (Noor et al., 2023). Based on the finding, it is consistent with research demonstrating that proper cleaning practices are critical in minimizing foodborne illnesses, and that handlers trained in hygiene are likely to maintain high cleanliness standards in food preparation environments (Azanaw et al., 2019). Beyond perception, the knowledge and training of food handlers are fundamental to maintaining high hygiene standards. Akabanda et al. (2017) found that inadequate food safety knowledge among food handlers often results in poor hygiene practices, which negatively impact consumer confidence. Conversely, Tuglo et al. (2021) demonstrated that comprehensive training programs significantly improve food handlers' understanding of hygiene protocols, leading to greater consumer trust.

4.3.4 Consumers' familiarity in night market

Consumers' familiarity in night market are presented in table 4.5.

Table 4.5: Consumers' Familiarity in Night Market

No.	Statement	Mean	Std. Deviation
1	I am used to buying food if I know the seller.	4.67	0.823
2	I am used to buying food if I know the type of food.	4.71	0.718
3	I am used to buying food if I know the preparation method.	4.01	1.024
4	I am used to checking the cleanliness of utensils before buying food.	4.04	0.984
5	I am familiar with the ingredients of the food I want to buy.	4.20	0.982
6	I am more familiar with food safety levels than most people at night markets.	4.48	0.765
7	I am more familiar with food safety levels than my friends at night markets.	4.22	0.936

8	I am used to buying food from food handlers who cover their heads.	3.74	1.069
9	I am used to buying food at a reasonable price.	3.70	1.013
10	I am used to buying food from food handlers who wear gloves.	3.96	0.974
11	I am used to asking for the price of food before buying.	4.29	0.866

5-point Likert scale 1= Strongly Disagree 2= Disagree 3= Not Sure 4= Agree 5= Strongly Agree

Table 4.5 shows that familiarity plays a crucial role in consumer purchasing behaviour. For instance, respondents reported a higher likelihood of buying food if they were familiar with the seller ($M=4.67$, $S.D =0.823$), the type of food being sold ($M=4.71$, $S.D =0.718$), and the preparation methods ($M=4.01$, $S.D =1.024$). This suggests that trust and prior experience are powerful drivers behind food choices, particularly in night markets, where quick decisions are often made based on intuition and past encounters. This finding aligns with one of the studies in Thailand which they indicate that service quality and perceived value influenced the consumers satisfaction (Teangsompong et al., 2024). Similarly, Rheinländer et al (2008) also found that in their study where the consumers relied more on visual cues like appearance and trust in the vendor when buying food. Meanwhile, study from Nigeria found that the choice to buy from street food vendors in Nigeria is driven by food quality, affordability, and familiarity with the ingredients or type of food offered (Ezeh & Nkamnebe (2022). Together, these insights support the idea that beyond taste and price, a sense of familiarity and trust can be the deciding factors that turn a passerby into a paying customer.

Additionally, respondents indicated that they are more familiar with food safety levels than most people at night markets ($M=4.48$, $S.D =0.765$), highlighting an awareness of food safety risks. However, familiarity with vendors who follow hygiene practices, such as covering their heads ($M=3.74$, $S.D =1.069$) and wearing gloves ($M=3.96$, $S.D =0.974$), was relatively lower. This indicates that while consumers value hygiene, they may still prioritize familiarity and trust in vendors over strict adherence to food safety practices. These findings are somewhat in line with Rheinländer et al.

(2008), who found that many consumers rely more on visual cues such as food appearance and trust in the vendor rather than food safety when choosing street food. Price and accessibility were also key factors in their decision-making process. Similarly, a study in Malaysia by Gindi et al. (2016) highlighted that food handlers' hygiene practices influence consumer choices, which aligns with the current findings that consumers do consider hygiene. Likewise, Mohammed & Shehasen (2020) found that consumers recognize the health risks of street food, including food poisoning and contamination due to poor hygiene, reinforcing the idea that awareness exists but may not always dictate purchasing behaviour. However, current results suggest that familiarity with the vendor may sometimes take preference over strict adherence to food safety practices. This is perhaps because of the of socio-demographic profiles differences make the results not linked with the supported studies. Figure 4.4 builds on the findings from Table 4.5 by visually illustrating the impact of familiarity on consumer purchasing behaviour.

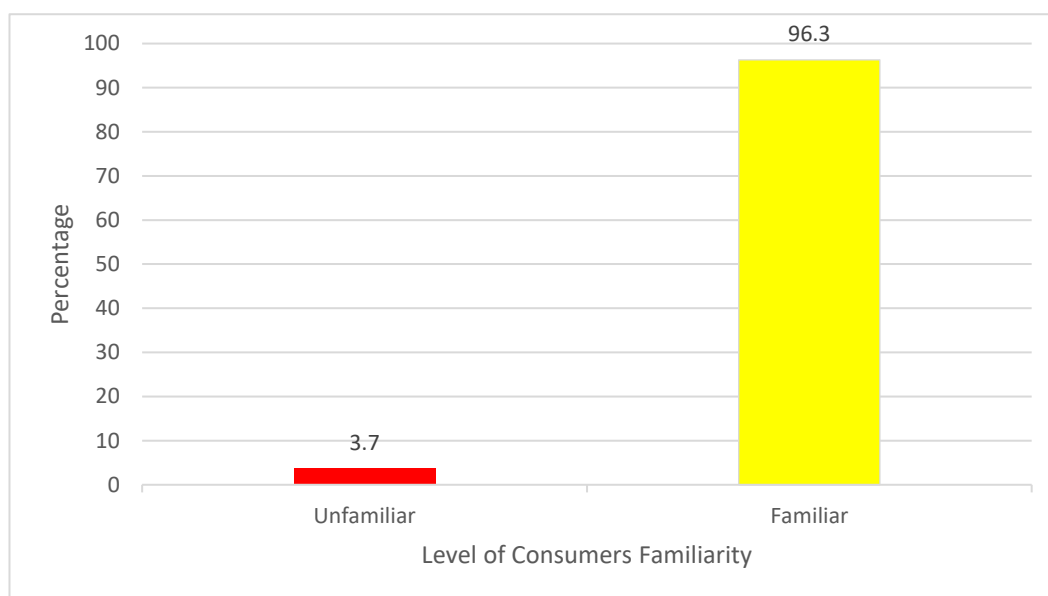


Figure 4.4 Level of Consumers Familiarity

Figure 4.4 indicates that 96.3% of consumers shows familiarity influenced their purchase behaviour, while only 3.7% express that familiarity does not influence their purchase behaviour. This align with Liu et al. (2021) where the study was conducted in China night market, demonstrating that familiarity with the environment significantly impacts consumer attitudes and buying intentions. Their findings support

the results of this study, indicating that consumers who are more familiar with a setting are more likely to make purchases due to increased comfort and confidence in their choices. Familiarity is often linked to positive consumer experiences and purchase behavior across varied contexts, indicating that it can considerably reduce perceived risks associated with purchasing decisions (Das, 2018). Familiarity is really important in Asian cultures because community connections influence how people make buying decisions. In group-oriented societies like in Asia, knowing a vendor personally doesn't just build relationships it also helps create a sense of belonging and shared identity among consumers. (Jiang & Kassoh, 2022).

In Terengganu, a state that recognized for its vibrant night markets, this sense of familiarity encompasses broader social networks and cultural practices. Night markets serve as communal spaces where local traditions, food, and crafts converge fostering an environment conducive to participation and social interaction (Salleh et al., 2012). The development of rapport is particularly relevant, as familiarity breeds trust, enabling vendors to build relationships with regular customers and thereby influence purchasing decisions. Trust plays a vital role in encouraging various consumer behaviors, especially in markets characterized by substantial personal interaction, where sellers often depend on personal relationships with customers to drive sales (Dwilestari & Erdiansyah, 2023).

Moreover, the idea of "local iconness" plays an important role in consumer behaviour. According to Özsomer (2012), local iconness enhances how consumers perceive the value of local brands because these brands are not just products they are tied to cultural narratives and shared experiences. People tend to associate them with authenticity, tradition, and even social status. For example, in Terengganu, famous local foods like keropok lekor or traditional crafts like batik hold cultural significance. Consumers do not just buy them for their practicality; they buy them because they represent local identity and traditions. This emotional and cultural connection fosters brand loyalty, making people more likely to keep purchasing these products, especially in places like night markets where local culture is celebrated (Watanabe et al., 2019).

4.3.5 Consumers' Purchase Intention

Consumers' purchase intention in night market are presented in table 4.6.

Table 4.6 Consumers' purchase intention

No.	Question	Yes, n (%)	No, n (%)
1	Would you choose to buy from a seller wearing gloves?	136(83.4)	27(16.5)
2	Would you buy food if the night market food handler does not wear a hat or head covering?	44(27)	119(73)
3	Would you buy food from a night market vendor who maintains hand hygiene?	136(83.4)	27(16.1)
4	Would you buy food from a night market vendor wearing an apron?	44(27)	119(73)
5	Would you buy food if the night market food handler wears a face mask?	158(96.9)	5(3.1)
6	Would you buy food from a night market vendor who maintains packaging quality?	151(92.6))	12(7.3)
7	Would you buy food from a night market vendor who demonstrates food preparation methods?	145(89)	18(11)
8	Would you buy food at an unclean food stall?	153(93.9)	10(6.1)
9	Would you buy food if you saw a night market vendor tasting food with their fingers or palms?	141(86.5)	22(13.5)
10	Would you buy food from a night market vendor who uses different cutting boards?	14(8.6)	149(91.4)
11	Would you buy food from a night market vendor who wears nail polish?	13(8)	150(92)
12	Would you buy food from a night market vendor who touches food without gloves?	142(87.1)	21(12.9)
13	Would you buy food from a night market vendor who eats and drinks at the workplace?	11(6.7)	152(93.2)

14	Would you buy food from a night market vendor who prepares food too early?	15(9.2)	148(90.8)
-----------	--	---------	-----------

Table 4.6 shows how various hygiene-related factors influenced purchase intention. The majority of respondents (83.4%) stated they would choose to buy from vendors who wear gloves, while an even higher percentage (96.9%) preferred vendors who wear face masks. Similarly, 92.6% of respondents emphasized the importance of packaging quality, indicating that clean and secure food packaging plays a major role in consumer decision-making. In contrast, hygiene-related concerns strongly discouraged purchases. 73% of respondents stated they would not buy food from a vendor who does not wear a hat or apron, suggesting that physical appearance and hygiene influence trust in food safety. Additionally, 93.9% refused to buy from an unclean food stall, and 86.5% rejected vendors who taste food with their fingers or palms, reinforcing the importance of cleanliness in consumer decisions. Interestingly, 91.4% of respondents were unwilling to purchase food from vendors using the same cutting board for different foods, showing strong consumer awareness of cross-contamination risks. Furthermore, 92% of respondents refused to buy from vendors wearing nail polish, possibly due to concerns over chemical contamination or hygiene standards.

The findings clearly show that hygiene plays a major role in consumers' food purchasing decisions. People tend to trust and prefer vendors who follow proper hygiene practices, while those who appear unhygienic are often avoided. This strong awareness of food safety, especially regarding cross-contamination and personal hygiene, suggests that vendors need to maintain high hygiene standards to gain consumer trust and sustain their business. These results are consistent with previous studies, where food cleanliness and safety practices were found to positively influence purchasing decisions (Azrol et al., 2023; Cui et al., 2019). Similarly, Ratasuk (2023) also found that food hygiene had a significant impact on consumers in Bangkok when choosing to buy street food. On the other hand, a study from Indonesia found that while consumers there understand the importance of food safety and making healthy food choices, they tend to underestimate the actual safety of the food they buy (Zulmi &

Suzianti, 2021). The difference in findings between studies could be due to variations in how purchase intention was measured. For example, Zulmi and Suzianti (2021) used a Likert scale, which allows for a range of responses, while the current study used a dichotomous scale (yes/no) for purchase intention questions. This difference in measurement tools could have influenced how consumers expressed their views on food safety, leading to variations in results.

Figure 4.5 builds on the findings from Table 4.6 by providing a visual representation of how food safety practices influence consumer purchase intention. While Table 4.6 details specific hygiene-related factors that encourage or discourage purchases, Figure 4.5 offers an overall perspective.

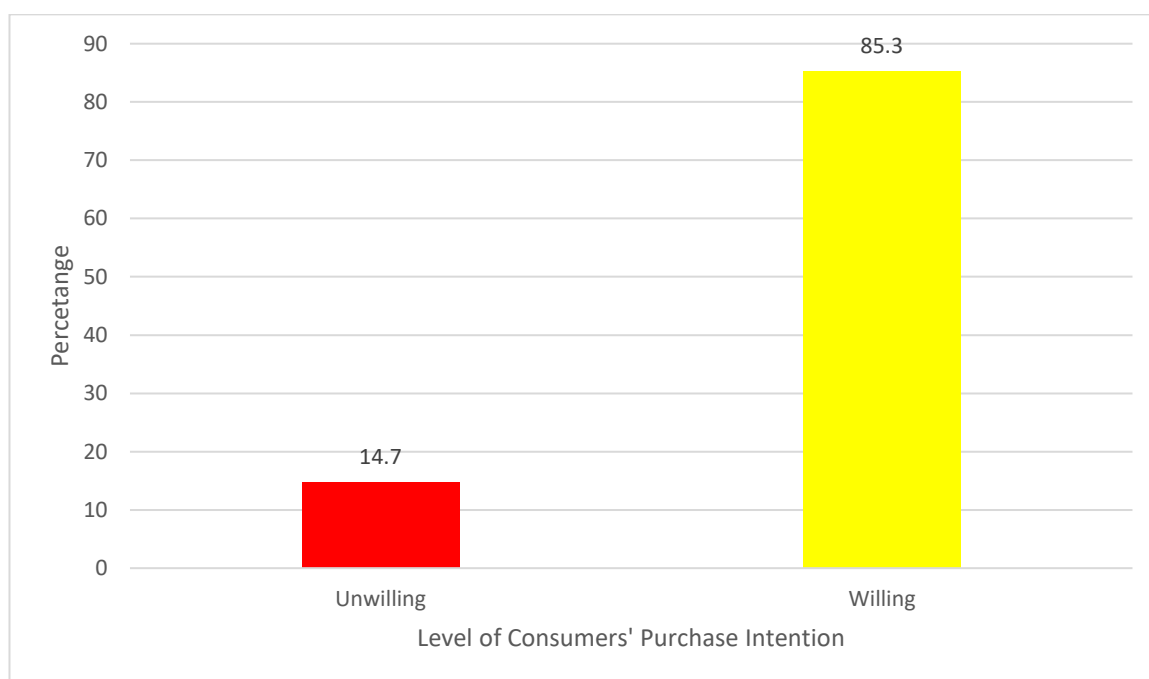


Figure 4.5 Level of Consumers' Purchase Intention

Figure 4.5 indicates that 85.3 of consumers shows willingness to buy food based on the night market food safety practices while only 14.7% shows the opposite. The findings show majority of the consumers put the role of food safety as priority factor when buying food from the night market. This is supported by a study from Korea, which suggests that consumers prioritize food safety as a proactive measure to prevent food safety incidents, highlighting a strong connection between perceived safety and purchase intention (Kyung et al., 2023). Moreover, it also aligns with a

study that focused on consumer knowledge and perceptions around food safety such as those by Wu et al. (2016) who reveal that seriousness of consumer awareness regarding food quality and safety attributes can lead to increased willingness to purchase food with well-documented safety measures. Yu et al. (2022) further explain that when consumers are more aware of food quality and safety, they are more likely to consider these factors when deciding what to buy. This shows that food safety plays an important role in how people judge food products.

Feng et al. (2023) add to this discussion by showing that how consumers perceive food safety can be influenced by a country's image, especially during food safety incidents. This means that people who prioritize food safety may change their buying decisions depending on their level of trust in how food safety is managed in different situations. Similarly, Lee (2020) highlights that consumers who are more knowledgeable about food safety tend to have greater trust in food policies and feel more satisfied with overall food safety. Thus, encourages them to choose safer food products. Findings from various studies strongly support the idea that food safety plays a key role in consumer purchasing decisions at night markets. Increasing consumer awareness about food safety practices has been shown to make people more conscious and more likely to buy from vendors who follow proper hygiene standards (Lee, 2020). Therefore, providing proper education on food safety could be essential in helping consumers make better choices and feel more confident when buying food.

4.4 Association between gender and study variables

Association between gender and study variables are presented in table 4.7

Table 4.7 Association between gender and study variables

Variables	Gender (n)		p-value	X ²	Cramer's V
	Male	Female			
Consumers food safety knowledge					
Poor	4	0	0.001	11.814	0.269
Good	38	121			

Consumers food safety attitude						
Negative	5	12	0.754	0.098	0.025	
Positive	37	106				
Consumers' perception towards food handlers' hygiene practices						
Negative	2	4	0.666	0.186	0.034	
positive	40	117				
Business familiarity						
Not familiar	2	4	0.666	0.186	0.034	
Familiar	40	117				
Purchase Intention						
Unwilling to buy	12	12	0.003	8.641	0.230	
Willing to buy	30	109				

The association between gender and various study variables related to food safety is presented clearly in table 4.7. It reveals that there is a significant association in food safety knowledge based on gender, where 38 males demonstrated good knowledge compared to all 121 females, leading to a p-value = 0.001, which indicates a significant association with a moderate effect size (Cramer's $V = 0.269$). This suggests that females tend to have a higher level of food safety knowledge compared to males. This finding is consistent with previous studies (Yu et al., 2017; Ruby et al., 2019) that have highlighted women's greater concern for food safety, often attributed to their traditional roles in food preparation and household nutrition. Studies show that women tend to be more aware of food safety issues, likely because they are often responsible for food preparation and meal planning in many cultures (Alphonse et al., 2014). This study emphasizes this notion, suggesting that gender-targeted interventions may be beneficial in enhancing food safety knowledge among male consumers.

In various studies, women have been shown to score higher in food safety knowledge compared to men, as they typically assume the primary roles in food handling and preparation in many cultural contexts (Naeem et al., 2018; Mohammed et al., 2023; Babor et al., 2024). This gender dynamic underlines why women may be more motivated to engage with food safety surveys as they possess an interest in the

health implications of their food handling practices and the well-being of their families (Ayaz et al., 2018; Almanasrah et al., 2022).

A well-rounded approach is necessary to improve food safety knowledge among men. Educational campaigns designed specifically for men, taking into account their unique behaviours and attitudes toward food safety, can help close the awareness gap. Studies suggest that while both men and women are equally willing to support food safety improvements at a societal level, women tend to prioritize food safety more for personal protection when dining (Alphonse et al., 2014). Public health efforts could benefit from involving male role models or influencers in food safety campaigns to encourage greater male engagement (Soon et al., 2020). Additionally, creating opportunities for men to participate more in household food preparation could have a positive impact. Research indicates that when men take on active roles in food handling, overall hygiene and food safety standards in the home tend to improve significantly (Pauzi et al., 2024).

Furthermore, past research has consistently shown the impact of age, education, and employment status on food safety knowledge (Moy et al., 2018; Aifaa, 2023; Catedral, 2018). Younger consumers often exhibit lower awareness due to limited exposure to food safety education and a focus on convenience (Catedral, 2018). Higher education levels are generally associated with greater awareness of food safety risks, while individuals in food service or health-related industries tend to have a better understanding of hygiene standards (Aifaa, 2023). While our study did not directly assess these factors as its primary objective was to examine the association between gender and race with food safety knowledge. The existing literature provides a valuable context for understanding the diverse levels of food safety knowledge within the night market consumer population.

In terms of food safety attitudes, both genders exhibited predominantly positive attitudes towards food safety practices. However, the association was not significant ($p=0.754$), indicating that both males and females value food safety similarly. This finding somewhat contrasts with studies that suggest women exhibit greater concern for food safety attitude (Yu et al., 2017; Ruby et al., 2019). This potentially shaped by different cultural dynamics and street food consumption habits, this factor plays a crucial role. For example, the communal atmosphere of night markets may encourage

a shared awareness of food safety, regardless of gender. However, it's important to note that while the level of concern might differ, both genders can still hold positive attitudes towards food safety practices. This indicates a general awareness and appreciation for food safety, which can be leveraged in public health campaigns. Other demographic factors, such as ethnicity and cultural background, are known to shape attitudes toward food safety (Rajkumar et al., 2021). Cultural beliefs, religious dietary laws, and historical experiences can influence the level of concern and the criteria used to assess food vendor hygiene.

The perception of hygiene practices also showed no association between genders ($p=0.666$), with males slightly more inclined towards a positive perception. This aligns with study from Bosnia which indicates that there also no association between food safety practices with both gender (Azabagić & Mokayes (2024). In contrast, study by Dosman et al. (2001) indicates that there is relationship between gender and food safety practice which differ with current findings. The differences in findings between this study and previous research may be attributed to the analytical methods used. Prior studies by Dosman et al. (2001) employed regression analysis, which allows for controlling confounding variables and provides a more detailed understanding of the relationships between factors. In contrast, this study utilized the chi-square test, which examines associations between categorical variables but does not account for potential influencing factors. This difference in methodological approach may have contributed to the variations in results

However, past studies emphasize the influence of education level, ethnicity, income, and external factors like the COVID-19 pandemic on these perceptions (Lee et al., 2017; Rajkumar et al., 2021; Ramli & Jamri, 2021). Highly educated consumers tend to be more critical, focusing on handwashing, glove use, and cross-contamination prevention. The COVID-19 pandemic has also heightened hygiene awareness across all income groups. This suggests the need for vendors to prioritize and visibly demonstrate adherence to hygiene protocols to build trust and cater to increasingly discerning consumers.

Regarding business familiarity, there were no association with similar levels of familiarity reported by both genders ($p=0.666$). Existing research suggests that business familiarity is built through age, repeat visits, and cultural background

(Hameed & Kanwal, 2018; Yeap et al., 2019; Melewar et al., 2017). Older consumers and frequent visitors often develop strong relationships with vendors, leading to greater trust. Traditional street food vendors with long-standing reputations benefit from associations with authenticity and cultural heritage. These factors contribute to consumer confidence, even in the absence of formal hygiene certifications, highlighting the importance of trust-building strategies for vendors (Shafieizadeh et al., 2023).

Lastly, when it comes to purchase intention, an outstanding association was observed that 30 female respondents expressed a willingness to buy food. In contrast to only 12 males, with a significant p-value = 0.003. This indicates that females are more inclined to make purchases based on their knowledge and perceptions of food safety practices. This aligns with Ruby et al. (2019), who found that women tend to exhibit higher food safety concerns and are more hesitant to purchase from vendors with poor hygiene practices. The findings suggest that female consumers in night markets prioritize food safety when making purchasing decisions. However, purchase intention is not solely driven by knowledge. Familiarity with a business is a key factor in increasing purchase intention (Hameed & Kanwal, (2018). Consumers who recognize a vendor and have a positive past experience are more likely to trust their food safety standards. Furthermore, Yeap et al. (2019) found that cultural and emotional attachments to a specific night market or food destination can drive purchase decisions, even overriding concerns about hygiene.

4.5 Association between race and study variables

Association between race and study variables are presented in table 4.8.

Table 4.8 Association between race and study variables

Variables	Education level (n)		p-value	X ²	Cramer's V
	Malay	Non malay			
Consumers food safety knowledge					
Poor	4	0	0.748	0.103	0.025
Good	155	4			

Consumers' food safety attitude						
	Negative	15	2	0.010	6.698	0.205
	Positive	141	2			
Consumers' perception towards food handlers' hygiene practices						
	Negative	6	0	0.692	0.157	0.031
	positive	153	4			
Business familiarity						
	Not familiar	5	1	0.022	5.257	0.180
	Familiar	154	3			
Purchase Intention						
	Unwilling to buy	22	2	0.044	4.064	0.158
	Willing to buy	137	2			

The study examined food safety knowledge among different racial groups and found some remarkable results. Both Malay and non-Malay participants showed similar levels of understanding about basic food safety practices, as indicated by a p-value = 0.748, meaning there wasn't a significant difference in their knowledge. This suggests a baseline understanding of food safety principles across both groups. However, it's crucial to note the limitations of this measure. As Catedral (2018) points out, individuals working in food service or health-related industries typically possess greater food safety knowledge due to formal training.

However, when it came to attitudes, a much larger number of Malays (141 out of 143) had a positive view towards food safety practices, compared to only 2 non-Malays, with a significant difference highlighted by a p-value = 0.010. This suggests that Malays may place a higher value on food safety, potentially due to cultural influences. Moreover, food safety may be a more relevant value within the Malay community in our study sample. While Rajkumar et al. (2021) broadly emphasize that ethnicity and cultural background shape food safety attitudes, the findings indicate a particularly pronounced emphasis on food safety within the Malay group. This may be rooted in cultural beliefs, religious dietary laws, or historical experiences with

foodborne illnesses. Further qualitative research is needed to unpack these underlying influences.

This study found no significant racial differences in perceptions of food handler hygiene ($p = 0.692$). While both groups may generally agree on what constitutes "good hygiene," it's possible that their levels of inspection or the specific behaviors they prioritize may differ. Lee et al. (2017) found that many night market vendors lack adequate knowledge of foodborne pathogens, which could lead to poor food handling practices that might be overlooked by some consumers. It's also worth noting that the COVID-19 pandemic has heightened hygiene awareness among consumers (Ramli & Jamri, 2021), but the extent to which this has impacted different racial groups may vary.

Additionally, in terms of familiarity with food safety rules, a notable 154 Malays reported being aware of these practices, while only 3 non-Malays did, resulting in a significant finding ($p\text{-value} = 0.022$). This may suggest stronger ties to local vendors, greater participation in community events centred around food, or a longer history of patronage at night markets among Malay consumers. Hameed and Kanwal (2018) and Yeap et al (2019) have noted the importance of long-term customer-vendor relationships, but our findings suggest that these relationships may be particularly strong within the Malay community.

When it comes to purchasing food, 137 Malays indicated they would buy from sellers they believe follow good food safety practices, while only 2 non-Malays felt the same, further emphasizing a significant difference with a $p\text{-value} = 0.044$. Overall, while both groups possess similar knowledge about food safety, Malays exhibit more positive attitudes and a greater awareness of food safety practices, which consequently shapes their food purchasing decisions.

4.6 Association between Independent variable and business familiarity

Association between Independent variable and business familiarity presented in table 4.9.

Table 4.9 Association between Independent variable and business familiarity

Variables	Business familiarity (n)		p-value	X ²	Cramer's V
	Not familiar	familiar			
Consumers' food safety knowledge					
Poor	0	4	0.692	0.157	0.031
Good	6	153			
Consumers' food safety attitude					
Negative	5	12	0.000	34.704	0.466
Positive	1	142			
Consumers' perception towards food handlers' hygiene practices					
Negative	4	2	0.000	69.702	0.654
positive	2	155			

The analysis examining the association between independent variables and business familiarity revealed several significant insights regarding consumers' understanding and perceptions of food safety. Particularly, while the results indicated that the majority of consumers with good food safety knowledge reported familiarity with safety practices (p-value = 0.692), the association was not statistically significant for those with poor knowledge, as only a few were categorized as familiar. This aligns with previous studies Khairuzzaman et al. (2014) revealed that consumers with higher food safety knowledge are more likely to scrutinize vendor practices. Similarly, Yu et al. (2022) found that consumers' knowledge and handling practices related to food safety significantly affect their purchasing decisions, particularly in environments where food safety risks are perceived to be higher such as night market. This suggests that consumers who are more familiar with a vendor's practices may exhibit greater confidence in the safety of the food being offered, thereby increasing their likelihood of patronage markets (Yu et al., 2022). However, the findings suggest that simply having knowledge does not guarantee familiarity with specific businesses or practices, particularly among those with less developed food safety understanding.

This highlights the need for more effective communication strategies to bridge the gap between general food safety awareness and specific business practices.

In contrast, a strong association emerged between food safety attitudes and business familiarity. Where 142 out of 153 familiar respondents exhibited positive attitudes, indicating that those who value food safety are more likely to be aware and familiar with related practices ($p\text{-value} = 0.000$, Cramer's $V = 0.466$). Roy's (2023) supports this by indicating that familiarity with food safety authorities contributes to higher food safety knowledge and subsequently have more positive attitudes toward hygiene practices. This reinforces the idea that consumers who value food safety are more proactive in seeking out and becoming familiar with businesses that share those values. Moreover, Setiyorini et al. (2019) also support the findings when they found that while food image positively influences purchasing intentions, dimensions such as food safety and health benefits did not show significant impact on behavioral intentions in their study. This highlights a potential disconnect between consumers' perceptions of food safety and their actual purchasing behaviors, which could be influenced by their familiarity with the vendors and the overall market environment. This suggests that businesses which prioritizing and communicating their food safety measures are likely to attract and retain customers who are already inclined to valuing those efforts.

Additionally, consumers' perceptions of food handlers' hygiene practices were significantly linked to their business familiarity with only 2 respondents indicating a negative perception among those familiar, emphasizing that a positive view on hygiene practices greatly correlates with familiarity ($p\text{-value} = 0.000$, Cramer's $V = 0.654$). This repeats the findings of Fatimah et al. (2011), who noted that observable hygiene measures (cleanliness, sanitary handling) strongly influence consumer perception. The results strengthen this by suggesting that consumers who are already familiar with a business are more likely to perceive their hygiene practices positively. For instance, when consumers have positive experiences regarding the cleanliness and hygiene practices of a vendor, they are more likely to return and recommend the stall to others, thereby reinforcing a cycle of trust and familiarity (Verdú et al., 2021). However, it is crucial to acknowledge the potential of familiarity to breed satisfaction. While positive

perceptions associate with familiarity, consumers might sometimes overlook potential hygiene issues due to established trust (Yu et al., 2022). This underscores the importance of continuous reinforcement of food safety practices by vendors, regardless of how familiar customers are with them.

4.7 Association between independent variables and business familiarity towards purchase intention

Data of association between independent variables and business familiarity towards purchase intention are presented in table 4.10.

Table 4.10 Association between independent variables and business familiarity towards purchase intention

Variables	Purchase Intention (n)		p-value	X ²	Cramer's V
	Unwilling to buy	Willing to buy			
Consumers food safety knowledge					
Poor	3	1	0.001	11.866	0.270
Good	21	138			
Consumers food safety attitude					
Negative	7	10	0.001	10.222	0.253
Positive	17	126			
Consumers' perception towards food handlers' hygiene practices					
Negative	5	1	0.000	25.641	0.379
positive	19	138			
Business familiarity					
Not familiar	5	1	0.000	23.354	0.379
Familiar	19	138			

The association between various study variables and purchase intention revealed significant insights into consumer behavior. The analysis showed that consumers' food safety knowledge played a crucial role in their intention to purchase; those with good food safety knowledge were more willing to buy food, as indicated by

a p-value of 0.001 and a Cramer's V of 0.270, suggesting a strong association. This supports previous studies (Sun et al., 2012; Catedral, 2018) that suggest knowledgeable consumers are more discerning, actively seeking vendors who demonstrate safe food handling practices. As Catedral (2018) notes, night markets due to their open-air nature and potential for inconsistent hygiene can be perceived as high-risk environments. The heightened awareness of foodborne illnesses, particularly amplified during events like the COVID-19 pandemic (Latip et al., 2021), likely reinforces this behavior, leading consumers to prioritize safety.

Additionally, the relationship between food safety knowledge and purchase intentions is not merely linear; it is influenced by various factors including consumer trust, perceived risk, and the credibility of information sources. For example, consumers often rely on their own experiences and the reputation of vendors when assessing food safety (Ha et al., 2020). This indicates that while knowledge is crucial, the context in which it is applied such as the trustworthiness of vendors and the perceived safety of the food environment also plays a significant role in shaping purchase intentions.

Similarly, consumers who held a positive attitude towards food safety were also more likely to express a willingness to buy food, with this association also being statistically significant (p-value of 0.001, Cramer's V of 0.253). This aligns with study from Vietnam where they found that consumers' attitude towards food safety positively affect their purchase intention (Nguyen et al., 2019). Similarly, Czernyszewicz (2023) concurs that attitudes towards food safety significantly influence consumer behaviors, suggesting a positive correlation between knowledge and attitudes in food-related decisions.

Consumer attitudes toward food safety play a crucial role in shaping their purchasing behaviors. Individuals with strong positive attitudes toward food safety are more likely to trust and buy from vendors they perceive as hygienic and responsible (Soon et al., 2020; Chen, 2013). Trust also emerges as a key factor in this relationship when consumers believe that vendors and authorities uphold food safety standards, they feel more confident making purchases (Chang & Wong, 2015; Wang et al., 2021).

Conversely, low trust in food safety regulations or vendor practices can deter consumers from purchasing, even if the food appears appealing.

Furthermore, perceptions of food handlers' hygiene practices significantly influenced purchase intentions. Those who had a positive perception were more inclined to purchase, evidenced by a $p\text{-value} = 0.000$ and a Cramer's $V = 0.379$, indicating a very strong association. This aligns with Ma'mun et al. (2019) and Verdú et al. (2021), who highlight the importance of cleanliness, proper attire, and safe handling techniques in building consumer trust. This is also aligned with Miftari et al. (2024) who indicated that consumers who are most concerned about food hygiene tend to exhibit higher purchasing behaviours aligned with food safety, suggesting a tendency towards positive attitudes in their consumption choices. As Abdi et al. (2020) and Sun et al. (2012) suggest, well-trained food handlers are perceived as more hygienic further boosting consumer confidence. The physical environment of night markets, as noted by Catedral (2018), can worsen concerns making visible hygiene practices even more critical. Consumers' awareness of food safety issues, including the hygiene practices of food handlers significantly influenced their purchasing decisions (Aung et al., 2023). This is consistent with findings from Joo et al. (2015) who noted that consumers are more likely to purchase food from vendors they perceive as maintaining high hygiene standards. The perception of risk associated with food safety is critical as consumers become more aware of potential foodborne illnesses, their willingness to purchase from vendors with questionable hygiene practices diminishes (Seo & Lee, 2021).

Lastly, familiarity also impacted purchasing behavior, where participants who were familiar with these practices showed a greater willingness to buy food ($p\text{-value} = 0.000$, Cramer's $V = 0.379$). Wang et al. (2021) and Li (2024) suggest that consumers tend to favor vendors they recognize and trust, with familiarity fostering a sense of reliability. The landscape of consumer familiarity with food safety risks when making food purchases is shaped by several interrelated factors including awareness of food safety issues, perceived risk, and the influence of food marketing and communication strategies. Studies indicate that consumers who demonstrate heightened awareness and concern for food hygiene exhibit more discerning buying behaviors, such as

prioritizing the nutritional content and health risks associated with their food choices (Miftari et al., 2024). This relationship has been mirrored in various analyses which highlight how food safety perceptions influence consumer behavior, particularly in the context of urban versus rural differences in risk awareness (Le et al., 2022). Consumer willingness to purchase food products is closely linked to their trust in food quality and safety, a concept underpinned by the notion of informational asymmetry between producers and consumers (Ge & Zhao, 2023). When consumers perceive that the food they are considering is potentially unsafe, they are less inclined to purchase it. This underscores the necessity for producers to engage transparently with consumers, fostering better communication and reassurances about food safety to cultivate a positive purchasing mindset (Zhao-Hui et al., 2020)

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Preamble

This chapter contain the summary of findings for this study. The research objectives are compared with the findings to ensure the achievement of the research objectives throughout this study. Furthermore, it also contains the limitation and recommendation to broaden the scope of the study in the future. Lastly, managerial and theoretical implications also include to show the benefits obtain from this study findings.

5.2 Summary of findings

This study examined consumers' food safety knowledge, attitudes, perceptions of food handlers' hygiene practices, business familiarity, and purchase intention in night markets. The descriptive findings indicate that consumers generally possess adequate food safety knowledge, with 97.5% correctly identifying proper food storage and handling techniques. Almost all respondents (99.4%) understood the importance of washing hands before handling food. However, significant misconceptions were observed, with 82.3% of consumers mistakenly believe that smoking among food handlers is acceptable and 100% incorrectly considering newspapers as suitable food packaging material. Additionally, only 44.8% recognized that freezing food does not eliminate all bacteria, and only 4.3% correctly identified that appearance, smell, and taste are not always reliable indicators of food spoilage. These findings highlight the need for targeted education to correct common food safety misconceptions.

In relation to Research Objective 1 (RO1) examines the association between demographic factors and study variables. The findings reveal that while consumers generally exhibited strong food safety knowledge, misconceptions remain regarding indirect contamination risks, food packaging materials, and freezing effectiveness. Gender differences were observed, with females demonstrating higher knowledge levels than males, while racial differences associated with food safety attitudes and business familiarity. Since significant associations were found for some demographic factors, RO1 is partially achieved, but gaps in awareness suggest the need for further education programs.

Regarding Research Objective 2 (RO2) explores the relationship between food safety knowledge, attitudes, and perceptions of hygiene with business familiarity. The study found that positive food safety attitudes and perceptions of food handlers' hygiene practices were significantly associated with vendor familiarity. Consumers who prioritized hygiene and food safety were more likely to be familiar with vendors who demonstrated high cleanliness standards. However, food safety knowledge alone was not a strong predictor of familiarity, suggesting that trust and past interactions play a more critical role in vendor selection. Since significant associations were found for attitudes and perceptions, RO2 is largely achieved, though further efforts are needed to enhance the role of food safety knowledge in vendor familiarity.

Research Objective 3 (RO3) which investigates the influence of food safety knowledge, attitudes, perceptions, and business familiarity on purchase intention revealed that consumers preferred to buy from vendors who adhered to strict hygiene standards, such as wearing gloves and maintaining clean workspaces. Familiarity also played a significant role in consumers purchase intention, as consumers tended to trust vendors they knew, sometimes even overlooking hygiene lapses. These findings underscore the importance of maintaining visible hygiene standards and strengthening consumer trust through transparency and adherence to food safety regulations. Since all variables were found to significantly influence purchase intention, RO3 is fully achieved.

Overall, the study demonstrates that although consumers place importance on food safety, there are still gaps in knowledge, attitudes, and trust towards vendors.

Therefore, ongoing education initiatives, stricter enforcement of hygiene regulations, and targeted awareness campaigns are essential to improve consumer confidence and promote safer food consumption practices in night markets.

5.3 Limitation of the study

Despite providing valuable insights into consumer behaviour, food safety awareness, and purchasing intentions in night markets, this study has several limitations that should be acknowledged. First, the study relied on self-reported data which may be subject to social desirability bias. Participants might have provided responses that reflect what they believe is socially acceptable rather than their actual behaviours and perceptions regarding food safety. Future research could incorporate observational methods or experimental designs to validate self-reported responses with actual consumer behaviours.

Second, the study focused on a specific geographical area and demographic group which may limit the scope of the findings. Consumer attitudes and behaviours toward food safety may vary across different cultural, socioeconomic, and environmental contexts. Future research could expand the scope to include diverse populations and different types of food establishments (e.g., restaurants, food trucks, and supermarkets) to gain a more comprehensive understanding of food safety perceptions and purchasing behaviours.

Third, the study primarily examined associations and correlations but did not establish causal relationships. While significant associations were found between food safety knowledge, attitudes, perceptions, business familiarity, and purchase intention, it remains unclear whether one variable directly influences another. Longitudinal studies or experimental designs could help establish causality and better understand how changes in food safety knowledge or vendor hygiene practices impact consumer behaviour over time.

Additionally, external factors such as media influence, food safety scandals and government regulations were not explicitly measured in this study. These factors may shape consumer risk perceptions and trust in vendors, influencing their willingness to purchase food in night markets. Future research could explore how policy changes, food safety campaigns, or publicized foodborne illness outbreaks affect consumer trust and purchasing decisions.

Lastly, the study did not assess the perspectives of food vendors, whose knowledge, attitudes, and compliance with food safety regulations play a crucial role in ensuring hygiene standards. Future research could incorporate vendor perspectives, exploring barriers to food safety compliance, challenges in maintaining hygiene, and their perceptions of consumer expectations. Understanding both consumer and vendor perspectives would provide a more holistic view of food safety challenges in night markets.

Despite these limitations, the study provides important contributions to understanding consumer perceptions and behaviours related to food safety in night markets. By addressing these limitations in future research, scholars and policymakers can develop more effective interventions, policies, and educational programs to improve food safety awareness and hygiene practices in informal food sectors.

5.4 Recommendation for Future Study

Based on the limitations of this study, several recommendations are proposed to improve future research and enhance food safety practices in night markets. To minimize social desirability bias in consumer responses, future studies should incorporate observational methods or experimental designs to validate self-reported data. Techniques such as mystery shopper studies or direct observation of consumer and vendor behaviours can provide more objective insights into actual food safety practices and purchasing decisions rather than relying solely on survey responses. Additionally, expanding the study to different locations and demographics is crucial to improving generalizability. Future research should consider diverse geographic

locations, including urban and rural areas, as well as various cultural and socioeconomic backgrounds to capture a broader understanding of food safety perceptions and purchasing behaviours across different consumer segments.

Furthermore, since this study identified associations but not causal relationships, future research should implement longitudinal studies or controlled experimental designs to establish causal effects. By tracking changes in food safety awareness, attitudes, and purchasing decisions over time, or introducing interventions such as food safety campaigns, researchers can better determine whether improved awareness leads to actual behavioural changes. Another important factor to consider is the influence of external factors such as media coverage, food safety scandals, and policy changes. Publicized foodborne illness outbreaks, new government regulations, or hygiene certification programs can significantly shape consumer trust and purchasing behaviour. Therefore, future studies should explore how these external factors impact food safety perceptions, which can help policymakers develop more effective food safety policies and communication strategies.

As food handlers play a crucial role in ensuring food safety, future research should also incorporate vendor perspectives to better understand their knowledge, attitudes, and challenges in complying with food safety regulations. This can help regulatory authorities design better training programs, provide necessary resources and introduce incentives to improve vendor compliance with hygiene standards. By addressing these limitations, future research can offer more comprehensive and actionable insights into consumer behaviour and food safety perceptions. Additionally, policymakers, public health authorities, and food vendors can implement targeted strategies to improve hygiene practices, build consumer trust, and ensure safer food consumption in night markets.

5.5 Managerial and theoretical implication

The findings of this study offer valuable managerial implications for policymakers, public health authorities and food vendors in improving food safety

practices and consumer trust in night markets. Given that perceptions of hygiene and business familiarity significantly influence purchase intention, policymakers should focus on strengthening food safety regulations, enforcing hygiene standards and introducing certification programs to enhance vendor compliance and transparency. Public awareness campaigns aimed at educating consumers on food safety risks can further support informed purchasing decisions. Additionally, food vendors must recognize that visible hygiene practices, such as proper food handling, clean workspaces, and compliance with safety protocols, are crucial for attracting and retaining customers. Since business familiarity fosters trust, vendors should maintain consistent hygiene practices and engage transparently with consumers to reinforce their credibility. Furthermore, policymakers can collaborate with vendors by providing training programs and financial incentives to help them meet hygiene requirements without significant economic burden. By implementing these strategies, both regulators and vendors can enhance consumer confidence, improve food safety compliance, and ensure long-term sustainability for businesses in night markets.

From a theoretical perspective, this study makes a significant contribution to the expanding body of research on consumer behavior, food safety awareness, and trust in vendor practices. The findings confirm that consumer trust and familiarity with vendors are critical factors shaping purchase decisions, extending previous research that primarily focused on food safety knowledge and attitudes as key determinants. The study refines existing food safety perception models by demonstrating that perceived hygiene has a stronger influence on purchasing behavior than knowledge alone, suggesting that consumer risk assessment is more strongly based on observed cleanliness than theoretical awareness of foodborne illnesses. This aligns with the KAP (Knowledge-Attitude-Perception) theory, which posits that perceptions play a critical role in shaping attitudes and behaviors. Additionally, this study bridges a gap in the literature by integrating business familiarity as a key moderating factor, highlighting how long-term consumer-vendor relationships can influence trust and risk perception in food safety settings. By offering empirical evidence on the interaction between hygiene perceptions, familiarity, and purchase intention, this research provides a foundation for future studies to explore consumer

decision-making in informal food markets, as well as strategies to improve food safety education and policy effectiveness.

REFERENCES

- Ab, W. N. A. B. W., Putera, S. S. P. A. S., & Jalil, A. A. A. (2023). Health Benefits of Honey: Knowledge, Attitude and Perception (KAP) Among the Community in Malaysia. *Asian Journal of Medicine & Health Sciences*, 6(1), 61-71. <https://ejournal.unikl.edu.my/index.php/ajmhs/article/view/163>
- Abdi, A. M., Amano, A., Abraham, A., Getahun, M., Ababor, S., & Kumie, A. (2020). Food Hygiene Practices and Associated Factors Among Food Handlers Working in Food Establishments in The Bole Sub City, Addis Ababa, Ethiopia. *Risk management and healthcare policy*, 1861-1868.
- Abdisa, Y., Abdissa, B., Kolola, T., & Wake, S. K. (2024). Investigation Report Of Food Safety Practice and Its Determinant Among Food Handlers Employed In Food Establishments in Ethiopia Ambo Town. *Journal of Agriculture and Food Research*, 15, 100958. <https://doi.org/10.1016/j.jafr.2023.100958>
- Abdul Aziz, N. A., Kamarulzaman, N. H., & Abdul Hadi, A. H. (2023). Evaluation Of Food Safety Knowledge, Attitude, and Practices Among Street Food Vendors in the Klang Valley, Malaysia. *Malaysian Journal of Agricultural Economics*. <https://doi.org/10.36877/mjae.a0000437>
- Abdul Rahim, N. A., Ungku Zainal Abidin, U. F., Radu, S., Selamat, J., & Abdul Mutalib, N. A. (2024). Prevalence of bacillus cereus in food and hand swabs of night market food vendors and its relationship with their food safety knowledge, attitude, and practices. *Food Research*, 8(1), 9–17. [https://doi.org/10.26656/fr.2017.8\(1\).1026](https://doi.org/10.26656/fr.2017.8(1).1026)
- Adam, A. (2020). Sample size determination in survey research. *Journal of Scientific Research and Reports*, 90-97. <https://doi.org/10.9734/jsrr/2020/v26i530263>
- Adane, M., Teku, B., Gismu, Y., Halefom, G., & Ademe, M. (2018). Food Hygiene and safety measures among food handlers in street food shops and food establishments of Dessie Town, Ethiopia: A community-based cross-sectional study. *Plos One*, 13(5). <https://doi.org/10.1371/journal.pone.0196919>
- Adebowale, O. and Kassim, I. (2022). Food safety and health: a survey of rural and urban household consumer practices, knowledge to food safety and food related illnesses in ogun state. *Epidemiology Biostatistics and Public Health*, 14(3). <https://doi.org/10.2427/12568>
- Agensi Statistik Negara Malaysia Retrieved from https://open.dosm.gov.my/ms-MY/data-catalogue/population_state?state=terengganu&visual=table
- Ahmad, A., Tian, C. B., & Hussain, M. F. (2021). Customers behaviour and tourist attraction factors of the Bestari Jaya Night Market. *International Journal of Early Childhood Special Education*, 13(1), 193–202. <https://doi.org/10.9756/int-jecse/v13i1.211022>

- Ahmad, M. i., Khalid, H., Salleh, E., & Nasser, M. (2023). Empathizing Night Market Food Hawkers in Malaysia Using Design Thinking Approach to Improve Food Safety. *JDT*, 4(2), 360.
- Aifaa, R., Abidin, U. Z., Fatimah, U., Maimunah, S., Mutalib, A.-, Azira, N.-, Ishak, C., Adibah, F., Karim, A.-, & Shahrim, M. (2023). Food safety culture in foodservice operations: A cross-sectional survey and cluster analysis in Malaysia tourist spots. *International Journal of Academic Research in Business and Social Sciences*, 13(10). <https://doi.org/10.6007/ijarbss/v13-i10/18911>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Akabanda, F., Hlortsi, E., & Owusu-Kwarteng, J. (2017). Food Safety Knowledge, Attitudes and Practices of Institutional Food-Handlers in Ghana. *BMC Public Health*, 17(1). <https://doi.org/10.1186/s12889-016-3986-9>
- Akinwehinmi, O., Ogundari, K., & Amos, T. (2021). Consumers' food control risk perception and preference for food safety certification in emerging food markets. *Journal of Agricultural Economics*, 73(3), 690-708. <https://doi.org/10.1111/1477-9552.12474>
- Alhashim, L. A., Alshahrani, N. Z., Alshahrani, A. M., Khalil, S. N., Alrubayii, M. A., Alateeq, S. K., & Zakaria, O. M. (2022). Food safety knowledge and attitudes: a cross-sectional study among Saudi consumers from food trucks owned by productive families. *International journal of environmental research and public health*, 19(7), 4322.
- Ali, S. W., Ahmad, M., Asif, M., Amir, R. M., & Ali, A. (2022). Assessment of food safety knowledge, attitude, practices of food handlers and microbial contamination in foods at the canteens of a University in Pakistan. *Italian journal of food safety*, 11(3), 10051. <https://doi.org/10.4081/ijfs.2022.10051>
- Almaghrabi, M. A. (2023). Assessing Public Interest, risk perceptions, and awareness of food safety in Saudi Arabia: A cross-sectional study. *Food Control*, 151, 109810. <https://doi.org/10.1016/j.foodcont.2023.109810>
- Almanasrah, S., Osaili, T. M., Al-Nabulsi, A. A., Obeidat, N. A., Sindiani, A. M., Elsalem, L., Alkhalidy, H., Mohamad, M. N., Saleh, S. T., Al Daour, R., Al Dhaheri, A. S., & Cheikh Ismail, L. (2022). Food Safety Knowledge and Risk Perception Among Pregnant Women: A Cross-Sectional Study in Jordan During The COVID-19 Pandemic. *Frontiers in Sustainable Food Systems*, 6. <https://doi.org/10.3389/fsufs.2022.996302>
- Alphonse, R., Alfnes, F., & Sharma, A. (2014). Consumer Vs. Citizen Willingness to Pay for Restaurant Food Safety. *Food Policy*, 49, 160–166. <https://doi.org/10.1016/j.foodpol.2014.06.009>

- Alqurashi, N., Priyadarshini, A., & Jaiswal, A. (2019). Evaluating Food Safety Knowledge and Practices Among Foodservice Staff In Al Madinah Hospitals, Saudi Arabia. *Safety*, 5(1), 9. <https://doi.org/10.3390/safety5010009>
- Alshammari, E. (2020). Factors influencing organic food purchase intention in an emergent market: an empirical investigation of saudi arabia. *European Journal of Business and Management Research*, 5(6). <https://doi.org/10.24018/ejbmr.2020.5.6.633>
- Alsultan, S. B., Allowaymi, S. S., Alshammari, G. M., Alrasheed, A., Hassan, A. B., Alzobaa, A. A., Alqahtani, A. B., & Yahya, M. A. (2023). Cross-Sectional Investigation of the Awareness and Practices of Food Safety Among Food Service Catering Staff in Riyadh City Hospitals During the Coronavirus Pandemic. *Healthcare*, 11(8), 1134. <https://doi.org/10.3390/healthcare11081134>
- Amesho, K. T. T., Lin, Y.-C., Gong, Z.-W., Chou, F.-C., Cheng, P.-C., Wang, T.-N., Chen, P.-S., Chen, K.-S., Chang, K.-L., & Lee, C.-H. (2021). Assessment of PM2.5 chemical composition and air quality monitoring: Implications of air pollutants emissions from a night market in Kaohsiung City, Taiwan. *Aerosol and Air Quality Research*, 21(12), 210206. <https://doi.org/10.4209/aaqr.210206>
- Antoun, C., Zhang, C., Conrad, F., & Schober, M. (2015). Comparisons of online recruitment strategies for convenience samples. *Field Methods*, 28(3), 231-246. <https://doi.org/10.1177/1525822x15603149>
- Apruzzese, I., Song, E., Bonah, E., Sanidad, V. S., Leekitcharoenphon, P., Medardus, J. J., Abdalla, N., Hosseini, H., & Takeuchi, M. (2019). Investing in food safety for developing countries: Opportunities and challenges in applying whole-genome sequencing for Food Safety Management. *Foodborne Pathogens and Disease*, 16(7), 463–473. <https://doi.org/10.1089/fpd.2018.2599>
- Arain, M., Campbell, M., Cooper, C., & Lancaster, G. (2010). What is a pilot or feasibility study? a review of current practice and editorial policy. *BMC Medical Research Methodology*, 10(1). <https://doi.org/10.1186/1471-2288-10-67>
- Arifin, Z., Nurtanto, M., Priatna, A., Kholifah, N., & Fawaid, M. (2020). Technology andragogy work content knowledge model as a new framework in vocational education: revised technology pedagogy content knowledge model. *TEM Journal*, 786-791. <https://doi.org/10.18421/tem92-48>
- Ashraf, S., Nazir, S., Adnan, M., & Azad, Z. (2021). Uplc-ms: an emerging novel technology and its application in food safety. <https://doi.org/10.5772/intechopen.92455>
- Asiegbu, C., Lebelo, S., & Tabit, F. (2016). The food safety knowledge and microbial hazards awareness of consumers of ready-to-eat street-vended food. *Food Control*, 60, 422-429. <https://doi.org/10.1016/j.foodcont.2015.08.021>

- Assan, M. R., Sahdan, M., & Salmun, J. A. (2022). Overview of snack food sanitation at night market food vendors, Larantuka City Park, East Flores Regency. *EAS Journal of Nutrition and Food Sciences*, 4(2), 54–60. <https://doi.org/10.36349/easjnfs.2022.v04i02.005>
- Aung, S., Nwe, A., Shan, W., Naing, S., Htay, S., & Kyaw, K. (2019). Food handling practices among food handlers of eating establishments in the government hospitals, mandalay city, myanmar. *Archives of Current Research International*, 1-14. <https://doi.org/10.9734/acri/2019/v16i230087>
- Ayaz, W., Priyadarshini, A., & Jaiswal, A. (2018). Food safety knowledge and practices among saudi mothers. *Foods*, 7(12), 193. <https://doi.org/10.3390/foods7120193>
- Azabagić, S., & Mokayes, N. (2024). Food safety risk perception: Gender differences. In Book of Abstracts-International congress public health–achievements and challenges (No. Poster presentations, pp. 228-228). <https://doi.org/10.5937/BatutPHCO24180A>
- Azanaw, J., Andualem, Z., & Adane, T. (2021). Food safety knowledge, attitude, and practice of college students, ethiopia, 2019: a cross-sectional study. *Biomed Research International*, 2021(1). <https://doi.org/10.1155/2021/6686392>
- Azman, A., Shahrul, S. M., Chan, S. X., Noorhazliza, A. P., Khairunnisak, M., Azlina, M. N., H.M.S Qodriyah., Y. Kamisah & Jaarin, K. (2012). Level of knowledge, attitude and practice of night market food outlet operators in Kuala Lumpur regarding the usage of repeatedly heated cooking oil. *Medical Journal of Malaysia*, 67(1), 91-101.
- Azrol, M. A. F. M., Zairie, M. A. M., Azeman, A. S., Latip, M. S. A., & Sulong, S. N. (2023). Determinant Attributes in The Purchase Decision of Street Food: A Case Study in Cheras Kuala Lumpur. *International Journal of Business and Technology Management*, 5(S1), 63-75. Retrieved from <https://myjms.mohe.gov.my/index.php/ijbtm/article/view/23579/12858>
- Babor, M., Lanurias, E., Minggong, M., & Broa, M. (2024). Food safety awareness and proper hygiene among food vendors. *International Journal of Innovative Research in Multidisciplinary Education*, 03(09). <https://doi.org/10.58806/ijirme.2024.v3i9n10>
- Badari, S., Haron, S., Paim, L., Arif, A., Zainudin, N., Rahim, H., Yusoff, I., & Samsudin, N. (2023). Association of Socio-Demographic and Socio-Economic Factors with Consumer's Decision-Making in Food Purchases: A Case Study among Low-Income Consumer During Covid-19 Pandemic in Malaysia. *International Journal of Academic Research in Business and Social Sciences*. <https://doi.org/10.6007/ijarbss/v13-i18/19972>.
- Barthold, D., Brah, A., Graham, S., Simoni, J., & Hauber, A. (2022). Improvements to survey design from pilot testing a discrete-choice experiment of the preferences of persons living with hiv for long-acting antiretroviral therapies. *The Patient*

- Patient-Centered Outcomes Research*, 15(5), 513-520. <https://doi.org/10.1007/s40271-022-00581-z>
- Bathla, G., & Kumar, S. (2025). An Analytical Study on the Demographic Variations and Key Influencers of Street Food Consumption in Mumbai. *Communications on Applied Nonlinear Analysis*. <https://doi.org/10.52783/cana.v32.5197>.
- Berinsky, A., Huber, G., & Lenz, G. (2012). Evaluating online labor markets for experimental research: amazon.com's mechanical turk. *Political Analysis*, 20(3), 351-368. <https://doi.org/10.1093/pan/mpr057>
- Betts, K., Hinsz, V., & Heimerdinger, S. (2011). Predicting intentions of romantic partner abuse with the theory of planned behavior. *Current Psychology*, 30(2), 130-147. <https://doi.org/10.1007/s12144-011-9105-2>
- Bouranta, N., Psomas, E., & Vouzas, F. (2019). The effect of service recovery on customer loyalty: the role of perceived food safety. *International Journal of Quality and Service Sciences*, 11(1), 69-86. <https://doi.org/10.1108/ijqss-10-2017-0093>
- Brough, P. and Hawkes, A. J. (2018). Designing impactful research. *Advanced Research Methods for Applied Psychology*, 7-14. <https://doi.org/10.4324/9781315517971-3>
- Buder, J. (2017). A conceptual framework of knowledge exchange. *The Psychology of Digital Learning*, 105-122. https://doi.org/10.1007/978-3-319-49077-9_6
- Çakici, A. C. and Tekeli, S. (2021). The mediating effect of consumers' price level perception and emotions towards supermarkets. *European Journal of Management and Business Economics*, 31(1), 57-76. <https://doi.org/10.1108/ejmbe-12-2020-0344>
- Carvalho, V. M., Nakahara, T. S., Souza, M. A., Cardozo, L. M., Trintinalia, G. Z., Pissinato, L. G., Venancio, J. O., Stowers, L., & Papes, F. (2020). Representation of olfactory information in organized active neural ensembles in the hypothalamus. *Cell Reports*, 32(8), 108061. <https://doi.org/10.1016/j.celrep.2020.108061>
- Catedral, H. (2018). The food safety culture of a night market. *Journal of Economics and Business*, 1(4). <https://doi.org/10.31014/aior.1992.01.04.39>
- Chan, R. Y. (2001). Determinants of Chinese consumers' green purchase behavior. *Psychology & marketing*, 18(4), 389-413. <https://doi.org/10.1002/mar.1013>
- Charan, J. and Biswas, T. (2013). How to calculate sample size for different study designs in medical research. *Indian Journal of Psychological Medicine*, 35(2), 121-126. <https://doi.org/10.4103/0253-7176.116232>
- Cheesman, M. J., Shivashekaregowda, N. K. H., & Cock, I. E. (2023). Bacterial Foodborne Illness in Malaysia: Terminalia spp. as a Potential Resource for

- Treating Infections and Countering Antibiotic Resistance. *The Malaysian journal of medical sciences: MJMS*, 30(2), 42–54. <https://doi.org/10.21315/mjms2023.30.2.4>
- Chen, J., Alifu, X., Qi, X., Zhang, R., Chen, L., Wang, J., & Yu, Y. (2024). Estimating the health burden of foodborne gastroenteritis caused by non-typhoidal *Salmonella enterica* and *Vibrio parahaemolyticus* in Zhejiang province, China. *Risk Analysis*, 44(5), 1176-1182.
- Chen, W. (2013). The effects of different types of trust on consumer perceptions of food safety. *China Agricultural Economic Review*, 5(1), 43-65. <https://doi.org/10.1108/17561371311294757>
- Chin, O. and Harun, M. Z. M. (2015). Night market: a platform for creating new entrepreneurs. *Humanities and Social Sciences*, 3(1), 32. <https://doi.org/10.11648/j.hss.20150301.14>
- Chuang, Y., Hwang, S., Wong, J., & Chen, C. (2014). The attractiveness of tourist night markets in taiwan – a supply-side view. *International Journal of Culture, Tourism and Hospitality Research*, 8(3), 333-344. <https://doi.org/10.1108/ijcthr-09-2013-0067>
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203771587>
- Conner, D., Colasanti, K., Ross, R., & Smalley, S. (2010). Locally grown foods and farmers markets: consumer attitudes and behaviors. *Sustainability*, 2(3), 742-756. <https://doi.org/10.3390/su2030742>
- Cramér, H. (1999). *Mathematical Methods of Statistics*. Princeton University Press. - Cramér's work is foundational in the field of statistics and discusses various statistical methods, including the derivation and interpretation of Cramér's V.
- Cui, L., Jiang, H., Deng, H., & Zhang, T. (2019). The influence of the diffusion of food safety information through social media on consumers' purchase intentions: An empirical study in China. *Data Technologies and Applications*, 53(2), 230-248.
- Czernyszewicz, E. (2023). Determinants of polish young adults' attitudes toward food safety. *British Food Journal*, 125(9), 3389-3403. <https://doi.org/10.1108/bfj-11-2022-0948>
- Dalege, J., Borsboom, D., Harreveld, F. v., Berg, H. v. d., Conner, M., & Maas, H. L. J. v. d. (2016). Toward a formalized account of attitudes: the causal attitude network (can) model. *Psychological Review*, 123(1), 2-22. <https://doi.org/10.1037/a0039802>
- Das, A. (2018). Role of familiarity and trust on the purchase behaviour: An empirical investigation on Indian E-commerce industry. *London Journal of Research in Management and Business*, 18(2), 1-23. Retrieved from

https://journalspress.com/LJRMV_Volume18/461_Role-of-Familiarity-and-Trust-on-the-Purchase-Behaviour-An-Empirical-Investigation-on-Indian-E-commerce-Industry.pdf

- de Andrade, M. L., Rodrigues, R. R., Antongiovanni, N., & da Cunha, D. T. (2019). Knowledge and risk perceptions of foodborne disease by consumers and food handlers at restaurants with different food safety profiles. *Food Research International*, 121, 845–853. <https://doi.org/10.1016/j.foodres.2019.01.006>
- Defa, N., Barbu, A., Ion, V., Pogurschi, E., Osman, A., Cune, L., & Bădulescu, L. (2025). Exploring the Relationship Between Socio-Demographic Factors and Consumers' Perception of Food Promotions in Romania. *Foods*, 14. <https://doi.org/10.3390/foods14040599>.
- Devane, C., Renner, R. M., Munro, S., Guilbert, É., Dunn, S., Wagner, M. S., & Norman, W. V. (2019). Implementation of mifepristone medical abortion in Canada: pilot and feasibility testing of a survey to assess facilitators and barriers. *Pilot and feasibility studies*, 5, 1-14. <https://doi.org/10.1186/s40814-019-0520-8>
- Dewey-Mattia, D., Manikonda, K., Hall, A. J., Wise, M. E., & Crowe, S. J. (2018). Surveillance for foodborne disease outbreaks — united states, 2009–2015. *MMWR. Surveillance Summaries*, 67(10), 1-11. <https://doi.org/10.15585/mmwr.ss6710a1>
- Dhewi, R. and Hadiwidjaja, R. (2022). Transforming public higher education through financial behavioral drivers' models. *Asian Journal of Economics Business and Accounting*, 30-42. <https://doi.org/10.9734/ajeba/2022/v22i1830645>
- Dosman, D., Adamowicz, W.L., & Hrudef, S.E. (2001). Socioeconomic Determinants of Health- and Food Safety-Related Risk Perceptions. *Risk Analysis*, 21. 307-318. <https://doi.org/10.1111/0272-4332.212113>
- Dwilestari, C., & Erdiansyah, R. (2023). Analysis of Variables Influencing Consumer Purchase Intention on Tokopedia. *International Journal of Application on Economics and Business*, 1(3), 934-945. <https://doi.org/10.24912/ijab.v1i3.934-945>
- Egan, M. B., Raats, M. M., Grubb, S. M., Eves, A., Lumbers, M. L., Dean, M. S., & Adams, M. R. (2007). A review of food safety and food hygiene training studies in the commercial sector. *Food control*, 18(10), 1180-1190.
- Ehrich, M., & Mangelsdorf, A. (2018). The role of private standards for manufactured food exports from developing countries. *World Development*, 101, 16-27. <https://doi.org/10.1016/j.worlddev.2017.08.00>
- Etikan, İ., Musa, S., & Alkassim, R. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1. <https://doi.org/10.11648/j.ajtas.20160501.11>

- Ezeh, P. C., & Nkamnebe, A. D. (2022). Determinates of consumer patronage of a street food vendor in Nigeria. *Journal of Foodservice Business Research*, 26(6), 843–865. <https://doi.org/10.1080/15378020.2022.2056395>
- Fadhilah, U. (2019). Religiosity and tax evasion: the application of theory of planned behavior. *Asian Journal of Islamic Management (Ajim)*, 1(1), 66-73. <https://doi.org/10.20885/ajim.vol1.iss1.art6>
- Fatimah, U. Z. A. U., Boo, H. C., Sambasivan, M., & Salleh, R. (2011). Foodservice hygiene factors—The consumer perspective. *International Journal of Hospitality Management*, 30(1), 38-45. <https://doi.org/10.1016/j.ijhm.2010.04.001>
- Feng, N., Zhang, A., Klinken, R., & Cui, L. (2023). How country image of an exporting country buffers against the impact of food safety incidents on consumer trust and purchase intention: an experimental study. *British Food Journal*, 125(11), 4229-4246. <https://doi.org/10.1108/bfj-01-2023-0008>
- Flanagan, M., & Soon-Sinclair, J. (2024). Consumers' perceptions of regulatory food hygiene inspections of restaurants and takeaways. *British Food Journal*. <https://doi.org/10.1108/bfj-07-2024-0764>.
- Ge, X. and Zhao, X. (2023). Research on the influencing factors of consumers' willingness to buy food under the background of new media - based on the empirical analysis of consumers in beijing. <https://doi.org/10.4108/eai.19-5-2023.2334280>
- Ghatak, I., & Chatterjee, S. (2018). Urban street vending practices: an investigation of ethnic food safety knowledge, attitudes, and risks among untrained Chinese vendors in chinatown, Kolkata. *Journal of Ethnic Foods*, 5, 272-285. <https://doi.org/10.1016/j.jef.2018.11.003>.
- Ghazali, E. M., Mutum, D. S., & Woon, M. (2019). Exploring player behavior and motivations to continue playing pokémon go. *Information Technology & People*, 32(3), 646-667. <https://doi.org/10.1108/itp-07-2017-0216>
- Gindi, A., Abdullah, A., Ismail, M., & Nawi, N. (2016). Shopping drivers of generational cohorts: a comparison between night market and wet market formats for fresh fruit and vegetable purchase in malaysia. *Australasian Marketing Journal (Amj)*, 24(2), 165-170. <https://doi.org/10.1016/j.ausmj.2016.05.002>
- Giwah, A., Levy, Y., & Hur, I. (2019). Empirical assessment of mobile device users' information security behavior towards data breach. *Journal of Intellectual Capital*, 21(2), 215-233. <https://doi.org/10.1108/jic-03-2019-0063>
- Godin, G. and Kok, G. (1996). The theory of planned behavior: a review of its applications to health-related behaviors. *American Journal of Health Promotion*, 11(2), 87-98. <https://doi.org/10.4278/0890-1171-11.2.87>

- Goldenhar, L., Schwatka, N., & Johnson, S. (2019). Leadership skills for strengthening jobsite safety climate. *Journal of Safety Research*, 70, 263-271. <https://doi.org/10.1016/j.jsr.2019.04.011>
- Gould, L. H., Rosenblum, I., Nicholas, D., Phan, Q., & Jones, T. F. (2013). Contributing factors in restaurant-associated foodborne disease outbreaks, foodnet sites, 2006 and 2007. *Journal of Food Protection*, 76(11), 1824-1828. <https://doi.org/10.4315/0362-028x.jfp-13-037>
- Griffith, C., Livesey, K., & Clayton, D. (2010). The assessment of food safety culture. *British Food Journal*, 112(4), 439-456. <https://doi.org/10.1108/00070701011034448>
- Ha, T., Shakur, S., & Pham, K. (2020). Food risk in consumers' eye and their consumption responses: evidence from hanoi survey. *Journal of Asian Business and Economic Studies*, 28(2), 86-100. <https://doi.org/10.1108/jabes-12-2019-0126>
- Hadibhai, S., Lacroix, J., & Leeb, K. (2018). Developing the first pan-canadian acute care patient experiences survey. *Patient Experience Journal*, 5(3), 25-33. <https://doi.org/10.35680/2372-0247.1227>
- Hameed, S., & Kanwal, M. (2018b). Effect of brand loyalty on purchase intention in cosmetics industry. *Research in Business and Management*, 5(1), 25. <https://doi.org/10.5296/rbm.v5i1.12704>
- Hawkins D. I., & Mothersbaugh D. L. (2010). *Consumer behaviour: Building marketing strategy* (11th ed.). New York, NY: McGraw Hill. <http://222.254.35.8/handle/TLU/6212>
- Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment*, 7(3), 238-247. <https://doi.org/10.1037/1040-3590.7.3.238>
- Hedman, H. D., Varga, C., Duquette, J. F., Novakofski, J. E., & Mateus-Pinilla, N. E. (2020). Food safety considerations related to the consumption and handling of game meat in north america. *Veterinary Sciences*, 7(4), 188. <https://doi.org/10.3390/vetsci7040188>
- Hellem, T., Benavides-Vaello, S., & Taylor-Piliae, R. (2021). National internet-based survey of the use, barriers, reasons and beliefs of mind-body practices during the early months of the covid-19 pandemic. *Journal of Evidence-Based Integrative Medicine*, 26, 2515690X2110063. <https://doi.org/10.1177/2515690x211006332>
- Henderson, J. C. (2019). Street food and tourism: A southeast asian perspective. *Perspectives on Asian Tourism*, 45-57. https://doi.org/10.1007/978-981-13-3624-9_4

- Henderson, J., Wilson, A. M., Webb, T., McCullum, D., Meyer, S. B., Coveney, J., & Ward, P. R. (2017). The role of social media in communication about food risks. *British Food Journal*, 119(3), 453–467. <https://doi.org/10.1108/bfj-07-2015-0272>
- Herawati, C., Endayani, H., Indragiri, S., Kristanti, I., Supriatin, Wahyuni, N. T., Dani, A. H., & Hikmawati, I. (2023). Sanitary hygiene and behavior of food handlers in the presence of escherichia coli bacteria. *Journal of Pure and Applied Microbiology*, 17(4), 2098–2103. <https://doi.org/10.22207/jpam.17.4.05>
- Heredia, N. and García, S. (2018). Animals as sources of food-borne pathogens: a review. *Animal Nutrition*, 4(3), 250-255. <https://doi.org/10.1016/j.aninu.2018.04.006>
- Hoffmann, V., Moser, C., & Saak, A. (2019). Food safety in low and middle-income countries: The evidence through an economic lens. *World Development*, 123, 104611. <https://doi.org/10.1016/j.worlddev.2019.104611>
- Hossen, Md. T., Ferdaus, Md. J., Hasan, Md. M., Lina, N. N., Das, A. K., Barman, S. K., Paul, D. K., & Roy, R. K. (2021). Food Safety Knowledge, attitudes and practices of street food vendors in Jashore region, Bangladesh. *Food Science and Technology*, 41(suppl 1), 226–239. <https://doi.org/10.1590/fst.13320>
- Hosta, M., & Zabkar, V. (2021). Antecedents of environmentally and socially responsible sustainable consumer behavior. *Journal of Business Ethics*, 171(2), 273–293. <https://doi.org/10.1007/s10551-019-04416-0>
- Hsieh, A. T., & Chang, J. (2006). Shopping and tourist night markets in Taiwan. *Tourism management*, 27(1), 138-145. <https://doi.org/10.1016/j.tourman.2004.06.017>
- Hsu, S., Chang, C., & Lin, T. (2016). An analysis of purchase intentions toward organic food on health consciousness and food safety with/under structural equation modeling. *British Food Journal*, 118(1), 200-216. <https://doi.org/10.1108/bfj-11-2014-0376>
- Htway, T. A. S., & Kallawicha, K. (2020). Factors associated with food safety knowledge and practice among street food vendors in Taunggyi Township, Myanmar: a cross-sectional study. *Malaysian Journal of Public Health Medicine*, 20(3), 180-188. <https://doi.org/10.37268/mjphm/vol.20/no.3/art.822>
- Huang, C. (2012). Service quality of night markets in taiwan. *International Journal of Marketing Studies*, 4(3). <https://doi.org/10.5539/ijms.v4n3p36>
- Huang, S. and Chang, Y. (2019). Cross-border e-commerce: consumers' intention to shop on foreign websites. *Internet Research*, 29(6), 1256-1279. <https://doi.org/10.1108/intr-11-2017-0428>
- Huang, Y., Chen, S., Bing, X., Gao, C., Wang, T., & Yuan, B. (2011). Nanosilver migrated into food-simulating solutions from commercially available food

- fresh containers. *Packaging Technology and Science*, 24(5), 291-297. <https://doi.org/10.1002/pts.938>
- Huo, H., Jiang, X., Han, C., Wei, S., Yu, D., & Yang, T. (2023). The effect of credence attributes on willingness to pay a premium for organic food: a moderated mediation model of attitudes and uncertainty. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1087324>
- Ilicic, J., & Webster, C. M. (2011). Effects of multiple endorsements and consumer-celebrity attachment on attitude and purchase intention. *Australasian Marketing Journal*, 19(4), 230-237. <https://doi.org/10.1016/j.ausmj.2011.07.005>
- Iqbal, J., Yu, D., Zubair, M., Rasheed, M. I., Khizar, H. M. U., & Imran, M. K. (2021). Health consciousness, food safety concern, and consumer purchase intentions toward organic food: the role of consumer involvement and ecological motives. *SAGE Open*, 11(2), 215824402110157. <https://doi.org/10.1177/21582440211015727>
- Isa, A. M., Azman, N. A., & Sukri, N. S. (2020). Night-market traders are they entrepreneurial or just making ends meet? *The South East Asian Journal of Management*, 14(2), 230–245. <https://doi.org/10.21002/seam.v14i2.12258>
- Isanovic, S., Constantinides, S. V., Frongillo, E. A., Bhandari, S., Samin, S., Kenney, E., Wertheim-Heck, S., Nordhagen, S., Holdsworth, M., Dominguez-Salas, P., Ambikapathi, R., Laar, A., Patil, C. L., Kulkarni, B., Bukachi, S. A., Ngutu, M., & Blake, C. E. (2022). How Perspectives on Food Safety of Vendors and Consumers Translate into Food-Choice Behaviors in 6 African and Asian Countries. *Current developments in nutrition*, 7(1), 100015. <https://doi.org/10.1016/j.cdnut.2022.100015>
- Jabareen, Y. (2009). Building a conceptual framework: philosophy, definitions, and procedure. *International Journal of Qualitative Methods*, 8(4), 49-62. <https://doi.org/10.1177/160940690900800406>
- Jacoby, J. (1975). Consumer psychology as a social psychological sphere of action. *American Psychologist*, 30(10), 977-987. <https://doi.org/10.1037/0003-066x.30.10.977>
- Jalaludin, J., Widyaningsih, N., & Dwiattmoko, H. (2021). Theory of planned behavior application on motorcycle rider safety behavior. *Astonjadro*, 11(1), 198. <https://doi.org/10.32832/astonjadro.v11i1.5990>
- Jang, M., & Vorderstrasse, A. (2019). Socioeconomic status and racial or ethnic differences in participation: web-based survey. *JMIR research protocols*, 8(4), e11865. <https://doi.org/10.2196/preprints.11865>
- Jiang, B. and Kassoh, F. (2022). A comparative study of high-quality broiler purchase behavior between chinese and sierra leonean consumers: the moderating role

- of uncertainty avoidance. *Sustainability*, 15(1), 457. <https://doi.org/10.3390/su15010457>
- Joo, N., Park, S., Lee, B., & Yoon, J. (2015). Importance-satisfaction analysis of street food sanitation and choice factor in Korea and Taiwan. *Nutrition research and practice*, 9(3), 296-303. <https://doi.org/10.4162/nrp.2015.9.3.296>
- Kamaruddin, K. (2024, September 21). *Kes Keracunan Makanan Meningkat 73 Peratus di Terengganu*. Kosmo Digital. Retrieved from <https://www.kosmo.com.my/2024/09/21/kes-keracunan-makanan-meningkat-73-peratus-di-terengganu/>
- Kamarudin N.A., et al. (2024). "Food Safety Practices at Night Markets: A Case Study." *Kosmo*.
- Kang, K., & Bagaoisan, M. A. P. (2024). Research Status of the Knowledge-Attitude-Practice Theory Model in Gastric Cancer Prevention. *Cureus*, 16(7), e64960. <https://doi.org/10.7759/cureus.64960>
- Kang, S., Lin, J., Chong, K., Lin, Y., & Chen, C. (2022). Assessing wastewater pollution from outdoor night markets and its impacts on river quality. *Water Science and Technology*, 86(9), 2288-2302. <https://doi.org/10.2166/wst.2022.344>
- Khairuzzaman, M., Chowdhury, F. M., Zaman, S., Mamun, M. A. A., & Bari, M. L. (2014). Food safety challenges towards safe, healthy, and nutritious street foods in bangladesh. *International Journal of Food Science*, 2014, 1-9. <https://doi.org/10.1155/2014/483519>
- Khanna, S., Nagar, K., Chauhan, V., & Bhagat, S. (2021). Application of the extended theory of planned behavior to street-food consumption: testing the effect of food neophobia among indian consumers. *British Food Journal*, 124(2), 550-572. <https://doi.org/10.1108/bfj-04-2021-0403>
- Knowledge. (n.d.). In *Oxford English Dictionary*. Retrieved from <https://spacestudy.blog/how-to-cite-oxford-english-dictionary/>
- Kyung, M., Kim, D., & Ham, S. (2023). Factors affecting the willingness to pay extra for safe food. *Nutrition Research and Practice*, 17(3), 565. <https://doi.org/10.4162/nrp.2023.17.3.565>
- Landers, R. and Behrend, T. (2015). An inconvenient truth: arbitrary distinctions between organizational, mechanical turk, and other convenience samples. *Industrial and Organizational Psychology*, 8(2), 142-164. <https://doi.org/10.1017/iop.2015.13>
- Latip, M., Newaz, F., Mohamad, M., Tumin, S., Rahman, N., & Noh, I. (2021). The moderating effect of food safety knowledge on organic food purchase intention in a new normal. *Pertanika Journal of Social Sciences and Humanities*, 29(4), 2281-2299. <https://doi.org/10.47836/pjssh.29.4.10>

- Lavuri, R., Chiappetta Jabbour, C. J., Grebinevych, O., & Roubaud, D. (2022). Green factors stimulating the purchase intention of innovative luxury organic beauty products: Implications for Sustainable Development. *Journal of Environmental Management*, 301, 113899. <https://doi.org/10.1016/j.jenvman.2021.113899>
- Le, T. T.-H., Langley, S. J., Dunham, J. G., Dang-Xuan, S., Unger, F., Ngo, H. H., Nguyen-Thanh, L., Nguyen-Viet, H., & Toribio, J.-A. (2022). Food Safety Knowledge, needed and trusted information of pork consumers in different retail types in northern Vietnam. *Frontiers in Sustainable Food Systems*, 6. <https://doi.org/10.3389/fsufs.2022.1063927>
- LeAnh, T. and Nguyen, T. T. (2020). Consumer purchasing behaviour of organic food in an emerging market. *International Journal of Consumer Studies*, 44(6), 563-573. <https://doi.org/10.1111/ijcs.12588>
- Lee, H. (2020). The impact of consumer competence in purchasing foods on satisfaction with food-related consumer policies and satisfaction with food-related life through perceptions of food safety. *Foods*, 9(8), 1103. <https://doi.org/10.3390/foods9081103>
- Lee, H., & Yoon, Y. (2021). Etiological agents implicated in foodborne illness worldwide. *Food science of animal resources*, 41(1), 1-7. <https://doi.org/10.5851/kosfa.2020.e75>
- Lee, H., Halim, H. A., Thong, K. L., & Chai, L. C. (2017). Assessment of food safety knowledge, attitude, self-reported practices, and microbiological hand hygiene of food handlers. *International Journal of Environmental Research and Public Health*, 14(1), 55. <https://doi.org/10.3390/ijerph14010055>
- Lee, L., Niode, O., Simonne, A., & Bruhn, C. (2012). Consumer perceptions on food safety in asian and mexican restaurants. *Food Control*, 26(2), 531-538. <https://doi.org/10.1016/j.foodcont.2012.02.010>
- Lee, S. and Riegel, B. (2018). State of the science in heart failure symptom perception research. *Journal of Cardiovascular Nursing*, 33(3), 204-210. <https://doi.org/10.1097/jcn.0000000000000445>
- Lee, S. H., Chang, S. C., Hou, J., & Lin, C. (2008). Night market experience and image of temporary residents and foreign visitors. *International Journal of Culture, Tourism and Hospitality Research*, 2(3), 217-233. <https://doi.org/10.1108/17506180810891591>
- Lee, S., Lin, C., Vu, C. T., Chen, Y., Chen, K., & Villanueva, M. C. (2019). How human activities in commercial areas contribute to phthalate ester pollution in street dust of Taiwan. *Science of the Total Environment*, 647, 619-626. <https://doi.org/10.1016/j.scitotenv.2018.07.362>
- Legendre, T. S., Jo, Y. H., Han, Y. S., Kim, Y. W., Ryu, J. P., Jang, S. J., & Kim, J. (2019). The impact of consumer familiarity on edible insect food product purchase and expected liking: The role of media trust and purchase activism.

Entomological Research, 49(4), 158–164. <https://doi.org/10.1111/1748-5967.12342>

- Letuka, P., Nkhebenyane, S., & Thekisoe, O. (2019). *Assessment of Food Safety Knowledge, Attitudes and Practices among Street Food Vendors and Consumers' Perceptions of Street Food Vending in Maseru Lesotho*. <https://doi.org/10.20944/preprints201905.0257.v1>
- Li, B., Xie, X., Qiao, S., & Tan, S. (2024). Unveiling the impact of employee-customer familiarity on customer purchase intentions: An empirical investigation within the realm of web-based data analytics. *World Wide Web*, 27(4). <https://doi.org/10.1007/s11280-024-01270-7>
- Li, R., Wang, X., & Wang, Y. (2021). Night market cultural transformation and upgrading. *Journal of Service Science and Management*, 14(04), 412-428. <https://doi.org/10.4236/jssm.2021.144026>
- Lian, S. and Yoong, L. (2019). Assessing the young consumers' motives and purchase behavior for organic food: empirical evidence from a developing nation. *International Journal of Academic Research in Business and Social Sciences*, 9(1). <https://doi.org/10.6007/ijarbss/v9-i1/5364>
- Liao, X., Nguyen, T. P. L., & Sasaki, N. (2022). Use of the knowledge, attitude, and practice (KAP) model to examine sustainable agriculture in Thailand. *Regional Sustainability*, 3(1), 41-52. <https://doi.org/10.1016/j.regsus.2022.03.005>
- Lim, T., Chye, F. Y., Sulaiman, M. R., Suki, N. M., & Lee, J. (2016). A structural modeling on food safety knowledge, attitude, and behaviour among bum bum island community of semporna, sabah. *Food Control*, 60, 241-246. <https://doi.org/10.1016/j.foodcont.2015.07.042>
- Lim, Y. M., Cham, T., Lee, J. W. C., & Pek, C. K. (2021). The soft side of technology adoption: a study of customer experience on mobile phone usage. *Proceedings of International Conference on Emerging Technologies and Intelligent Systems*, 849-860. https://doi.org/10.1007/978-3-030-85990-9_67
- Lin, P., Tsai, H., & Ho, T. (2020). Food Safety Gaps between Consumers' Expectations and Perceptions: Development and Verification of a Gap-Assessment Tool. *International Journal of Environmental Research and Public Health*, 17(17), 6328. <https://doi.org/10.3390/ijerph17176328>
- Lindh, M., Holmström, I., Perseius, K., & Windahl, J. (2015). Enhancing adherence to infection control in swedish community care: factors of importance. *Nursing and Health Sciences*, 18(3), 275-282. <https://doi.org/10.1111/nhs.12260>
- Liu, D., Wang, K., Mao, T., & Yang, C. (2021). The impact of instagram stories on tourists' consumption behavior in smart city night markets. *Mathematical Problems in Engineering*, 2021(1), 1-11. <https://doi.org/10.1155/2021/5509265>

- Lu, W. C., Lin, S. H., & Cheng, C. F. (2011). Sports spectator behavior: a test of the theory of planned behavior. *Perceptual and Motor Skills*, 113(3), 1017-1026. <https://doi.org/10.2466/05.17.pms.113.6.1017-1026>
- Ma, L., Chen, H., Yan, H., Wu, L., & Zhang, W. (2019). Food safety knowledge, attitudes, and behavior of street food vendors and consumers in Handan, a third-tier city in China. *BMC public health*, 19, 1-13. <https://doi.org/10.1186/s12889-019-7475-9>
- Madilo, F., Islam, M., Letsyo, E., Roy, N., Klutse, C., Quansah, E., Darku, P., & Amin, M. (2023). Foodborne pathogens awareness and food safety knowledge of street-vended food consumers: A case of university students in Ghana. *Heliyon*, 9. <https://doi.org/10.1016/j.heliyon.2023.e17795>
- Mak, A. H., Lumbers, M., Eves, A., & Chang, R. C. (2012). Factors influencing tourist food consumption. *International Journal of Hospitality Management*, 31(3), 928-936. <https://doi.org/10.1016/j.ijhm.2011.10.012>
- Ma'mun, A., Hsan, K., Sarwar, M., & Siddique, M. (2019). Knowledge and personal hygiene practice among food handlers in public university campus of bangladesh. *International Journal of Community Medicine and Public Health*, 6(8), 3211. <https://doi.org/10.18203/2394-6040.ijcmph20193431>
- Mareno, N. (2013). Parental perception of child weight: a concept analysis. *Journal of Advanced Nursing*, 70(1), 34-45. <https://doi.org/10.1111/jan.12143>
- Marzuki, M. F., Yaacob, N. A., & Yaacob, N. M. (2018). Translation, cross-cultural adaptation, and validation of the Malay version of the system Usability Scale Questionnaire for the assessment of Mobile Apps. *JMIR Human Factors*, 5(2). <https://doi.org/10.2196/10308>
- Mayer, M., Vega, J., Demarco, I., Eicher, R., Flores Molina, D., Lee, C., & Perez Naufel, J. (2023). Message convergence as reassurance about the safety of the food supply concerning African swine fever virus. *Animal Health and Therapy Reports*, 2(1), 02–11. <https://doi.org/10.31491/ahtr.2023.02.002>
- McHugh, M. L. (2013). The chi-square test of independence. *Biochemia Medica*, 23(2), 143–149. <https://doi.org/10.11613/BM.2013.018>
- McMahon, S., Connor, R., Cusano, J., & Brachmann, A. (2023). Why do students participate in campus sexual assault climate surveys? *Journal of Interpersonal Violence*, 38(13-14), 8668-8691. <https://doi.org/10.1177/08862605231153881>
- Mehiriz, K. (2024). The effects of attitudes, norms, and perceived control on the adaptation of elderly individuals and individuals with chronic health conditions to heatwaves. *BMC Public Health*, 24(1). <https://doi.org/10.1186/s12889-024-17712-w>
- Melewar, T., Foroudi, P., Melewar, S., Kitchen, P. J., & Foroudi, M. M. (2017). Integrating identity, strategy and communications for trust, loyalty and

- commitment. *European Journal of Marketing*, 51(3), 572-604. <https://doi.org/10.1108/ejm-08-2015-0616>
- Michaelidou, N. and Hassan, L. M. (2007). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies*, 32(2), 163-170. <https://doi.org/10.1111/j.1470-6431.2007.00619.x>
- Miftari, I., Imami, D., Kaliji, S., Canavari, M., & Gjokaj, E. (2024). Analyzing consumer perceptions about food safety by applying the food-related lifestyle approach. *Italian Journal of Food Safety*, 13(1), 11315. <https://doi.org/10.4081/ijfs.2024.11315>
- Mirosa, M., Liu, Y., & Bremer, P. (2020). Chinese consumers' perceptions of food safety cues and maximising the effectiveness of food safety communications. *British Food Journal*, 123(1), 261-278. <https://doi.org/10.1108/bfj-09-2019-0694>
- Mitchell, R. L. and Phillips, L. H. (2015). The overlapping relationship between emotion perception and theory of mind. *Neuropsychologia*, 70, 1-10. <https://doi.org/10.1016/j.neuropsychologia.2015.02.018>
- Mohammed, A. S., & Shehasen, M. Z. (2020). Street food consumption and associated health risk. *International Journal of Research Studies in Agricultural Sciences*, 6(7). <https://doi.org/10.20431/2454-6224.0607002>
- Mohammed, A., Salman, A., & Fawi, N. (2023). Evaluation of food safety awareness, knowledge and practice among sudanese university students. *European Journal of Agriculture and Food Sciences*, 5(4), 1-7. <https://doi.org/10.24018/ejfood.2023.5.4.678>
- Mohd Nawawee, N. S., Abu Bakar, N. F., & Zulfakar, S. S. (2019). Microbiological safety of street-vended beverages in Chow Kit, Kuala Lumpur. *International Journal of Environmental Research and Public Health*, 16(22), 4463. <https://doi.org/10.3390/ijerph16224463>
- Momayyezi, M., & Fallahzadeh, H. (2020). Construction and validation of the lifestyle questionnaire related to cancer. *International Journal of Cancer Management*, 13(5), e3965. <https://doi.org/10.5812/ijcm.3965>
- Moy, F. M., Alias, A. A., Jani, R., Abdul Halim, H., & Low, W. Y. (2018). Determinants of self-reported food safety practices among youths. *British Food Journal*, 120(4), 891–900. <https://doi.org/10.1108/bfj-04-2017-0224>
- Musa, A., Shakur, E. S. A., Musa, R. M., & Abdullah, N. A. C. (2023). Health Management Culture in Food Health Handling Compliance in Terengganu Business Night Market. *Journal of Southwest Jiaotong University*, 58(1).

- Naeem, N., Raza, S., Mubeen, H., Siddiqui, S., & Khokhar, R. (2018). Food safety knowledge, attitude, and food handling practices of household women in lahore. *Journal of Food Safety*, 38(5). <https://doi.org/10.1111/jfs.12513>
- Namdar Areshtanab, H., Vahidi, M., Hosseinzadeh, M., & Khani, Z. (2024). Developing the questionnaire of general population knowledge, attitudes and practices towards the COVID-19 outbreak. *Nursing Open*, 11(3), e2143. <https://doi.org/10.1002/nop2.2143>
- Nathan, S., Chieng, S., Kingsley, P., Mohan, A., Podin, Y., Ooi, M.-H., Mariappan, V., Vellasamy, K., Vadivelu, J., Daim, S., & How, S.-H. (2018). Melioidosis in Malaysia: Incidence, clinical challenges, and advances in understanding pathogenesis. *Tropical Medicine and Infectious Disease*, 3(1), 25. <https://doi.org/10.3390/tropicalmed3010025>
- Ncube, F., Kanda, A., Chijokwe, M., Mabaya, G., & Nyamugure, T. (2020). Food Safety Knowledge, attitudes and practices of restaurant food handlers in a lower-middle-income country. *Food Science & Nutrition*, 8(3), 1677–1687. <https://doi.org/10.1002/fsn3.1454>
- New, C. Y., A., U., Premarathne, J. M. K. J. K., Thung, T. Y., Lee, E., Chang, W. S., Loo, Y. Y., Kwan, S. Y., Tan, C. W., Kuan, C. H., & R., S. (2017). Microbiological Food Safety in Malaysia from the academican's perspective. *Food Research*, 1(6), 183–202. <https://doi.org/10.26656/fr.2017.6.013>
- Ngo, H. M., Liu, R., Moritaka, M., & Fukuda, S. (2021). Determinants of consumer intention to purchase food with safety certifications in emerging markets: evidence from vietnam. *Journal of Agribusiness in Developing and Emerging Economies*, 13(2), 243-259. <https://doi.org/10.1108/jadee-06-2021-0138>
- Ngoc, T. T. A., Hang, N. T. M., Thanh, D. K., & Hoa, L. V. (2020). Evaluation of Microbial Safety Knowledge, attitude and practice of street food vendors and consumers in can Tho City, Vietnam. *Food Research*, 4(5), 1802–1814. [https://doi.org/10.26656/fr.2017.4\(5\).153](https://doi.org/10.26656/fr.2017.4(5).153)
- Nguyen, A. T., Tran, B. X., Le, H. T., Le, X. T., Do, K. N., Do, H. T., Vu, G. T., Nguyen, L. H., Latkin, C. A., Ho, C. S., & Ho, R. C. (2018). Customers' knowledge, attitude, and practices towards food hygiene and safety standards of handlers in food facilities in Hanoi, Vietnam. *International Journal of Environmental Research and Public Health*, 15(10), 2101. <https://doi.org/10.3390/ijerph15102101>
- Nicholls, D., Sweet, L., Skuza, P., Muller, A., & Hyett, J. (2016). Sonographer skill teaching practices survey: development and initial validation of a survey instrument. *Australasian Journal of Ultrasound in Medicine*, 19(3), 109-117. <https://doi.org/10.1002/ajum.12011>
- Niewczas-Dobrowolska, M. (2022). Consumers attitude toward lack of food safety. *British Food Journal*, 124(13), 432–444. <https://doi.org/10.1108/bfj-03-2022-0277>

- Njuguna, J., Muchara, M., & Namada, J. (2019). Focus strategy-firm structure fit and performance of star rated hotels in kenya. *International Journal of Research in Business and Social Science* (2147-4478), 8(5), 11-17. <https://doi.org/10.20525/ijrbs.v8i5.469>
- Noor, N. R. A. M., Zaman, L. K., Yaacob, N., Hassan, M. S., & Khadzil, S. A. A. J. S. (2023). Adoption of Food Quality and Safety Standards Among Food Handlers in Malaysia. In *Finance, Accounting and Law in the Digital Age: The Impact of Technology and Innovation in the Financial Services Sector* (pp. 533-540). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-27296-7_49
- Noordzij, M., Dekker, F., Zoccali, C., & Jager, K. (2011). Sample size calculations. *Nephron Clinical Practice*, 118(4), c319-c323. <https://doi.org/10.1159/000322830>
- Ntarangwe, M., Asatsa, S., & Ndung'u, E. (2021). Correlates of career adaptability among academic staff in selected universities in nairobi county, kenya. *International Journal of Research and Innovation in Social Science*, 05(08), 155-165. <https://doi.org/10.47772/ijriss.2021.5811>
- Nunnally, J.C. and Bernstein, I.H. (1994) The Assessment of Reliability. *Psychometric Theory*, 3, 248-292.
- Nyachuba, D. G. (2010). Foodborne illness: is it on the rise? *Nutrition Reviews*, 68(5), 257-269. <https://doi.org/10.1111/j.1753-4887.2010.00286.x>
- Odeyemi, O. A. (2013). Perception of foreign students on food safety and hygiene practices among food handlers in Malaysian restaurants: Public health perspective. *International Journal of Public Health Research*, 3(1), 214-222. Retrieved from <https://spaj.ukm.my/ijphr/index.php/ijphr/article/view/152/85>
- Ojakaa, P., Jivraj, D., & Njoroge, G. (2023). Determinants of the world health organization surgical safety checklist use among clinicians at kenyatta national hospital nairobi, kenya. *Journal of Shifa Tameer-E-Millat University*, 5(2), 86-91. <https://doi.org/10.32593/jstmu/vol5.iss2.201>
- Online, T. S. (2019, July 29). *Three traders identified in Terengganu Food Poisoning Case*. <https://www.thestar.com.my/News/Nation/2014/03/04/three-night-traders-identified-in-food-poisoning-case/>
- Özsomer, A. (2012). The interplay between global and local brands: a closer look at perceived brand globalness and local iconness. *Journal of International Marketing*, 20(2), 72-95. <https://doi.org/10.1509/jim.11.0105>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>

- Pan, M., Yin, Z., Liu, K., Du, X., Liu, H., & Wang, S. (2019). Carbon-based nanomaterials in sensors for Food Safety. *Nanomaterials*, 9(9), 1330. <https://doi.org/10.3390/nano9091330>
- Parmer, L. (2015). An American-Based Study Examining the Relationship Between Participants' demographic Profiles and Attitudes Regarding Business Outsourcing Techniques and Strategies. *Economic and social development: Book of proceedings*, 75.
- Paták, M., Branská, L., & Pecinová, Z. (2021). Consumer intention to purchase green consumer chemicals. *Sustainability*, 13(14), 7992. <https://doi.org/10.3390/su13147992>
- Pauzi, M. I. A., Murad, I. H. D. A., Shattar, N. A., Ghani, A. M., & Malina Hanum Mohd Kamal, (2024). Students' Perceptions of Food Handling and Hygiene at Universiti Pertahanan Nasional Malaysia (UPNM) Cafeteria. *Asian Journal of Research in Education and Social Sciences*, [S.l.], v. 6, n. S1, p. 337-348. <https://doi.org/10.55057/ajress.2024.6.S1.29>
- Pezzuto, A., Belluco, S., Losasso, C., Patuzzi, I., Bordin, P., Piovesana, A., Comin, D., Mioni, R., & Ricci, A. (2016). Effectiveness of washing procedures in reducing salmonella enterica and listeria monocytogenes on a raw leafy green vegetable (*Eruca vesicaria*). *Frontiers in Microbiology*, 7. <https://doi.org/10.3389/fmicb.2016.01663>
- Phan, U. T. X., Tran, C. T. T., & Nguyen, N. M. (2024). Socioeconomic constraints on low-income individuals' perceptions toward food safety. *Journal of Sensory Studies*, 39(3). <https://doi.org/10.1111/joss.12918>
- Pirzadeh, A., Mostafavi, F., Nasirian, M., Zeinali, M., Ardalan, G., Mohebpour, F., Daniali, S., & Kelishadi, R. (2021). Evaluating community-based programs in promoting traffic behaviors and safe road crossing behaviors in youth: An application on the Theory of planned behavior. *International Journal of Preventive Medicine*, 12(1), 11. https://doi.org/10.4103/ijpvm.ijpvm_241_20
- Podsakoff, P., MacKenzie, S., Lee, J., & Podsakoff, N. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Pottie-Sherman, Y. (2013). Vancouver's chinatown night market: gentrification and the perception of chinatown as a form of revitalization. *Built Environment*, 39(2), 172-189. <https://doi.org/10.2148/benv.39.2.172>
- Pretorius, C., Chambers, D., & Coyle, D. (2019). Young people's online help-seeking and mental health difficulties: Systematic narrative review. *Journal of Medical Internet Research*, 21(11). <https://doi.org/10.2196/13873>

- Putra, I. (2018). Fraud procurement of goods and services a perspective of the theory of planned behavior. *Jurnal Akuntansi*, 22(3), 385. <https://doi.org/10.24912/ja.v22i3.395>
- Quinlan, J. J. (2013). Foodborne illness incidence rates and food safety risks for populations of low socioeconomic status and minority race/ethnicity: a review of the literature. *International Journal of Environmental Research and Public Health*, 10(8), 3634-3652. <https://doi.org/10.3390/ijerph10083634>
- Rahman, M. H. A. (2019). A study on causal relationship between food handler's awareness and safe food handling practices in Malaysia. *Politeknik & Kolej Komuniti Journal of Social Sciences and Humanities*, 4(1), 145-162. Retrieved from <https://app.mypolycc.edu.my/journal/PMJSSH/article/view/189>
- Rajkumar, S., Nayar, R., Rajagopal, K., Chakurkar, E. B., Venkatesh, V. S., Nambiar, P., & Paramesh, V. (2021). Socio-demographic influences on various consumer food safety indices: An empirical study of ethnic Goan pork sausage consumers. *British Food Journal*, 123(8), 2670-2692. <https://doi.org/10.1108/bfj-10-2020-0986>
- Rakic, M., Rakic, B., & Stanojevic, L. (2018). Consumer ethnocentrism – marketing challenge for companies: the case of serbia. *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies*, 23(3), 81. <https://doi.org/10.7595/management.fon.2018.0019>
- Ramli, M. and Jamri, M. (2021). The impact of covid-19 pandemic: a closer look at the night market traders' experience in penang, malaysia. *International Journal of Academic Research in Business and Social Sciences*, 11(1). <https://doi.org/10.6007/ijarbss/v11-i1/8408>
- Rashid, M., Abbasi, S., & Manzoor, M. (2020). Socio-religious prognosticators of psychosocial burden of beta thalassemia major. *Journal of Religion and Health*, 59(6), 2866-2881. <https://doi.org/10.1007/s10943-020-01069-6>
- Ratasuk A, 2023. Impact of Food Hygiene on Purchase Intentions and its Mechanism in Bangkok Street Food under the Influence of COVID-19, *Medical Research Archives*, [online] 11(8). <https://doi.org/10.18103/mra.v11i8.4263>
- Reardon, T., Echeverria, R., Berdegúe, J., Minten, B., Liverpool-Tasie, S., Tschirley, D., & Zilberman, D. (2019). Rapid transformation of food systems in developing regions: Highlighting the role of Agricultural Research & Innovations. *Agricultural Systems*, 172, 47-59. <https://doi.org/10.1016/j.agsy.2018.01.022>
- Rehman, V. (2017). Looking through the glass of indian culture: consumer behaviour in modern and postmodern era. *Global Business Review*, 18(3_suppl), S19-S37. <https://doi.org/10.1177/0972150917693139>
- Rheinländer, T., Olsen, M., Bakang, J. A., Takyi, H., Konradsen, F., & Samuelsen, H. (2008). Keeping up appearances: Perceptions of street food safety in urban

- Kumasi, Ghana. *Journal of Urban Health*, 85(6), 952–964. <https://doi.org/10.1007/s11524-008-9318-3>
- Rohr, A., Lüddecke, K., Drusch, S., Müller, M., & Alvensleben, R. (2005). Food quality and safety—consumer perception and public health concern. *Food Control*, 16(8), 649–655. <https://doi.org/10.1016/j.foodcont.2004.06.001>
- Roy, N. (2023). Exploring food safety knowledge, attitudes, and practices of nursing and medical students: insights from a cross-sectional study in bangladesh. *Journal of Food Safety*, 44(1). <https://doi.org/10.1111/jfs.13098>
- Roy, N., Aktarujjaman, M., Siddiky, A., Mollick, K., Rosby, R., Rogers, B.T., Hossain, E., Al Mamun, F. and Mamun, M.A. (2024), Food Safety Knowledge, Attitudes, Practices, and Associated Factors Among Adult Consumers in Bangladesh: Findings from a Nationwide Cross-Sectional Survey. *Health Science Reports*, 7: e70307. <https://doi.org/10.1002/hsr2.70307>
- Ruby, G., Abidin, U., Lihan, S., Jambari, N., & Radu, S. (2019). Predicting intention on safe food handling among adult consumers: a cross-sectional study in sibu district, malaysia. *Food Control*, 106, 106696. <https://doi.org/10.1016/j.foodcont.2019.06.022>
- Saha, R. (2022). Quantitative and qualitative approaches to accounting research. *International Journal of Multidisciplinary Research & Reviews*, 1(2), 1–6. <https://doi.org/10.56815/ijmrr.v1.i2.2022/1-6>
- Saleh, M. and Lee, Y. (2023). Instrumental analysis or human evaluation to measure the appearance, smell, flavor, and physical properties of food. *Foods*, 12(18), 3453. <https://doi.org/10.3390/foods12183453>
- Salleh, F., Yaakub, N., Mohamad, M., Ghani, M., & Sulong, W. (2012). Demographic characteristics differences and sales performance among night market traders in malaysia. *International Business Research*, 5(4). <https://doi.org/10.5539/ibr.v5n4p25>
- Sa'min, M. I., Apriyanto, Y., & Edrus, M. H. A. (2024). Young Generation's Attitudes and Preferences Towards Malay Traditional Food at Night Markets. *Journal of Tourism, Hospitality & Culinary Arts*, 16(1), 173–192.
- Şanlıer, N. (2009). The knowledge and practice of food safety by young and adult consumers. *Food Control*, 20(6), 538–542. <https://doi.org/10.1016/j.foodcont.2008.08.006>
- Sanlier, N., Sezgin, A. C., Sahin, G., & Yassibas, E. (2018). A study about the young consumers' consumption behaviors of street foods. *Ciencia & saude coletiva*, 23(5), 1647–1656. <https://doi.org/10.1590/1413-81232018235.17392016>
- Schmidt, M. E., & Steindorf, K. (2006). Statistical methods for the validation of questionnaires. *Methods of Information in Medicine*, 45(04), 409–413. <https://doi.org/10.1055/s-0038-1634096>

- Seangrung, R., Ahuja, M., Pasutharnchat, K., & Mahawan, R. (2020). Factors influencing non-adherence to opioids in cancer patients: a mixed-methods cross-sectional study. *F1000research*, 9, 1471. <https://doi.org/10.12688/f1000research.27725.1>
- Seo, K. and Lee, J. (2021). Understanding risk perception toward food safety in street food: the relationships among service quality, values, and repurchase intention. *International Journal of Environmental Research and Public Health*, 18(13), 6826. <https://doi.org/10.3390/ijerph18136826>
- Seow, W.-L., Md Ariffin, U. K., Lim, S. Y., Mohamed, N. A., Lee, K. W., Devaraj, N. K., & Amin-Nordin, S. (2022). A systematic review on the usability of web-based applications in advocating consumers on food safety. *Foods*, 11(1), 115. <https://doi.org/10.3390/foods11010115>
- Septiani, D. and Chaerudin, R. (2020). The effect of customers' price perception, perceived quality and brand image toward purchasing intention in bandung local shoe brand. *KnE Social Sciences*. <https://doi.org/10.18502/kss.v4i6.6674>
- Serdar, C., Cihan, M., Yücel, D., & Serdar, M. (2021). Sample size, power and effect size revisited: simplified and practical approaches in pre-clinical, clinical and laboratory studies. *Biochemia Medica*, 31(1), 27-53. <https://doi.org/10.11613/bm.2021.010502>
- Setiyorini, H. D., Abdullah, T., & Ariandani, W. (2019, June). Does Food Image Affect Customer Intention to Buy Food? In *3rd International Seminar on Tourism (ISOT 2018)* (pp. 318-319). Atlantis Press. <https://doi.org/10.2991/isot-18.2019.70>
- Shafieizadeh, K., Alotaibi, S., & Tao, C. (2023). Information processing of food safety messages: what really matters for restaurant customers? *International Journal of Contemporary Hospitality Management*, 35(10), 3638-3661. <https://doi.org/10.1108/ijchm-05-2022-0670>
- Sharma, A., Gangopadhyay, S., Agarwal, J. K., Kumar, A., & Ingole, K. V. (2021). Hand Contamination among Food Handlers: A Study on the Assessment of Food Handlers in Canteen of Various Hospitals in Solapur City, Maharashtra. *Journal of Pure & Applied Microbiology*, 15(3). Retrieved from https://openurl.ebsco.com/EPDB%3Aagcd%3A9%3A31439657/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Aagcd%3A152235776&crl=c&link_origin=scholar.google.com
- Shehadeh, A., Hunter, S., & Jeong, S. (2021). Self-management of dementia by family carers: a scoping review. *Gerontology and Geriatric Medicine*, 7, 233372142110166. <https://doi.org/10.1177/23337214211016694>
- Shen, C., Meng, W., Chen, X., Liu, K., Wu, X., & Yu, Q. (2025). Analysis of Factors Affecting Consumers' Perception of Food Safety Risks in the Prepared Food Market. *Foods*, 14(20), 3463. <https://doi.org/10.3390/foods14203463>

- Sim, J., Saunders, B., Waterfield, J., & Kingstone, T. (2018). Can sample size in qualitative research be determined a priori? *International Journal of Social Research Methodology*, 21(5), 619-634. <https://doi.org/10.1080/13645579.2018.1454643>
- Simatupang, R. A., & Bajari, M. (2021). Entrepreneurial intentions: Theory of planned behavior perspectives. *KnE Social Sciences*, 467-473. <https://doi.org/10.18502/kss.v5i5.8834>
- Sniehotta, F. (2009). An experimental test of the theory of planned behavior. *Applied Psychology Health and Well-Being*, 1(2), 257-270. <https://doi.org/10.1111/j.1758-0854.2009.01013.x>
- Sodagari, H. R., Mashak, Z., & Ghadimianazar, A. (2015). Prevalence and antimicrobial resistance of salmonella serotypes isolated from retail chicken meat and giblets in iran. *The Journal of Infection in Developing Countries*, 9(05), 463-469. <https://doi.org/10.3855/jidc.5945>
- Soon, J. (2020). Consumers' awareness and trust toward food safety news on social media in malaysia. *Journal of Food Protection*, 83(3), 452-459. <https://doi.org/10.4315/0362-028x.jfp-19-415>
- Soon, J., Wahab, I., Hamdan, R., & Jamaludin, M. (2020). Structural equation modelling of food safety knowledge, attitude and practices among consumers in malaysia. *Plos One*, 15(7), e0235870. <https://doi.org/10.1371/journal.pone.0235870>
- Steinmetz, H., Knappstein, M., Ajzen, I., Schmidt, P., & Kabst, R. (2016). How effective are behavior change interventions based on the theory of planned behavior? *Zeitschrift Für Psychologie*, 224(3), 216-233. <https://doi.org/10.1027/2151-2604/a000255>
- Stephen J. Forsythe. (2020). The Microbiology of Safe Food: Vol. Third edition. Wiley-Blackwell. Retrieved from <https://www.wiley.com/en-us/The+Microbiology+of+Safe+Food%2C+3rd+Edition-p-9781119405016>
- Stichler, J. F. (2016). Research, research-informed design, evidence-based design. *HERD: Health Environments Research & Design Journal*, 10(1), 7-12. <https://doi.org/10.1177/1937586716665031>
- Sun, H., Zhang, Q., Guo, W., & Lin, K. (2022). Hikers' pro-environmental behavior in National Park: Integrating Theory of planned behavior and Norm Activation theory. *Frontiers in Forests and Global Change*, 5. <https://doi.org/10.3389/ffgc.2022.1068960>
- Sun, Y., Wang, S., & Huang, K. (2012). Hygiene knowledge and practices of night market food vendors in tainan city, taiwan. *Food Control*, 23(1), 159-164. <https://doi.org/10.1016/j.foodcont.2011.07.003>

- Sutisna, F. and Handra, T. (2022). Theory of planned behavior influences online shopping behavior. *Aptisi Transactions on Management (Atm)*, 6(1), 52-61. <https://doi.org/10.33050/atm.v6i1.1691>
- Taburan penduduk Mengikut Daerah di Negeri Terengganu - 2017 2020 Taburan Penduduk Daerah - Mampu.* TABURAN PENDUDUK MENGIKUT DAERAH DI NEGERI TERENGGANU - 2017 2020 taburan penduduk daerah - MAMPU. (n.d.). https://www.data.gov.my/data/ms_MY/dataset/taburan-penduduk-mengikut-daerah-di-negeri-terengganu/resource/72b05e92-de0a-4644-8ffe-81874281e2ab
- Tappes, S. P., Chaves Folly, D. C., da Silva Santos, G., de Aquino Feijó, C., & Pustiglione, M. (2020). Food handlers and foodborne diseases: grounds for safety and public and occupational health actions. *Revista brasileira de medicina do trabalho : publicacao oficial da Associacao Nacional de Medicina do Trabalho-ANAMT*, 17(3), 431–440. <https://doi.org/10.5327/Z1679443520190316>
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Teangsompong, T., Yamapewan, P., & Sawangproh, W. (2024). Consumer Trust in Thai Street Food Vendors: Implications for the post-pandemic era. *International Journal of Sociology and Social Policy*, 44(13/14), 16–48. <https://doi.org/10.1108/ijssp-09-2023-0220>
- Teoh, K. W., Ng, C. M., Chong, C. W., Bell, J. S., Cheong, W. L., & Lee, S. W. H. (2023). Knowledge, attitude, and practice toward pre-diabetes among the public, patients with pre-diabetes and healthcare professionals: a systematic review. *BMJ open diabetes research & care*, 11(1). <https://doi.org/10.1136/bmjdr-2022-003203>
- The Malaysian Insight. (2024, July 28). *Peningkatan Kes Keracunan Makanan membimbangkan, Kata MMA: The Malaysian insight.* News. <https://www.themalaysianinsight.com/bahasa/s/485969>
- Theng, L. S., Adnan, M., Binti, S. A., Jaafar, N. M., Jaafar, S. N. A., & Mahyudin, N. (2017). Comparative Study of Consumers'knowledge and Attitudes Towards Food Safety and Purchase Intention of Night Market Foods Containing Poultry in Low And High Food Poisoning Cases States. *Malaysian Applied Biology*, 46(3). Retrieved from https://www.researchgate.net/profile/Siti-Jaafar-5/publication/320539789_Comparative_study_of_consumers'_knowledge_and_attitudes_towards_food_safety_and_purchase_intention_of_night_market_foods_containing_poultry_in_low_and_high_food_poisoning_cases_states/links/5cfdbc024585157d159fe63d/Comparative-study-of-consumers-knowledge-and-attitudes-towards-food-safety-and-purchase-intention-of-

night-market-foods-containing-poultry-in-low-and-high-food-poisoning-cases-states.pdf

- Tilaki, M. J., Aboali, G., Marzbali, M. H., & Samat, N. (2021). Vendors' attitudes and perceptions towards international tourists in the Malaysia Night Market: Does the COVID-19 outbreak matter? *Sustainability*, 13(3), 1553. <https://doi.org/10.3390/su13031553>
- Tsang, S., Royse, C., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi Journal of Anaesthesia*, 11(5), 80. https://doi.org/10.4103/sja.sja_203_17
- Tuglo, L., Agordoh, P., Tekpor, D., Pan, Z., Agbanyo, G., & Chu, M. (2021). Food safety knowledge, attitude, and hygiene practices of street-cooked food handlers in north dayi district, ghana. *Environmental Health and Preventive Medicine*, 26(1). <https://doi.org/10.1186/s12199-021-00975-9>
- Umana, U., Ebong, M., & Godwin, E. (2020). Biomass production from oil palm and its value chain. *Journal of Human Earth and Future*, 1(1), 30-38. <https://doi.org/10.28991/hef-2020-01-01-04>
- Unnevehr, L. (2022). Addressing food safety challenges in rapidly developing food systems. *Agricultural Economics*, 53(4), 529-539. <https://doi.org/10.1111/agec.12724>
- Uwamariya, A., Safari, E., & Kengere, O. (2021). Stakeholder participation and project sustainability: a case of deaf donor funded project in kicukiro, rwanda. *Journal of Advance Research in Business Management and Accounting* (Issn 2456-3544), 7(6), 12-24. <https://doi.org/10.53555/nnbma.v7i6.1004>
- Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, 18(1). <https://doi.org/10.1186/s12874-018-0594-7>
- Verdú, A., Millán, R., Saavedra, P., Iruzubieta, C. J. C., & Sanjuán, E. (2021). Does the consumer sociodemographic profile influence the perception of aspects related and not related to food safety? A study in traditional Spanish street markets. *International Journal of Environmental Research and Public Health*, 18(18), 9794. <https://doi.org/10.3390/ijerph18189794>
- Verma, R., Patel, M., Shikha, D., & Mishra, S. (2023). Assessment of food safety aspects and socioeconomic status among street food vendors in Lucknow City. *Journal of Agriculture and Food Research*, 11, 100469. <https://doi.org/10.1016/j.jafr.2022.100469>
- Vivas, A., Gelaye, B., Aboset, N., Kumie, A., Berhane, Y., & Williams, M. A. (2010). Knowledge, attitudes, and practices (KAP) of hygiene among school children in Angolela, Ethiopia. *Journal of preventive medicine and hygiene*, 51(2), 73. Retrieved from <https://pmc.ncbi.nlm.nih.gov/articles/PMC3075961/>

- Vyasa, S., & Kushwaha, A. (2017). Consumer's perception and knowledge concerning safety of street food services in Pantnagar, India. *Journal of Food Safety and Hygiene*, 3(1/2), 34-39. Retrieved from <https://jfsh.tums.ac.ir/index.php/jfsh/article/view/140>
- Wang, H., Cui, W., Guo, Y., Du, Y., & Zhou, Y. (2021). Machine learning prediction of foodborne disease pathogens: algorithm development and validation study. *JMIR Medical Informatics*, 9(1), e24924. <https://doi.org/10.2196/24924>
- Wang, H., Ma'rof, A. A., Abdullah, H., Hamsan, H. H., Zhang, L., & We, Q. (2022). Research status and development trend of the theory of planned behavior: a visual analysis based between 2012-2022. *International Journal of Academic Research in Business and Social Sciences*, 12(12). <https://doi.org/10.6007/ijarbss/v12-i12/15747>
- Wang, J., Chen, L., Yu, M., & He, J. (2020). Impact of knowledge, attitude, and practice (KAP)-based rehabilitation education on the KAP of patients with intervertebral disc herniation. *Annals of palliative medicine*, 9(2), 38893-38393. doi: 10.21037/apm.2020.03.01
- Wang, L., Wong, P., & Narayanan, E. (2020). The demographic impact of consumer green purchase intention toward Green Hotel Selection in China. *Tourism and Hospitality Research*, 20, 210-222. <https://doi.org/10.1177/1467358419848129>
- Wang, L., Zhang, Q., & Wong, P. P. W. (2022). Assessment of tourists perceived without travel risks and intention to visit night market aftermath the covid-19 pandemic: an empirical approach. *Turyzm/Tourism*, 32(2), 163-186. <https://doi.org/10.18778/0867-5856.32.2.09>
- Wang, O., & Scrimgeour, F. (2021). Willingness to adopt a more plant-based diet in China and New Zealand: Applying the theories of planned behaviour, meat attachment and food choice motives. *Food Quality and Preference*, 93, 104294. <https://doi.org/10.1016/j.foodqual.2021.1042>
- Wang, S., Wang, J., Yang, F., Wang, Y., & Li, J. (2018). Consumer familiarity, ambiguity tolerance, and purchase behavior toward remanufactured products: The implications for remanufacturers. *Business Strategy and the Environment*, 27(8), 1741–1750. <https://doi.org/10.1002/bse.2240>
- Watanabe, E., Torres, C., & Alfinito, S. (2019). The impact of culture, evaluation of store image and satisfaction on purchase intention at supermarkets. *Revista De Gestão*, 26(3), 256-273. <https://doi.org/10.1108/rege-12-2017-0009>
- Wei, L. (2018). Consumers' food safety risk perception of and consumption decision-making behaviour. *Neuroquantology*, 16(6). <https://doi.org/10.14704/nq.2018.16.6.1650>
- Werkneh, A., Tewelde, M., Gebrehiwet, T., Islam, M., & Belew, M. (2023). Food safety knowledge, attitude and practices of street food vendors and associated

- factors in Mekelle city, Northern Ethiopia. *Heliyon*, 9. <https://doi.org/10.1016/j.heliyon.2023.e15126>.
- WHO (2022). "Food Safety: Key Facts." World Health Organization. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/food-safety>
- Wiatrowski, M., Czarniecka-Skubina, E., & Trafialek, J. (2021). Consumer eating behavior and opinions about the food safety of street food in Poland. *Nutrients*, 13(2), 594.
- Wu, H., Cheng, C., & Hsu, F. (2014). An assessment of visitors' behavioral intentions in the taiwan tourist night market using a multilevel and hierarchical approach. *Tourism Analysis*, 19(2), 185-197. <https://doi.org/10.3727/108354214x13963557455685>
- Yasami Y., et al. (2020). "Consumer Trust and Food Safety: Implications for Street Food Markets." *Journal of Consumer Studies*.
- Yastica, T. V., Salma, S. A., Caesaron, D., Safrudin, Y. N., & Pramadya, A. R. (2020). Application of theory planned behavior (tpb) and health belief model (hbm) in covid-19 prevention: a literature review. *2020 6th International Conference on Interactive Digital Media (ICIDM)*. <https://doi.org/10.1109/icidm51048.2020.9339605>
- Yatim, N. (2023, April 16). 8 Sampel Makanan Bazar ramadan di terengganu tercemar. *Sinar Harian*. Retrieved from <https://www.sinarharian.com.my/article/254760/edisi/terengganu/8-sampel-makanan-bazar-ramadan-di-terengganu-tercemar>
- Yazar, E. E., & Burucuoğlu, M. (2019). Consumer attitude towards organic foods: A multigroup analysis across genders. *Istanbul Business Research*, 48(2), 176-196. <https://doi.org/10.26650/ibr.2019.48.0001>
- Yeap, J. A., Ong, K. S., Yapp, E. H., & Ooi, S. K. (2019). Hungry for more: understanding young domestic travellers' return for penang street food. *British Food Journal*, 122(6), 1935-1952. <https://doi.org/10.1108/bfj-09-2018-0632>
- Yu, H., Gibson, K., Wright, K., Neal, J., & Sirsat, S. (2017). Food safety and food quality perceptions of farmers' market consumers in the united states. *Food Control*, 79, 266-271. <https://doi.org/10.1016/j.foodcont.2017.04.010>
- Yu, H., Lin, Z., Lin, M., Neal, J., & Sirsat, S. (2022). Consumers' knowledge and handling practices associated with fresh-cut produce in the United States. *Foods*, 11(14), 2167. <https://doi.org/10.3390/foods11142167>
- Yuan, X. and Xiao, Y. (2021). Cognition, value perception and purchase intention of organic food—evidence from china's organic milk market. *Sustainability*, 13(2), 910. <https://doi.org/10.3390/su13020910>

- Zahir, A., Ge, Z., & Khan, I. A. (2025). Public health risks associated with food process contaminants—A review. *Journal of Food Protection*, 88(2), 100426. <https://doi.org/10.1016/j.jfp.2024.100426>
- Zakaria, P. A. M., & Ishak, F. N. A. (2017). Food hygiene awareness among food handlers at night market. Retrieved from <https://ir.uitm.edu.my/id/eprint/26540/>
- Zanetta, L., Mucinhato, R., Hakim, M., Stedefeldt, E., & Cunha, D. (2022). What motivates consumer food safety perceptions and beliefs? a scoping review in brics countries. *Foods*, 11(3), 432. <https://doi.org/10.3390/foods11030432>
- Zarei, F., Dehghani, A., Ratansiri, A., Ghaffari, M., Raina, S. K., Halimi, A., Rakhshanderou, S., Isamel, S. A., Amiri, P., Aminafshar, A., & Mosavi Jarrahi, A. (2024). ChecKAP: A Checklist for Reporting a Knowledge, Attitude, and Practice (KAP) Study. *Asian Pacific journal of cancer prevention: APJCP*, 25(7), 2573–2577. <https://doi.org/10.31557/APJCP.2024.25.7.2573>
- Zhang, C., Yang, Z., & Zhang, H. (2022). Psychometric evaluation of the chinese version of occupational lowback pain prevention behaviors questionnaire among clinical nurses: a validation study. *Frontiers in Public Health*, 10. <https://doi.org/10.3389/fpubh.2022.827604>
- Zhang, Y., Jing, L., Liu, C., Shen, Y., & Li, G. (2020). The effect of novelty on travel intention: the mediating effect of brand equity and travel motivation. *Management Decision*, 59(6), 1271-1290. <https://doi.org/10.1108/md-09-2018-1055>
- Zhao-hui, Y., Paudel, K. P., Wen, X., Sun, S., & Wang, Y. (2020). Food safety risk information-seeking intention of wechat users in china. *International Journal of Environmental Research and Public Health*, 17(7), 2376. <https://doi.org/10.3390/ijerph17072376>
- Zhou, G. and Husnain, M. (2022). Assessing the role of organic food supply chain traceability on food safety and consumer wellbeing: a mediated-moderation investigation. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1073376>
- Zorba, N. and Kaptan, M. (2011). Consumer food safety perceptions and practices in a turkish community. *Journal of Food Protection*, 74(11), 1922-1929. <https://doi.org/10.4315/0362-028x.jfp-11-126>
- Zulmi, M. A., & Suzianti, A. (2021, May). Measuring the Preference of Street Food Consumers on Food Safety Knowledge: An Integrated TPB Approach. In *Proceedings of the 4th Asia Pacific Conference on Research in Industrial and Systems Engineering* (pp. 88-93). <https://doi.org/10.1145/3468013.3468314>

APPENDICES



FACULTY OF FOOD SCIENCE AND AGROTECHNOLOGY
UNIVERSITI MALAYSIA TERENGGANU

QUESTIONNAIRE

ASSOCIATIONS OF CONSUMER FOOD SAFETY KNOWLEDGE,
ATTITUDES AND PERCEPTIONS TOWARDS FOOD HANDLERS' HYGIENE
PRACTICES WITH BUSINESS FAMILIARITY AND PURCHASE INTENTION

My name is Amalina Shahirah binti Md Noor. I am a master student from School of Food Science and Agrotechnology, Universiti Malaysia Terengganu. The purpose of conducting this survey is to fulfil the requirement of my master research. All information obtained is highly confidential and will only be used in my research study. Thank you for your cooperation in completing this questionnaire.

Instruction:

- This questionnaire consists of SIX sections. Sections A (Socio Demographic Profile), Section B (Night Market Consumers' Food Safety Knowledge), Section C (Night Market Consumers' Food Safety Attitude), Section D (Night Market Consumers' Perception Towards Night Market Food Handlers Hygiene Practices), Section E (Night Market Consumers' Familiarity Effects toward Purchase Intention and Section F (Night Market Consumers' Intention to Purchase Night Market Food Based On Food Hygiene Practice of Food Handlers)
- Please kindly complete each section in this questionnaire.

All data collected and processed will be kept strictly confidential



FAKULTI SAINS MAKANAN DAN AGROTEKNOLOGI
UNIVERSITI MALAYSIA TERENGGANU

BORANG SOAL SELIDIK

HUBUNGAN DI ANTARA PENGETAHUAN, SIKAP DAN PERSEPSI PENGGUNA TERHADAP AMALAN KEBERSIHAN PENGENDALI MAKANAN DENGAN KEBIASAAN PERNIAGAAN DAN NIAT PEMBELIAN

Nama saya Amalina Shahirah binti Md Noor. Saya merupakan pelajar sarjana dari Pusat Pengajian Sains Makanan dan Agroteknologi, Universiti Malaysia Terengganu. Tujuan menjalankan tinjauan ini adalah untuk memenuhi keperluan penyelidikan sarjana saya. Semua maklumat yang diperolehi adalah sangat sulit dan hanya akan digunakan dalam kajian penyelidikan saya. Terima kasih atas kerjasama anda dalam melengkapi soal selidik ini.

Arahan:

- Soal selidik ini mengandungi ENAM bahagian. Bahagian A (Profil Demografi Sosioografi), Bahagian B (Pengetahuan Keselamatan Makanan Pengguna Pasar Malam), Bahagian C (Sikap Keselamatan Makanan Pengguna Pasar Malam), Bahagian D (Persepsi Pelanggan Pasar Malam Terhadap Amalan Kebersihan Pengendali Makanan Pasar Malam), Bahagian E (Kebiasaan Pelanggan Pasar Malam Memberi kesan pada Niat membeli) dan Bahagian F (Niat Pengguna Pasar Malam untuk Membeli Makanan Pasar Malam Berdasarkan Amalan Kebersihan Makanan Pengendali Makanan Pasar Malam)
- Sila lengkapkan setiap bahagian dalam borang ini.

Semua data yang dikumpul dan diproses akan disimpan dan dirahsiakan

Maklumat Kajian:

Kajian ini memberikan manfaat kepada peserta dalam beberapa cara iaitu:

- Ia meningkatkan kesedaran tentang risiko keselamatan makanan di pasar malam, menyokong persekitaran makanan yang lebih selamat.
- Peserta mendapat pemahaman tentang pengetahuan, sikap, dan pandangan mereka tentang keselamatan makanan, membantu mereka membuat pilihan makanan yang lebih baik di pasar malam. Ini membantu mereka mengenal pasti bidang untuk peningkatan peribadi.
- Terakhir, kajian ini meneliti bagaimana kebiasaan makanan di pasar malam mempengaruhi keputusan pembelian, menjelaskan hubungan antara pengetahuan, sikap, persepsi, dan niat untuk membeli makanan. Keseluruhannya, peserta memainkan peranan penting dalam meningkatkan keselamatan makanan dan membuat keputusan yang lebih baik tentang makanan pasar malam.
- Penyelidikan ini telah mendapat kelulusan etika penyelidikan. Nombor kelulusan etika tersebut adalah UMT/JKEPM/2024/206.

Persetujuan Responden:

Saya mengesahkan perkara berikut:

- Saya telah diberi maklumat bertulis untuk kajian di atas dan telah membaca dan memahami maklumat yang diberikan.
- Saya mempunyai masa yang mencukupi untuk mempertimbangkan penyertaan dalam kajian dan mempunyai peluang untuk bertanya dan semua soalan saya telah dijawab dengan memuaskan.
- Saya faham bahawa penyertaan saya adalah sukarela dan saya boleh pada bila-bila masa secara percuma menarik diri daripada kajian tanpa memberi sebab dan ini sama sekali tidak akan menjejaskan masa depan saya.
- Saya memahami risiko dan faedah, dan saya bebas memberi kebenaran termaklum saya untuk mengambil bahagian di bawah syarat yang dinyatakan.
- Semua butiran peribadi akan dianggap sebagai sulit.

Questionnaire

BAHAGIAN A: PROFAIL SOSIO DEMOGRAFIK

SECTION A: SOSIO DEMOGRAPHIC PROFILE

Sila tandakan respon anda pada pilihan jawapan yang berkaitan dengan anda
Please mark your response on the answer option that relates to you

1. Jantina *Gender*

☐

Lelaki *Male*

☐

Perempuan *Female*

2. Umur *Age*

☐

18-25 tahun (*18-25 old*)

☐

26-35 tahun (*26-35 old*)

☐

36-45 tahun (*36-45 old*)

☐

46-55 tahun (*45-55 old*)

☐

≥ 56 tahun (≥ 56 tahun *old*)

3. Kaum *Race*

☐

Melayu *Malay*

☐

India *Indian*

☐

Cina *Chinese*

☐

Lain-lain *Others* : _____

4. Tahap Pendidikan *Education Level*

☐

PMR

☐

SPM

- ☐ STPM
- ☐ Matrikulasi
Matriculation
- ☐ Sijil
Certificate
- ☐ Diploma
- ☐ Ijazah
Bachelor of Degree
- ☐ Sarjana
Master
- ☐ PHD

Others: _____

5. Pendapatan bulanan *Monthly income*

- ☐ < RM 1500"
- ☐ RM 1501 - RM 2500
- ☐ RM 2501 - RM 3500
- ☐ RM 3501 - RM 4500
- ☐ RM 4501 - RM 5500
- ☐ RM 5501 - RM 6500
- ☐ RM 6501 - RM 7500
- ☐ RM 7501 - RM 8500
- ☐ RM 8501 - RM 9500
- ☐ > RM 9501"

6. Pekerjaan *Occupation*

- ☐ Pengurusan *Management*
- ☐ Pendidikan *Education*
- ☐ Ahli Perniagaan *Businessman*
- ☐ Penyelia *Supervisor*
- ☐ Pengkeranian *Clerical*
- ☐ Buruh *Manual*
- ☐ Perkhidmatan *Service*
- ☐ Suri Rumah *Homemaker*
- ☐ Pelajar *Student*
- ☐ Kejuruteraan
Engineering
- ☐ Tidak bekerja
Not working

7. Kekerapan anda melawati ke pasar malam *Your frequency of visiting night market*

- ☐ Sekali sebulan *Once a month*
- ☐ Dua kali sebulan *Twice a month*
- ☐ 3 ke 4 kali sebulan *3 to 4 a month*

8. Adakah anda mempunyai pendidikan formal mengenai keselamatan makanan? Jika ya, sila jawab soalan 9 dan soalan 10. Jika tidak terus ke soalan 11.

Do you have a formal education regarding food safety? If yes, please answer question 9 and question 10. If no, direct to answer question 11.

- ☐ Ya *Yes*
- ☐ Tidak *No*

9. Jika ya, apakah jenis pendidikan tersebut?

If yes, what are the type of education?

☐ Menghadiri kelas *Attended class*

☐ Latihan *Training*

10. Sila nyatakan jenis pendidikan atau latihan yang anda hadiri:

11. Jenis sumber bacaan yang anda perolehi maklumat mengenai keselamatan makanan

The types of reading sources you get information about food safety?

☐ Surat Khabar *Newspaper*

☐ Televisyen *Television*

☐ Artikel dari Kementerian Kesihatan *Malaysia Article from Malaysia Ministry of Health*

☐ Media Sosial (Contoh: Facebook dan Instagram) *Social Media (Example: Facebook and Instagram)*

☐ Lain-lain (*others*): _____

BAHAGIAN B: PENGETAHUAN PENGGUNA PASAR MALAM MENGENAI KESELAMATAN MAKANAN

SECTION B: NIGHT MARKET CONSUMERS KNOWLEDGE OF FOOD SAFETY

Sila tandakan respon anda pada pilihan jawapan yang berkaitan dengan anda
Please mark your response on the answer option that relates to you

1. Penggunaan sarung tangan semasa mengendalikan makanan di pasar malam dapat mengurangkan risiko pencemaran makanan
Using gloves while handling food at the night market reduces the risk of food contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

2. Membasuh tangan sebelum mengendalikan makanan di pasar malam dapat mengurangkan risiko pencemaran makanan
Washing hands before handling food at the night market reduces the risk of food contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

3. Pemakaian topi atau penutup kepala semasa mengendalikan makanan di pasar malam dapat menghalang pencemaran
Wearing a hat or head covering when handling food can prevent contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

4. Pemakaian kasut bagi pengendali makanan di pasar malam dapat memberi gambaran yang baik kepada pelanggan
The use of shoes for food handlers at the night market can give a good impression to customers

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

5. Pengendali makanan di pasar malam perlu memastikan kuku mereka berada dalam keadaan pendek dan bersih sebelum mengendalikan makanan
Food handlers at the night market need to make sure their nails are short and clean before handling food

☐ ☐ ☐

Betul *True*

Salah *False*

Tidak pasti *Not sure*

6. Pemakaian apron semasa mengendalikan makanan di pasar malam adalah satu amalan yang baik

Wearing an apron when handling food at the night market is a good practice

☐

Betul *True*

☐

Salah *False*

☐

Tidak pasti *Not sure*

7. Pengendali makanan di pasar malam bebas untuk batuk dan bersin semasa berniaga

Food handlers at the night market are free to cough and sneeze while doing business

☐

Betul *True*

☐

Salah *False*

☐

Tidak pasti *Not sure*

8. Pengendali makanan di pasar malam sepatutnya mengambil cuti sekiranya menghadapi sakit kulit berjangkit

It is necessary for the food handlers at night market to take leave from work during infectious disease of the skin.

☐

Betul *True*

☐

Salah *False*

☐

Tidak pasti *Not sure*

9. Pengendali makanan di pasar malam yang merokok semasa mengendalikan makanan adalah amalan yang tidak baik

Night market food handlers that smoking while handling food is bad practice

☐

Betul *True*

☐

Salah *False*

☐

Tidak pasti *Not sure*

10. Surat khabar adalah salah satu bahan pembungkusan yang baik bagi membungkus makanan

Newspaper is one of the good packaging materials for wrapping food

☐

Betul *True*

☐

Salah *False*

☐

Tidak pasti *Not sure*

11. Pencemaran silang berlaku apabila mikroorganisma daripada makanan yang telah tercemar berpindah ke tangan pengendali makanan di pasar malam atau peralatan dapur kepada makanan lain

Cross contamination happens when microorganisms from contaminated foods are transferred by the night market food handler's hands or kitchen utensils to another food.

☐

Betul *True*

☐

Salah *False*

☐

Tidak pasti *Not sure*

12. Makanan yang rusak dapat dikenali melalui rupa, bau dan rasa.

Spoiled food can be identified by appearance, smell and taste.

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

13. Cara pembersihan dan sanitasi perkakas yang betul dapat meningkatkan risiko pencemaran makanan

Proper cleaning and sanitization of utensil increase the risk of food contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

14. Membersih tidak sama seperti sanitasi

Cleaning is not the same as sanitization

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

15. Membasuh peralatan dengan bahan pencuci dapat mengelakkan pencemaran silang

Washing utensil with detergent leaves them free of contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

16. Makan dan minum di tempat mengendalikan makanan meningkatkan risiko pencemaran makanan

Eating and drinking in the work place increase the risk of food contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

17. Demam kepialu atau *Typhoid* boleh berjangkit melalui makanan

Typhoid fever can be transmitted by food

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

18. Makanan di pasar malam yang disediakan 4 jam lebih awal dari masa untuk dihidang dapat mengurangkan risiko pencemaran

Food at the night market that prepared 4 hours in advance reduces the risk of food contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

19. Sayur mentah lebih berisiko untuk dicemari berbanding daging separuh masak

Raw vegetables are at higher risk of contamination compared to undercooked beef

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

20. Makanan yang dipanaskan semula dapat meningkatkan risiko pencemaran makanan

Food that are reheated may increase the risk of food contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

21. Penyejukan membunuh semua bakteria yang boleh menyebabkan penyakit bawaan makanan,

Freezing kills all bacteria that may cause food-borne illness

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

22. *Salmonella* sp. adalah sejenis patogen bawaan makanan

Salmonella sp. is among the food pathogens

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

23. Kanak-kanak, orang dewasa yang sihat, wanita hamil dan individu yang lebih tua mempunyai risiko yang sama untuk keracunan makanan

Children, healthy adults, pregnant women and older individuals are at equal risk for food poisoning

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

24. *Staphylococcus* sp. adalah sejenis patogen bawaan makanan

Staphylococcus sp. is among the food pathogens

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

25. Tempat penyediaan makanan di pasar malam perlu jauh dari kawasan pembuangan sampah

The place where food is prepared at the night market must be far from the garbage disposal area

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

26. Penyediaan tong sampah yang bertutup adalah penting di tempat menyediakan makanan

The provision of closed bins is important at the place that foods is prepared

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

27. Kenderaan yang sesuai semasa membawa makanan ke pasar malam adalah penting bagi keselamatan makanan

Appropriate vehicles when transporting food to the night market are important for food safety

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

28. Makanan yang siap dimasak perlu ditutup bagi mengelakkan pencemaran makanan berlaku

Food that is ready to be cooked must be covered to prevent food contamination

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

29. Penggunaan minyak masak untuk menggoreng ayam dipasar malam yang berulang kali boleh membahayakan kesihatan

Repeated use of cooking oil that used to frying chicken at the night market can be harmful to health

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

30. Penyediaan air balang di pasar malam perlu disediakan daripada sumber air yang bersih untuk memastikan keselamatan makanan dan minuman yang disediakan

Preparation of 'air balang' at the night market must prepared with a clean source of water to ensure the safety of the food and drinks provided

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

31. Makanan yang perlu sentiasa panas patut berada pada suhu 65°C

Foods that need to be kept hot should be at 65°C or above

☐ Betul *True* ☐ Salah *False* ☐ Tidak pasti *Not sure*

BAHAGIAN C: SIKAP PENGGUNA PASAR MALAM TERHADAP KESELAMATAN MAKANAN

SECTION C: NIGHT MARKET CONSUMER'S ATTITUDE TOWARDS FOOD SAFETY

Sila tandakan respon anda pada pilihan jawapan yang berkaitan dengan anda
Please mark your response on the answer option that relates to you

1= Paling Tidak Setuju 2= Tidak Setuju 3= Tidak Pasti 4= Setuju 5= Paling Setuju

1= Strongly Disagree 2= Disagree 3= Not Sure 4= Agree 5= Strongly Agree

NO	SOALAN/QUESTION	1	2	3	4	5
1	Memakai sarung tangan semasa mengendalikan makanan di pasar malam dapat mengurangkan risiko pencemaran <i>Wearing gloves when handling food at the night market can reduce the risk of contamination</i>					
2	Membasuh tangan sebelum menyediakan makanan di pasar malam dapat mengurangkan risiko pencemaran <i>Hand washing before handling food at the night market reduces the risk of contamination</i>					
3	Pemakaian topi semasa mengendali makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Wearing a cap during handling food at the night market reduces the risk of contamination</i>					
4	Pengendali makanan di pasar malam yang memakai kasut dapat mengurangkan risiko keselamatan makanan. <i>Food handlers in night markets who wear shoes reduces the risk of contamination</i>					
5	Berkuku pendek dan bersih semasa mengendali makanan di pasar malam					

	dapat mengurangkan risiko keselamatan makanan. <i>Short and clean fingernails during handling food at night market reduces the risk of contamination</i>					
6	Pemakaian apron yang bersih semasa mengendalikan makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Wearing a clean apron during handling food at night market can reduce the risk of contamination</i>					
7	Batuk dan bersin semasa mengendali makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Cough and sneeze while during handling food at night market reduces the risk of contamination</i>					
8	Selesema semasa mengendalikan makanan di pasar malam dapat mengurangkan risiko keselamatan makanan <i>Having cold during handling food at night market can reduce the risk of contamination</i>					
9	Merokok semasa mengendali makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Smoking during handling food at night market can reduce the risk of contamination</i>					
10	Memakai pelitup muka semasa mengendali makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Wearing face mask during handling food at night market can reduce the risk of contamination</i>					
11	Menyimpan makanan mentah secara berasingan semasa mengendali makanan di pasar dapat					

	mengurangkan risiko keselamatan makanan. <i>Stored raw ingredients separately during handling food at night market can reduce the risk of contamination</i>					
12	Mensanitasi pisau dan papan pemotong secara berkala semasa mengendalikan makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Sanitized regularly knives and chopping board during handling food at night market can reduce the risk of contamination</i>					
13	Meletakkan tong sampah yang penuh berada berdekatan dengan meja kerja semasa mengendalikan makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Placing fulfilled dustbin near work ttable during handling food at night market can reduce the risk of contamination</i>					
14	Menyahbeku ayam dengan merendam terus di dalam air paip tanpa pembungkus semasa mengendalikan makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Freezed chicken can be thawed by soaking directly in tap water without the packaging during handling food at night market can reduce the risk of contamination</i>					
15	Mensanitasi permukaan meja kerja semasa mengendalikan makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Sanitized working table during handling food at night market reduce the risk of contamination</i>					
16	Menggunakan toala yang bersih semasa mengendalikan makanan di pasar					

	malam dapat mengurangi risiko keselamatan makanan. <i>Use clean dish towel during wiping utensil during handling food at night market reduce the risk of contamination</i>					
17	Membasuh telur semasa mengendali makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>The practice of washing eggs before use during handling food at night market reduce the risk of contamination</i>					
18	Menukar minyak masak yang telah digunakan beberapa kali semasa mengendali makanan di pasar malam dapat mengurangkan risiko makanan. <i>Changing cooking oil that used couple of time during handling food at night market reduce the risk of contamination</i>					
19	Membersihkan meja bagi meletak makanan dengan kerap semasa mengendali makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Cleaning table for placing food during handling food at night market reduce the risk of contamination</i>					
20	Membiarkan makanan terdedah semasa mengendali makanan di pasar malam dapat mengurangkan risiko keselamatan makanan. <i>Let food exposed during handling food at night market reduce the risk of contamination</i>					

BAHAGIAN D: PERSEPSI PENGGUNA PASAR MALAM TERHADAP
AMALAN KEBERSIHAN PENGENDALI MAKANAN PASAR MALAM

*SECTION D: NIGHT MARKET CONSUMER'S PERCEPTION TOWARDS
HYGIENE PRACTICES OF NIGHT MARKET FOOD HANDLERS*

Sila tandakan respon anda pada pilihan jawapan yang berkaitan dengan anda
Please mark your response on the answer option that relates to you

1= Paling Tidak Setuju 2= Tidak Setuju 3= Tidak Pasti 4= Setuju 5= Paling Setuju

1= Strongly Disagree 2= Disagree 3= Not Sure 4= Agree 5= Strongly Agree

NO	SOALAN/QUESTION	1	2	3	4	5
1	Saya merasakan amalan memakai sarung tangan sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of wearing gloves is very important in the preparation of food-by-food handlers at the night market</i>					
2	Saya merasakan amalan membasuh tangan sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of hand washing is very important in the preparation of food-by-food handlers at the night market</i>					
3	Saya merasakan amalan memakai topi sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of wearing a hat is very important in the preparation of food-by-food handlers at the night market</i>					
4	Saya merasakan amalan memakai kasut sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of wearing shoes is very important in the</i>					

	<i>preparation of food-by-food handlers at the night market</i>					
5	Saya merasakan amalan berkuku pendek sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of short nails is very important in the preparation of food-by-food handlers at the night market</i>					
6	Saya merasakan amalan memakai apron sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of wearing an apron is very important in the preparation of food-by-food handlers at the night market</i>					
7	Saya merasakan amalan beralih semasa batuk sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of shifting while coughing is very important in the preparation of food-by-food handlers at night markets</i>					
8	Saya merasakan amalan tidak merokok berhampiran makanan sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of not smoking near food is very important in the preparation of food-by-food operators at night markets</i>					
9	Saya merasakan amalan memakai pelitup muka sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived the practice of wearing a face mask is very important in the preparation of food-by-food operators at the night market</i>					

10	Saya merasakan amalan membersihkan meja kerja sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceivedl that the practice of cleaning the work table is very important in the preparation of food-by-food handlers at the night market</i>					
11	Saya merasakan amalan mensanitisasikan pisau dan papan pemotong sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of sanitizing knives and cutting boards is very important in the preparation of food-by-food handlers at the night market</i>					
12	Saya merasakan amalan menutup tong sampah sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of covering the bins is very important in the preparation of food-by-food handlers at the night market</i>					
13	Saya merasakan amalan menutup makanan sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of covering food is very important in the preparation of food-by-food handlers at the night market</i>					
14	Saya merasakan amalan membasuh telur sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of washing eggs is very important in the preparation of food-by-food operators at the night market</i>					

15	Saya merasakan amalan membasmi makhluk perosak seperti tikus dan lipas sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of eradicating pests such as rats and cockroaches is very important in the preparation of food-by-food operators at the night market</i>					
16	Saya merasakan amalan menggunakan kain lap yang bersih sangat penting dalam penyediaan makanan oleh pengendali makanan di pasar malam <i>I perceived that the practice of using a clean cloth is very important in the preparation of food-by-food handlers at the night marke</i>					

BAHAGIAN E: KELAZIMAN PENGGUNA PASAR MALAM MEMBERI KESAN KEPADA NIAT MEMBELI

SECTION E: NIGHT MARKET CONSUMERS' FAMILIARITY EFFECTS TOWARDS PURCHASE INTENTION

Sila tandakan respon anda pada pilihan jawapan yang berkaitan dengan anda
Please mark your response on the answer option that relates to you

1= Paling Tidak Setuju 2= Tidak Setuju 3= Tidak Pasti 4= Setuju 5= Paling Setuju

1= Strongly Disagree 2= Disagree 3= Not Sure 4= Agree 5= Strongly Agree

NO	SOALAN/QUESTION	1	2	3	4	5
1	Saya sudah biasa untuk membeli makanan jika saya mengenali penjual makanan pasar malam tersebut. <i>I am familiarized to buying food if I know the night market seller of the food</i>					
2	Saya sudah biasa untuk membeli makanan di pasar malam jika saya mengenali jenis makanan tersebut. <i>I am familiarized to buying food at the night market if I recognize the type of food.</i>					
3	Saya sudah biasa untuk membeli makanan di pasar malam jika saya mengetahui kaedah penyediaan makanan tersebut. <i>I am familiarized to buying food at the night market if I know how to prepare it.</i>					
4.	Saya sudah biasa untuk membeli makanan di pasar jika melihat kebersihan peralatan yang digunakan semasa makanan tersebut dihasilkan sebelum membeli makanan di pasar malam. <i>I am familiarized to buying food at night market if seeing the cleanliness of the equipment used when the food is produced before buying the food at the night market.</i>					

5.	Saya sudah biasa untuk membeli makanan di pasar malam jika mengetahui kandungan makanan tersebut <i>I am familiarized to buying food at night market if I know the ingredient of the food</i>					
6.	Saya sudah biasa mengenai tahap keselamatan makanan daripada kebanyakan orang di pasar malam. <i>I am familiarized with food safety than most people at the night market.</i>					
7.	Saya sudah biasa mengenai tahap keselamatan makanan daripada kawan-kawan saya di pasar malam. <i>I am familiarized with the level of food safety from my friends at the night market.</i>					
8.	Saya sudah biasa untuk membeli makanan di pasar malam daripada pengendali makanan pasar malam yang menutup kepala. <i>I am familiarized to buying food from night market food handlers who cover their heads.</i>					
9.	Saya sudah biasa untuk membeli makanan di pasar malam yang mempunyai harga yang berpatutan. <i>I am familiarized to buying food at the night market that has a reasonable price.</i>					
10.	Saya sudah biasa untuk membeli makanan di pasar malam daripada pengendali makanan yang memakai sarung tangan. <i>I am familiarized to buying food from night market food handlers who wear gloves.</i>					
11.	Saya sudah biasa untuk membeli makanan di pasar malam dengan bertanya harga makanan sebelum membeli makanan tersebut.					

	<i>I am familiarized to asking the price of night market food before buying the food.</i>					
--	---	--	--	--	--	--

BAHAGIAN F: NIAT PENGGUNA PASAR MALAM MEMBELI MAKANAN PASAR MALAM BERDASARKAN AMALAN KEBERSIHAN MAKANAN PENGENDALI MAKANAN

SECTION F: NIGHT MARKET CONSUMERS' INTENTION TO PURCHASE NIGHT MARKET FOOD BASED ON FOOD HYGIENE PRACTICE OF FOOD HANDLERS

Sila tandakan respon anda pada pilihan jawapan yang berkaitan dengan anda
Please mark your response on the answer option that relates to you

No	Soalan/Question	Ya/Yes	Tidak/No	Tidak Pasti/Not Sure
1.	Adakah anda akan memilih untuk membeli makanan daripada peniaga pasar malam yang memakai sarung tangan? <i>Would you choose to buy food from a night market food handlers that wearing gloves?</i>			
2	Adakah anda akan membeli makanan jika pengendali makanan pasar malam tersebut tidak memakai topi atau penutup kepala? <i>Would you buy food if the night market food handler was not wearing a cap or head covering?</i>			
3	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang menjaga kebersihan tangan? <i>Would you buy food from night market food handlers who keep their hands clean?</i>			
4	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang memakai apron? <i>Would you buy food from a night market food handler wearing an apron?</i>			
5	Adakah anda akan membeli makanan jika pengendali makanan pasar malam tersebut memakai pelitup muka?			

	<i>Would you buy food if the night market food handler was wearing a face mask?</i>			
6	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang menjaga kualiti pembungkusan? <i>Would you buy food from a night market food handler who takes care of the quality of the packaging?</i>			
7	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang menunjuk kaedah penyediaan? <i>Would you buy food from a night market food handler who specifies the preparation method?</i>			
8	Adakah anda akan membeli makanan di kedai makanan yang kurang bersih? <i>Would you buy food in an unsanitary food store?</i>			
9	Adakah anda akan membeli makanan jika anda terlihat pengendali makanan pasar malam tersebut merasa makanan menggunakan jari dan tapak tangan? <i>Would you buy food if you saw the night market food handlers tasting the food with their fingers and palms?</i>			
10	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang menggunakan papan pemotong yang berbeza? <i>Would you buy food from a night market food handler that uses a different cutting board?</i>			
11	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang memakai pewarna kuku? <i>Would you buy food from a night market food handler wearing nail polish?</i>			
12	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang menyentuh makanan tanpa sarung tangan?			

	<i>Would you buy food from a night market food handler who touches food without gloves?</i>			
13	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang makan dan minum di tempat kerja? <i>Would you buy food from night market food handlers who eat and drink at work?</i>			
14	Adakah anda akan membeli makanan daripada pengendali makanan pasar malam yang menyediakan makanan terlalu awal? <i>Would you buy food from a night market food handler that prepares food too early?</i>			

TERIMA KASIH
THANK YOU

BIODATA OF AUTHOR

NAME	: Amalina Shahirah Binti Md Noor
GENDER	: Female
NATIONALITY	: Malaysia
IDENTITY CARD NO.	: 910309-08-6002
RACE	: Malay
RELIGION	: Islam
PERMANENT ADDRESS	: 134, Kampung Sekolah Pondok Tanjong, 34010 Taiping, Perak
CONTACT NUMBER	: 019-5028814
EMAIL	: amalinashahirah@gmail.com

EDUCATIONAL BACKGROUND

2014-2018	Universiti Malaysia Terengganu
2011-2013	Politeknik Sultan Haji Ahmad Shah, Kuantan
2009-2011	Kolej Komuniti Pasir Salak
2006-2008	Sekolah Teknik Kuala Kangsar
2003-2005	Sekolah Menengah Kebangsaan Dato' Haji Mohd Taib
1998-2002	Sekolah Kebangsaan Haji Mahmud

CONFERENCE PROCEEDNG

A Study of Consumers' Knowledge, Attitudes and Perception towards Food Handlers' Practice, Familiarity and Purchase Intention of Night Market Foods using Structural Equation Modelling. 3rd International Postgraduate Symposium on Food Security (IPSyOFS-24), 7-9 August 2024, Universiti Malaysia Terengganu.

PUBLICATION PAPER

The role of consumer knowledge, attitudes, and perceptions of food safety in hygiene practices and purchase intentions at night market: A systematic literature review.

