

IMPACT OF THEORY OF PLANNED BEHAVIOR,
HEALTH CONSCIOUSNESS, PRODUCT
AVAILABILITY, PRICE, AND TECHNOPHOBIA
ON ONLINE ORGANIC FOOD PURCHASES BY
DIGITAL NATIVES IN MALAYSIA

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DIGITAL NATIVES IN MALAYSIA

By

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A thesis submitted to the Department of Business and Finance,
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DEDICATION

First and foremost, I dedicate this achievement to the loving memory of my late father. Although he is no longer with us, his unwavering love, values, and dreams for me have remained a guiding light throughout this journey. His memory has been a constant source of strength and inspiration, and this accomplishment is as much his as it is mine.

I also dedicate this work to my beloved mother, whose prayers, patience, and unconditional love have always supported me in every step of my life.

To my wife and my daughter, thank you for your understanding, encouragement, and endless support during the many challenges of this journey. Your love and belief in me gave me the motivation to persevere and complete this important milestone.

Finally, I dedicate this thesis to my siblings, whose encouragement and faith in me have always been a source of strength. Your support and presence have meant more than words can express.

This achievement stands as a tribute to the love, sacrifices, and unwavering support of my family.

Abstract

IMPACT OF THEORY OF PLANNED BEHAVIOR, HEALTH CONSCIOUSNESS, PRODUCT AVAILABILITY, PRICE, AND TECHNOPHOBIA ON ONLINE ORGANIC FOOD PURCHASES BY DIGITAL NATIVES IN MALAYSIA

Omar Sajid

The increasing demand for organic food, alongside the expansion of e-commerce, has made understanding online consumer behavior a pressing concern in today's digital economy. This issue has become particularly relevant in Malaysia, where digital natives represent a fast-growing segment of online consumers. The COVID-19 pandemic accelerated the transition to online shopping, further emphasizing the importance of identifying the factors that influence online organic food purchases. This study aims to explore both psychological and situational determinants of online purchase behavior, integrating key constructs from the Theory of Planned Behavior (TPB) which are attitude, subjective norms (SN), and perceived behavioral control (PBC) with additional predictors including health consciousness (HC), product availability (PA), product cost (PC), and technophobia. Data were collected through a structured questionnaire administered to 381 students from foreign-based universities in Malaysia, supplemented by a pilot study with 60 participants at Monash University to validate the instrument. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to test 14 hypothesized relationships. The findings reveal that 11 paths were statistically significant, showing that attitude, SN, PBC, PC, PA, and technophobia significantly affect behavioral intentions (BI) and organic food purchases (OFP). However, three

paths attitude to OFP, HC to OFP, and PA to BI were not supported, indicating that some commonly assumed predictors may have weaker effects in this context. The study advances TPB by incorporating external variables, thereby offering a more comprehensive framework to explain online consumer decision-making. The results highlight practical implications: businesses must ensure reliable product availability, competitive pricing, and simplified digital platforms to overcome technophobia while also emphasizing the health benefits of organic products in marketing strategies. Together, these findings provide valuable insights for both scholars and practitioners seeking to understand and influence online purchase intentions for organic food among digital natives in Malaysia.

Keywords: Online Consumer Behavior, Organic Food Purchase, Digital Natives, Technophobia, Theory of Planned Behavior (TPB)

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First and foremost, I dedicate this achievement to my late father. Though he is no longer with us, his unwavering love, values, and dreams for me have remained a guiding light throughout this journey. His memory has been my constant source of strength, and this accomplishment is as much his as it is mine.

To my beloved Mother, My Wife, my daughter and my siblings, thank you for your constant prayers, encouragement, and unconditional support. Your sacrifices and belief in me have been the pillars that carried me through even the most difficult times.

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List of Abbreviations

ATT—Attitude

AVE—Average Variance Extracted

CDC—Centre For Disease Control And Prevention

DESA – Department Of Economic And Social Affairs

GDPR—General Data Protection Regulation

HC—Health Consciousness

HTMT—Hetrotrait-Monotrait

MARDI—Malaysian Agricultural Research And Development Institute.

MIDA—Malaysian Investment Development Authority

MOHE—Ministry Of Higher Education Malaysia

OFP—Organic Food Purchase

PA—Product Availability

PBC—Perceived Behavioral Control

PC—Product Cost

PLS-SEM—Partial Least Square Structural Equation Modelling

PWC—Pricewater House Coopers

SAQ—Self-Administered Questionnaire

SDT—Self Determination Theory

SEA—South East Asia

SERC—Scientific And Ethical Review Committee

SN—Subjective Norms

SPSS—Statistical Package For Social Sciences

STDEV—Standard Deviation

TAM—Technology Acceptance Model

TPB—Theory Of Planned Behaviour

TRA—Theory Of Reason Actions

CHAPTER ONE

INTRODUCTION

The introduction chapter aims to provide the introductory information in terms of the background, problem statement, research objectives, research questions, empirical gap, significance of the study, scope of the study, and definition of the key terms which are explained as follows.

1.1 Background of the study

1.1.1 Online Shopping

Over the past few decades, the internet has evolved from a basic communication network into a vast, dynamic marketplace that accommodates businesses of every size and sector. This transformation has enabled electronic commerce (e-commerce) to become not only a mainstream but also an indispensable mode of conducting business across virtually all industries. The combination of easy internet access, secure digital payment systems, and the ability to reach consumers across borders has redefined how firms create value and how consumers engage in the purchasing process (Temasek, & Bain, 2023; UNCTAD, 2021). As a result, global e-commerce sales continue to rise sharply, with projections estimating that retail e-commerce will exceed US\$6 trillion worldwide in 2024, underscoring the growing reliance on online transactions for everyday goods and services (Statista, 2024).

The onset of the COVID-19 pandemic dramatically accelerated this ongoing transformation. In late December 2019, when the first cases of a pneumonia like illness were reported in Wuhan, China, few anticipated the scale of economic and social disruptions that would follow. By January 2020, the virus later identified as SARS-CoV-2 had begun to spread globally, prompting widespread lockdowns, travel restrictions, and social-distancing measures that disrupted traditional retail operations (World Bank, 2021; Youssef et al., 2020). Physical retail outlets faced

unprecedented constraints, and businesses of all sizes were forced to adopt digital solutions at a pace never witnessed before. E-commerce quickly became a critical lifeline for both consumers and firms, reshaping shopping habits and accelerating digital adoption by several years (Forbes, 2020).

Malaysia provides a particularly striking illustration of these shifts. Even before the pandemic, the country was experiencing steady growth in digital adoption, with high internet penetration and a young, tech-savvy population often described as “digital natives” (Alita, 2019; UN-DESA, 2023). When movement control orders and social-distancing mandates were introduced, online shopping became the default mode of consumption for many households. Reports indicate that during the height of the pandemic, daily e-commerce transactions in Malaysia increased by more than 10%, while internet usage rose by roughly 16%, accompanied by an estimated 40–45% increase in product demand (DOSM, 2022; Niazi, 2020). E-commerce income reached RM 896.4 billion in 2020 and exceeded RM 1.09 trillion in 2021, marking year-on-year growth of over 20% (MCMC, 2021, 2022). These figures reflect not only a temporary spike in online activity but also a structural transformation in consumer purchasing behavior and business operations.

The long-term implications of this growth are profound. Malaysian small and medium enterprises (SMEs), which historically depended on physical storefronts, have increasingly embraced online marketplaces, social commerce, and mobile payment systems to remain competitive (Azam & Ansari, 2024; GlobalData, 2024). At the same time, consumers have developed greater confidence in digital platforms, with rising familiarity in areas such as online grocery shopping, contactless delivery, and live-streaming commerce. These changes suggest that the e-commerce surge in Malaysia and across Southeast Asia is not merely a short-term reaction to a public health crisis but a fundamental shift in market dynamics. The pandemic acted as a catalyst, compressing several years of digital adoption into a matter of months and permanently elevating consumer expectations regarding convenience, speed, and product variety.

As Malaysia continues to recover from the pandemic, the nation's digital economy remains a key driver of growth. Government initiatives such as the Malaysia Digital Economy Blueprint and incentives for SMEs to adopt e-commerce solutions further reinforce this upward trajectory (MDEC, 2021). Understanding how Malaysian consumers navigate this rapidly evolving digital landscape particularly in terms of trust, price sensitivity, perceived risk, and technological readiness has become essential for businesses and researchers alike. Such insights are critical for formulating strategies that not only capture immediate market opportunities but also sustain long-term competitiveness in the post-pandemic era.

1.1.2 Organic Food Consumption

Organic food consumption has been steadily increasing across developing nations, and Malaysia reflects this global pattern. Although demand for organic products is rising, the local organic food industry remains relatively small and heavily reliant on imports over 65% of Malaysia's organic food supply comes from foreign sources (Pang et al., 2021). This dependence raises production costs and constrains the variety of organic products available to consumers. To address these limitations, the Malaysian Agricultural Research and Development Institute (MARDI) and other agencies are promoting domestic organic farming to reduce import reliance and strengthen local supply chains (Somasundram et al., 2016). Despite these efforts, the Malaysian organic market continues to grow at an impressive pace. Recent estimates value the domestic organic packaged food and beverage sector at close to USD 1 billion in 2023, with annual growth expected to accelerate in the coming years (Global Organic Trade, 2024).

The upward trend in organic food consumption is largely driven by growing consumer awareness of health and environmental issues. Global projections anticipate a compound annual growth rate of about 14.6% for the organic food market between 2021 and 2026, reaching USD 619.23 billion by 2026 (Grand View Research, 2021). Malaysian consumers increasingly perceive organic

products as healthier, safer, and more sustainable compared to conventionally produced alternatives (Lian & Yoong, 2019; Hussin & Abdul Wahid, 2024). Rising income levels, urbanization, and exposure to international health trends further strengthen these perceptions. Nevertheless, heavy reliance on imports means that prices remain high and product availability can fluctuate, creating a cost–availability paradox that continues to shape consumer decision making (Mohamed Harris et al., 2018).

The COVID-19 has changed the Malaysia's food retails' landscape. Lockdowns and movement restrictions encouraged consumers to adopt online grocery shopping, with e-commerce sales surging across categories, including organic food (Bhatti et al., 2022). This shift reflects not only health concerns but also a broader acceptance of digital commerce platforms. However, the move to online purchasing introduces new considerations, such as trust in e-commerce platforms, perceived ease of use, and technophobia the reluctance or anxiety some consumers feel toward technology (Pantano et al., 2020). These factors, combined with traditional concerns over price, health, and product availability, now play an integral role in shaping consumer preferences and purchase intentions.

The Malaysian organic food consumer represents a complex decision-making profile influenced by cognitive, emotional, and social factors. Studies highlight that HC remains a critical determinant of purchase behavior, yet technophobia can hinder the adoption of online shopping even among consumers who value organic products (Akhter et al., 2023). Price sensitivity further complicates purchasing decisions, as imported certified organic goods carry higher costs due to shipping and import duties (Chakrabarti, 2010). Recognizing these intersecting influences health orientation, cost considerations, perceived product availability, and attitudes toward technology is essential for businesses and policymakers aiming to expand Malaysia's organic food market. By understanding how these factors interact, retailers can develop targeted strategies that increase consumer confidence and support the growth of both local and imported organic food sectors.

The Asian tiger Malaysia's organic food industry has also changed from an industry niche to an industry with a prospective growth. In Malaysia, the organic food industry is now worth almost RM25 million annually with a demand that is expected to rise by 13% annually (Abdullah et al., 2022; Loh, 2019; Suhaimi et al., 2016). With the increase in demand the consumption for organic food in Malaysia is growing at a rapid pace with customers getting more inclined towards purchasing organic vegetables and also meat products that are organic in nature (Lian & Yoong, 2019; Hussin & Abdul Wahid, 2024).

The Malaysian Agricultural Research and Development Institute (MARDI), which aims to modernize the country's agricultural sector, has stated that the local organic industry is still very small and underdeveloped. Considering the purchasing aspect in Malaysia, the frequency at which the customers purchase organic food was found out to be 39% which the customers buys organic food sometimes where as 31% were regular in purchasing organic food (Hischmann, 2019; Lian & Gopal, 2021). It is worth mentioning that more than 60% of the organic food is taken from other countries as imports which must carry a label stating as "Certified organic" from the source and because of the import the cost increases (Somasundram et al., 2016) and besides this the local industry is insufficient to meet the increasing demand of organic food in Malaysia which in turns questions the availability of the organic food items (Mohamed Harris et al., 2018). As Malaysians, increasingly lean toward purchasing organic products, demand has risen, reflecting a shift in consumer health awareness and environmental consciousness (Akhter et al., 2023; Yadav & Pathak, 2016). However, hefty import duties on organic food create a significant cost burden for importers, which affects prices for end consumers (Chakrabarti, 2010). Understanding consumer behavior regarding online organic food purchasing is essential to support both importers and local organic producers in enhancing Malaysia's organic food market (Nagaraj, 2021; Sirieix et al., 2011).

The COVID-19 pandemic sped up the move to online shopping, introducing new influences such as social norms, trust in the internet, perceived effectiveness, and fear of using technology each of which now plays a significant role in consumers' buying decisions (Samsa, 2023; Khwaldeh et al., 2023; Ahmed et al., 2025). Additionally, variables like HC, PC and PA are critical in shaping how consumers perceive and choose organic products online (Alphonse & Alfnes, 2012; Zagata, 2012). This study aims to identify these dynamics to aid stakeholders in developing targeted strategies for the online organic food market in Malaysia. The selection of these factors is based on their direct influence on consumer purchasing decisions. Since the onset of the COVID-19 pandemic, many consumers have increasingly shifted to online shopping, where technophobia may hinder adoption, while HC, PA and PC remain critical determinants shaping the final purchase decision (Bhatti et al., 2022; Pantano et al., 2020)

1.1.3 Malaysia and the Growth of Online Organic Food Purchases

Malaysia offers a compelling setting for examining online shopping and organic food consumption because of its rapid digital expansion and rising HC. The country's e-commerce sector has grown from RM 398.2 billion in 2015 to RM 1,126.9 billion in 2022, recording a robust 16% compound annual growth rate (CAGR) (DOSM, 2023). Digital trade now contributes about 23.5% of national GDP, with e-commerce alone generating RM 918.2 billion in income during the first nine months of 2024 (DOSM, 2024). Forecasts indicate the Malaysian e-commerce market will continue to expand by around 12.5% annually, reaching approximately US\$13.3 billion by 2027 (PR Newswire, 2023). Social commerce shopping directly through social platforms is expected to quadruple from US\$1.41 billion in 2023 to US\$4.41 billion by 2028, reflecting an impressive 21% CAGR (TMCnet, 2023). These indicators underscore a consumer base that is increasingly comfortable with digital transactions and willing to explore diverse online retail categories.

Parallel to this digital surge, Malaysia's organic packaged food and beverage market has become one of the fastest-growing in Southeast Asia. The sector reached a value of approximately US\$964.5 million in 2023, expanding at a 3.8% CAGR, with certain segments such as processed fruits and vegetables projected to grow at more than 17% CAGR between 2023 and 2028 (Global Organic Trade, 2024). Rising disposable incomes, heightened health awareness following the COVID-19 pandemic, and concerns about food safety have driven Malaysian consumers toward healthier and more sustainable options. These structural trends make Malaysia an ideal environment for studying how digital commerce and health-related motivations intersect to shape purchase intentions for organic food products.

1.2 Problem Statement

The rapid digitalization of retail in Malaysia has fundamentally reshaped consumer purchasing behavior. Internet penetration in the country increased from 77% to nearly 90% by 2020 (Harun et al., 2021; MCMC, 2020), and e-commerce adoption surged during the COVID-19 pandemic as movement restrictions forced consumers to shop online (McKinsey, 2021; Smith & Anderson, 2021). This trend has persisted beyond the pandemic, with more than half of Malaysian online shoppers falling within the 18–34 age group often referred to as digital natives (Eco Insider Report, 2019; Mokhtar et al., 2020). These consumers are characterized by their familiarity with digital platforms and high engagement with online shopping. However, they are also at greater health risk due to poor dietary choices and a higher consumption of conventional, chemically treated food products (Abraham et al., 2018; Hisham et al., 2021).

At the same time, organic food which is produced without synthetic chemicals and associated with health and environmental benefits remains a niche market in Malaysia despite its rapid global expansion (Pant et al., 2024; Smith & Paladino, 2010). Although Malaysians are increasingly aware of the benefits of organic products, domestic consumption is relatively low compared to developed markets,

and more than 65% of organic products are imported (Dardak et al., 2009; Saleki et al., 2019). This dependence on imports contributes to issues of cost and availability, making organic food less accessible to average consumers (Mohamad et al., 2014; Rahman et al., 2016). While global studies have identified HC, PC and PA as key determinants of OFP intentions (Narine et al., 2015; Wang et al., 2024), empirical evidence from Malaysia, particularly in the context of online purchases, remains scarce.

Furthermore, the shift to digital commerce introduces unique psychological barriers. Despite the convenience, flexibility, and variety offered by e-commerce, concerns over privacy, data security, and the complexity of digital transactions can create anxiety or fear of technology, a phenomenon known as technophobia (Derahman et al., 2023; Hille et al., 2015). Although the pandemic familiarized many consumers with digital shopping, technophobia continues to act as a latent barrier that may reduce confidence and trust in online purchasing, especially when higher-value or premium products such as organic food are involved (Maycotte, 2022).

Existing research has largely examined either consumer attitudes toward organic food or factors influencing online purchasing behavior in isolation (Elwalda et al., 2016; Kamalul Ariffin et al., 2018). Few studies have integrated these two areas to explore how structural factors (cost and availability), personal motivations (health consciousness), and psychological barriers (technophobia) jointly shape Malaysian consumers' intentions to buy organic food through online platforms. Moreover, it remains unclear whether technophobia moderates the influence of HC, PA and PC on purchase intentions, particularly among digital natives who are expected to be technologically adept yet may still harbor concerns about security and privacy (Yang et al., 2010; Zuniarti et al., 2022).

Given the growing importance of sustainable consumption and the Malaysian government's interest in promoting healthier dietary practices, understanding these dynamics is critical. This study therefore seeks to examine the combined

effects of HC, PC and PA on online purchase intentions for organic food, while investigating the moderating role of technophobia. By focusing on the Malaysian context and a generation that is both digitally active and health-conscious, the research purposes to provide valuable intuitions for businesses, policymakers, and health advocates seeking to strengthen Malaysia's organic food market and encourage healthier, technology-driven consumption patterns.

1.2.1 Knowledge Gaps

Despite the increasing interest and demand for organic food products among digital natives in Malaysia driven by factors such as HC, sustainable lifestyles, and environmentally friendly practices (Abdullah et al., 2022; Alam et al., 2020), there exists a major gap in understanding how specific factors like HC, PA and PC influence purchasing behavior in this demographic (Kim & Lee, 2023; Pahari et al., 2023; Parashar et al., 2023). Existing studies have predominantly examined general consumer behavior without accounting for the unique decision-making processes of digital natives, who represent a critical and growing segment of online shoppers.

Moreover, there is a notable lack of research on the potential moderating role of technophobia, defined as a fear or resistance to technology, in shaping online purchase decisions (Alpar et al., 2023; Chaudhry et al., 2023). While technophobia has been broadly recognized as a barrier to online shopping, its specific impact on the OFP behavior of digital natives remains underexplored. This presents a critical research gap, particularly in Malaysia, where reliance on digital platforms for food purchases has accelerated following the COVID-19 pandemic (McKinsey, 2021).

From a methodological perspective, most prior studies have relied on descriptive or cross-sectional survey designs that primarily capture consumer attitudes at a single point in time (Narine et al., 2015; Saleki et al., 2019). Such approaches often neglect causal or moderating relationships and fail to uncover how variables like technophobia interact with HC, PA and PC to shape online

purchase intentions. Furthermore, much of the existing literature is Western-centric (Staneva & Gospodinova, 2018; Smith & Paladino, 2010; Willer & Kilcher, 2012), raising concerns about the cultural validity and generalizability of findings to emerging markets like Malaysia, where consumer perceptions of organic food may be influenced by affordability, limited domestic production, and younger demographics that are more digitally engaged (Dardak et al., 2009; Mohamad et al., 2014).

Theoretically, this study extends the TPB by integrating PC, PA, HC and technophobia into its framework (Ajzen, 2020). This enhancement allows for the testing of previously overlooked variable relationships, particularly the moderating role of technophobia in online organic food purchasing. By focusing on Malaysian digital natives, a group increasingly important to the digital economy (Gentina et al., 2018), this research not only contributes to filling theoretical and methodological gaps but also provides empirical evidence from a non-Western, developing economy that is underrepresented in current literature.

1.3 Research Questions

The key research questions imposed in this study are:

1. What role do Attitude, SN, and PBC play in influencing customers' online purchasing intentions for organic food products?
2. What is the impact of PC on customers' online purchase intentions for organic food products, and to what extent does it predict behavioral intention towards online organic food purchases?
3. How does HC influence customers' online purchase intentions for organic food products, and what is its predictive power regarding behavioral intention towards online organic food purchases?
4. What effect does PA have on customers' online purchase intentions for organic food products, and what is its predictive power regarding behavioral intention towards online organic food purchases?

5. What is the impact of customers' BI on their actual online purchasing behavior for organic food products?

6. What moderating effect does technophobia have on the relationship between behavioral intention and online organic food purchases?

1.4 General Objective of Study

The objective of this study is to understand consumers' behavior in relation to purchasing organic food products through online platforms. Besides examining the customers' behavior, the objective is to check the effects of extended TPB on the customers' behavior when purchasing organic food products online and the effects of technophobia when customers makes an online purchase for an organic product.

1. To investigate whether Attitude, SN and PBC can positively influence customers' online purchasing of organic food products.

2. To investigate whether customers' PC of organic food products online can positively influence the BI towards online organic food purchase.

3. To investigate whether HC can positively influence a customer's purchase of organic food products online and predict the behavioral intention towards online organic food purchase.

4. To investigate whether PA can positively influence a customer's purchase of organic food products online and predict the behavioral intention towards online organic food purchase.

5. To investigate whether customer's BI can have a positive effect on their online organic food purchase behavior.

6. To investigate whether technophobia can moderate the relationship between behavioral intention and the customer's online organic food purchase.

1.5 Significance of the study

1.5.1 Theoretical Significance

The consumption of organic food has been on the rise globally, with Malaysian digital natives contributing significantly to this trend. Factors such as the availability of organic products, health awareness, and product pricing play a critical role in molding the purchasing behavior of these consumers (Rana & Paul, 2017; Yadav & Pathak, 2016; Tandon et al., 2021). Understanding how these factors impact purchasing decisions is essential for businesses and policymakers aiming to cater to this consumer group, particularly as many are turning to online platforms to purchase organic products (Paul & Rana, 2012; Li et al., 2023). The growing concern for sustainability and healthy lifestyles has further amplified interest in organic products, especially among younger consumers who tend to be more environmentally and health conscious (Hsu et al., 2023; Tandon et al., 2020).

Moreover, the concept of technophobia adds complexity to this scenario. Technophobia, defined as an aversion or anxiety toward new or unfamiliar technology, can moderate the relationship between key factors such as PA, PC and HC with purchasing decisions (La Torre et al., 2020; Sahin & Thompson, 2022). This is particularly relevant in the current era where technology increasingly permeates everyday life, including the food sector and e-commerce platforms (Nguyen et al., 2021; Srivastava et al., 2022). Studies suggest that consumers' acceptance of agri-food technologies, including organic products, is influenced by individual attitudes, perceived ease of use, and personal heuristics (Pappas, 2023; Suhartanto et al., 2022).

From an academic perspective, this study is significant, especially in light of the COVID-19 pandemic, which has accelerated digital adoption and shifted a large number of businesses to online platforms (Sheth, 2020; Pantano et al., 2020). Malaysian consumers, particularly younger, digitally native generations, have shown increasing interest in purchasing organic food products online (Nguyen et

al., 2021; Hirschmann, 2019). Statistics show that the median age in Malaysia is 29.2 years, and a substantial portion of the population engages in online shopping (Devanesan, 2020). The rise of digital natives, who are well-versed in technology yet may still exhibit varying degrees of digital anxiety, presents a unique context for studying online organic food purchasing.

As Malaysians become more health-conscious, their inclination toward organic food products is expected to grow (Chaudhary et al., 2023; Chiew et al., 2023). This study contributes to the methodological extension of the TPB by enhancing its predictive power with external factors such as PA, PC and HC (Ajzen, 2020; Joshi & Rahman, 2019). While TPB is widely used to explain consumer intentions, it often overlooks contextual and psychological barriers that influence actual purchase behavior (Liobikienė & Bernatoniene, 2017). By incorporating technophobia as a moderating variable, this study introduces a novel perspective, acknowledging how fear or discomfort with digital platforms can impede otherwise favorable behavioral intentions (Elhai et al., 2021; Prentice et al., 2020).

Examining how technophobia affects the relationships between TPB constructs and OFP behavior provides deeper insights into the decision-making process of digital natives. In the Malaysian context where the organic market remains emerging and underexplored (Chaudhary et al., 2023; Chiew et al., 2023) this integration offers both theoretical and practical contributions. It not only strengthens understanding of consumer purchase intentions but also informs strategies for promoting sustainable consumption. By identifying how technophobia influences online purchase behavior, stakeholders can design interventions that enhance consumer confidence and trust in online food delivery platforms (Liu et al., 2023; Rana & Paul, 2020).

Ultimately, by extending the TPB framework through the inclusion of technophobia and context-specific variables, this study addresses a critical research gap and provides a comprehensive model for explaining and predicting online OFP behavior among Malaysian digital natives.

1.5.2 Practical Significance

Consumer Perspective

The growing consumer interest in organic products underscores the need to better understand the drivers behind their purchasing decisions. Numerous studies have emphasized that product availability, health benefits, and acceptable pricing remain among the most influential factors guiding consumers' purchase intentions (Nguyen et al., 2020; Rana & Paul, 2018). These factors collectively shape how consumers perceive the value and accessibility of organic food products, especially in online environments where product information and accessibility differ from traditional retail experiences.

However, technophobia defined as the fear or anxiety toward using digital technologies has emerged as an important moderating factor that influences online purchasing behaviors (La Torre et al., 2020). Consumers exhibiting higher levels of technophobia are generally less receptive to online shopping platforms and are less likely to make purchase decisions based on product availability, pricing, or health awareness cues (Yadav & Pathak, 2016). This highlights that beyond rational considerations such as price and availability, emotional and psychological factors significantly influence online consumer behavior. Understanding these behavioral nuances is vital for marketers and online retailers aiming to convert hesitant digital users into active online consumers.

Producers' Perspective

From the producers' standpoint, ensuring a steady and consistent supply of organic food products is critical for maintaining consumer trust and loyalty. Research has demonstrated that product availability not only affects immediate purchase intentions but also contributes to the formation of long-term buying habits (Nguyen et al., 2020). A well-functioning supply chain system is essential in achieving this goal. Producers must work closely with suppliers, distributors,

and retailers to ensure that organic products reach consumers promptly and in fresh condition (Padel & Foster, 2005).

Equally important is the maintenance of organic certification standards and continuous improvement in farming practices. These aspects reinforce consumer confidence and satisfaction, especially in markets like Malaysia where awareness of product authenticity is growing (Willer & Lernoud, 2017; Yadav & Pathak, 2016). Producers who consistently meet organic certification requirements and communicate these standards effectively to consumers can build long-term brand trust. Furthermore, adopting sustainable production techniques enhances both the environmental and social value of organic food, which aligns well with the ethical expectations of environmentally conscious consumers.

Retailers' Perspective

Retailers play an equally pivotal role in ensuring the availability and accessibility of organic food products. A key challenge for retailers is managing inventory efficiently to prevent stock shortages that could lead to customer dissatisfaction and defection to competitors. Studies suggest that implementing robust inventory management systems can help forecast demand and maintain optimal stock levels (Rana & Paul, 2017). These systems enable retailers to respond proactively to fluctuations in demand, especially during peak seasons or promotional periods.

Moreover, establishing strong partnerships with multiple suppliers reduces the risk of supply chain disruptions and ensures the continuous availability of organic food products (Hughner et al., 2007). By adopting technology-driven solutions such as automated restocking systems and predictive analytics, retailers can enhance their supply chain agility. This not only supports operational efficiency but also contributes to a positive consumer experience by ensuring that desired products are consistently available.

Marketers' Perspective

From a marketing perspective, the findings highlight the need to design strategic promotional campaigns that effectively communicate the value of organic products. Health benefits, environmental sustainability, and ethical sourcing are powerful themes that resonate with modern consumers, particularly Malaysian digital natives who are highly active online. Emphasizing the reduced exposure to pesticides and higher nutritional content of organic foods can attract health-conscious consumers (Yadav & Pathak, 2016).

Marketing efforts should integrate both digital and traditional channels to maximize outreach. For instance, social media platforms, influencer partnerships, and educational content can help raise awareness and encourage trial purchases among younger demographics (Hsu et al., 2016). Additionally, aligning marketing narratives with contemporary health trends, such as clean eating and plant-based diets, can increase message relevance and emotional appeal (Aschemann-Witzel et al., 2023).

Marketers should also consider value-based pricing strategies to address consumer concerns about premium pricing. Offering bundle packages, loyalty rewards, or discounts for repeat purchases can make organic products more accessible without undermining brand value (Paul & Rana, 2012). By leveraging data analytics, marketers can personalize promotional content, recommend products based on browsing history, and deploy retargeting campaigns that enhance customer engagement and conversion rates. This personalization aligns with the expectations of digitally savvy consumers who demand tailored online experiences.

Industrial Significance

From an industry perspective, the increasing inclination toward organic products reflects a fundamental shift in consumer priorities toward health, sustainability, and ethical consumption. The COVID-19 pandemic further accelerated the movement toward online shopping as consumers adapted to

restricted access to physical retail spaces. Consequently, a larger proportion of consumers began purchasing organic food products online, driven by convenience, accessibility, and safety considerations.

This shift has compelled many businesses to transition toward digital platforms, reducing operational costs and expanding their market reach. Understanding online consumer behavior has thus become imperative for businesses seeking to optimize their digital strategies. Insights into consumer motivations, technological adaptability, and perceived value can help e-commerce platforms improve user interfaces, develop better recommendation systems, and offer more seamless online experiences.

Overall, exploring how consumers behave when purchasing organic food online not only benefits businesses but also contributes to the development of a more sustainable and inclusive digital food ecosystem in Malaysia. As the organic food sector continues to grow, integrating consumer insights with technological innovation will be crucial to ensuring long-term industry competitiveness and resilience.

1.6 Operational Definition Section

1.6.1 Attitude

Within the TPB framework, attitude toward a behavior reflects the individual's overall positive or negative evaluation of performing that behavior, based on their beliefs about the likely outcomes and how they value those outcomes. Specifically, people form their attitudes by combining their behavioral beliefs i.e., the perceived probability that a certain behavior will lead to specific consequences with their outcome evaluations, meaning how good or bad they think these consequences would be. When the expected outcomes are seen as favorable (or are strongly valued), the person tends to develop a more positive attitude, which in turn strengthens their intention to perform the behavior (Ajzen, 2020).

1.6.2 Subjective Norms

Subjective norms (SN) refer to the perceived social pressure some individual experiences to perform or refrain from a particular behavior. They stem from the person's belief about whether important referent groups—such as family, friends, or peers—approve or disapprove of the behavior. In other words, subjective norms capture the extent to which an individual perceives that significant others expect them to engage in the behavior, thereby shaping their motivation to comply with these expectations (Fishbein & Ajzen, 1975; Ajzen, 2020).

1.6.3 Perceived Behavioral Control

Perceived Behavioral Control (PBC) refers to the extent to which individuals believe they are capable of performing a particular behavior (Khoa, 2023). It reflects the perceived ease or difficulty of carrying out the behavior and incorporates both past experiences and anticipated barriers. In this sense, PBC represents an individual's judgment about how much control they have over performing the behavior, which in turn shapes their confidence in their ability to execute it successfully (Ajzen, 2020; Ajzen & Madden, 1986; Lim & Weissman, 2023).

1.6.4 Behavioral Intention

BI refers to an individual's readiness and motivational willingness to perform a specific behavior and is widely regarded as the most immediate predictor of actual behavior. Within the TPB, BI is shaped by attitudes toward the behavior, SN, and PBC. In the context of online organic food purchasing, BI reflects a consumer's conscious plan or likelihood to purchase organic food products through digital platforms in the near future. This intention is influenced not only by favorable attitudes toward organic food and perceived social approval but also by consumers' confidence in their ability to successfully complete online transactions, including trust in digital platforms, clarity of product information, and ease of online purchasing processes (Ajzen, 2020; Lim & Weissman, 2023). A stronger behavioral intention indicates a higher probability that consumers will

translate their positive evaluations and motivations into actual online organic food purchases.

1.6.5 Product Price

Product price refers to the monetary cost consumers perceive they must incur to obtain a product and serves as a key indicator of both affordability and perceived value. In online organic food markets, price plays a particularly critical role, as organic products are often priced higher than conventional alternatives. Consumers evaluate organic food prices in relation to perceived benefits such as health, quality, sustainability, and ethical production. In digital environments, price sensitivity may be amplified due to easy price comparisons across platforms, visibility of discounts, and promotional offers. Consequently, higher prices can deter online organic food purchases unless consumers perceive sufficient added value to justify the premium (Monroe, 2024; Zeithaml, 1988).

1.6.6 Product Availability

Product availability refers to the extent to which consumers perceive that a product is easily accessible and obtainable when and where they desire it. In the context of online organic food purchasing, availability encompasses not only the physical stock of organic products but also their visibility on digital platforms, delivery coverage, and reliability of supply. High product availability reduces consumers' search effort, enhances convenience, and increases the likelihood of purchase by minimizing uncertainty related to stock-outs or delivery delays. Conversely, limited availability of organic products on online platforms may discourage repeat purchases and weaken purchase intentions, even among consumers with strong health or environmental motivations (Bucklin, 1978; Kotler & Keller, 2012; Norawati et al., 2021). Therefore, perceived availability plays a crucial role in shaping consumers' willingness to rely on online platforms for organic food consumption.

1.6.7 Health Consciousness

HC refers to the degree to which individuals are aware of, concerned about, and actively engaged in maintaining and improving their health. Health-conscious consumers tend to monitor their dietary choices carefully and are more inclined to select foods perceived as natural, nutritious, and free from harmful chemicals. In the context of online organic food behavior, HC motivates consumers to seek out organic food options through digital platforms, as these platforms provide access to health-related information, nutritional details, and product certifications. Health-conscious individuals are more likely to trust and use online channels when they believe that these platforms facilitate informed decision-making and support healthier lifestyles (Chen, 2018; Michaelidou & Hassan, 2008). As such, HC serves as a key psychological driver that strengthens attitudes and intentions toward purchasing organic food online.

1.6.8 Technophobia

Technophobia denotes the fear or anxiety associated with using technology, which can deter individuals from participating in technology-enabled activities such as online purchasing (Brosnan, 1998; Nguyen et al., 2025; Sinkovics et al., 2002). This psychological barrier has been shown to reduce consumer trust and digital adoption, particularly when users perceive complexity or risk in e-commerce environments (Khawsawneh, 2018; Meuter et al., 2003). Recent evidence indicates that technophobia remains relevant even among digitally native cohorts, with factors such as digital literacy, user interface design, and security concerns moderating its impact on online shopping intention (Shamsi et al., 2021; Li & Kim, 2022). In this study, technophobia is proposed as a moderator of the relationships between behavioral intention and online organic-food purchase behavior.

1.7 Scope of the Study

The research aims to examine the online purchasing of organic food products by the digital natives in Malaysia, the conducted study's scope was limited to digital natives who are studying in foreign based campuses/ universities. As per MIDA (2021) MOHE (2015, 2015b, 2020), a total of around 1.4 million students were pursuing their higher education in Malaysia with majority of the people who are rich are registered in private sector universities taken as foreign based campuses (Schulze, 2020).

The main reason besides the population which is more than the private universities, is because of the high number of multicultural students and also the ethnic breakdown, Ketab (2015); Wan Husin et al., (2020); Su-Hie and Gee-Whai (2021). Schulze (2019) found out that the private-sector universities consist students with different ethnic distribution, the universities selected belongs to the foreign university branch campuses in Malaysia and two of the universities are taken from urban areas, where due to traffic and rush, people prefer to purchase online and as organic food products are expensive, people with high income tends to purchase more (Sulaiman et al., 2020). Owing of the fact that this research will be carried out on a sample from a population of digital natives who are students from foreign based university campus in Malaysia, the results will not be generalized. Also, this study was limited to investigate the behavioral intentions with their purchase intentions of online organic food purchasing among Malay, Chinese, Indians and other nationalities if they are any.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The chapter is focused on the philosophical paradigms in area of customer behavior. It also furthers validates the selection of a paradigm for the guidance and supporting of the theoretical and methodological perspectives of the conducted study. An overview of the expected variables that can affect the customer is overviewed. Furthermore, the chapter also reviews the past studies conducted regarding the variables in order to classify the research gap. The chapter also presents the conceptual framework to carry out the study and so that hypothesis can be developed to address the research questions and objectives.

2.2 The Theory of Planned Behaviour (TPB)

The TPB was developed as an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Ajzen, 2022) to address limitations in predicting behaviors over which individuals have only partial control. To overcome these shortcomings, Ajzen (1991) introduced a third and essential construct PBC. PBC reflects an individual's perception of their ability to perform a given behavior, shaped by the availability of resources, opportunities, and personal skills, as well as their belief in being capable of successfully executing the task. Conceptually, PBC is closely aligned with Bandura's (1982) notion of self-efficacy, as both emphasize the role of perceived capability in shaping behavioral outcomes. Recent studies continue to validate the centrality of PBC in explaining consumer decision-making, particularly in domains such as sustainable food choices and online purchasing behavior (Ogiemwonyi et al., 2023; Lahap et al., 2024; Nguyen et al., 2021).

The model used three variables to show the influence that can have on the BI as discussed below.

2.2.1 Components of TPB

To support the components of the TPB in the context of online organic food purchases with the latest citations, we can draw on recent studies that confirm the continued relevance of these concepts in contemporary consumer behavior research.

Firstly, attitude toward the behavior continues to play a pivotal role in influencing consumer decisions, particularly when it comes to purchasing organic food online. A 2023 study by Liu et al. took consumers' positive attitudes towards organic food driven by health benefits and environmental concerns, significantly impacted their online purchase intentions. The view that food that is organic is healthier and eco-friendlier encourages individuals to adopt favorable attitudes toward buying these products online (Liu et al., 2023). Furthermore, Mishra and Padhy (2022) emphasize that HC and the perceived value of organic products are critical drivers of positive consumer attitudes in online contexts.

Secondly, the influence of SN remains crucial in shaping online organic food purchasing behaviors. Recent research by Alam et al. (2023) highlights that the social environment, including the opinions of family, friends, and influencers, strongly influences consumers' decisions to purchase organic food online. This social pressure can be particularly strong among younger consumers, who are more likely to consider the health and sustainability values held by their peers when making purchase decisions. The growing use of social media has also amplified the impact of SN, as individuals are increasingly influenced by the online communities they belong to (Singh et al., 2022).

Lastly, PBC continues to be a key determinant of online purchasing behavior. Tan et al. (2023) found that consumers' perception of convenience, accessibility of online platforms, and availability of organic products greatly influenced their

ability and willingness to make purchases. User-friendly interfaces, efficient delivery services, and reliable product availability all contribute to higher PBC, making consumers more confident in their ability to purchase organic products online. Furthermore, Chatterjee and Kar (2023) point out that technological advancements and digital literacy improvements during the COVID-19 pandemic have enhanced PBC, making it easier for consumers to engage in online transactions, particularly for organic food.

These recent studies affirm the continued importance of TPB components in understanding and predicting consumer behavior in the evolving digital marketplace.

2.2.2 Application of TPB and its relevance to organic food.

The TPB is a widely-recognized framework for predicting and understanding consumer behavior, including online purchasing intentions. According to TPB, three primary components attitude, SN and PBC combine to influence behavioral intention (BI), which in turn leads to actual behavior (Ajzen, 2020; Lim & Weissmann, 2023). This model suggests that a person's motivation, or BI, is key in predicting the likelihood of performing a specific action, provided they perceive adequate control over it (Ajzen, 2020; Ajzen, 1991; Fishbein & Ajzen, 2010). Recent studies have reaffirmed the applicability of TPB in online consumer behavior research, emphasizing its predictive accuracy in explaining sustainable and technology-mediated customer purchasing decisions (Nguyen et al., 2021; Alalwan, 2023; Sia & Lau, 2024).

In terms of online OFP, TPB provides valuable insights into how these components influence consumer choices. First, BI reflects an individual's commitment to making a purchase. The stronger the intention to buy organic foods online, the more likely it is that the consumer will follow through, assuming they perceive sufficient control over the purchasing process. For instance, a person with a high level of motivation to purchase organic products due to health

or ethical reasons may be more inclined to complete a purchase if they feel confident in accessing and navigating online shopping platforms (Ajzen, 2020; Yadav & Pathak, 2017; Rana & Paul, 2020). Prior studies in digital retailing contexts have shown that BI serves as a crucial mediator linking attitudes and perceived control to online purchasing behavior (Kumar et al., 2022; Widyanto & Agustina, 2023).

The TPB framework also highlights how specific attitudes can drive online organic purchases. Attitude reflects a consumer's favorable or unfavorable evaluation of a behavior. Positive attitudes toward organic food often grounded in health benefits, ethical concerns, and environmental sustainability can significantly influence purchasing decisions (Yadav & Pathak, 2016; Rana & Paul, 2017). Consumers who perceive organic products as beneficial for personal health or supportive of sustainable agriculture are more likely to view online organic purchases positively. This has been validated in recent studies indicating that positive attitudes toward eco-friendly consumption directly enhance consumers' online purchase intentions (Nguyen et al., 2021; Zhao & Wang, 2022; Anuar & Othman, 2024).

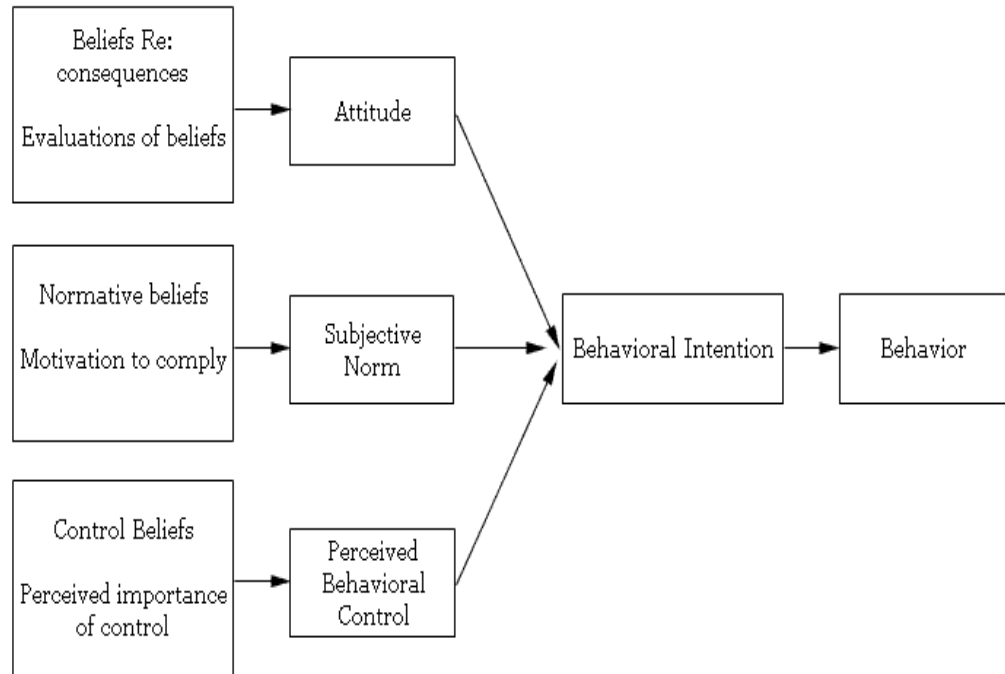
SN refer to the perceived social pressures some individual experiences regarding whether to engage in a behavior. In the context of organic food, consumers who believe that family members, peers, or social networks value organic consumption are more likely to conform to these expectations (Ajzen, 2020; Fishbein & Ajzen, 2010). When influential reference groups encourage sustainable consumption, individuals often align their behavior accordingly. A recent study among UPM students in Malaysia (Sia & Lau, 2024) found that SN significantly influence purchase intentions toward organic food, affirming that peer and family expectations play a vital role in shaping organic buying behavior. Similar findings were reported by Chiew et al. (2023) and Chaudhary et al. (2023), indicating that social influence and online community endorsement can substantially enhance organic purchase motivation.

Finally, PBC involves the consumer's self-assessment of their ability to perform the behavior, considering internal capabilities and external facilitators. In online shopping contexts, factors such as ease of website navigation, user-friendly payment systems, and previous positive experiences increase consumers' perceived control, thereby heightening their likelihood of purchasing (Ajzen, 2020; Khoa, 2023; Lim & Weissmann, 2023). Recent empirical studies conducted in Malaysia and Indonesia confirm that consumers with higher technological competence and platform trust demonstrate stronger PBC, which translates into higher online purchasing frequency (Anuar & Othman, 2024; Setyawan & Raharjo, 2023; Shahid et al., 2022).

In summary, TPB provides a comprehensive model for examining the factors influencing consumers' intentions to buy organic food online. By understanding these constructs attitude, SN and PBC marketers and policymakers can design more effective interventions to foster favorable attitudes, leverage social influence, and strengthen consumers' perceived control. This, in turn, promotes higher engagement with sustainable consumption and online organic purchasing behaviors (Ajzen, 2020; Nguyen et al., 2021; Alalwan, 2023)

Figure 2.1:

TPB Theory Of Planned Behavior



Source :Ajzen & Fishbein (1980)

2.2.3 Explanations of TPB

- The figure 2.1 represents the TPB, which is a psychological theory that explains how attitudes, SN and PBC influence BI and, consequently, actual behavior.
- **Attitude:** Formed by the beliefs about the consequences and the evaluations of these beliefs. A positive attitude towards the behavior increases the likelihood of forming an intention to perform the behavior.
- **Subjective Norm:** Shaped by normative beliefs and motivation to comply. If significant others support the behavior, and the individual is motivated to comply, this will positively influence the BI.
- **PBC:** Arises from control beliefs and the perceived importance of these controls. The more control an individual feels they have over the behavior, the stronger their intention to perform it.

- Behavioral Intention: The key determinant of behavior. It is influenced by attitude, SN and PBC. A stronger intention to perform the behavior typically leads to actual behavior.
- Behavior: The final action, which is directly influenced by the BI.

2.3 Justification of using Theory of Planned behaviour as fundamental theory of the study

While the TPB provides a strong foundation for explaining consumer decision-making, several studies highlight its limitations in fully capturing complex online purchasing contexts. One major critique concerns TPB's static nature and its limited ability to account for emotional, technological, and contextual factors that increasingly influence online behavior (Conner & Sparks, 2020; La Barbera & Ajzen, 2023). Moreover, TPB assumes rational decision-making, yet consumer choices in digital environments often involve impulsive and affect-driven responses, particularly in the context of online OFP (Pavlou & Fygenson, 2022).

In addition, scholars have questioned TPB's sufficiency when applied to technology-mediated behaviors, noting that factors such as perceived risk, technostress, and technophobia may moderate or mediate the traditional TPB constructs (Fishbein & Ajzen, 2015; Al-Marroof et al., 2021). For instance, technophobia the fear or anxiety associated with using technology can diminish PBC and negatively influence attitude formation, thereby weakening purchase intentions (Shams et al., 2023). Integrating technophobia as an antecedent to PBC or as a moderator between attitudes and intentions can provide a more nuanced understanding of online consumer behavior (Kumar & Shukla, 2024).

Conceptually, technophobia differs from TPB's core constructs it is not a belief-based determinant of behavior per se, but a contextual psychological barrier influencing the strength of those beliefs. Thus, in this study, technophobia is treated as an antecedent variable influencing PBC and attitude toward online shopping, enriching the explanatory power of TPB. This theoretical extension aligns with recent research advocating for "context-sensitive TPB models" that

incorporate technological and affective factors to better predict online purchase behaviors (Rahman et al., 2022; Ofori et al., 2024). By addressing these limitations, the present study aims to contribute to a more dynamic understanding of the determinants of online OFP among Malaysian digital natives.

Furthermore, recent scholarship has emphasized the need to situate TPB within broader digital consumer contexts that reflect technological dependency, user confidence, and cyber-trust (Jin & Ryu, 2023). The growing body of evidence suggests that while attitudes and SN continue to predict intention, the strength of PBC is highly contingent upon digital literacy and trust in online platforms (Mpinganjira & Maduku, 2022). Technophobia can erode this trust and create perceived barriers, even when attitudes are positive. Therefore, understanding its role is essential for extending TPB beyond its conventional rational-choice framework toward a more psychologically comprehensive model of online consumer behavior.

Another critical limitation of TPB lies in its inability to fully explain the intention-behavior gap, particularly in online purchasing. While TPB effectively predicts intention, translating that intention into actual behavior often depends on situational constraints, emotional readiness, and digital competence (Younus & Kashif, 2023). Integrating constructs such as technophobia, perceived ease of use, and emotional attachment can bridge this gap by capturing the affective and experiential dimensions of online decision-making. For example, consumers may form favorable attitudes toward online organic food but refrain from purchasing due to anxiety about payment security or platform usability factors outside the original TPB model.

Additionally, studies have begun to examine cross-cultural applications of TPB, noting that constructs such as SN may function differently in collectivist societies (Nguyen et al., 2023). In the Malaysian context, social influence plays a significant role in shaping attitudes toward both technology and organic consumption. Hence, the inclusion of technophobia not only enhances the

explanatory scope of TPB but also contextualizes it within a society where cultural and technological factors jointly influence BI.

Finally, expanding TPB with constructs like technophobia supports the theoretical evolution toward hybrid behavioral models that combine elements from technology acceptance (TAM), risk perception, and psychological resistance theories. These integrated frameworks recognize that modern online behavior is shaped by a complex interplay of cognition, emotion, and digital trust. As such, this study's incorporation of technophobia offers both theoretical and practical contributions: theoretically, it refines TPB by acknowledging the emotional underpinnings of behavioral control; practically, it informs e-commerce designers and marketers about reducing technology-related anxiety to foster greater engagement in online organic food purchasing.

The present study aims to explore the relationship between HC, PA, PC, and online purchase. Using the findings from various sources, it can be argued that there is a strong linkage between HC, PA, PC, and online purchase. One theory that supports this linkage is the TPB. This theory suggests that individuals' attitudes, SN and PBC influence their intentions and ultimately their behavior (Ahadzadeh et al., 2015). When it comes to online purchase, individuals who are health-conscious are likely to prioritize products that align with their health goals (Grunert & Ramus, 2005; Pillai et al., 2022). They may seek out products that are organic, natural, or have specific health benefits. Furthermore, the convenience and accessibility of online shopping make it easier for health-conscious individuals to find and purchase these products.

Additionally, the availability of a wide range of products online allows health-conscious individuals to have more options and flexibility in finding products that meet their specific needs. Moreover, online platforms often provide detailed product descriptions and reviews, allowing health-conscious individuals to make informed decisions about their purchases. In terms of price, health-conscious individuals may be willing to pay a premium for products that meet their health

needs and preferences. The availability of online shopping platforms allows them to compare prices, find discounts, and potentially save money on their purchases.

2.3.1 Rationale for selection of constructs

The selection of the Theory of Planned Behavior (TPB), product availability, health consciousness, product price, and technophobia as the moderating variable is theoretically and contextually justified to comprehensively explain organic food purchase intentions among Malaysian digital natives.

First, the Theory of Planned Behavior (TPB) provides a robust and widely validated framework for understanding consumer decision-making by explaining how attitude, subjective norms, and perceived behavioral control jointly shape behavioral intention. TPB is particularly suitable for studying organic food consumption, as purchasing organic products involves deliberate evaluation, personal values, social influence, and perceived control over access and affordability. In the context of online organic food purchasing, TPB captures both psychological motivations and perceived ease or difficulty associated with online transactions, making it an appropriate foundational theory for this study.

Second, health consciousness is included as a key individual-level psychological construct because health-related motivations are consistently identified as primary drivers of organic food consumption. Health-conscious consumers actively seek food options that they perceive as safer, more nutritious, and free from harmful chemicals. Among Malaysian digital natives, rising awareness of lifestyle-related health risks and increased exposure to health information through digital media further amplify the role of health consciousness in shaping attitudes and intentions toward organic food consumption, particularly through online platforms.

Third, product cost is incorporated as a situational and economic factor that significantly influences organic food purchase decisions. Organic food products are typically priced at a premium compared to conventional alternatives, making

price sensitivity a critical consideration, especially for younger consumers with limited disposable income. In online environments, transparent price comparisons and frequent promotions further heighten consumers' price awareness, thereby influencing perceived value and purchase intention. Including product price allows the study to account for the trade-off consumers make between perceived health and sustainability benefits and financial cost.

Fourth, product availability is selected as a key contextual factor affecting purchase behavior, as the limited and inconsistent availability of organic food products remains a persistent barrier in emerging markets. In online settings, availability extends beyond physical stock to include platform visibility, delivery coverage, and reliability of supply. For Malaysian consumers, perceived availability can significantly influence perceived behavioral control and convenience, thereby affecting their intention to purchase organic food online.

Finally, technophobia is introduced as a moderating variable to capture individual differences in technology-related anxiety and discomfort, which may weaken the relationship between favorable attitudes or intentions and actual online purchasing behavior. Although Malaysian digital natives are generally perceived as technologically adept, variations in confidence, trust, and comfort with online platforms persist. Technophobia can hinder information processing, reduce trust in digital interfaces, and increase perceived risk, thereby moderating the effects of TPB constructs, health consciousness, price sensitivity, and availability on purchase intention. Including technophobia enhances the explanatory power of the model by acknowledging that digital competence is not uniform even within younger populations.

In combination, these constructs provide a holistic and context-specific framework that integrates psychological, economic, technological, and market-access factors. This integrated approach enables a deeper understanding of how Malaysian digital natives form intentions to purchase organic food products online, while also offering valuable theoretical contributions and practical insights

for marketers and policymakers seeking to promote sustainable and health-oriented consumption.

2.4 Customers price consciousness

Many different organizational leaders are constantly faced with different challenges of making on the spot strategic decision that can affect the growth of their organization. To make strategic decision one must know what the consumers are thinking and how they behave and to effectively understand customers' behavior to attend their needs and what the customer's request (Lopez-Fernandez, 2020). Fromm & Garton (2013) argues that there can be several differences in customer consumption which are important and need to be taken care for a products success. Furthermore, studies on digital natives' customer behavior is required to effectively target them and to know what the digital natives wants and needs (Dingli & Seychell, 2015; Reid et al., 2023).

Consumer behavior can be taken as the study of the process by which a customer makes any decision to obtain and to consume any services and products (Jacoby & Morrin 2015). Similarly, choice is basic (Taylor 1974; Han et al., 2024) and with behavior is also altered by other factors as well that includes the product attributes and pricing (Hanf & Winter, 2017). Customer intentions are enlightened by the TPB which describes BI that is influenced by attitude, SN, and PBC (Ajzen, 2020; Ajzen, 1991). There can be many aspects that can influence customer's behavior that includes and not limited to the price factor but product attributes as well. Price sensitivity can be detected as customers react to the changes in prices (Al-Mamun et al., 2014, Wakefield, 2007), similarly Gerpott and Berends (2022) argues that it becomes apparent that product pricing represents a significant chunk of the customer's expenses.

Product pricing is notorious for being a strong factor in deciding the demands of the customers (Lopez-Fernandez, 2020; Sivagnanam & Srinivasa, 2010).

Sensitivity of price and also price consciousness are commonly added to the price impact of the customer's behavior but it is important to mention that they do not depict the same patterns. It can be deduced that a customer who is price conscious is more aware of the trends and prices and hence tends to seek out the cheapest available option that included the products that are on sale (Lopez-Fernandez, 2020). Similarly, Stolz et al., (2011) found out that considering the organic products; customers showed a strong preference towards the organic products and were found out to be less price sensitive. Therefore, it can be deduced that the amount of participation with a particular product or service affects a customer's degree sensitivity in price, one can assume that more the customers take the product as valued the lesser the customer will be sensitive to the price (Gotlieb et al., 1992; Lopez-Fernandez, 2020).

Price consciousness (PC) is the degree to which the customer focuses on paying a price that is lower compared to what is being offered. (Lichtenstien et al., 1993; Zheng et al., 2021). Previous researchers have found out that some of the customers are more focused and are more aware of pricing than others customers (Evanschitzky & Wunderlich, 2006). Specifically, shoppers or customers who are conscious about price would not be ready to pay an extra amount for any unique features of a product or service if they have an image that the difference of that particular product is high (Lichtenstien et al., 1993; Zheng et al., 2021). The perception that organic food is significantly more expensive than conventional alternatives continues to be a major barrier to its adoption among consumers. Studies, such as those by Mørk et al. (2017), have shown that the premium price associated with organic products deters lower-income consumers, even when there is awareness of the health and environmental benefits of these products. Similarly, Aschemann-Witzel and Zielke (2017) highlight that although there is a positive attitude toward sustainability, many consumers still prioritize affordability, which limits their organic purchases.

In emerging markets, where organic foods are often seen as niche products, the high cost factor is even more pronounced. Basha and Lal (2019) found that

despite a general willingness to buy organic due to HC, the elevated prices often discourage actual purchasing behavior. Rana and Paul (2020) also emphasize that, while health awareness is growing, the high cost of organic food remains a key deterrent, preventing many consumers from shifting away from conventional products. These findings underscore that although demand for organic foods is rising, price remains a substantial obstacle to broader adoption. It can be inferred that although consumers may initially express a strong intention to purchase organic food products, this intention often weakens at the point of purchase due to the higher prices of organic foods compared to non-organic alternatives (Saleki et al., 2019)

Product pricing is notorious for being a strong factor in deciding the demands of the customers (Sivagnanam & Srinivasa 2010, Zhao et al., 2021). Price sensitivity and price consciousness are commonly added to the price impact of the customers' behavior but it is to be noted that they do not depict the same patterns. It can be deduced that a customer who is conscious about the price is more aware of the trends and prices and hence tends to seek out the cheapest available option that included the products that are on sale (Lopez-Fernandez, 2020). Furthermore, the writer defined price consciousness as the "amount to which the decision making is influenced by the price in order to purchase a product or a particular service. Similarly, Gomiero (2018) found out that considering the organic products; customers showed a strong preference towards the organic products and were found out to be less price sensitive. Therefore, it can be deduced that the degree of participation with a particular product or service affects a customer's degree sensitivity in price, one can assume that the more customers take the product as valuable the lesser the customer will be sensitive to the price (Lopez-Fernandez, 2020)

Generally speaking, about the organic products, the prices are usually at the higher side if we consider the organic products. This is actually one of the main reasons for the customers unable to develop a positive response towards the organic products, the customers tend to leave the organic food product because of

the pricing factor and hence they are not able to develop a positive and acceptable purchase intention towards the organic food products (Al-Sabbahy et al., 2004; Magnusson et al., 2001; Mhlophe, 2016). Brummer & Zanders (2020) suggests that customers always require a particular value over the customers' money in order to justify the premium of price being paid for the products particularly the organic food products.

It is to be deduced that it is usually difficult for the customers to justify where the price being asked is at a premium or not, because customers are often lacking in facts and figures to correctly evaluate the purchase intention (Brummer & Zanders, 2020). It can be argued that price is one factor that is frequently in conflict with other stimulus for instance natural concerns which includes the concern regarding environment (Roman et al., 2017). It can be deduced that the customers' mindset towards organic food products may be one stimulation to motivate them to purchase organic food at a premium price, but it is worth mentioning that this premium price may be a hurdle and limit the customers' ability to buy the required products. It is to be pointed out that price is one of the major factors that can cause a change in the intention of the customers when going for a product purchase and that to if it is an organic food product then obviously, it will be at some premium, where the customers' mindset might behave differently in selecting the product (Mhlophe, 2016). But if it the customers are taken specifically as price conscious shoppers then the customers would not pay an extra amount for any exclusive qualities of a product or service if they have an image that the difference of that particular product is high, just like organic foods are tend to be more expensive than the non-organic food products (Radman, 2005; Torres-Ruiz, 2018).

It is to be taken into consideration that one of the major obstacle to organic food consumption is the idea in the customers mind that organic is expensive as compared to non-organic food (Hughner et al., 2007; Rana & Paul, 2019). It was found out by Dholakia and Shukul (2012) by a survey that was conducted in India that more than 70% of the respondent mentioned high price as an obstruction

when they opt to purchase organic products. It can be inferred that although consumers often express strong intentions to purchase organic food products, their willingness to follow through may decline at the point of purchase due to the higher prices compared to conventional alternatives (Nguyen et al., 2020; Rana & Paul, 2023; Aschemann-Witzel et al., 2023).

2.5 Customers health consciousness

78.6 million adults are found out to be obese as pointed out by Centers for Disease Control and Prevention (CDC), and for this purpose the treatment for obesity related conditions such as diabetes, blood pressure, stroke and unfavorable heart condition totals around \$150bn (Finkenstien et al., 2023; Finkenstien et al., 2009). A much more recent study has pointed out that the overall obesity rate has calmed, but obesity itself remains on the top of public health problems (Goh & Tham, 2023; Ogden et al., 2014). According to a researcher Li et al., (2020) with Kruger et al (2008) it was found out that people tend to eat more outside food which is found to be strongly associated with obesity and can be termed as unhealthy food due to consumption of more calories, more inorganic materials or ingredients, saturated fats and extra sugar as well.

Several researches in the public health domain and nutrition have identified several factors such as barriers, which can have an impact on the customers' overall health. Previously quantitative studies have measured motives behind selection of a healthier choice by using a single question making it difficult to ascertain about the customers' selection of healthier choice, some current qualitative studies (Ashton et al, 2015; Verstraeten et al., 2014) have interviewed the customers in order to find out what the customers mindset is when opting for a healthier choice. Although the finding factors can be guideline for understanding the customer's mindset and the internal factors for the selection of a healthier choice. Extant research on healthy eating shows that healthy eating can be motivated by a customer's inner desires to feel good and better, as per the customers' mindset a customer can opt for a healthier choice (Jeong et al., 2018).

It was identified by Jeong et al., (2018) that a term “feeling better and healthy “as the largest motive for eating and selecting a healthier food in the USA alone, it is also an important motivator towards the healthier food in the Europeans (Jeong et al., 2018; Michaelidou et al., 2012)

Personal health is a motivator for the healthy choice made by the customers, there are several researches among the adult age bracket that highlighted that selection of a healthier food product is not only because of personal health but also selection of a healthier food product due to the lack of information regarding the long-term benefits of healthier eating (Conner & Norman, 2021; Horacek & Betts, 1998). There are several researches that are focused on adult customers to eat healthier food in order to stay healthy and to take care of their personal health (Eikenberry & Smith, 2004; Jeong et al., 2018).

A growing body of research indicates that consumers increasingly view organic food as a healthier and safer choice because it is free from synthetic chemicals, pesticides, and artificial fertilizers (Asif et al., 2018; Rana & Paul, 2020). Rising public concern about food safety, pesticide exposure, and genetic modification has significantly influenced consumer preferences toward more natural and sustainable products (Hashem et al., 2020; Nguyen et al., 2022). This heightened awareness has driven a consistent global expansion of the organic food market, fueled by consumers’ pursuit of healthier lifestyles and environmentally responsible consumption (Sogari et al., 2023). Recent studies show that the organic food sector continues to experience double-digit annual growth, particularly in Asia and Europe, due to the increasing alignment of HC and sustainability-driven consumer behavior (Kushwah et al., 2019; FiBL & IFOAM, 2024). Consequently, the demand for organic products reflects not only changing dietary habits but also a broader social movement toward ethical and sustainable food systems. Similarly, Malaysians are increasingly getting inclined towards the healthier food choices, Malaysians are becoming more aware of the health benefits associated with the consumption of organic food items which are more nutritious (Teraieyari et al., 2014). The consumption of organic food is relatively

a new phenomenon in the developing nations and it is worth examining the major factors that can affect the customers' intention towards purchasing of organic food materials in countries like Malaysia because the heap of studies related to customers' attitude towards healthier choice and organic food were more inclined towards the western customers' perspective (Saleki, 2019).

A substantial amount of researches are reported in the literature regarding the HC, considering these studies they endorse a correlation that is positive between HC and the customers buying and BI specially if the case is about the organic food products (Harper & Makatouni, 2002; Pollard, Kirk & Cade, 2002; Rana & Paul 2017; Shephard et al., 2005; Zandstrade, Graaf & Van Staveren, 2001). Over the years' researchers have been researching over the organic food sector found out that there exists an importance of issues related to health as one of the key backgrounds to alter the customers' purchase intention over the non-organic food products.

A healthier choice can be organic food as it is free from many chemicals and is a good step towards the healthier living (Saleki, 2019). There is an enormous awareness among the customers concerning food safety and issues related to usage of pesticides (Miera et al., 2024; Miles & Frewer, 2001) and genetically modification (Ortega & Tschirley, 2017). Therefore, it can be deduced that there is a spike in the growth of the organic food market with an ever-rising need of the healthier foods specifically for the case of organic food products (Bhattarai et al., 2013; Kumar et al., 2018; Lee et al., 2014), It was pointed out by Smith and Paladino (2010) that the global organic industry has a growth rate of almost 30% per annum.

It is worth mentioning that even though the organic food production is developing at a fast pace but even then, the organic food utilization is somewhat lower (Nariine et al., 2015). It is found out that customers are motivated towards the purchase of organic food products by a proverb that is worldly used 'you are what you eat' this saying actually sets an example of an ideal that a lot of people

tends to purchase healthier food items and are more health conscious nowadays (Mhlophe, 2016). It must be noted that the health motivations are one of the major relevant factors that can motivate the customers and can indirectly impact the customers purchasing intention (Klockner, 2012). It is to be noted that the current day and age the customers have turned out to be a bit more sensitive and selective about their purchase about the products reflecting their health, nutritional values of the food they eat and purchase (Kamenidou et al., 2019; Kyrikopolous & Van Dikj, 1997). An upsurge in the awareness levels has made the customers to take care of themselves and also the studies have made customers made more conscious about their health and eventually the selection of the organic food products.

Several studies have demonstrated that health hazards are one of the key motivations for the customers to purchase organic food products and similarly the perception of the free from pesticides and other chemicals is the greatest and the main factor for the OFP (Lodorfod & Dennis, 2008; Mhlophe, 2016; Roy, Ghosh & Vashisht, 2023; Wier & Anderson, 2001). Similarly, the customers who are health conscious are more likely to be motivated to purchase food products that are organic and they will select the organic food products over the non-organic food products. (Kamenidou et al., 2019; Quah & Tan, 2009).

Considering the Malaysians customers; the customers are increasingly preferring healthier food choices, with the consumption of organic food items which are more nutritious (Saleki, Qouquab & Mohammad, 2019; Teraieyari et al., 2014). The utilization of organic food is relatively a new phenomenon in the developing nations and it is significant for examining the major factors that can affect the customers' intention towards purchasing of organic food materials in countries like Malaysia because the heap of studies related to customers' attitude towards healthier choice and organic food were more inclined towards the western customers' perspective (Saleki, 2019).

2.6 Customers product availability

A critical factor that defines how a customer thinks and decide whether to go for a specific product is PA, which means that a seller can sell a product or service to the customer wherever and whenever the customer demands for a product and the seller makes it available for the customer (Kurata, 2014). Avlijas et al., (2018) and Corsten and Gruen (2004) found out that closely 50% of the customers can turn down a product purchase and the intention can be lost due to out of stock or unavailability of the product be it online or in the market, similarly Avlijas et al., (2018) and Corsten and Gruen (2004) also mentioned that making the product available can actually boost up the sales by 10%, and in a retail business such as grocery stores, availability of the product is taken as a key service factor. It was found out by Pritchard, Sweeney and Evers (2023) that the stock out label degrades the customer's loyalty as customer is not happy when the product is not available online.

A study conducted by Derhami and Montreuil (2022) showed that PA has a strong influence over the customer's satisfaction and the final purchase behavior. Similarly, Bernstein and Federgruen (2004) argued that the coordination of supply chain is an imperative factor in making the product available for the customers so that a good sale can be done. A similar study which was more focused on the online purchasing was done by Chen, Kaya and Ozer (2008) which investigated the selection of different channels which includes online and retail channels taking into account the fact that there might be a change in the lead times and the product delivery and the availability.

Another study conducted by Su and Zhang (2009) was more focused on the commitment and the guarantees the business gives for the availability of the products. A more recent research by Steinhart, Mazursky and Kamins (2013) found out the customer's involvement in the deciding whether to buy the product or service or not based on the unavailability of the product and hence the change in the product purchase intention.

Wang (2015) suggested that the information flow of the product unavailability and a certain environmental change has a great effect of the customer's behavior when the customer is going for an online purchase. On the contrary Hashem (2020) found out that the availability of products can alter the way a customer behaves towards the purchase of a product be it online or at the store; because when a certain item is scarce and unavailable; customers tend to go for alternate items or products rather to look for it and to avoid the hassle for finding the particular item or product and it is worth mentioning that an online platform contains so many alternatives. Czarniewski (2014) suggested that there can be other aspects as well that can alter the change in behavior towards the purchase of a product or service that includes price, payments methods and some other factors because customers tend to change their behavior when they find the environment perfectly suitable for them.

Different studies have implied that there exists a critical factor that explains how a customer thinks and what goes on the customer's mind when opting for a product is the availability of that particular product. As far as the organic food products are concerned it is important to note that organic food growth is a mainly a demand, as they are not abundantly available, this implies that the customers may have to confront or may have to deal with matters that are related to the availability of the products that are being purchased (Latactz-Lohmann & Foster, 1997; Rana & Paul, 2017; Sadler et al., 2025). Accordingly, Mholphe (2015) the focal purchasing criterion that has an affect the OFP is the availability and if the customers have to spend some extra time in locating and some extra waiting time, this will negatively affect the customer purchasing intentions (Thompson, 2000; Mholphe, 2016). PA can be taken as a critical factor that defines how a customer thinks and decide whether to go for a specific product is PA, which means that a seller can sell a product or service to the customer whenever the customer wants to buy it (Kurata, 2014).

Recent research underscores that PA plays a vital role in shaping consumer purchase behavior and satisfaction. Studies reveal that nearly half of potential

buyers abandon their intended purchases when products are out of stock or unavailable, significantly affecting overall sales performance (Kumar & Anjaly, 2022; Rokonzaman et al., 2023). Conversely, ensuring consistent PA can boost sales and enhance customer trust, as consumers perceive well-stocked stores as more reliable and service-oriented (Sreeram et al., 2021). In the retail sector, particularly in grocery and organic food markets product availability is considered a key dimension of service quality and a critical determinant of repeat purchasing behavior (Rahman et al., 2021).

Furthermore, research shows that frequent stock outs negatively influence customer loyalty and brand perception, as consumers tend to associate such experiences with poor management and inefficiency (Gong et al., 2022; Stankevich & Olexiy, 2023). Therefore, maintaining optimal inventory levels and efficient supply chain coordination is essential for sustaining consumer confidence and minimizing the risk of switching to competitors. The PA when going for an online purchase turns in convenience of selecting variety of product on a single platform, which actually reflects a tendency to reduce the time and the effort that is spent when going for a physical purchase (Brunso, Fjord & Grenert, 2002; Gofton, 1995; Mandelkar, 2019). Generally speaking, the customer are more likely to develop a negative intention towards an OFP if they found out that the organic food product which they intend to buy is not available or maybe the delivery time is too much as the product is need to be imported rather than locally grown (Mhlophe, 2016).

A study conducted by Hamilton et al., (2019) showed that PA strongly influence the customer's satisfaction and the final purchase behavior of a particular product. Similarly, Mappesona et al., (2020) argued that the supply chain coordination is an important factor in making the product available for the customers so that a good sale can be done. A similar study which was more focused on the online purchasing was done by Gao and Su (2017) which investigated the selection of different channels which includes online and retail channels taking into account the fact that there might be a change in the lead times

and the product delivery and the availability. Another study conducted by Li et al., (2021) was more focused on the commitment and the guarantees the business gives for the availability of the products. A research by Steinhart, Mazursky and Kamins (2013) found out the customer's involvement in the deciding if to acquire the product or service or not based on the unavailability of the product and hence the change in the product purchase intention.

2.7 Customers technophobia

With the advent of technology many processes are simplified, but the issue is that the same technology that is simplifying the life of individuals by offering more utilities to individuals; also makes the life of individuals' complex (Di Giacomo, 2020, Khasawneh, 2018). With the usage of smart phone increasing it accompanies with the increase of online shopping as well. Online shopping is increasingly becoming the preferred way of shopping all over the world since the advent of various apps on apple and google play store (Dai et al., 2014, Mostleler et al., 2014). The digital natives were found out to be one who uses more mobile phone than any other engaging themselves and with an increased activity on online platforms. It is to be noted that the technology has brought a significant change in the customers' behavior and preferences with an increase in the conduct of e-commerce (Castander et al., 2015; Fortes & Rita, 2016). Similarly, the growth of conducting business online is because customers find it more economical and convenient as well and the customers find out it to be more time saving and cheaper as well (Pei, Paswan & Yan 2014; Lin Luo & Chea, 2016).

This growth besides bringing ease and time saving brought several negative influencers as well like cybercrime and the risks associated with it as well (Di Giacomo, 2020; Hille et al., 2015; Nimrod, 2021) which in turn has actually resulted in causing fear to customers who opt to shop online this fear can be termed as technophobia. Online purchasing comes with a number of factors that can be taken as positive influencers that can influence the customer behavior. Technophobia is used by a number of studies when they are referring to the fear

of going for an online purchase (Khasawneh, 2018). Technophobia goes beyond the jurisdiction of just one country as it is a behavior towards the use of technology, generally technophobia exists with technology irrespective of the boundaries.

Many previous research has taken technophobia into account focusing on countries like United Kingdom (Bozionelos, 1996), Iran (Mobaraki & Targhi, 2013), Turkey and Netherlands (Tekinarslan, 2008). With addition of these cross-cultural comparison was done in 10 countries, and further to expand the research the same researchers examined technophobia in other 23 countries as well that includes, USA, covering almost whole Europe, Australia, Saudi Arabia as well (Rehman et al., 2024; Weil & Rosen, 1995). But it is important to mention that there is a major curb in the existing and previous literature lies in the fact that the major studies were done focusing on only one facet of technophobia that is computers (Khasawneh, 2018). It is worth mentioning that several researches on technophobia are directed towards fear and anxiety of using computers, but it is important to point out that many companies incorporate newer technologies which are not just upgradation of computers but by upgrading their way of conducting business. It is crucial to note that computers are no longer the complications in the modern era. Fine (1982) argued that the individuals' responses are actually inclined towards the attributed of technology not the technology itself (Clayton, 1988).

Technophobia termed as the disliking of modern technologies but majority of the previous studies do not use the term technophobia but use computer anxiety and sometimes cyber phobia (Nimrod, 2021). Technophobia can be termed colloquially as a fear that individuals develop as a result to a new stimulus that comes from technology the individual is using which in turn modifies the individual's actual routine of performing a task/job (Khasawneh, 2018).

Studies on technophobia among older populations typically included both users and non-users. In contrast, research focusing solely on users usually

examined acceptance of specific services or products (e.g., Cimperman et al., 2013). Several studies have been focused on the exploration of technophobia amongst the older internet users, basing the research on a survey with users of aged 60 and above found out associations between technophobia and education and health as well (Nimrod, 2018). Similarly, another survey with the same age bracket demonstrated a negative association with technophobia and enthusiasm and found out that the latter is more associated with younger generations (Anderberg et al., 2019). Similarly, other previous researches deduced and found controverting findings regarding the linkage between technophobia and age (Santana & Dos Santana, 2018), additional research is required to determine the age related digital divide.

Since the 80s many studies have been available on the topic of technophobia but it was only focused on the older generations (Hill, Beynon-Davies & Williams, 2008; Di Giacomo, 2020; Soja & Soja, 2015). Very rare technophobia studies usually focused on the generations that are older but none of them were focused on younger generations that are digital natives and accumulates to 75% of the total internet users of Malaysia. Technophobia can be taken as an unjustified fear, some of the authors took technophobia as a pathological disorder and even taken it up as an argue that it should be included in the problematic fears in the DSM (Diagnostic and Statistical Manual of Mental Disorders (Brosnan, 2002). Technophobia is estimated to affect almost 30% of the population that depends on the demographics such as gender, age, culture, educations and ideology (Crabbe, 2016; Johnson, 2012; Lee, Kelly & Barton, 2003; Zickuhr & Smith, 2012). For instance, introduction of technology in a structured program that aimed for physical activity also helped in reduction of technophobia (Wang & Chen, 2015).

Most studies measured technophobia in terms of computers and internet usages since online processes and activities involve interaction between IT systems and humans which can provoke uncertainties and ambiguity which can and may trigger technophobia in customers (Agogo & Hess, 2018; Mason, Stevenson &

Freedman, 2014). In the online activities context, there are many other negative factors that come in technophobia as well. They all root from a broad background of technophobia. When purchasing online the risk of privacy loss is related to customer purchasing behavior (Dai, Forsythe & Kwon, 2014). These threats of technophobia may be so strong that the customers may actually not perform the digital activity (Mason, Stevenson & Freedman, 2014).

The advancements of technology have improved our daily lives and the quality of living in a number of ways, but with this improvement it has a strong impact on the psychological well-being as well, as it comes with various external and internal factors that can affect the human behavior (Di Giacomo, 2020; Khasawneh, 2018). Technophobia is most of the time seen as an orientation that is psychological in nature and can be termed as an attitude towards technology that might cause hindrance in the usage of technology at different platforms. Previous researches have shown that whenever a technology is introduced that is new to an environment, it will create an inherent feeling that can take as an attitude that can be physiological or physical in nature because of the reason that unpredictability of the new technology might and will cause fear and anxiety which might manifest in the form of technophobia (Khasawneh, 2018). Previous researches shows that there has been a digital divide that refers to the disparities amongst the age groups, geographical areas. As the pandemic posed a threat, every age bracket was effected, a great public attention was accorded to the digital divide but it was more focused on the older population (Conger & Griffith, 2020).

2.8 Customers Behavioural Intentions

The term consumer is defined as someone who consumes the product, whereas consumer behavior can be termed as the study in which the overall processes that are involved when an individual goes for selection, purchasing, usage or disposal of products or services that can satisfy their needs and wants, similarly the term customer is taken as the individual who makes the final purchasing decision. (Soloman, et al., 2013). Speaking generally, considering when a customer

purchases a good, the customer passes through several steps which is termed as the five steps of customer decision making process. These steps include, need recognition, information search, alternatives evaluation, the decision of final purchase and finally the post purchase behavior (Kotler, et al., 2017). If the consumer senses a difference between the actual and the desired state they will most probably recognize a need.

The construct of BI is a function of the three elements of the attitudes towards behavior, the SN and the PBC (Holst & Iversen, 2011). The BI represents an individual's choice or the drive to endorse a particular behavior Ajzen et al., (2018). Ajzen (1991) viewed BI as the immediate determinant of the actions of the customer and also with the predicting power to know the future buying decisions of the customer. Similarly, Mhlophe (2016) argues that if one has a good grasp on the BI then the future purchase of any product can easily be predicted.

Several researches have stick to this point that the BI towards the purchase of a product is largely effected by properties which can include the product price, product benefits, PA and HC (Lee, et al., 2017; Chen, et al., 2018). As soon as the customer develops an intention for the purchase many other factors come into play as well that can be the situational factors that includes the performance risks, psychological risks, risks related to financials and time risk as well which can intercept the customers' behavior before reaching towards the final stage of the purchase (Islam et al., 2022). As per Kotler and Keller (2012) all customers develop habits that can reduce ambiguity and the negative effects of risks. Hence understanding those factors that can incite a feeling of alteration in customers and the support into platforms that offer online shopping would be really helpful and beneficial in attraction of customers that shop online. Similarly, after the final purchase of the product, the customers will be involved in the post purchase behavior that depends on the how their purchase experience was. Consumer shopping behavior is the study of all the processes that an individual follows when the individual select purchase, use or even the disposal of the product is there to satisfy an individual's needs and wants (Solomon, et al., 2013).

It must be noted that digital natives and the current generation currently make almost 50% of the world's population in total (Deloitte, 2019). It was argued by Martinez (2016) that digital natives would account almost 40% of the overall world's workforce by the year 2020, a similar report by PwC (PricewaterhouseCoopers) suggested that by the same year, the digital natives will occupy half of the labor force worldwide (PWC, 2011), hence it can be deduced that understanding the digital natives generation customers' behavior which can be essential in effective organizational decision making as the digital natives can be termed as the largest spenders.

Kurz et al., (2019), had a comparison of the digital natives with other generations and found out that digital natives tend to have lesser wealth and assets, besides having lesser wealth they have lower earnings affecting their BI towards a purchase of a particular product as compared to the other generations. Hence, the digital natives can be taken as customers that are very price conscious as compared to other generations. Koch et al (2020) posited that the shopping behavior of digital natives differs a lot from that of the former generations, it is imperative to comprehend their particularities and apply the same to the marketing and pricing strategies that can prove a success.

Several previous researches stated that digital natives are a generation that is more customer oriented (Mason et al., 2022); similarly, Ordun (2015) argued that customer's consumption in a certain way defines what the digital natives are. It was found out by Eastman et al., (2012) that digital natives are much more loyal compared to the other generations for a period of time, but digital natives were also found out to spend their earning really quick compared to other generations (Moreno et al., 2017).

2.9 Organic food purchase

It was observed that consumers demonstrate strong awareness about the food safety and different issues related to the genetically modified food production

(Christoph et al., 2008; Ortega & Tschirley, 2017), Bovine Spongiform encephalopathy (McCluskey et al., 2005), Pesticides (Meira et al., 2024; Miles & Frewer, 2001) and Salmonella food poisoning (Miles & Frewer, 2001; Rahman, 2023). Thereby forcing a rapid and a massive development in the organic food products marketing which ranges from cultivating of the much healthier food products that includes organic food products (Bhattarai et al., 2013; Lee et al., 2014; Sharma & Bansal, 2013), that are essentially grown without the use of pesticides, artificial fertilizers and herbicides. It was found out that the global organic industry has a growth rate of almost 10-30% and is also an industry worth \$34bn in 2010 and which is increased to 231.52 billion in 2023 (Statista, 2024; Smith & Paladino, 2010) which is anticipated to rise in the coming years (Saleki et al., 2019).

Though organic food production and the consumption of organic food products is somewhat at the lower side (Narine et al., 2015; Zagata, 2012). Organic food consumption has seen a remarkable growth in the developing countries. Developed nations like Austria, Switzerland and Denmark has a well-established organic food market, where the consumption of the organic food products is around 6% of the total consumption (Staneva & Gospodinova, 2018; Willer & Kilcher, 2012). Unfortunately, the foods that are conventional despite having adverse health effects remains the maximum proportion of the utilization as far as the food consumption is concerned, similarly in Asia the product and the export of the organic food products have been boosted (James et al., 2019) but the domestic consumption is relatively low which is just 2 % of the total but it is expected to rise in coming years as most of the Asians are getting more inclined towards the healthier food choices (Rahman et al., 2016).

For a product to be taken under the organic umbrella, the food productions must be according to the standards that are established for organic food production and also certified by an accepted body. Developing nations like Malaysia has still a small organic food industry, as more than 65% of the products that are organic are being imported from other countries (Dardak, Abidin & Ali, 2009). But it must

be noted that majority of the products are sold locally while very few are also exported to Singapore. It is to be pointed out that the utilization of organic food is on the rise in Malaysia, but since 65% of the organic food is being imported the variety is limited, hence to keep up with the growth consumption, the MARDI (Malaysian Agricultural Research and Development Institute) is actively involved in strengthening the organic farming sector (Somasundram et al., 2016).

The Asian tiger Malaysia's organic food industry has also converted from a niche to an industry with a possible growth. In Malaysia, this organic food industry is now worth almost RM25 million annually with a demand that is expected to rise by 13% annually (Suhaimi et al., 2016). With the increase in demand the consumption for organic food in Malaysia is growing at a rapid pace with customers preferring organic vegetables and meat products (Ishak et al., 2021; Lian & Yoong, 2019) for example, the market saw a notable growth rate of 22% in 2022, and it is projected to grow by an additional 8% in 2023 (ExportConnect, 2023). It is worth mentioning that more than 60% of the organic food is taken from other countries as imports which requires to carry a label stating as "Certified organic" from the source and because of the import the cost increases (Somasundram et al., 2016) and besides this the local industry is insufficient to meet the increasing demand of organic food in Malaysia which in turns questions the availability of the organic food items (Mohamed Harris et al., 2018).

With regards to the OFP, the organic food businesses have started to move towards online platforms, these businesses use several sorts and options of the online platforms which helps the business in cost reductions (Lee et al., 2016; Ku, 2012) and also rapidly attracting different customers with convenience (Canavan & O'Reilly, 2004; Kushwaha, 2020). However, it is pointed out that very scarce focused on the organic food buying behavior when the customers go for an online purchase. As found out by Ngobo, (2011), the investigation of customers' actual OFP, BI in the context of different channels has still to be researched well, similarly Akel and Candan (2022) also argues that the use of internet as a medium of selling organic food products could be of utmost importance.

2.10 Application of TPB in online purchase intention and behaviour

The TPB has been widely utilized in understanding consumers' purchase intentions for various products and services, including green products, organic food, organic milk, energy-efficient appliances, and online banking. The TPB posits that an individual's BI is influenced by their attitude toward the behavior, SN, and PBC (Yadav & Pathak, 2017). Several studies have found support for the significant positive influences of attitude, SN and PBC on purchase intention for organic products (Carfora et al., 2019; Kim & Chung, 2011; Maichum, Parichatnon, & Peng, 2016). Additionally, Choi and Johnson (2019) found that attitude, SN, and PBC positively affect the purchase intention of young consumers for organic food. These findings highlight the robustness of the TPB in predicting environmentally conscious purchase intentions.

Moreover, perceived ease of use, SN, and PBC, and attitude significantly affected consumers' purchasing intention for energy-efficient appliances (Delafrouz, Paim, & Khatibi, 2011). The study by Bittner and Schipper (2014) also found that PBC and perceived usefulness positively affect the intention to use online banking, indicating the applicability of TPB in the context of online financial services. In addition, social media has been identified as a factor that influences consumers' attitudes, SN, altruistic and egoistic motivations, which in turn impact green cosmetics purchase intention (Réhman et al., 2019).

Furthermore, Ahmed et al. (2020) highlighted the role of environmental concerns and environmental awareness in shaping the purchase intention toward organic food among young consumers using the TPB. This underscores the importance of integrating additional variables that may enhance the predictive power of the TPB model in the context of online purchase intention. The widespread application of the TPB in understanding consumers' online purchase intentions for various products and services. While the TPB constructs consistently show positive influences on purchase intention, there is a need for further research to explore the moderating effects of cultural, situational, and

individual-specific factors, as well as the integration of additional variables that may enhance the predictive power of the TPB model in the context of online purchase intention.

The TPB is extensively applied in consumer behavior studies to predict and explain online purchase intentions and behaviors. TPB integrates three key constructs attitude, SN, and PBC to understand how they influence consumers' intentions to perform a particular behavior. This model has proven effective across a range of contexts, including organic product purchases and online shopping behavior (Ajzen, 2020).

For example, Kim and Chung (2011) examined the relationship between attitude and intention concerning organic personal care products, emphasizing the moderating role of PBC. Similarly, more recent studies have extended TPB to online shopping contexts, focusing on various moderating and mediating factors such as trust, perceived risk, and price sensitivity (Lim et al., 2021). These studies highlight that PBC, which refers to an individual's perception of how easy or difficult it is to perform a specific behavior, is a significant moderator between attitude and purchase intention in digital environments (Prasetyo et al., 2021).

Recent research has also examined how PBC moderates the relationship between attitude and intention in online food purchasing. For instance, Alam et al. (2023) found that PBC significantly moderates consumers' attitudes towards online OFP, indicating that when consumers feel confident in their ability to make online purchases, their intention to buy organic products increases. The implications of these studies suggest that businesses must enhance consumers' perceptions of control over online purchasing processes to encourage higher engagement with organic products.

Guthrie et al. (2021) extended the TPB framework by including environmental concern and willingness to pay premium, examining their effects on green purchase intention among educated millennials in India. The study highlighted the

importance of environmental concern and willingness to pay premium in influencing green purchase intention, providing valuable insights for businesses targeting environmentally conscious consumers. Chaudhary and Bisai (2018) also explored the factors influencing green purchase behavior of millennials in India using the TPB. However, the specific findings of this study were not available.

Lee and Chen (2010) examined the factors influencing consumers' attitude toward online shopping and shopping intention from the Malaysian perspectives using the TPB, Theory of Reasoned Action (TRA), and Technology Acceptance Model (TAM). The study provided a valid basis for explaining and predicting consumers' intention towards adopting online shopping behavior, emphasizing the relevance of TPB in understanding online consumer behavior.

In addition to the TPB, researchers have integrated other models to enhance the understanding of online purchase behavior. R hman et al. (2019) investigated the factors affecting the adoption of online banking in Isfahan province of Iran using a theoretical model based on the TAM with TPB model. The study highlighted the importance of trust and commitment in moderating the relationship between consumer purchase intention and online shopping behavior, indicating the need for an integrated approach to understanding online consumer behavior.

Delafr oz, Paim, and Khatibi (2011) constructed a logit model on online shopping intention of undergraduate consumers based on the TPB. The study provided insights into the specific factors influencing the online shopping intention of undergraduate consumers, contributing to the application of TPB in a targeted consumer segment.

Pop, Saplacan, and Alt (2020) used the TPB to analyze the role of trust in organic products on buying behavior, testing a relational model in which trust acts as a background factor associated with all the classical constructs foreseen by the theory and the buying behavior. The study emphasized the significance of trust in

influencing buying behavior, indicating the need to consider trust-related factors when applying TPB to understand online purchase behavior.

The TPB has been broadly utilized in food researches that emphasis on perspectives, convictions, and practices in alternate markets. Alternate agriculture, a united term, "is certainly not a single arrangement of cultivating practices. From a customer's viewpoint, taking an interest in alternate farming business sectors, including natural, negligibly prepared, and regular is growing tremendously. Excitingly, research on the goals of customers to buy locally grown food regularly gets contrasted with other different kinds of alternate agriculture (Brune et al., 2023; Meas et al., 2014; Yue & Tong, 2009).

Despite the growing global interest in organic food consumption, there remains a noticeable lack of research from the consumers' point of view that adequately explores their beliefs, attitudes, and behavioral patterns concerning organic food choices. Most of the existing literature focuses on production, certification, and marketing perspectives, leaving a significant gap in understanding the cognitive and affective factors that drive consumer preferences and intentions (Singh & Verma, 2022). Consumers' decision-making processes regarding organic food are complex and influenced by psychological, cultural, and situational factors. Therefore, adopting a consumer-centered approach is essential to uncover how perceptions of health, safety, environmental sustainability, and trust in organic labeling shape behavioral outcomes (Kushwah et al., 2023).

From an applied perspective, understanding how consumers form their behavioral patterns while selecting organic products over locally or conventionally produced alternatives provides valuable insights for both industry practitioners and policymakers. Organic food purchasing is not solely an economic decision it reflects a consumer's ethical stance, lifestyle orientation, and perceived personal and societal responsibility (Lai et al., 2022). If the determinants that guide consumers' evaluations of organic products can be identified, businesses and marketers can develop more effective communication

strategies to enhance the perceived value of organic options. Similarly, understanding how these behaviors evolve during the purchase decision process can help stakeholders anticipate consumers' expectations and improve product offerings and service quality in the organic food sector (Ramayah & Ong, 2021).

Furthermore, research has yet to sufficiently capture the nuances of how young consumers, particularly digital natives, engage with online platforms in shaping their purchasing behavior toward organic food. With the rapid growth of e-commerce and social media marketing, young consumers are increasingly exposed to influencer endorsements, digital advertisements, and sustainability narratives that collectively influence their perceptions of organic food (Sadiq et al., 2024). However, the mechanisms through which these online stimuli translate into actual purchase intentions remain underexplored. Young consumers often rely on digital trust cues such as product reviews, influencer credibility, and social media discussions, which can significantly affect their willingness to pay for organic products (Hsu et al., 2023). Understanding these interactions is crucial, as this demographic represents a major driving force in the future of sustainable consumption (Sharma & Foroudi, 2022).

The intersection between digital engagement and organic consumption presents a promising yet understudied research domain. While some studies have investigated online consumer behavior, few have addressed how digital communication, algorithm-driven recommendations, and platform design features contribute to the formation of attitudes and trust toward organic food brands (Rahman & Alam, 2023). The role of social identity and peer influence in virtual communities also warrants deeper examination. Young consumers often construct their self-concepts through online interactions, and these identity expressions may intersect with sustainability-oriented consumption, leading to more symbolic and socially driven purchase motivations (Nguyen & Pham, 2022).

Despite the growing body of literature on organic food consumption and digital food retailing, several critical gaps remain unaddressed. Existing research is

predominantly concentrated in Western and developed market contexts, with limited cross-cultural and regional investigations focusing on Southeast Asian countries such as Malaysia, Indonesia, and the Philippines. These markets are characterized by rapidly evolving socio-economic conditions, increasing digitalization, and heightened sustainability awareness, yet remain underexplored from a consumer behavioral perspective, particularly in the context of online organic food purchasing (Sajid, Ramendran, & Abdulkarim, 2024). Prior studies have largely emphasized market-level factors, product attributes, or supply-side dynamics, while insufficient attention has been paid to the consumer's psychological perspective, including beliefs, attitudes, and intention-formation processes related to organic food choices. Specifically, there is a paucity of research examining how consumers differentiate organic food from locally or conventionally produced alternatives at the point of decision-making, and how such distinctions influence final purchase intentions in online environments. Although younger, digitally native consumers are recognized as a key segment in online food markets, empirical evidence explaining how their behaviors are shaped through online platforms remains limited. Existing studies seldom explore how digital interactions; such as exposure to platform information, social influence, and trust cues; shape young consumers' attitudes and intentions toward organic food purchases. This gap is particularly salient given the increasing reliance on social media and online food delivery platforms for food-related decisions.

Addressing this gap requires integrating multidisciplinary approaches drawing from consumer psychology, marketing communication, and digital behavior research to holistically examine how consumers form attitudes and intentions toward online OFP. Employing advanced research designs, such as mixed-methods or longitudinal studies, could provide deeper insights into how attitudes evolve over time and across platforms. The inclusion of emerging variables, such as AI-enabled recommendation systems, sustainability certifications, and digital

influencer credibility, could further refine the understanding of online organic food consumption behavior (Ahmad et al., 2024).

While prior studies have advanced knowledge of organic food marketing and consumer awareness, there remains a critical need for research that foregrounds the consumer's psychological and digital experiences in shaping organic purchase behavior. By focusing on young, tech-savvy consumers and their online interactions, future studies can generate novel insights into how digital ecosystems and sustainability values intersect, thereby contributing both to academic discourse and to the strategic advancement of the organic food industry. There was not enough research from the customers point of view in order to better understand the beliefs and the attitudes of customers about food. On an applied level, if it is known how a behavior of customers shapes while selecting an organic choice rather than just locally produced or agriculturally produced food and vegetables that can actually serve more efficiently for the industry to know what customers' intentions are when they make the final purchase decision. Similarly, there is not a substantial research on how young consumers shapes themselves using online platforms to shape their behavior towards online purchasing of organic food choices.

The summary of the TPB's past studies which are focused on the purchasing behavior and the food choices that the customers make are presented in table 2.1 below.

Table: 2.1

Summary of TPBs Past Studies

Authors' names	Modifying the TPB framework with additional construct(s)	The purpose of modifying the TPB framework
Citation	Key Findings	Components of TPB
Liu et al. (2023)	Positive attitudes towards organic food, driven by health and environmental concerns, impact online purchase intentions.	Attitude
Mishra & Padhy (2022)	Health consciousness and the perceived value of organic products are key drivers of positive attitudes.	Attitude
Tan et al. (2023)	Convenience, accessibility of platforms, and product availability influence perceived behavioral control in online purchases.	Perceived Behaviour control
Alam et al. (2023)	Social environment, including the opinions of family and influencers, influences online organic food purchases	Subjective Norms
Singh et al. (2022)	Social media amplifies the influence of subjective norms in online purchasing decisions.	Subjective Norms
Chatterjee & Kar (2023)	Technological advancements and digital literacy improvements enhance perceived behavioral control, making online purchases easier.	Perceived Behaviour Control

Yadav & Pathak (2016)	Positive attitudes toward organic foods, based on health and sustainability, drive purchasing decisions.	Attitude
Aschemann-Witzel et al. (2013)	Social groups and family members influence the likelihood of purchasing organic food online.	Subjective Norms
Hsu et al. (2016)	Easy access to online platforms and previous successful experiences increase perceived control and likelihood of purchasing.	Perceived Behavior Control
Yuzhamin and Fisher (2016)	Discussed the capacity of TPB to explain human behaviors and attitudes toward specific behaviors.	TPB and Human Behavior
Mohd Daud et al. (2023)	Studied the TPB's application in online purchase behavior in a more recent context.	TPB and Online buying
Nikolaos Satsios & Spyros Hadjidakis (2018)	Examined TPB in the context of saving behavior Explored TPB's application in the adoption of electric vehicles in different countries.	TPB and Saving TPB
Shalinder and Sharma (2021)	Demonstrated the impact of product availability and health goals on health-conscious consumers' online purchasing behavior.	TPB and Health Consciousness.
Pillai et al. (2022)		
Meira et al. (2024)	Analyzed the consumer concerns over pesticides and their role in food safety decisions.	TPB and Food Safety Decisions
	Investigated concerns over salmonella food poisoning and its impact on food choices.	TPB and Food Choices
Rahman (2023)		
Ishak et al. (2021)	Showed the increasing consumer interest in organic vegetables and meat products in Malaysia.	Interests in Organic vegetables and Meat Online Selling of Organic food

Akel & Candan (2022)	Argued that using the internet for selling organic food could be highly beneficial for businesses.	PBC
Alam et al. (2023)	Highlighted the moderating effect of PBC on consumer attitudes towards online organic food purchases.	
Guthrie et al. (2021)	Explored the role of environmental concern and willingness to pay premium in shaping green purchase intention.	Environmental concern and willingness to pay

The table 2.1 shows how the past studies altered the TPB model to answer research problems. With this modification, the TPB model had an increase in its estimation power to predict BI with the estimation power of the actual behavior. Since the advent of the theory it was not able to study all the behavioral aspects in different contexts, for this reason other variables were added to help the researchers to analyze a much broader aspect of BI (Ajzen, 1991). Researches using the three determinants of TPB to help to know about customers' intentions to purchase online, have been connecting attitudes, SN and PBC to intentions to purchase online.

But it is to be pointed out that researchers have found that attitude has the strongest persuasive power followed by PBC (Shim et al., 2007). For the major part, research findings state that the three antecedents of the TPB all together works the customers mind when making an online purchase. As indicated above it is to be in notice that attitude and PBC have a better effect on customers who purchase online. Since shopping online during this era is comparatively a new phenomenon, more research on the factors that can affects the online purchase decisions and behaviors is to be done. Further research by adding variables in the antecedents of TPB can add to the present knowledge and identify further research areas.

By and large, in thinking about buying organic food items, buyers go across five stage of customer decision building procedure out which are need identification, data search, assessment of choices, purchase and post purchase decision and its behavior (Armstrong & Kotler, 2010; Le-Anh & Negoyen-To, 2020). Purchasers as a rule will perceive an issue or need when they sense a distinction between their real state and some ideal state. For instance, an individual who has been sick for a while may understand the need for a better product, such as a healthier option, and begin to search for one. In this stage, they will look through data identified with the organic food items and this interaction is connected to the discernment in term of choosing the material and relegated an importance to them. Thusly, this will prompt how they perceived the items. What customer thinks will influence their activity, purchasing habits, etc., in this manner, perception has key strategic for marketing department since buyers assemble choices dependent on what they see instead of on the essential of objective realm (Putra et al., 2017; Schiffman & Kanuk, 2010).

In the wake of obtaining adequate information, customers will distinguish a bunch of attributes to use to think about others choices. For example, a customer may search for attributes like expense, highlights and features and valuable qualities prior to buying an organic product and utilize these products attributes or others elements to assess the criteria. Subsequently, their insight and perception on the overall importance of organic food items ascribes when contrasted with those of non-organic may impact them to buy organic food. As a rule, customers during their decision-making process depend on various products attributes prior to concluding whether to purchase or devour the organic food items. Subsequent to buying the item, the customer will be fulfilled or disappointed with their purchase and will participate in post purchase behavior as well (Pacho, 2020). The TPB (Ajzen, 1991) focused on the bridge amongst beliefs and behavior and it has been related to study the relationship among attitudes, beliefs and PBC. BI is a depicter of an incumbents' readiness to get into a particular behavior, and is based

on overall attitude towards a behavior, SN and the PBC, which are precursors of behavior (Ajzen, 1991; Ajzen, 2020).

All in all, organic productions stress the utilization of renewable assets, conservation protection of energy and assets, and safeguarding of the environment and the overall climate, without the utilization of non-organic materials that includes fertilizers pesticides. Accordingly, food that are produced by following an organic way of production is for the most part viewed as better, more secure, preferable tasting and more nutritious over traditionally produced food (Kat & Meixner, 2020; Krystallis & Chrysosoidis, 2005). This has been replicated in an expanding interest for organic food, which is seen as less harming to the climate and more grounded than routinely developed food varieties (Rana & Paul 2020; Schifferstein & Ophuis, 1998).

While, if there should be an animal it is normal for the customers to imagine that an enhancement in the animal raising strategy will result in a superior, improved, more secure food and decreased the issues related to the environment and improve animal overall welfare (Ahmed et al., 2021; Passille & Rushen, 2005). Past examinations showed that customers see organic food as of better caliber, more secure and much fresher than the other (Rana & Paul, 2020 ; Schifferstein & Ophuis, 1998; Thompson & Kidwell, 1998).

Typically, individuals purchase organic food since organic food is viewed as better, more nutritious and more secure, no synthetic substances are utilized, natural cultivating is gentler to the overall environment, and quality wise its better than the food that is conventional food.

Similarly, Kareklas, Carlson, and Muehling (2014) posited that consumers' beliefs regarding the environmentally friendly nature of organic farming strongly shape their attitudes toward organic food, which subsequently influence their purchase intentions. Recent research continues to affirm that such perceptual factors particularly environmental concern and health orientation remain central

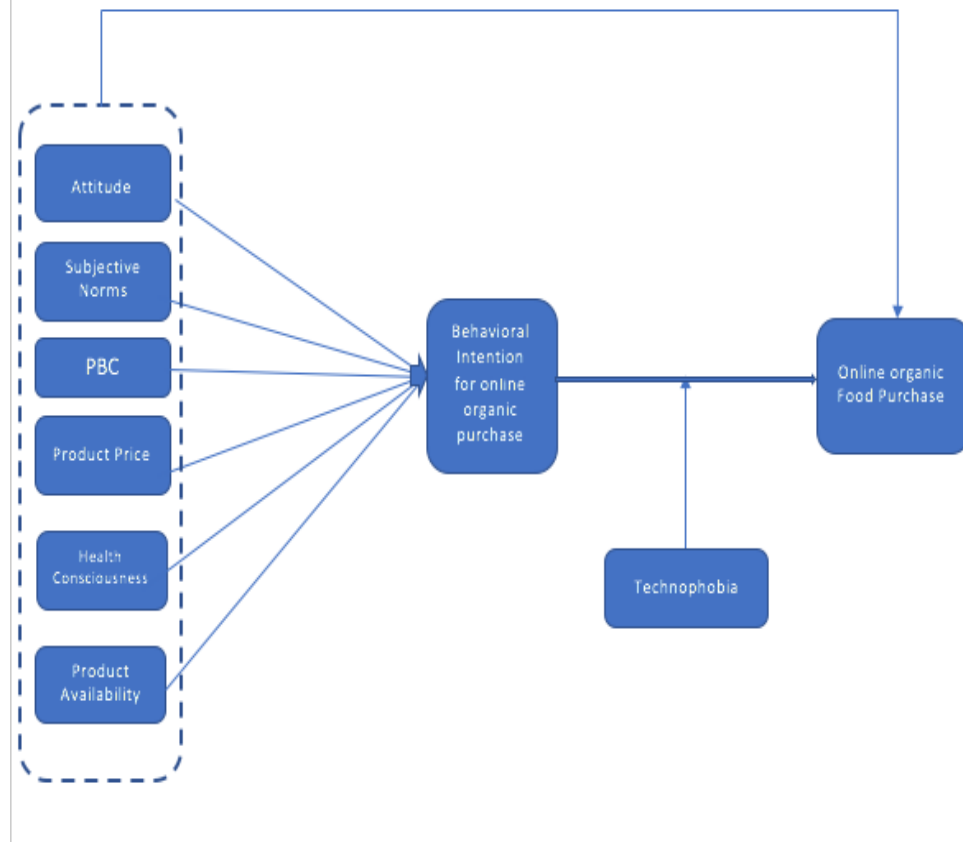
to the formation of organic food purchase intentions (Escobar-López et al., 2024). However, perception alone does not fully explain consumer behavior; rather, demographic characteristics play a moderating role in how these beliefs translate into purchasing actions. For example, empirical evidence demonstrates that age, marital status, education level, and employment status significantly affect organic food purchasing behavior, while the influence of gender and income appears to be less consistent (Yilmaz, 2023). Similarly, studies in emerging markets such as Indonesia show that environmental awareness, perceived value, and socio-economic status jointly shape consumers' decisions to buy organic products (Septiani et al., 2024). In the post-pandemic Chinese context, continuous purchase intentions are further influenced by factors such as health consciousness, perceived behavioral control, and cultural orientations (Wang et al., 2023). Evidence from Pakistan also highlights that environmental concern, health consciousness, and social influence significantly determine students' intentions to purchase organic food (Raza et al., 2024).

2.11 Research Framework

The research model used in this study as shown in the figure 2.2 below.

Figure 2.2

Research Model



The research model used in this study as shown in the figure 2.2, is based on the TPB. The TPB is main to this research as it is the theoretical concept being tested for get the knowhow of customers' online OFP. Accordingly, Niaura (2013) was of the view that the TPB on purpose defines the BI as a marker of the individuals' readiness to perform a given behavior. Similarly, Azjen (1991) found out that BI indicated how an individual performs a specific behavior and also provided such a behavior is under the persons control, besides this BI acts as a motivating factor (Azjen, 1991). According to TPB, the three factors that can affect the purchasing behavior of online organic food (Gu & Wu, 2019); attitude, SN, and PBC, originally the TRA was of the view that a customer usually behaves what the customer intended to behave which was formed by attitude and SN.

SN captures the customers view of how important others might take the behavior as (Pena-Garcia et al., 2020; Pavlou & Fygenson, 2006). SN are taken as the perceived societal pressure to do or not to do a particular act (Ajzen, 2020; Azjen, 1991). It is important to take note that the TPB further enhanced the TRA by adding a third and an important factor that is the PBC. PBC is taken as the individuals' attention of the circumstances that can facilitate the behavior performance (Pena-Garcia et al., 2020; Pavlou & Fygenson, 2006). PBC can be referred as the ease or the difficulty of performing the behavior with the reflection of the past experience as well anticipated obstacles (Gu & Wu, 2019).

Both the Theory of Reasoned Action (TRA) and TPB are composed across the expectancy value model of attitude (Ajzen & Fishbein, 2000). Accordingly, this model a customer's attitude is based on and follows from beliefs which can further guide the customers' behavior. It is to be noted that beliefs can differ in terms of the capacity to process the appropriate information (Gu & Wu, 2019). It can be therefore accepted that attitudes are both shaped by beliefs and other surrounding effects, indicating that these factors influence the attitudes that are useful to predict the behavioral outcomes (Holland et al., 2012). Previous research findings indicate that a customer's attitude is more likely to influence behavior that depends on the degree to which attitude is formed on experience basis, the strength of certainty with the attitude, and also how well the persons' attitude is defined (Ajzen, Fishbein & Lohmann, 2018; Fazio & Zanna, 1978).

The collective effect of belief, experience and how the attitude is explained helps to find out whether the attitude is on the positive side or the negative side. An attitude that is positive will yield a positive outcome whereas an attitude that is negative will tends towards an outcome that is negative (Cacioppo & Bernston 1994; Van Kleef, Van Den Berg & Heerdink, 2015). If taken under the setting of online purchasing, customers tend to form a favorable attitude when online purchasing is seen favorably. For most customers, online shopping is taken as favorable when the customers save their crucial time and also, they found out that its convenient to shop wherever they are and gather the right information within

seconds (Parise et al., 2016), however this is not just the case. Customers will also have a keen look over the benefits against the incurred costs, the security breach, wait time for delivery and the fact that online purchasing one cannot inspect the goods the customers are buying.

SN are an essential component in understanding consumer behavior, especially when it comes to online purchasing. They refer to the perceived social pressure individuals feel to perform or not perform a specific behavior, often based on the opinions and behaviors of those in their social circle, such as family, friends, and peers (Ajzen, 2020). This social influence is particularly significant in online shopping, where consumers tend to rely on the recommendations and experiences of others to make informed decisions (Younus et al., 2022). When individuals share their online shopping experiences, those interactions can shape the buying intentions of others, creating a feedback loop of social influence (Rahman et al., 2023). Consumers are often guided by the subjective beliefs of significant others, which can heavily impact their decision-making process (Kaur et al., 2022). The perception that peers and family members favor online shopping behavior can prompt consumers to align with those preferences, reinforcing the importance of social norms in digital consumerism (Saha & Nath, 2022). In fact, social norms can serve as a strong predictor of online purchase intentions, as shown in recent studies. For example, Molla & Bhattacharya (2023) found that peer influence played a crucial role in shaping the online buying behavior of millennials, while Goh et al. (2023) demonstrated that family members' shopping preferences have a significant impact on younger consumers' decisions in e-commerce contexts.

PBC alludes to the customers' assessment of 'accessibility of information, resources, and opportunities essential for online purchasing (Parise et al., 2016). As per Nainggolan and Sijabat (2023), PBC is a critical indicator of online purchase intentions and the actual purchase behavior. At the point when a customer has positive PBC, the customer will probably attempt to go for internet shopping. In the event that the online purchase experience is acceptable, the customer will assess PBC built on prior experience and the trust created out of it

and finally will shape a perspective that is positive for online purchasing (Giantari, et al., 2013; Nainggolan & Sijabat, 2023).

Three other variables that are PA, HC and PC were also added which can greatly affect the BI. Product pricing is considered notorious for being a strong factor in the deciding the demands of the customers (Lopez-Fernandez, 2020; Sivagnanam & Srinivasa, 2010). It can be deduced that a price conscious customer is more aware of the trends and prices and hence tends to seek out the cheapest available option that included the products that are on sale (Lopez-Fernandez, 2020). Yue et al., (2020) defined price sensitivity as the “degree to which the decision making is influenced by the price in order to purchase a product or a particular service. Similarly, Pilelienė and Tamulienė, (2021) found out that considering the organic products; customers showed a strong preference towards the organic products and were found out to be less price sensitive. Therefore, it can be deduced that the degree of participation with a particular product or service effects a customer’s degree sensitivity in price, one can assume that the more customers take the product as valuable the lesser the customer will be sensitive to the price (Gotlieb et al. 1992; He, 2018).

Personal health is a motivator for the healthy choice made by the customers, there are several researches among the adult age bracket that has found that personal health is not only the major individual motive for the selection of a healthier food product due to the lack of information regarding the long-term benefits of healthier eating (Hussein et al., 2023 ; Horacek & Betts, 1998; Wasike et al., 2017). There are number of researches that are focused on adult customers to eat healthier food in order to stay healthy and to take care of their personal health (Eikenberry & Smith, 2004; Kombanda et al., 2022)

A healthier choice can be organic food as it is free from many chemicals and is a good step towards the healthier living (Saleki, 2019). There is an enormous awareness among the customers concerning food safety and issues related to usage of pesticides (Miles & Frewer, 2001; Sarkar et al., 2021) and genetically

modification (Ortega & Tschirley, 2017). Therefore, it can be deduced that there has been a spike in the development of the organic food market from an ever-growing need of the healthier foods especially for the case of organic food products (Bhattarai et al., 2013; Kumar et al., 2018; Lee et al., 2014), which are the products that are grown in the absence of using noxious pesticides and artificial fertilizers.

A critical factor that defines how a customer thinks and decide whether to go for a specific product is PA, which means that a seller can sell a product or service to the customer whenever the customer wants to buy it (Kurata, 2014). Saha and Bhattacharya (2021) found out that nearly 50% of the customers can turn down a product purchase and the intention can be lost due to out of stock or unavailability of the product, similarly Ergin et al., (2021) also mentioned that making the product available can actually boost up the sales and in a retail business such as grocery stores, availability of the product is taken as a key service factor. It was found out by Tanaka (2013) that the stock out label degrades the customer's loyalty as customer is not happy when the product is not available.

All these variables have an effect on the BI of the customers towards the purchase of organic food products online, it is to be noted that since the COVID-19 most of the business have gone online, so technophobia is something that can act as variable that can intervene in the BI towards the organic food product purchase online. Technophobia can be termed as the disliking of modern technologies but most studies do not use the term technophobia but use computer anxiety and sometimes cyber phobia (Nimrod, 2021). Technophobia can be termed colloquially as a fear and anxiety that individuals develops as a result to a new stimulus that comes from the form of technology the individual is using which in terms modifies the individual actual routine of performing a task/job (Khasawneh, 2018). In the online activities context, there are many other negative factors that come in technophobia as well. They all root from a broad background of technophobia. When purchasing online the risk of privacy loss is related to customer purchasing behavior (Dai, Forsythe & Kwon 2014). These threats of

technophobia may be so strong that the customers may actually not perform the digital activity (Mason, Stevenson & Freedman 2014) and also the digital purchase (Khasawneh, 2019).

CHAPTER 3

HYPOTHESIS DEVELOPMENT

The objective of this chapter is to develop a set of testable hypotheses based on the integration of the TPB, extending these frameworks to capture the unique dynamics of online organic food purchasing among Malaysian digital natives. Specifically, the chapter aims to conceptualize and justify the relationships between key constructs attitude, SN, PBC, PA, HC, and PC and their influence on BI and actual purchase behavior. Furthermore, it seeks to examine the moderating role of technophobia in shaping these relationships, acknowledging how consumers' fear or anxiety toward technology can alter their online shopping behavior. By grounding the hypotheses in established theoretical frameworks and empirical evidence, this chapter provides a logical foundation for the proposed research model and sets the stage for subsequent empirical testing.

3.1 Hypothesis Development

Based on literature reviews, several scholars have included factors impacting BI that are useful in evolving theoretical framework for the study. The section is planned in such a way that the researcher develops several research hypotheses that have been identified as important to BI towards the purchase of organic food products online. The paragraphs below will discuss about the hypotheses development showing the relationship between Attitudes, SN, PBC (Gu & Wu, 2018), PC (Lopez-Fernandez, 2020), PA (Cheng & Chen, 2020; Kurata, 2014) and HC (Kumar et al., 2018) on BI with the moderating effect of technophobia when the customers makes the final purchasing decision of organic food products (Khasawneh, 2019).

3.2 Customers' attitude and Behavioural intention

The customer's attitude towards the behavior is taken as a cognitive process where customer uses the rationality that is the ability to upset the balance of the beliefs the customer has in the mind (Ajzen, 2020; Auza & Mouloudj, 2021;

Camilleri et al., 2023; Ravis et al., 2009). It is important to note that the vast literature of TPB is of the view that there are two interactive components that are involved in the construct which are the beliefs about the results and consequences of the particular behavior which is termed as the behavioral beliefs, and the outcome evaluations which is the negative or the positive evaluation of the behavioral beliefs (Ajzen, 2020). Within the TPB framework, attitudes towards the intentions of the customer towards purchase of organic food products proves to be a strong and an influential factor in the customers which shows a positive exhibit and preferences towards the purchase of organic food products. All the previous studies reviews have reported a particularly positive impact of attitude towards the organic food products purchase intention (Auza & Mouloudj, 2021; Chen & Tung, 2014; Tarmazi et al., 2021). It can be deduced that the customers who have a positive attitude towards an organic food products are more likely to opt and purchase and hence their intention is more inclined towards the purchase. Hence the following hypothesis is posited:

H1: Attitudes positively influence the customers' behavioral intention.

3.3 Attitude and online organic food purchase

Attitudes impact the intentions held by customers, and it can be deduced that a positive attitude leads to a greater intention to execute a particular behavior (Chu, 2018; Santosa, 2021; Yajid et al., 2020). It was found that a stronger attitude toward a particular conduct leads to a much greater intention to perform a particular behavior (Ajzen, 2020; Hagger et al., 2022). Previous literature suggests that attitudes are the most important predictors of how customers derive their value towards the purchase of organic food products (Pant et al., 2024; Smith & Paladino, 2010; Teng & Wang, 2015). Previous literature has also suggested that the attitude and the behavior towards organic food product purchase are linked, showing some statistical evidence that attitude does influence customers' purchase intentions for organic food products (Chu, 2018; Smith & Paladino, 2010; Teixeira et al., 2021; Tarkiainen & Sundqvist, 2005). Behavioral studies

supported a positive correlation between attitudes and the intention of the customer to purchase organic food (Chu, 2018; Chen, 2007; Magnusson et al., 2001; Pacho, 2020; Tarkiainen & Sundqvist, 2005; Werner & Alvensleben, 2011). However, empirical results on this relationship are still inconclusive. Nguyen et al. (2022) found that despite favorable attitudes towards sustainable products, actual purchase behaviors were often influenced more by external factors like price and availability, rather than by attitudes alone. This aligns with earlier findings by Padel and Foster (2005), suggesting that attitudes may not always be a strong predictor of BI in certain contexts, Li et al. (2022) found that consumers who hold favorable attitudes toward organic food are significantly more likely to intend to purchase these products, underscoring the critical role of attitudes in the decision-making process. These findings align with Chu's (2018) perspective that attitudes are a key determinant of purchase intentions with the customer's behavior in the context of organic food products. This means that have a positive attitude towards purchasing organic food, they may still be uncertain. Hence the following hypothesis is posited:

H2: Attitude positively influences the customers online purchasing for organic food products.

3.4 Customers' Subjective Norms and Behavioural Intentions

Most of the empirical studies have taken SN as a variable from the TPB framework, which enables researchers to capture the customer's perception of social pressure when performing a particular BI (Aertsens et al., 2009; James et al., 2019). Accordingly, the assumption is that SN measures the normative beliefs and motivational factors to conform to the expectations of family, friends, and close relatives regarding customer behavior (Ajzen, 2020). Kautish and Sharma (2021) found that BI towards the purchase of organic products positively increase when customers conform to the desires of others. Similarly, Chang and Chen (2022) also found a positive effect of societal norms on BI in OFP. Moreover,

Kumudhini and Kumaran (2020) also confirmed SN as a positive and significant predictor of intentions. Hence, the hypothesis is proposed as follows:

H3: Customers Subjective Norms positively influences behavioral intention.

3.5 Subjective Norms and online organic food purchase

Empirical research frequently employs the SN construct from the TPB to assess the role of social influence and perceived societal expectations in shaping consumer behavior. This perception defines whether the customer will purchase a particular product or not. SN can be seen as the internalized view of how important an individual is in the customer's life, influencing the customer to act in a particular way (Kumar & Pandey, 2023; Smith & Paladino, 2010). SN is also viewed as the perceived social pressure that a customer senses when feeling the need to perform a particular behavior (Ajzen, 2020). It includes approval from different reference groups like friends, family members, and other individuals of utmost importance, which can strengthen a person's intention to buy organic food products. Nguyen et al. (2022) found that while SN significantly influences the intention to purchase organic food, its direct effect on actual purchase behavior is often moderated by other factors such as PBC and past behavior. Similarly, Aertsens et al. (2011) highlighted that although SN have a notable influence on intention, the translation of this intention into actual purchasing behavior is less consistent and can vary depending on contextual factors such as availability and price sensitivity. Recent studies have also examined this relationship in the context of online OFP. Müller and Gaus (2023) found that SN significantly impacted actual online purchasing behavior, particularly when customers were motivated by the approval of their social circles. This effect was more pronounced in younger consumers who are more active on social media and influenced by online communities. Conversely, Chen et al. (2023) demonstrated that while SN positively influenced online purchase intentions, their effect on actual purchase behavior was mitigated by factors such as website usability and trust in online payment systems. Hence, the hypothesis is proposed as follows:

H4: Subjective norms positively influence the customers online organic food purchase of the customers.

3.6 Customers' Perceived Behavioural Control and Behavioural intentions

Based on the TPB, PBC refers to the confidence that a customer has in their ability to perform a specific behavior (Ajzen, 1991). Ajzen (2020) highlights PBC as a significant factor that can reduce deviations from intended behaviors, such as purchasing organic food. Recent studies have continued to emphasize the importance of PBC in predicting consumer behavior, particularly in online shopping environments. Variables such as perceived abilities and perceived barriers are commonly used to assess PBC, focusing on how much control a customer believes they have over their behavior and their confidence in executing it (Lin & Huang, 2022). For example, research by Wu and Chen (2022) found that higher levels of perceived control directly correlate with increased online purchasing intentions, particularly when customers feel they can navigate the digital shopping space effectively. Similarly, Kim and Hall (2021) found that PBC significantly influences the likelihood of purchasing organic food online, especially when customers perceive fewer barriers such as technological challenges or concerns about product authenticity. However, Kwon et al. (2021) presented a different perspective, indicating that while PBC generally enhances purchase intentions, its impact can be moderated by other factors, such as previous online shopping experiences or the perceived ease of using the platform. This suggests that PBC alone may not always be a straightforward predictor of purchasing behavior, as its effects can vary depending on the broader context. In summary, while PBC remains a critical component of the TPB framework and typically increases the likelihood of online OFP, its predictive power can be influenced by additional factors. Thus, understanding how control perceptions interact with other elements of the online shopping experience is essential for accurately predicting consumer behavior. Hence, the hypothesis is proposed as follows:

H5: Customers Perceived Behavioral Control positively influence behavioral intentions.

3.7 Perceived Behavioural Control and online organic food purchase

Ajzen (2020) incorporated PBC as a factor that reduces deviations in OFP behaviors. This concept, central to the TPB, is measured by assessing customers' perceived abilities and barriers in performing the behavior in question. Specifically, regarding organic food purchases, several researchers have highlighted that key elements such as high price premiums (Hughner et al., 2007; Jeong & Jang, 2019) and perceived lack of availability (Chowdhury et al., 2021; Rodriguez et al., 2008) can influence PBC. For instance, Nguyen and Dekhili (2019) pointed out that a lack of information regarding organic food products can undermine PBC, leading to less frequent purchases. However, the impact of PBC on actual purchase behavior rather than mere purchase intentions is crucial. Dangi, Gupta, and Narula (2020) found that trust in online organic food purchases directly correlates with the customer's final purchase decisions, showing a clear link between strong PBC and actual behavior. Further, Patel et al. (2023) identified PBC as a significant predictor of not just online purchase intentions but actual purchasing behavior. According to Ulda (2022), PBC encompasses customers' evaluations of the availability of information, resources, and opportunities essential for online purchasing. This perspective is supported by Giantari et al. (2013), who, through survey-based research, found a direct relationship between PBC and actual online purchase behavior. This relationship suggests that when customers have high perceived control, they are more likely to engage in and complete the online purchase process. Other studies have corroborated these findings. For example, Ghorai et al. (2023) and Lopez-Mosquera (2014) observed that positive PBC enhances not just the intention but also the actual execution of purchasing behavior, particularly in the context of organic food. Similarly, Dean et al. (2008) and Vermeir and Verbeke (2008) found that higher levels of PBC predict actual purchasing actions, thus confirming the

importance of this factor in driving consumer behavior. Hence, the hypothesis is proposed as follows:

H6: Perceived behavioral control positively influences the customers online organic food purchase.

3.8 Product Price and online organic food purchase

A widely accepted economic principle of supply and demand suggests that fluctuations in price significantly influence customer behavior when purchasing a product. For example, when a product's price decreases, customers are more likely to buy it, thereby increasing demand (Casassus et al., 2009; Nezakati et al., 2011; Yogananda & Nair, 2019). This principle also applies to the organic food market. Harris (2007) found that some customers are not only inclined towards purchasing organic products but are also willing to pay a premium for them. This indicates that a customer's purchasing behavior is closely tied to their willingness to spend more on organic products (Radulescu et al., 2021; Zhen et al., 2012). However, the online organic food market is still in its nascent stages and has yet to reach maturity. As a result, customers remain highly sensitive to price, and their purchasing intentions are significantly affected by price levels and fluctuations. The demand for high-priced organic products is notably elastic (Lin & Huang, 2012; Moriotti et al., 2024). Despite this sensitivity, a significant segment of customers maintains a positive perception of price, expressing a willingness to pay more for organic products (Eriksson, 2004; Kat & Meixner, 2020; Laroche et al., 2001; Lung, 2010). Therefore, it can be inferred that the more price-conscious a customer is, the more likely this awareness will act as a catalyst for their BI, eventually leading to the online purchase of organic food. This observation can be formulated as a hypothesis as follows:

H7: Product prices positively influence a customer purchase of online organic food products

3.9 Health Consciousness and online organic food purchase

HC refers to the awareness and concern customers have regarding health and health-related issues, especially as they age. Many customers firmly believe that organic food is more nutritious, containing higher levels of essential vitamins, iron, and magnesium, along with lower levels of nitrates, and involving significantly reduced pesticide usage compared to non-organic foods (Hill & Lynchechaun, 2002; Vijayalakshmi & Raman, 2023). Studies have consistently shown that customers who choose organic food tend to be more health-conscious, taking greater responsibility for their health and prioritizing food safety. These are key reasons why such customers prefer to purchase organic food products online (Huber et al., 2011; Sugirta, 2018; Siriein et al., 2011). Health is recognized as a primary factor influencing online OFP (Chakrabari, 2010; Pahari et al., 2023; Xie et al., 2015). Health-conscious customers are particularly mindful of the impact of the products they consume, leading them to choose healthier options (Saba & Messina, 2003; Wang et al., 2019). There is a broad consensus among researchers that a strong connection exists between HC and the purchase of organic food (Alphonse & Alfnes, 2012; Nagaraj, 2021; Yadav & Pathak, 2016; Zagata, 2012). Experimental evidence further supports this, showing that the intention to buy organic food products is heavily influenced by customers' perceptions. Petiljak et al. (2017) found that customers are motivated to purchase organic food because they perceive it as safer, healthier, and more environmentally friendly compared to conventionally produced products. Health concerns have been identified as the most critical factor driving the purchase and consumption of organic food products (Michaelidou et al., 2008; Padel & Foster, 2005; Su et al., 2022; Wandel & Bugge, 1997).

Similarly, customers' perceptions significantly shape how organic products are viewed and ultimately influence purchasing decisions (Wee et al., 2014). HC consistently emerges as the main reason for choosing organic food products (Nagaraj, 2021; Pahari et al., 2023; Roitner-Schobesberger et al., 2008). The positive relationship between HC and the purchase of organic food products is

further supported by researchers such as Bulut (2021) and Molyneaux (2007). Therefore, the hypothesis is proposed as follows:

H8: Health Consciousness positively influences a customer purchase intention of online organic food products.

3.10 Product Availability and online organic food purchase

PA and variety are among the most crucial factors influencing customers' decisions to purchase food products online. Research by Gillett (1976), Kim (2020) Stephen & Toubia (2010) and Wolfinbarger & Gilly (2001) underscores the importance of these elements. The presence of a wide range of products is instrumental in ensuring customer satisfaction and guiding their decision-making processes when shopping online (Adnan & Osman, 2022; Liu et al., 2013). Conversely, insufficient product options can lead to customer dissatisfaction, as they may feel that their needs are not adequately met. In addition to product variety, the reliable and timely delivery of purchased items is paramount for online shoppers. As Adnan & Osman (2022) and Tony & Han (2004) have observed, online customers often place orders from convenient settings, such as their office, home, or even while enjoying a coffee. These customers expect their purchases to be delivered promptly and reliably, a critical factor in maintaining customer satisfaction and encouraging continued use of online shopping platforms (Adnan & Osman, 2022; Tony & Han, 2004). Given these factors, the following hypothesis is proposed:

H9: Product Availability positively influences a customer purchase intention of online organic food products.

3.11 Product Price and Behavioural intention

Price is one of the primary factors that significantly influences purchasing intentions, whether the transaction occurs online or offline. Gibreel, Alotaibi, and Altmann (2018) identified price as a critical catalyst in shaping customers' intentions when making online purchases. It is crucial to recognize that price

remains a dominant factor in determining customer purchasing behavior, with customers often being highly sensitive to price fluctuations, which can strongly impact their purchasing decisions. A key point to consider is that the rapid growth of e-commerce is largely driven by its ability to offer more competitive and acceptable prices (Wei et al., 2019). Given that e-commerce is still considered to be in its developmental stages, customers' BI may not yet be fully formed or consistent. Therefore, the following hypothesis is proposed:

H10: Product prices will negatively influence online organic food purchase behavioral intention.

3.12 Health Consciousness and Customers behavioural intentions

HC has been studied as one of the major factors that alter customers' BI when purchasing, including the purchase of organic food products (Frash, DiPietro, & Smith, 2015; Kim, Eves, & Scarles, 2009; Shin et al., 2019). Health-conscious customers will modify their BI to align with their personal health goals. Accordingly, these customers tend to be much more aware of their personal health and motivated to further enhance their well-being. It can be deduced that customers with HC are highly motivated to choose healthier options, thereby altering their BI (Lee, Acharya, & Collins, 2018; Lee et al., 2014). Similarly, Jang, Kim, and Bonn (2011) and Shin et al. (2019) found that health-conscious customers tend to behave differently and are willing to pay more for products that offer greater health benefits.

With the increasing interest in wellness, organic food, and self-care, there is a group of customers who take active roles in their own health and personal well-being (Baudry et al., 2017; Divine & Lepisto, 2005). HC refers to healthy motivations and perceptions that are incorporated into health-related behaviors (Chang, 2020). Health-conscious customers might take their HC to a new level and change their behavior when selecting a product (Shin & Mattila, 2019). There is a strong connection between health consciousness and the purchasing intentions of customers. Baudry et al. (2017) viewed HC as one of the most important

motivational factors influencing customer intentions. Hence, the hypothesis is proposed as follows:

H11: Health consciousness will positively influence online organic food purchase behavioral intention.

3.13 Product Availability and behavioural intentions

PA is a critical factor that significantly influences a customer's decision-making process when considering a purchase. Essentially, it refers to the seller's ability to provide a product or service whenever the customer wants to buy it (Kurata, 2014). Research by Corsten and Gruen (2004) and Oyuke (2019) highlights that nearly 50% of customers may abandon a purchase if the product is out of stock, leading to a loss of intention. Additionally, Oyuke (2019) noted that ensuring product availability can increase sales by as much as 10%. In retail settings like grocery stores, PA is considered a key service factor. When customers cannot find the products, they are looking for, it often leads to frustration and a decreased likelihood of making a purchase. Consequently, PA has been extensively studied and identified as a crucial factor in purchasing decisions (Chen-Yu & Seock, 2002; Oyuke, 2019; Liu et al., 2014). Adrian and Supardi (2021) also emphasized that PA is the most important criterion for regular purchasing. Moreover, Yoo et al. (1998) found that a wide product assortment enhances customer satisfaction, thereby positively influencing their purchasing intentions. Therefore, the hypothesis is proposed as follows:

H12: Product Availability can positively predict online organic food purchase behavioral intention.

3.14 Behavioural intention and Organic food purchase

There is substantial empirical evidence suggesting that intentions to purchase organic food play a crucial role in determining the final purchase decision (Chen, 2007; Olivova, 2011; Raj & Rai, 2018; Smith & Paladino, 2010). Research has shown that a strong intention and positive attitude towards a specific behavior significantly increase the likelihood of engaging in that behavior (Ajzen &

Fishbein, 1975; Nickerson, 2023). Numerous studies have confirmed a positive relationship between BI and actual purchasing decisions (Chen, 2007; Raj & Rai, 2018; Smith & Paladino, 2010; Tarkianen & Sundqvist, 2005), although some have reported varying results.

Notably, Honkanen et al. (2006) found a strong positive correlation between intention and the purchase of organic food products. Intention, defined as the cognitive representation of an individual's willingness to engage in a particular behavior, is widely considered the best predictor of actual behavior (Ajzen, 2020). According to the TPB, all behavior is fundamentally a function of the customer's intentions (Fishbein & Ajzen, 1980). This relationship between behavior and intentions has been tested across various contexts and countries (Kaiser & Gutscher, 2003; Quoquab et al., 2017). However, there is a noticeable gap in the literature concerning the examination of this relationship within an Asian context, such as Malaysia. This study posits that customers with a favorable intention towards organic food products are more likely to purchase them online. Based on this assumption, the following hypothesis is proposed as follows:

H13: Customers behavioral intention has a positive effect on the customer online purchase behavior.

3.15 Technophobia

Technophobia presents a significant challenge in modern society, as many individuals harbor a negative attitude towards new technologies, often avoiding their use despite potential benefits (Troisi et al., 2022; Tekinarslan, 2008). This reluctance is particularly evident among those who feel uncomfortable with new technologies, preferring traditional methods instead. As technology increasingly permeates areas such as education, business, and online purchasing, the issue of technophobia has become more pressing (Martinez-Corcoles, 2017). In several studies, technophobia is used as a proxy for the fear of engaging in online purchases (Khawsawneh, 2018).

Technophobia is not confined to any single country; it is a global behavior towards the use of technology. In today's interconnected world, the fear of using technology, especially for online transactions, remains prevalent (Khawsawneh, 2018). It is estimated that technophobia affects nearly 30% of the population, with influences ranging from gender, age, and culture to education and ideology (Crabbe, 2016; Johnson, 2012; Nimrod, 2018; Lee, Kelly, & Barton, 2003; Zickuhr & Smith, 2012). Due to its widespread impact, some researchers have suggested intervention methods, such as structured programs, to help reduce technophobia by gradually introducing technology (Rosen, Sears, & Weil, 1993; Wang & Chen, 2015).

Studies in various countries, including the UK (Bozionelos, 1996), Iran (Mobaraki & Targhi, 2013), Turkey, and the Netherlands (Troisi et al., 2022; Tekinarslan, 2008), have found that technophobia can moderate customers' online activities. It is often described as the anxiety individuals experience when confronted with new technological stimuli, which can alter their usual purchasing behavior.

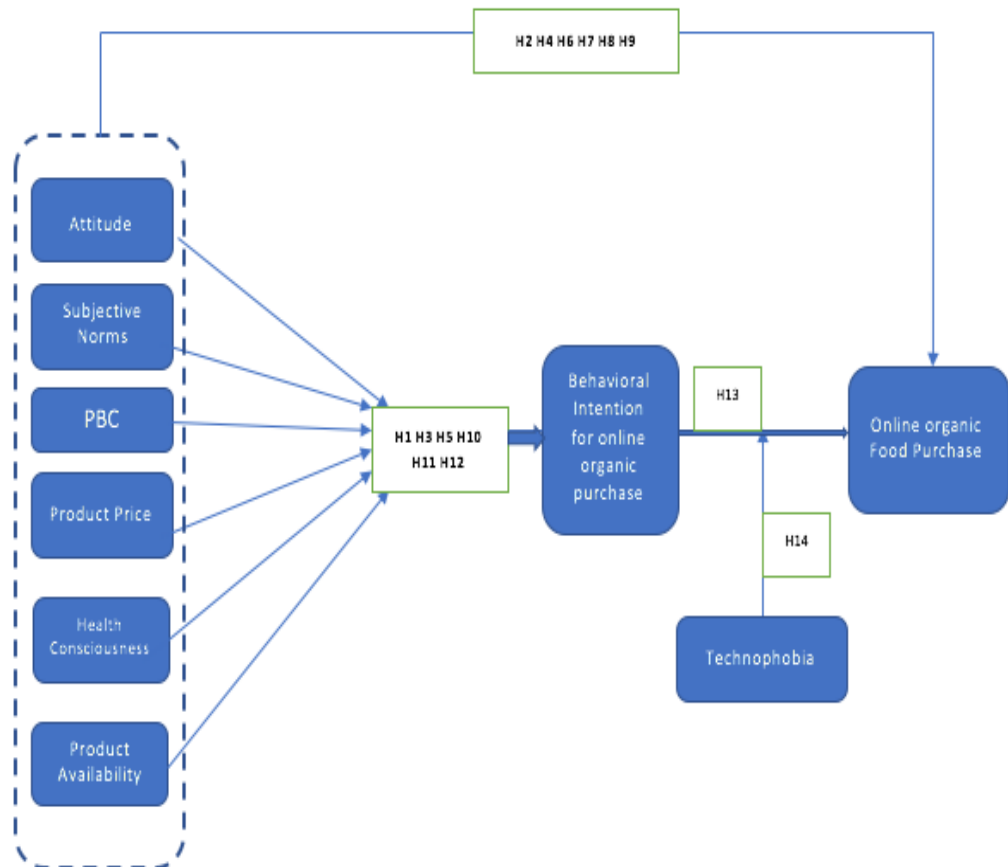
Technophobia is sometimes used interchangeably with computer anxiety (Rosen & Weil, 1990; McIlroy, Sadler, & Boojawon, 2007; Troisi et al., 2022), although the focus of these studies has primarily been on computer anxiety rather than technophobia. The most widely accepted definition of technophobia was provided by Rosen and Weil (1990), who described it as resistance to thinking about and using computers, which can eventually lead to hostile thoughts towards computer usage. Technophobia has been examined as a moderating variable in studies related to consumer loyalty in e-banking (Kamiragari & Baei, 2022; Treiblmaier & Floh, 2006). There is a notable gap in research that explores technophobia to better understand consumer behavior. Moreover, few studies have investigated the role of technophobia as a moderating variable between BI and online purchasing behavior. Consequently, the hypothesis is proposed as follows:

H14: Technophobia negatively moderates the relationship between behavioral intentions and online organic food purchase.

In conclusion, grounded on all the atop hypotheses, the study's theoretical framework is presented in figure 3.1:

Figure 3.1

The Research Framework With Research Hypotheses



No.	Hypotheses Statement
Hypothesis 1	Attitudes positively influence the customers' behavioral intention.
Hypothesis 2	Attitude positively influences the customers online purchasing for organic food products.
Hypothesis 3	
Hypothesis 4	Customers Subjective Norms positively influences behavioral intention.
Hypothesis 5	Subjective norms positively influence the customers online organic food purchase of the customers.
Hypothesis 6	
Hypothesis 7	Customers Perceived Behavioral Control positively influence behavioral intentions.
Hypothesis 8	Perceived behavioral control positively influences the customers online organic food purchase.
Hypothesis 9	Product prices positively influence a customer purchase of online organic food products.
Hypothesis 10	Health Consciousness positively influence a customer purchase intention of online organic food products.
Hypothesis 11	Product Availability positively influences a customer purchase intention of online organic food products.
Hypothesis 12	Product Prices will negatively influence online organic food purchase behavioral intention.
Hypothesis 13	Health Consciousness will positively influence online organic food purchase behavioral intention.
Hypothesis 14	Product Availability can positively predict online organic food purchase behavioral intention.
	Customers behavioural intentions has a positive effect on customer online purchase behavior.
	Technophobia negatively moderates the relation between behavioral intentions and customer online organic food purchase.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

This part presents the research methods of the study. The discussion of the tools that were used in the research will be highlighted. Furthermore, a careful thought on analyses of measurement model among all the constructs of TPB and the constructs (HC, PC, PA and Technophobia) were introduced. The chapter develops the measurement items that were used for data collection in order to confirm the hypotheses developed in chapter three. Furthermore the chapter includes the research design, selection of the studied area, sample and its sampling technique, the instruments used in the surveys, the procedures for data collection and their technique for analysing the data with the pilot study.

4.2 Philosophy Paradigms in Consumer Behaviour

The word “Paradigm” is a term used and introduced by Kuhn in his book in 1962 which was titled as “the structure of scientific revolution (Chike, 2020; Ritzer, 1992). In his book, Kuhn was of the view that there can be several purposes of the paradigm, for instance it can act as a guide for scientists in any discipline, it can help scientists to develop any models and theories, it helps the scientist to develop a criterion for tools plus it provides an epistemology of the subject (De Franco & Solorzano, 2020; Deshpande 1983). It was further pointed out that the sorts of qualitative and quantitative paradigms are in their methodologies as shown in the table 4.1.

Table 4.1

Characteristics Of Qualitative And Quantitative Paradigms

Qualitative paradigm.	Quantitative paradigm.
Qualitative methods.	Quantitative methods.

Focused on studying human behaviour from the actors' point of view.	To know the causes of social phenomena without advocating subjective interpretation.
Phenomenological approach.	Logical-positivistic approach.
Uncontrolled, observational measurement.	Controlled measurement.
Subjective; Insider's perspective that is really close to the data.	Objective ; “ outsider's perspective;” that is really at a distance from the data.
Grounded, descriptive inductive.	Ungrounded, inferential, hypothetic-deductive.
Process oriented.	Outcome oriented.
Validity is critical.	Reliability is critical.
Attempts to synthesize.	Attempts to analyse.

Source: Deshpande (1983)

It has been observed that a strong relationship exists between paradigms and research methods, as paradigms provide the foundation for determining appropriate methodologies, data collection approaches, and research instruments. Identifying the underlying philosophical paradigm is crucial, as it defines the methodological and theoretical foundations of this research. (Pappas et al., 2022; Sabrina, 2002) takes a paradigm as a phenomenon that influences whatever we see and take in about any certain facts and figures, furthermore it can also be taken as whatever we accept as the truth, but yet the debacle is not over on which paradigm and methodology is best suited for consumer behavior since early 80s. There has been a substantial debate on the appropriate philosophical and methodological establishments for consumer research since the early 80s. The debate also fixates on reality that researchers desire to acquire. This discussion was caused by the hegemonic situation of logical empiricism in consumer behavior (De Franco & Solorzano, 2020; Deshpande, 1983). The friction arose on the grounds that research specialists who emphasize on quantitative methodology

(positivistic) often discredit different methodologies as non-logical (Levy, 1996). Furthermore, that domination paradigm, which is included for positive style of thinking (Hisse-biber, 2020; Nodoushani, 2000) has not been supported by numerous researchers in fact that the paradigm is seen as a paradigm that can block social sciences development. Furthermore, it is likewise seen as an obstacle in growing significant level social science theories (Soeroso, 1984, Wilardjo, 1986). In connection with consumer behavior, (Smith & Lux, 1983) expressed that conducted studies need numerous approaches to understand consumer behavior completely. Similarly (De Franco & Solorzano, 2020; Smith & Lux, 1983; Deshpande, 1983) brought up that many style of thoughts in consumer behavior can support in growing new and rich explanatory theories.

(Mogaji et al., 2023; Nicosia & Mayer, 1976) viewed consumer behavior as a part of social sciences, particularly forcing the masses to examine the values that are culturally backed, the institutions, the norms they follow and activities as they can be related to the network of social relationships. As a social science discipline, several studies have been noticed to be more focused and using the positivism. The last century was supposedly known as the positivism century. It is said that the split-up of meta physics and rational was announced in the 19th century (Nodoushani, 2000). Positivism century was very closely linked with the philosopher Auguste Comte (1798-1857) who founded three stages of development, the theological, the metaphysical and the positive, the theological stage states that all events are caused by God Almighty, then comes the essence in the metaphysical state, and finally the final cause or the final will be given up the question for knowledge (Hunt, 1991). The term positivism arose later in the present century and was termed as logical positivism, (Wibisono, 1982). Logical positivism links the experimental traditions with logical explanations one can say it is more based on logical explanations and experiences. In this paradigm, the thoughtful and instinctive knowledge of a researcher is not allowed since such kind of data and knowledge has no empirical data ontologically speaking it holds that any social reality should be according to the scientific laws. Whereas

epistemologically the findings should be done with the researchers influence (Crowther & Lancaster, 2008).

Qualitative Paradigm Relativism goes back to the time of Socrates (470-399 BC), specifically about the debate with Protagoras about the relativistic truth. Relativism proposed by Protagoras is that measure of everything is man itself. One can say that it can be suggested that whatever is right for one person might not be right for others (Ekelund & Herbert, 1997; Smith & Sparks, 2021). The concept of relativism was also highlighted by Kuhn in his book, Kuhn introduced the concept of incommensurability which implies that the claims of a paradigm are relative to what the conceptual framework is, and further they cannot be evaluated against opposing paradigms (Hunt, 1991). Similarly (Hunt, 1991) was of the view that the field science can be divided and defined into two different aspects, a system that is able to develop proven knowledge, on the other hand it can also be taken as whatever the society chooses to call as a science. The difference between positivism and relativism is shown in table 4.2.

Table 4.2

Positivism Vs Relativism

Positivism	Relativism
True nature of reality is discovered by science.	Realities are created by science.
To understand science the logic of justification is the need.	To understand science the need are the processes by which theories are created.
Without considering cultural, social, political and economic factors Science can be understood.	Without considering cultural, social, political and economic factors Science is a Social process and cannot be understood.
Science is objective.	Science is subjective.

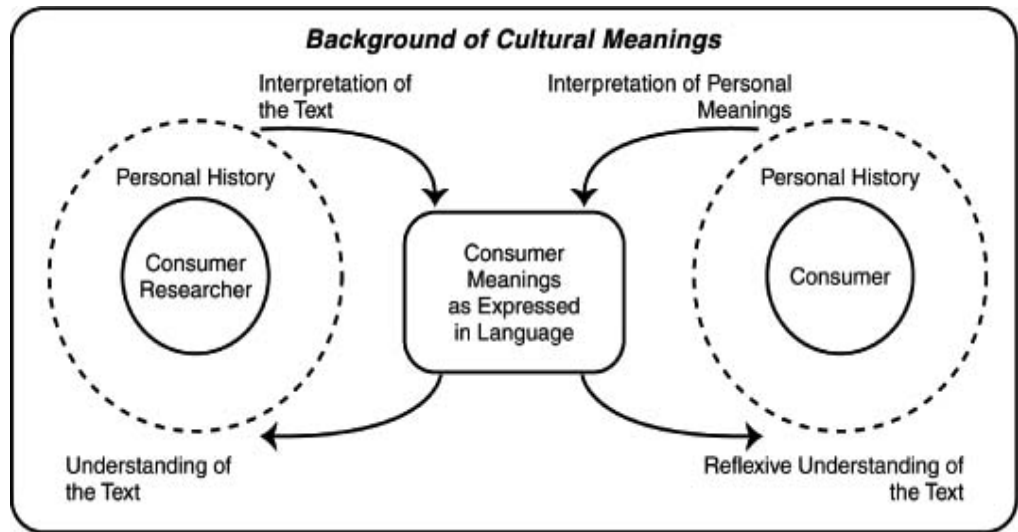
Absolute and cumulative is scientific knowledge.	A particular context and period of time in history is relative to scientific knowledge.
Science is capable of discovering universal laws that govern the external world.	Context dependent i.e., relative to a frame of reference are created by Science.

Source: Hunt (1991)

The field of Social sciences and particularly consumer behavior is closely related to problems related to humans, one important human trait is their ability to seek meaningful evidences in their lives. In search for evidences humans uses a method which is referred as “Interpretive”, this method aids to find out the reasons, meanings, motives and other experiences (Hollbrokk & O’ Shaughnessy, 1988; Mick, 2020). The interpretive paradigm is interchangeably called as hermeneutic paradigm is a philosophical idea that has provided a theoretical foundation for many social sciences areas. (Thompson, 1997) was of the view that this paradigm can add to the creation of understanding of how consumers can take their needs and wants on any given products and services. The concept of hermeneutic paradigm is based on a circle termed as “Hermeneutic Circle”, which is a multidimensional concept addressing several problems related to cultural nature of human understanding. It can be taken in 3 meanings, first it refers to methodological process for interpretation of qualitative data, the second is the scientific knowledge based from a cultural perspective on beliefs, the third is the interaction between the cultural traditions and personal meanings that an individual build highlights differences between positivist and interpretive approaches.

Figure 4.1

Background of cultural meanings.



Source: Thompson, 1994

It is crucial to note that the consumer behavior researchers have given very little attention to the historical method of research in consumer behavior (De Franco & Solorzano, 2020; Smith & Lux, 1993). Historical method is descriptive in nature. Interpretive approach is used to find out the causal motors that drives the changes that happens during the course of time. Retrodiction is often used to know what might have happen in the preceding.

The Interpretivism paradigm was taken as an alternate to philosophical point of view over the positivism in the race for social sciences (Myers, 2008; Walsham, 2020). The paradigm revolves around the social reality and is dependent on the social context. it is said that it cannot be investigated on just the cultural norms, languages, meaning and the structure a society or a culture follows. The interpretivism paradigm is deeply rooted in idealism, it can be taken epistemologically that the interpretivism focuses on social concepts and language that a scholar can take up for the perceptions on interviews that is the qualitative techniques. The table 4.3 shows the difference between positivism and interpretivism.

Table 4.3:

The Ontological and Epistemological Explanation for Positivism and Interpretivism Philosophy.

Assumptions	Positivism	Interpretivism
Ontological assumptions		
reality of nature	Objective, tangible single Single Fragment able Divisible	Socially constructed Multiple Holistic Contextual
Nature of social beings	Deterministic Reactive	Voluntaristic Proactive
Axiological assumptions		
Overriding goal	“explanation” via subsumption under general laws, prediction	“understanding” based on verstehen
Epistemological assumptions		
Knowledge generated	Nomothetic Time-free Context-independent	Idiographic Time-bound Context-dependent
View of causality	Real causes exist	Multiple- simultaneous shaping
Research relationship	Dualism separation Privileged point of observation	Interactive, cooperative No privileged point of observation

Source: Hudson and Ozane (1988)

Phenomenology paradigm was born as an opposition to positivism, can be termed as a paradigm that is emphasized on scientific methods, it can be said that phenomenology is mainly focused on meanings, individuals are viewed as creatures who have some meanings therefore it can be assumed that language has an important role in this approach (Bertens, 1987; Zahavi, 2019). The table 4.4 shows the differences between positivism and phenomenology as well as in terms of reliability, validity and generalizability.

Table 4.4

Positivism Vs Phenomenological Paradigm

	Positivism	Phenomenological paradigm
Basic belief	The world is taken as objective and external Observer works independent value-free is science	socially constructed and subjective is the world what is being observed is part of the observer human interests is driven by science
Researcher should	facts focused causality and fundamental laws are being looked upon Hypothesis and testing Operationalizing concepts	meanings focused what is happening is what is needed to be understood induction from data to make ideas establish different views of phenomena

Preferred methods include:	Huge samples	Small samples
Validity	What is supposed to be measured is done by an instrument	access to the knowledge and meaning of informants is gained by the researcher
Reliability	Yielding the same results on different occasions with the measure	different researchers on different occasions with similar observations
Generalizability	probability that pattern observed will also be present in the drawn sample	theories generated in one setting will also apply in other settings?

Source : Easterby-Smith et al (1991)

Existentialism opposed against positivism, materialism, rationalism and pragmatism. It opposed because the base of existentialism is based on the existence not the essence of things (Pappas et al., 2022), existential phenomenological paradigm is a combination of existentialism and phenomenologism. It can be stated that it revolves around the world by focusing on the overall life of an individual. The Critical Theory is an interdisciplinary view that criticizes the individuals' social conditions and further focus on to aid individuals vision a better society (Murray & Ozanne, 1991). The difference between positivism and critical theory is in the table 4.5

Table 4.5

Positivism Vs Critical Theory

Assumption	Positivism	Critical theory
Ontological assumptions		
reality of nature	tangible	Force-Field between subject and object
	Single, ahistorical;	Active;
	Fragments	whole
Nature of social beings	Deterministic	Suspend judgement;
	Reactive	Emphasize human potential
Nature of social beings overriding goals	Explanation via subsumption	Emancipation via social organization
Epistemological assumptions		
Knowledge generated	Nomothetic	looking Forward
Axiological assumption	free time	creative
	Context independent	Critical
	Value free	practical
View of causality	Real causes exist	Reflection, exposure of constraints
Research relationship	Dualism separation	Continuing dialogue

Metaphor	Detached observer	liberator
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Source: Murray and Ozanne (1991)

According to Suseno (1992), critical theory originates from Karl Marx’s vision of liberating individuals from various forms of domination and social inequality. The theory emphasizes empowering people to question and challenge oppressive systems and ideologies that limit human freedom. In essence, critical theory serves as a reflective framework that encourages individuals to critically assess power structures and societal norms—an aspect often overlooked by other theoretical approaches. Recent scholars echo this view, asserting that critical theory remains essential for understanding modern issues of inequality, ideology, and social transformation (Horkheimer, 1982; Bohman, 2021; Fuchs, 2022; Kellner, 2021).

Majeed (2019) is of the view that consumers are in the process of buying commodities without giving it a much thought, but that is not with the case of when they are purchasing a high involvement product or services, in which they get to buy the product after collecting rigorous information and comparison of the products options available. The core of the consumer behavior research is based on the cognitive process which are involved in the purchase decision and the way the decisions are made by the buyers or one can say the overall buyers’ decision process. Consumer behavior discipline has always been under the radar of positivist, empiricist and realist studies. Since consumer behavior comes under the umbrella of social science and phenomenon, the scholars have used logical positivist and interpretivist philosophies to study and to come up with various theories regarding consumer behavior (Ramirez Angulo & Londoño Roldán, 2020). One philosophy that is positivism is capable of coming up with solutions to actual problems faced by the consumers and to start with the research question and to explore through and from multiple dimensions. It is therefore suggested that the research is to be carried through positivism perspective to know the various dimensions and the actual insights of consumer behavior and thereby

contributing more effectively in this discipline (Collis & Hussey, 2021). The table 4.6 summarizes the above discussion and the reason for selecting the pragmatic philosophy.

Table 4.6

A Summary of Alternative Philosophy Paradigms

Alternative Paradigms	Ontology	Epistemology	Methodology
Positivism	Realism: truth exists and can be identified or discovered	Objectivism: the observer should be unbiased	Quantitative: hypothesis can be empirically collected and statistically tested
Interpretivism	Multiple experiences can be explained of a phenomenon	Subjectivism: the meaning of a phenomenon is interpreted by a researcher	Qualitative: a process of reconstructing multiple realities through informed consensus by interviewing key people
Pragmatism	Reliable with existence of several realities: can only be taken to answer research problems	Inter-subjectivism: Desired outcome both provides objectivism and subjectivism.	Quantitative and qualitative are key to understanding and solving human problems.

Critical Theory	Value Laden Realism, the world is controlled by hidden powers	Between objectivism and subjectivism	Qualitative.
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Adapted from Lee (1991), Pansiri, (2015), and Wildemuth, (1993)

4.3 Research Design

The main purpose of the research design is to lay a plan of study that allows an accurate assessment of the relationship between the cause and the effects that is between the independent and dependent variables (Jang, 1980; Wisenthige, 2023). Similarly according to Creswell & Creswell (2017) the research design serves a purpose that is to provide answers to the research questions and explain the results and conclusions. The research conducted is a cross-sectional study based on quantitative data. Thelle and Laake (2015) and Zuleika (2022) found out that cross-sectional studies are instinctively clear and it is a much viable option to investigate large number of variables. Zuleika (2022) refers a cross-sectional study design as the type of study in which the researcher measures the outcome in the population and the participants. Unlike in other studies the participants in a cross sectional study are selected on the bases of inclusion and exclusion criterion which is being accepted for the study. This study is designed to explore the theoretical relationships between constructs from TPB with PC, HC and PA of digital natives and also technophobia on the online purchase of organic food products.

The study used the survey method. A Questionnaire survey method is one of the most acceptable and convenient way to research and it is most commonly used by the researchers because of its ability to gather the data precisely from the target audience (Bihi, 2021; Sreejesh, Mohapatra & Anusree, 2014). A self-administered questionnaire (SAQ) was used which referred to a questionnaire that is designed in such a way that it is completed by the audience with the interference of the researcher (Bihi, 2021; Zhang et al., 2018). It is to be pointed out that SAQ are most widely used to study specially when studying and researching about

personality traits and the behaviour of the individuals, it is also widely used when studying various aspects of health of individuals, because of the distance and non-interruption of the researcher when the person or the individual is being interviewed thereby getting the insights of the individual with complete honesty (Holbrook, Green & Krosnick, 2003; Zhang et al., 2018). Therefore the most viable option was to use the survey method and it is the most suitable as to know the customer's insight. It is to be noted that the items that were used were validated and measured on a reliable scale by the previous researchers.

Looking at the broader picture there are two types of research strategies that are being followed and commonly available. One is quantitative research, in order to generate statistical data, pre-established instruments will be used by collecting numerical data and further analysed by using the statistical data. (Muthi'ah & Sukmawati, 2023). The quantitative method involves the collection of information which can and was used to quantify and to analyse with the statistical data analysis tool on which the researcher can agree or disagree to the current and existing knowledge.

It must be noted that the quantitative research is based on the deductive approach which allows the researcher to bifurcate the complications in the reality into such pieces that are easily manageable, and can easily be understood, from the small pieces observations are made, testing of hypothesis is done and are reproduced with regards to the relationship between the variables. The conclusion can be taken out with regards to the hypothesis tested, with a series of observations and data analysis (Shekhar & Patel, 2022).

4.4 Selection of Study Area

It is worth mentioning that the overall percentage of the Malaysians using the internet rose from 77% to almost 90% in 2020 (MCMC report). This shows how the e-commerce scenario in Malaysia is turning out to be dynamic with more of the Malaysians tending to shop online. Similarly, it is crucial to highlight that

more than 50% of those who shop online in Malaysia were found to be between 25 years and 34 years of age, with another 25% being people who are 18–24 years old (EC Insider Report, 2021; Mokhtar et al., 2020; Suhaidi, 2022). As online shopping is increasingly becoming the preferred method of purchasing worldwide (Dai et al., 2014; Mosteller et al., 2014), digital natives who uses mobile phones more than any other group and are highly active on online platforms represent a relevant population for this study. Therefore, focusing on digital natives is a viable choice for investigating online consumer behavior.

According to a recent study by Tan et al. (2021), Malaysian digital natives are predominantly young adults, with a significant proportion being university students. The study found that 68.5% of Malaysian digital natives were between the ages of 18 to 25 years old, which corresponds to the typical age range of university students. Since most digital natives are in an age that is probably university-going, students from universities were selected as they offer access to a higher number of multicultural individuals with diverse mind-sets. Considering Malaysia's private university growth as per MIDA (2021), MOHE (2015, 2015b, 2020), and Tajudeen and Raja (2019), private universities have expanded tremendously over the last few decades. A study conducted by Kho and Ting (2021) found that around 1.4 million students were pursuing higher education in Malaysia, with over 500,000 registered in public universities and over 600,000 in private institutions. The main reason for selecting private universities lies in their higher proportion of multicultural students and diverse ethnic composition (Ketar, 2015; Su-Hie & Gee-Whai, 2021; Tapsir, 2019; Wan Husin et al., 2020).

Selecting students from foreign branch universities in Malaysia as respondents for research on the impact of online purchases of organic foods can be justified with several strong rationales. While Malaysian public universities do indeed have multi-ethnic groups, foreign branch universities offer additional distinct advantages that can enhance the research quality and breadth. Foreign branch campuses attract a truly global student population, including students from various countries and backgrounds. This diverse demographic offers a broader

perspective on consumer behavior, particularly valuable for understanding global trends such as online OFP. The University of Nottingham Malaysia and Monash University Malaysia, for instance, host students from over 70 countries, providing a rich, multicultural sample for research (Grapragesam et al., 2014; Sirat et al., 2022). The diversity at these campuses allows researchers to gather insights into how different cultural backgrounds influence online purchasing behaviors, offering a more comprehensive understanding than a purely local sample would.

There are several private universities in Malaysia (Hock-Eam et al., 2016; Schulze, 2019) which can be categorized into two major groups, having ten as foreign university branch campuses and others as privately owned universities. It has been observed that tuition fees at foreign university branch campuses are generally higher compared to those at public sector universities (Shulze, 2019). This difference in fee structure may be attributed to various factors such as the cost of international operations, the provision of facilities, and the academic resources offered by foreign university branch campuses. However, students from diverse economic backgrounds attend both types of institutions, often utilizing various financial aid options and scholarships. Therefore, students from foreign university branch campuses located in Educity Iskandar and Kuala Lumpur, along with two universities in urban areas, were selected by taking digital natives into account. The universities included Monash University, Newcastle University Medicine Malaysia, University of Nottingham Malaysia, University of Reading Malaysia, University of Southampton Malaysia, Xiamen University, Multimedia University, and Limkokwing University.

The target population included undergraduate and graduate students, most of whom are working and living independently, with grocery purchases being part of their regular lifestyle. Zendehdel (2015) noted that students tend to purchase online due to time constraints and ease of purchase, while Sulaiman (2020) highlighted that organic food products are relatively expensive; thus, students willing to pay more for organic products were appropriately chosen from private and foreign institutions. A student sample was found suitable for this research for

many reasons students have long been considered reliable participants in behavioral studies, and current students have accumulated sufficient experience with online grocery purchases (Muniady et al., 2014).

The selection of students as the sample for this research was underpinned by several specific justifications that align with the objectives and requirements of the study. Students are readily accessible within educational institutions, making them a convenient and feasible sample population for research. Educational institutions encompass a diverse student body in terms of demographics, cultural backgrounds, and academic abilities, offering the opportunity to capture a wide range of perspectives and experiences within the research sample. The diverse nature of the student population allows for a comprehensive exploration of the research topic from various viewpoints, contributing to the richness and depth of the study's findings.

Additional Justification on External Validity and Sampling Considerations

While the focus on students from foreign branch universities represents a non-probability sampling frame, it does not undermine the overall value of the findings. The primary aim of this study is exploratory to understand behavioral tendencies and perceptions related to online organic food purchasing among digital natives in Malaysia. According to Calder, Phillips, and Tybout (1981), the validity of behavioral studies lies more in theoretical and analytical generalization than in statistical representativeness. Hence, insights derived from this contextually diverse population remain valuable in explaining mechanisms of online consumer behavior.

Moreover, foreign branch universities in Malaysia act as microcosms of global consumer diversity, reflecting cross-cultural influences, socioeconomic

variations, and differing levels of digital literacy. As Hofstede (2011) and Sharma (2020) argue, culturally heterogeneous samples offer richer variance that strengthens conceptual generalization. Therefore, even though the results may not be directly generalizable to the entire Malaysian population, they provide critical theoretical insights applicable to international contexts where multiculturalism shapes online consumption. By acknowledging these boundaries of external validity, the study maintains methodological rigor while ensuring the results meaningfully contribute to the broader literature on digital consumer behavior and sustainable purchasing.

In conclusion, the selection of students as the sample for this research was strategically grounded in their accessibility, relevance to the research focus, possession of unique characteristics, and their alignment with the specific objectives and requirements of the study. This ensured that the research can effectively address its aims and contribute valuable insights to the relevant field.

4.5 Population

The population refers to the group of people, events or things of interest that is the researcher wants to investigate (Sekaran & Bougie, 2016). As per the research design the population of the study consists of Malay, Chinese and Indian graduates and under graduate students of social sciences and business department who were studying in these universities.

Table 4.8

Total population in Private universities.

Total Enrolment Population in Private Universities	
Foreign University Branch campus	Total enrolment Population
Monash University	8,000
Numed	750
University of Nottingham	9,000
University of Reading	1,274

University of Southampton	750
Xiamen University	5500
Universities in Urban areas	
Multimedia University	18,000
Limkokwing University	12,000
Total	55,274

A sample refers to a smaller group of individuals which are drawn from a larger population which are selected to represent and reflect the characteristics of that particular population. (Sekaran & Bougie, 2016), similarly Lakens (2021) suggested that the main aim of sample size justification is to give an explanation on the collected data which in return is expected to give valuable findings for the inferential goals of the researcher. It was further explained by Sekaran and Bougie (2016) that the researcher can take out conclusions on the studied sample and which are generalizable to the population of interest.

The sample of the study conducted were the students of different department. Sekaran and Bougie (2016) cited the table from Krejcie and Morgan (1970) as guideline to make decision on the size of the sample. Hence in this study the chosen size of the sample is 400 since the total population is exceeding 100,000. Since the conducted study used PLS-SEM for data analysis, the minimum sample size 100 was already being fulfilled. Tabachnick and Fidell (2007) were of the view that it is a much secure option to have a minimum 300 sample size for factor analysis.

Table 4.10
Population Size vs Sample Size

N Population Size	S Sample Size
10,000	370
15,000	375
20,000	377
30,000	379
40,000	380
50,000	381
75,000	382
1,000,000	384

Source: Sekaran and Bougie (2016)

It is important to consider the response rate for the conducted study. The response rate was expected to be 85% which is a reasonable amount, as per previous researches and the researchers conducted on graduate levels has a response rate of 85% and more (Haque et al., 2020). Although Lindemann (2021) argued that the typical response rate is around 40% but it is to be noted that the sample was taken from graduate level students who themselves are indulge in research activities so it is expected to be greater, as per Lindermann (2016) argument the sample size was increased to 381 in order to avoid any biasness and if there are any incomplete responses.

4.6 Sampling

In order to answer any research question, it is very dubious that the researcher can collect data from everyone and from all cases, thus there exist a need to select a sample. The entire set through which the sample is drawn is termed as the population. It is not humanely possible to study the entire population nor any researcher has the time to study and take account of all the population so they apply a sampling technique to reduce the number of cases (Taherdost, 2016).

To achieve a sample that accurately represents the population, quota sampling was employed in this study, with the number of questionnaires distributed for each university being proportionate to its target population. Quota sampling was preferred over probability sampling due to several practical and methodological considerations (Adeoye, 2023; Iliyasu & Etikan, 2021). In many research contexts, time constraints can limit the feasibility of probability sampling, which typically requires extended periods for proper random selection and data collection (Bryman, 2016). Additionally, probability sampling can be resource-intensive, necessitating significant financial and human resources for effective implementation (Creswell & Creswell, 2018).

In contrast, quota sampling is more manageable within limited budgets and smaller research teams, allowing for efficient data collection without sacrificing the quality of insights (Sarantakos, 2013). This method also ensures that specific subgroups of interest are adequately represented in the sample, aligning with research objectives that require detailed insights from particular segments of the population (Mason, 2010). When the primary goal is to obtain immediate, actionable insights from specific groups rather than generalizable data, quota sampling becomes a more practical choice (Babbie, 2016).

Furthermore, in some cases, detailed population lists necessary for probability sampling are not readily available, making quota sampling a more viable option (Zikmund et al., 2013). Overall, quota sampling was selected for its practical advantages in accessibility and resource efficiency while remaining aligned with the research objectives. This approach ensures that the study effectively captures the necessary insights from targeted subgroups, enhancing the relevance and applicability of the findings. By articulating these considerations, the study maintains transparency and methodological rigor, ensuring that the sampling method is consistent with the overall research goals.

Quota sampling differs from other sampling methods, such as random sampling, in several significant ways. The primary distinction lies in the fact that

the sample is predetermined before distribution, with specific quotas assigned for sample collection based on certain characteristics (Etikan et al., 2016). In this study, the researcher engaged with the university's academic and student affairs divisions to obtain data on the number of students according to their respective departments, ensuring a representative distribution of participants.

To minimize bias, the sample size included diverse segments, with a distribution of 25% from each department to ensure a balanced representation of perspectives (Baker, 2016). This stratified approach allows for the collection of insights from different respondents, thereby enhancing the validity and reliability of the findings (Dörnyei, 2007). By employing quota sampling in this manner, the study aimed to capture a comprehensive understanding of the views and experiences of students across various departments.

Table 4.11

Local students Population in selected Universities

Foreign based universities campus	Local student Population	%	Malay (60%)	Chinese (20%)	Indians (10%)	Others (10%)	distribution	collected
Monash University	8,000	15	36	12	6	6	60	57
NUmed	750	2	36	12	6	6	60	7
University of Nottingham	9,000	16	36	12	6	6	60	61
University of Reading	1,200	3	36	12	6	6	60	11
University of Southampton	750	2	36	12	6	6	60	7
Xiamen University	5500	12	36	12	6	6	60	46
Universities in Urban areas								
Multimedia University	18,000	30	42	14	7	7	80	114

Limkokwing University	12,000	2 0	42	14	7	7	60	76
Total	55,200	1 00	300	100	50	50	500	~38 1

Source: Ministry of Higher Education, DoSM, 2021. 381 after decimal rounded

In order to get the required data, the researcher was required to distribute the said number of questionnaires to digital natives in Malaysia which includes digital natives as Malays, Chinese, Indians and others with the denominations shown above of each. A total of 500 questionnaires were distributed and 381 collected.

The questionnaire comprised two sections. The first section included profile questions capturing respondents' demographic characteristics, such as age, gender, education level, income, and frequency of online food purchases. The second section measured the study constructs using multi-item scales adapted from prior studies.

4.7 Survey Instruments

A detailed and systematic view on the literature was done to come up with different instruments that were to be accommodated in the present research. The most important factor that needs to be undertaken was to make sure that the instruments that were being selected affected the target population and the population who were being affected and being targeted have some knowledge to respond to the questions asked, thus the chosen were then modified (Zhang et al., 2018). The questionnaire survey was taken in this study to observe how customers' perceived organic food products affect the customers behaviour to finally purchase the products.

4.8 Measuring Items

Table 4.12 outlines the specific measuring items associated with each of the scales employed in this study.

Table 4.12

Measuring items

Variables	Authors (Years)	Items	Adopted/Adapted
Behavioural intentions	Tarkiainen et al., (2005), Magnusson et al., (2001) and Olivova (2011)	5 items	Adapted
Organic food purchase	M Magnusson et al., (2001) Niessen et al., (2008) and Olivova (2011)	5 items	Adapted
Attitudes	George (2004) Gu and Wu (2019)	7 items	Adapted
Subjective Norms	Gu and Wu (2019)	7 items	Adapted
PBC	George (2004) Gu and Wu (2019)	7 items	Adapted
Technophobia	Gu and Wu (2019), Khasawney (2018)	9 items	Adapted
Product Cost	Wei et al(2018), Rodriguez and Elena (2013)	7 items	Adapted
Health Consciousness	Gam, Yu and Yang (2020), Wee et al (2018)	7 items	Adapted
Product Availability	Liu,li and Hu (2013), Tony and Han (2004)	7 items	Adapted

4.8.1 Relevance to Research Objectives

Items were selected based on their direct relevance to the current research objectives. Items that have been validated in past studies and are closely aligned with the research questions were prioritized. The items chosen needed to measure the same constructs as those of interest in the present study to ensure conceptual consistency.

Items from past studies with strong evidence of validity (content, construct, and criterion-related validity) were preferred. This ensures that the items are measuring what they are intended to measure. Items demonstrating high reliability (e.g., internal consistency, test-retest reliability) were selected to ensure consistency in measurement. Items that were suitable for the specific cultural and contextual setting of the current study were chosen. In this study, the emphasis on selecting items that accurately measure the intended constructs is crucial for ensuring the validity and reliability of the research findings. High reliability, often assessed through metrics such as internal consistency and test-retest reliability, reflects the extent to which a measurement instrument yields stable and consistent results over time. Internal consistency can be measured using statistical tools like Cronbach's alpha, where a higher value (typically above 0.7) indicates greater reliability (Tavakol, 2017; Tavakol & Dennick, 2011).

Moreover, items chosen for this research were carefully aligned with the specific cultural and contextual settings of the study. Cultural relevance is essential, as it ensures that the items resonate with the participants' experiences and values, which can influence their responses and the overall validity of the study. For instance, researchers have highlighted the importance of culturally adapted instruments to capture local nuances and improve the accuracy of measurements (Hambleton et al., 2005). Using culturally appropriate items not only enhances validity but also encourages participant engagement and reduces

misunderstandings that could arise from misinterpreted questions (Schmitt et al., 2018).

This involves considering language, cultural norms, and relevance to the target population. Preference was given to items that had been successfully used in studies with similar populations or settings. Items were rephrased to ensure clarity and comprehensibility for the target population. This included simplifying language, adjusting terminology, and ensuring cultural appropriateness. Modifications were made to ensure items were relevant to the current study's context. For instance, certain examples or scenarios in the items were adjusted to better fit the participants' experiences.

4.8.2 Behavioural intentions

Five items were used to measure the intentions. The intentions items used were excerpted from Magnusson et al., (2001), Olivova (2011) and Tarkiainen et al., (2005). The behavioural intention has been investigated as a mediator in a number of former articles. Tarkiainen et al. (2005) examined behavioural intention to buy organic bread. Respondents were required to indicate how much they agree with these statements using 5 point Likert scale-- Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. these items were modified in order to know the insights of the students behavioural intentions towards online purchasing of organic food products.

Table 4.13.1

Behavioral Intentions Items

Original Items	Modified Items
How likely will you buy organic bread in the near future.	When you go for online purchase in the near future you will definitely only buy organic food product ?
How likely will you buy organic flour in the near future?	Will you choose to buy organic food products online over conventional product?
I will buy organic product: little vs. good chance, unlikely vs. likely, uncertain vs. certain”	Do you often buy organic food products while shopping for other things online?
The next time you buy food, how likely is it that you will choose organic food?	Whenever you buy food products online you select organic food products?
I want to purchase organic produce within the next fortnight”	Will you buy purchasing organic food products online again within the next fortnight?
Source: Tarkiainen et al., (2005), Magnusson et al., (2001) and Olivova (2011)	

4.8.3 Organic Food Purchase

Five items were used to measure the organic food purchase. The items used were excerpted from Magnusson et al. (2001), Niessen et al. (2008) and Olivova (2011). The actual purchase has been investigated as a variable in a number of former articles. Respondents were required to indicate how much they agree with these statements using 5 point Likert scale-- Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. these items were modified in order to

know the insights of the students towards online purchasing of organic food products.

Table 4.13.2

Organic Food Purchase Items

Original Items	Modified Items
When you buy milk/meat/potatoes/bread, how often do you buy organic milk/meat/potatoes/bread?	When you buy grocery online, you most likely select organic grocery?
How often do you buy organic products?	Whenever you opt for online shopping you tend to buy organic food products?
How often do you buy food for your household?	When buying households online I often select organic food products?
When you buy food what % of your purchases is organic food?	Most of the grocery you buy online contains organic food products?
I want to purchase organic produce within the next fortnight”	I will most likely select an organic food product online within the next fortnight.

Source: Magnusson et al., (2001), Niessen et al., (2008) and Olivova (2011)

4.8.4 Attitude

Seven items were used to measure the attitudes. The attitude items used were excerpted from George(2004) and Gu and Wu (2019) the items used were the likeness, efficiency, time saving, repetition, multiple shops visits simultaneously, access to product information, product delivery, experience online shopping,

Respondents were required to indicate how much they agree with these statements using 5 point Likert scale--Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. these items were modified in order to know the insights of the students attitudes towards online purchasing of organic food products. Gu and Wu (2019) found out that the attitudes of the population targeted indicated that they had an intention to use online purchasing. As per the founding, the maximum value for each of the variable under attitude were 5 as strongly agree and minimum as 1 as strongly disagree.

Table 4.13.3

Attitude items

Original Items	Modified Items
1. Buying things over the internet is a good or bad idea.	Buying organic food products over the internet is a good idea.
2. Online shopping is an efficient way of shopping.	Online organic food shopping is an efficient way to shop.
3. Online shopping is time saving and hassle free	Online organic food shopping saves the hassle and time.
4. Online shopping is something I will do again.	Online organic food shopping is something I will do repeatedly.
5. Access to several shops from a single location.	I am able to access different online organic stores from a single platform.
6. Satisfactory experience when online shopping.	I have a satisfactory experience when shopping organic food online.
7. Access to more information when shopping online.	I have access to more information regarding organic product when I shop online.

Source: George (2004), Gu and Wu (2019).

4.8.5 Subjective Norms

Seven variables were used to measure the SN. The variables used were excerpted from George (2004) and Gu and Wu (2019) the items used were the

people who influence the behaviour, people who are important, caring about other customers, pressured to buy online because of how popular it is, friends who think for online purchase is better, class fellows and professors think one should go for online purchase, my parents also thinks I should go for online purchase, these items were modified in order to know the SN towards online purchasing of organic food products. Respondents were required to indicate how much they agree with these statements using 5 point Likert scale--Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. With the maximum value as 5 strongly agree and the lowest as 1strongly disagree.

Table 4.13.4

Subjective Norms items

Original Items	Modified Items
People who influence my behaviour think I should buy over the internet.	People who influence my behaviour think I should buy organic food online.
People who are important to me think I should buy over the internet.	People who are important to me think I should buy organic food online.
Care about other customers experience of shopping online	I care about other people's experience of online organic food purchasing.
Feeling pressured to opt for online shopping as everyone else is.	I feel pressured to go for online organic food purchasing as everyone else is.
My friends would think that I should buy online.	My friends think that I should go for online organic food purchase
My professors and class fellows would think that I should buy online.	My mentors think that I should go for online organic food purchase.
My parents would think that I should buy online.	My parents want me to purchase organic food online

Source: George (2004), Gu and Wu (2019).

4.8.6 Perceived Behavioural Control

Seven variables were used to measure the PBC. The variables used were excerpted from George(2004) and Gu and Wu (2019) the items used were the ease of usage of online shopping sites, capability of buying things over the internet, the resources, the knowledge and the ability to buy, botheration of not able to examine the product, consider the experience of other people and the botheration of waiting

for the faulty product to get replaced. These items were modified in order to know the PBC towards online purchasing of organic food products. Respondents were required to indicate how much they agree with these statements using 5 point Likert scale--Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. It is to be pointed out that few items which were negatively worded were computed using reverse scoring.

- Original responses: 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), 5 (Strongly Agree).
- Reverse scored: 5 (Strongly Disagree), 4 (Disagree), 3 (Neutral), 2 (Agree), 1 (Strongly Agree).

Table 4.13.5

Perceived Behavioral Control items

Original Items	Modified Items
Online shopping sites are easier to use.	Online platforms for organic food products are convenient than physical shopping.
I am capable of buying things over the internet.	I am capable of buying organic food products online.
I have the resources, the knowledge and the ability to buy things over the internet	I have the resources, ability and knowledge to buy organic food online.
Feel bothered by not being able to examine the product prior to the purchase.	I feel bothered that I cannot physically check the organic product before the purchase.
Feel comfortable buying things over the internet on my own.	I feel comfortable buying organic food products online.

I care about other people experiences of online purchase.	I see other people reviews and experiences before I go for an organic food purchase online.
Bothered of waiting for an unsatisfactory purchase to get replaced.	I get bothered to wait for a faulty and unsatisfactory organic product to get replaced
Source: George (2004), Gu and Wu (2019).	

4.8.7 Technophobia

Nine items were used to measure the technophobia. The technophobia items used were excerpted from Gu and Wu (2019) and Khasawneh (2019), the items used were the fear of being watched, fear of theft of financial information, fear of being tracked, easier to stalk online, organizations unauthorized, avoidance of new technology, sharing of credentials without consent, sharing of my shopped items. Respondents were required to indicate how much they agree with these statements using 5 point Likert scale--Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. It is worth mentioning that very few studies have actually examined technophobia in a general sense and developed a scale to measure it.

Table 4.13.6

Technophobia items

Original Items	Modified Items
I am fearful that someone might be using technology to watch and listen to what I do	I feel afraid to buy organic products online because someone might be using technology to watch what I do.
Fear of possible identity theft. .	Whenever I purchase organic products online I am afraid because of a possible identity theft.

Fear of theft of financial information	Whenever I purchase organic products online I am afraid because of a possible theft of financial information
I am terrified of being connected to the internet because someone might be tracking me.	Whenever I purchase organic products online I am afraid because of a possibility that someone might be tracking my purchases.
I am afraid that online platforms makes easy for people to stalk me .	I feel afraid buying organic food products online because it's easier to stalk online
Organizations should not use personal data for any purpose other than what they are authorized for .	I feel afraid to buy organic products online because websites can use my personal data for any other purpose
I try to avoid using newer technologies whenever possible	I feel afraid to use new technologies to buy organic products online
Organizations should not share my credentials with anyone else	I feel afraid to buy organic products online because the website might share my credentials with anyone else.
Organizations should not share my shopped items without my permission	I feel afraid that the website might share my shopped items without my permission.
Source: Gu and Wu(2019), Khasawneh (2019).	

4.8.8 Product Cost

Seven items were used to measure the product cost. The items used were excerpted from Biswas and Roy (2015) and Wei et al. (2018) the items used were the price on ecommerce platform, attractive pricing, price of organic food, extra payment on top of the bill, repeated purchase if the product is cheaper, examine

the prices online, purchase according to value for money. Respondents were required to indicate how much they agree with these statements using 5 point Likert scale--Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. Wei et al.,(2018) opined that costs are one of the main factors that affects the purchase intention whether the customer goes for an online purchase or an off line purchase. It was found out that the most important factor in the rise of e-commerce is that it offers a competitive and a favourable price. Biswas and Roy (2015) , Wei et al. (2018) found the Cronbach's alpha for price above than 0.8 which is acceptable.

Table 4.13.7

Product Cost items

Original Items	Modified Items
The price on the e-commerce platform is cheaper than offline.	Online platforms for organic food products are cheaper than offline stores.
The cost on the e-commerce platform are much more attractive and favourable.	Organic products are available at an attractive price over e-commerce platforms.
I would pay more to eat any organic food	I am willing to pay more to purchase organic food products online compared to non-organic
I would be willing to pay an extra percentage of my bill if I opt for organic product.	I am willing to pay an extra amount on top of my bill to purchase organic food products online.
I always tend to re purchase a product if it's cheaper	I would purchase organic food products online again if I found them cheaper

I can save money by examining the prices at e-commerce websites.	I would buy an organic product online after comparing the prices at different platforms.
I tend to buy products that offers value for money.	I would buy organic food products online if I find them good value for money
Source: Biswas & Roy (2015), Wei et al., (2018).	

4.8.9 Health Consciousness

Seven items were used to measure the health consciousness. The HC items used were excerpted from Gam et al. (2004); Wee et al. (2013) the items used were the self-consciousness, inner feelings of health , changes occurring in health, health check-up throughout the day, nutritional value, preservatives and as an overall healthier choice. Respondents were required to indicate how much they agree with these statements using 5 point Likert scale--Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. According to Gam, Yu and Yang (2004) the Cronbach's value were all above 0.8 and were highly acceptable.

Table 4.13.8

Health Consciousness items:

Original Items	Modified Items
I am very self-conscious about my health.	I am very self-conscious about my health therefore I use organic food products.
I am very attentive to my inner feelings about my health .	I use organic food products because I pay attention to my inner feelings about my health.

I am very much alert to my changes in my health	I use organic food products because I am alert of the changes in my health.
I am very involved with my health and keep a check throughout the day	I use organic food products because I am involved and keep a check on my health.
Organic food contains more vitamins and minerals, they are better for health.	I feel organic food products are a healthier choice as they contain more vitamins and minerals
Organic food are healthier as they are without preservatives.	I feel organic food products are a healthier choice as it contains less preservatives .
Choosing organic food is a healthier choice.	I feel organic food products are a healthier choice overall as they are better for health.

Source: Gam, Yu, Yang (2004), Wee et al., (2013)

4.8.10 Product Availability

Seven items were used to measure the product availability. The PA items used were excerpted from Liu et al. (2013); Tony and Han (2004) the items used were the PA, finding the right product , finding the interested product, dependable delivery, availability of variety of products, product delivery, replace option. Respondents were required to indicate how much they agree with these statements using 5 point Likert scale--Strongly Disagree=1; Disagree=2; are Neutral=3; Agree=4; Strongly Agree=5. It is to be noted that few items which were negatively worded which were computed using reverse scoring.

- Original responses: 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), 5 (Strongly Agree).
- Reverse scored: 5 (Strongly Disagree), 4 (Disagree), 3 (Neutral), 2 (Agree), 1 (Strongly Agree).

Table 4.13.9

Product Availability items

Original Items	Modified Items
There are a variety of products available in online shopping websites.	Online platforms have a variety of organic food products.
I can easily find the right product from online shopping websites .	I am able to find the right organic products from online platforms.
I can easily find the products from online shopping which interests me	The organic food which interests me are easily available online
The website can be depended to deliver what is promised.	I can depend on the online platforms to deliver the right organic food.
The website support high product availability.	I know the online platforms have organic food available all the time.
The websites delivers the product at the right time.	I can depend on the online platforms to deliver my organic food on the right time..
Bothered of waiting for an unsatisfactory purchase to get replaced..	I get bothered to wait for an expired and unsatisfactory organic product to get replaced

Source: Liu et al., (2013), Tony and Han (2004).

4.9 Pilot Study

A pilot study serves as a small-scale preliminary investigation designed to evaluate the feasibility, clarity, and reliability of research instruments, protocols, and methodologies prior to conducting the main study (Hassan, 2006; Eldridge et al., 2021). It allows researchers to identify weaknesses in the research design, test data collection tools, and assess logistical challenges that might arise during the

actual study. The purpose of conducting a pilot study is not to test hypotheses but rather to refine instruments, ensure comprehension, assess response variability, and establish the appropriateness of the measures used (Ibrahim et al., 2023). This step is particularly crucial in behavioral and consumer research, where perceptions and interpretations of items can differ significantly across demographic and cultural contexts (Kaur, Singh, & Adataka, 2017).

The decision to undertake a pilot study was grounded in the need to ensure the validity and reliability of the constructs derived from the TPB, as well as other key factors such as PA, PC and HC. Given that these constructs involve perceptual and attitudinal dimensions, pretesting was vital to verify that respondents interpreted each item consistently and that the measures captured the intended conceptual meaning.

Moreover, conducting the pilot at Monash University Malaysia was strategic. The university hosts a diverse student population that includes individuals from various ethnic, cultural, and socioeconomic backgrounds. This heterogeneity provided an ideal environment to assess cross-cultural reliability and linguistic clarity of the research instrument. A diverse test group also allowed the researcher to observe variations in response behavior, helping to identify potential issues in cross-cultural validity and scale equivalence important considerations when generalizing findings to broader populations (Monash University, 2023).

Determining an appropriate sample size for a pilot study has been a topic of considerable academic discussion. Traditional guidelines recommend using 10%

of the main study's total sample size (Connelly, 2008; Simon, 2011). However, more recent literature suggests a more flexible, evidence-driven approach based on the study design, complexity, and intended purpose (Ibrahim et al., 2023). For example, Julious (2005) recommended a minimum of 12 participants per group, while Thabane et al. (2010) emphasized that feasibility, rather than statistical power, should guide sample size decisions.

Recent systematic reviews indicate that the median sample size for pilot and feasibility studies is around 30 respondents, sufficient to test reliability, clarity, and data management procedures (Bujang et al., 2024). However, for studies with multiple latent constructs as in this case, involving several TPB dimensions larger pilot samples may provide more robust psychometric validation. Therefore, a total of 60 participants was deemed appropriate, representing approximately 15.7% of the total 381-sample size. This number aligns with recommendations from Bujang et al. (2024) and Kaur et al. (2017), ensuring statistical adequacy for reliability analysis and exploratory validation.

The pilot study was administered in an online format to replicate the conditions of the final data collection process. Participants were provided with a detailed questionnaire comprising items on attitude toward behavior, SN, PBC, PC, PA, and HC each measured using a five-point Likert scale. The questionnaire also included brief demographic items to ensure participant diversity across age, gender, and nationality.

Prior to completing the questionnaire, participants were informed about the study's objectives and confidentiality measures. Upon completion, respondents were invited to provide open-ended feedback on aspects such as item clarity, length, language difficulty, and overall flow. This qualitative feedback was instrumental in refining the final survey.

Feedback from the pilot respondents indicated that some questions were ambiguous or overlapping, particularly in the SN and PBC sections. Several participants suggested that these items appeared redundant or too similar in meaning. To address this, overlapping items were reworded or merged, and certain statements were simplified to reduce interpretive ambiguity.

A reliability analysis conducted on the pilot data produced Cronbach's alpha values exceeding 0.70 for most constructs, suggesting acceptable internal consistency. The refinement process following the pilot ensured that the final instrument was more precise, user-friendly, and psychometrically robust, minimizing measurement error in the main study.

Conducting the pilot study provided several key benefits. It allowed the researcher to verify the psychometric quality of the instrument, evaluate participant engagement and comprehension, and identify logistical and technological issues associated with online survey distribution. Moreover, insights gained from this process contributed to improving the instrument's construct validity and the overall research design.

Given the diverse population of Monash University Malaysia and the refinement of the survey instrument, the pilot study provided a strong empirical foundation for proceeding with the main data collection phase. The refined questionnaire was thus deemed reliable, valid, and suitable for exploring how TPB components and other variables influence online organic food purchasing behavior among digital-native consumers.

The present study conducted the pilot study with 60 respondents to cover any incomplete responses from Monash University as shown in

Table 4.14

Number Of Distribution Of Questionnaires For Pilot Study

Foreign based campus University	Distribution of Questionnaires				Total sample size
	Mala y (25 %)	Chines e (25%)	Indian s (25%)	Other s (25%)	
Monash	15	15	15	15	60

4.9.1 Reliability of Pilot study

As discussed previously, a pilot study was conducted before the actual data collection to find out if there exists any discrepancies in the questionnaire with 60 respondents from Monash University, after which some modification made in the wordings. It was done to make the asked items applicable and more relevant. This

was also done by the researcher to get a higher Cronbach's alpha leading to greater reading for internal consistency of the items before going for the actual data collection. The pilot study participants were encouraged to provide opinions and suggestions upon attempting the questionnaire. As shown in Table 4.14, the Cronbach's alpha of scales that measured the constructs ranged from .706 to .941, showed that the provided questionnaire had a good internal consistency as Cronbach's alpha was higher than .70 for every construct thereby satisfying the requirement for reliability with coefficient of .70 and above (Check & Schutt, 2012; Faremi, 2016; Griethuijsen et al., 2014; Nunnally, 1967; Taber, 2017).

Table 4.15

Cronbach Alpha

	Number of items	Cronbach's Alpha
Behavioural intention	5	.815
Organic food purchase	5	.706
Attitude	7	.829
Subjective Norms	7	.849
Perceived Behavioural Control	7	.796
Technophobia	9	.941
Product Cost	7	.776
Health consciousness	7	.935
Product Availability	7	.911

4.10 Data Collection Procedure

Self-administered survey questionnaire was used in this study to authenticate the research model. According to Hsein (2016), self-administered questionnaires

(SAQs) are an effective method for distributing surveys to the target population. They help increase response rates and reduce interviewer bias (Oppenheim, 2000). In addition, SAQs speed up the data collection process (Zhang et al., 2018)

Data were collected over a three-month period (August–October 2023) using in-person administration of structured questionnaires, with a focus on accuracy and response quality. The survey targeted Malaysian digital natives at selected university campuses. Data collection was timed to coincide with the post-pandemic normalization phase, ensuring that respondents' online purchasing behaviors reflected stabilized e-commerce trends in Malaysia.

The library and the cafeterias in university campus is supposedly the best place to get various students from various years of study (Ketar, 2015; Tamam, 2013). Hence the library and the cafeterias was targeted for the distribution of the questionnaires. The researcher approached the students who were indulge in studying in the library or were in the cafeteria so that they participate in the study. The researcher first politely requested and asked if the students could fill and agree to participate in the research agreeing upon which the researcher distributed the questionnaire along with a token of appreciation. The researcher remained nearby while students completed the questionnaire to clarify any ambiguities and identify additional potential respondents. Questionnaires were collected immediately after completion, before the students left the cafeteria.

The researcher personally hand-delivered the questionnaires to the respondents and collected back upon completion. The researcher checked the questionnaires

for the completion and answering of all the questions in the questionnaire in order to be clear of any ambiguities, plus being present there the researcher was able to double check and ensure all the answers were properly addressed. This also made sure that if by any mean the respondent overlooked any question it was requested to fill in the incomplete questionnaire.

The reason for selection of library and the cafeteria was to gain access to different students from different years of study, helping in avoiding biasness for surveying all the respondents from a single population. Each university have multiple cafeterias to accommodate number of students, therefore a high number of student inflow is expected in cafeterias and libraries, hence questionnaires can easily be distributed to the desired number of students. The data was collected near the lunch hours as most of the students are there at the café. Since the researcher was there by himself the response rate was good as the researcher made sure that the questionnaires are filled properly.

4.11 Data Analysis Technique

The Structural Equation Modelling (SEM) is the preferred statistical tool when the researcher intends to examine the relationship between a number of independent and dependent variables (Hair et al., 2014; Ong & Puteh 2017; Parker, 2013). For analysis of studying relationship among different constructs the SEM is becoming a popular method, SEM is found to be a useful statistical tool test different theory and the conceptual models of the study empirically (Hair et al., 2014). To find whether the relationship among the constructs in the research framework is significant according to the gathered data can be done by using SEM (Ong & Puteh, 2017). Hence the prediction between the constructs requires the

usage of Variance based Partial Least Square PLS-SEM (Hair, 2017). PLS-SEM is found to be very powerful to test different theories compared to the Covariance based SEM (Lowry & Gaskin, 2014). Generally speaking, there exists a couple of reasons why one should use PLS-SEM for data analysis, one of the reasons it is suitable for theory testing as it is more suitable and robust than traditional SPSS as it allows the researcher to test all the variables simultaneously since the sample is more flexible and does not require assumptions. Besides this PLS-SEM is able to perform analysis with smaller sample which is not with the case of SPSS and CB-SEM (Hair et al., 2015), similarly Hair (2017) highlighted that PLS-SEM has less restrictive assumptions regarding the data. PLS-SEM is also based on several theoretical foundations, and it is to be noted that PLS-SEM's goal is to predict the behavior of the relationship amongst the different constructs and also to explore the fundamental theoretical concept, therefore choosing PLS-SEM is the most viable option to use as a statistical analysis tool in this research.

Data from descriptive analysis are their powerful base when they are used to predict the customers' data for any product design that is why descriptive analysis is becoming more important in marketing to understand the major customer and consumers' factors on which the decision is made such as likings and disliking, expectations, values, emotions and most importantly behavior. The advantage of descriptive analysis is the type of information that it is able to provide. A sensory description of a product that can enable the comparison as well. It is crucial to highlight that the original descriptive methodology takes time to design and it is time taking, though new techniques are faster than the original techniques thereby getting the data with speed and accuracy. The descriptive studies purpose is to describe the individual's events and conditions by thoroughly studying them as they are in the nature. It is to mention that the researched variables are not manipulated by the researcher. Though the descriptive study can explore multiple variable but it is the design that can explore a single variable. The characteristics of a population is looked upon in a descriptive study to identify the problems (Siedlecki, 2020). Descriptive statistics are used to describe the basic

features of the data. Summaries about the samples are presented. Descriptive statistics are typically distinguished from the inferential analysis. As far as the descriptive analysis is concerned it is being used to describe what the data shows where as inferential analysis in which one is trying to reach to conclusions that extends beyond the data. The inferential analysis was used to infer from the data about what the population might think and might be thinking, whereas descriptive data was used to describe what is going on with the data. Most of the inferential analysis comes from a family of statistical models known as the general linear models that includes tests like ANOVA, ANCOVA, T-test, regression analysis and many more (Williams, 2020).

4.12 Ethical Considerations

The questionnaire was prepared ethically and was reviewed by the Scientific and Ethical Review Committee (SERC) of Universiti Tunku Abdul Rahman then finally distributed to the respondents. Every respondent was briefed about the purpose of the study, with the purpose of the study the respondent were thoroughly briefed about the research and the implication. The respondents were made sure that their data will strictly be used for research purposes only.

CHAPTER 5

FINDINGS AND DATA ANALYSIS

The objective of this chapter is to present and interpret the empirical findings of the study by testing the proposed hypotheses and examining the relationships among key constructs influencing online organic food purchasing behavior. It aims to validate the research model through statistical analysis, highlighting significant results, supported and unsupported hypotheses, and their implications for theory and practice within the context of consumer behavior and e-commerce.

The chapter follows various segments dedicated to supporting the statistical analysis conducted to assess the proposed research model. The Section delineates the measures employed for data preparation, encompassing aspects such as addressing missing data, scrutinizing response patterns, and identifying outliers. Once the screened data is established, Section 5.4 provides statistics that are descriptive in nature of the constructs and offers an overview of the respondents' demographic characteristics. The next Section 5.5 introduces the preliminary measurement model, followed by Section 5.6, which delves into the evaluation of internal consistency reliability. Sections 5.7 and 5.8 are dedicated to exploring convergent and discriminant validity.

Moreover, in Section 5.9, the measurement model's validation process is detailed, encompassing examinations of internal consistency reliability, discriminant validity and also convergent validity. Subsequently, in Section 5.10, the study scrutinizes how well the collected data align with the theoretical propositions by meticulously analyzing key results, such as path coefficients with the indirect effects, coefficients of determination also the effect sizes, and finally the study's predictive relevance.

Sections 5.11, 5.12, and 5.13 are devoted to presenting the coefficients of determination, effect sizes, and predictive relevance, respectively.

5.1 Data Validation

The data collection process for this study was meticulously carried out to ensure high response rates and data completeness. The presence of the researcher during the administration of the survey played a crucial role in achieving these objectives. This hands-on approach not only facilitated the immediate addressing of any queries or concerns raised by the respondents but also ensured that all sections of the survey were thoroughly completed.

Table 5.1

Total Count of Valid surveys

Total Surveys Distributed:	500
Total Valid Surveys Collected:	381

The data collection process for this study was conducted with careful attention to accuracy, completeness, and response quality. Data were collected over a three-month period, from August to October 2023, through in-person administration of structured questionnaires. The survey was distributed among targeted respondents; Malaysian digital natives at selected university campuses. Conducting the survey during this period was strategically aligned with the post-pandemic normalization phase, ensuring that respondents' online purchasing behaviors reflected the stabilized e-commerce trends observed across Malaysia.

A total of 500 structured questionnaires were distributed, of which 400 were returned, representing an initial response rate of 80%. Following a rigorous screening process, 19 responses were excluded due to incomplete data, inconsistencies, or patterns suggesting non-serious participation (e.g., straight-

lining). Consequently, a total of 381 questionnaires were retained and deemed valid for statistical analysis. This yielded a final usable response rate of 76.2%, which is considered highly satisfactory for social science research of this nature (Babbie, 2016; Sekaran & Bougie, 2019).

All valid questionnaires were fully completed, with no missing data identified in the final dataset. Data cleaning procedures were implemented to ensure the accuracy and reliability of the results, including checks for outliers and logical inconsistencies. These processes strengthened the internal validity of the findings and ensured the robustness of the statistical analyses.

The high completion rate and data reliability can be attributed to the proactive data collection strategy and the researcher's active engagement throughout the process. The researcher's presence during the administration phase helped clarify participants' queries in real time, reducing the likelihood of response errors. Additionally, transparent documentation of both valid and excluded cases enhances the credibility, transparency, and replicability of this research.

By clearly defining the data collection period and employing meticulous data handling practices, this study ensures that the findings accurately represent the behavioral tendencies of Malaysian digital natives during a time of increasing online organic food consumption.

5.2 Data Preparation

The data was collected from a total of 381 respondents which was collected after distributing 500 questionnaires which were then checked in terms of missing value, patterns of responses, outliers and also screened in terms of collinearity with multivariate, normality and linearity (Kline, 2011). For the purpose of screening SPSS 29 and Microsoft excel was taken aboard for the mentioned procedures.

5.2.1 Missing Data Treatment and Assessment

The missing data is considered to be very common in every survey research, as there are several respondents who mistakenly fail to respond to maybe one or more items that are presented in the questionnaires. There are ways by which the researcher can assess the missing data before deciding what procedure one will follow for the treatment that is the pattern of the missing data and the extent to which the data is being missed (Hair et al., 2014). Missing data is regarded as an important step which should be taken care of in the start as it significantly influences the results of statistical analysis. As soon as the data entry process was finished by the researcher, the missing data was identified which was done by SPSS statistical software version 29. The reason for doing this is to eliminate the chances of any missing data due to human error. The tests indicated that there were no occurrences of missing data. It was a plausible moment for the researcher that there was no missing value as the questionnaire was administered personally and the researcher was there to assist with any sort of ambiguity that may arise during the questionnaire filling.

5.2.2 Outliers

Outliers refer to data points or values that significantly deviate from the remainder of the dataset (Blunch, 2016; Hair et al., 2014). Dealing with outliers is considered a crucial step to address before the structural model analysis, as they can potentially introduce complications into the analysis (Blunch, 2016). Once identified, the decision to retain or eliminate these outliers is at the discretion of the researcher (Hair et al., 2014; Pallant, 2016). A total of three outliers were identified using boxplot in SPSS for the variable OFP and were subsequently ignored. According to Blunch (2016), ignoring a small number of outliers is acceptable when they are considered to have an undue influence on the outcomes, especially when the main focus of the study is on central trends rather than extremes.

5.2.3 Normality

While data normality is not a strict requirement for Partial Least Squares Structural Equation Modeling (PLS-SEM), it is generally recommended to assess normality to ensure that the data do not significantly deviate from a normal distribution. This is important because severe non-normality can influence the significance levels of estimated relationships between variables (Civelek, 2018; Hair et al., 2017). Researchers suggested to perform Skewness and Kurtosis analysis for data normality (Cain et al., 2017; Civelek, 2018; Mishhra et al., 2019). Considering the size of the sample that is larger than 300, the acceptable values to prove normality ranges as; according to Mishra et al., (2019) Skewness must

be ≤ 2 and kurtosis must ≤ 4 . Based on this, the analysis had been performed as shown in the table appendix 3.

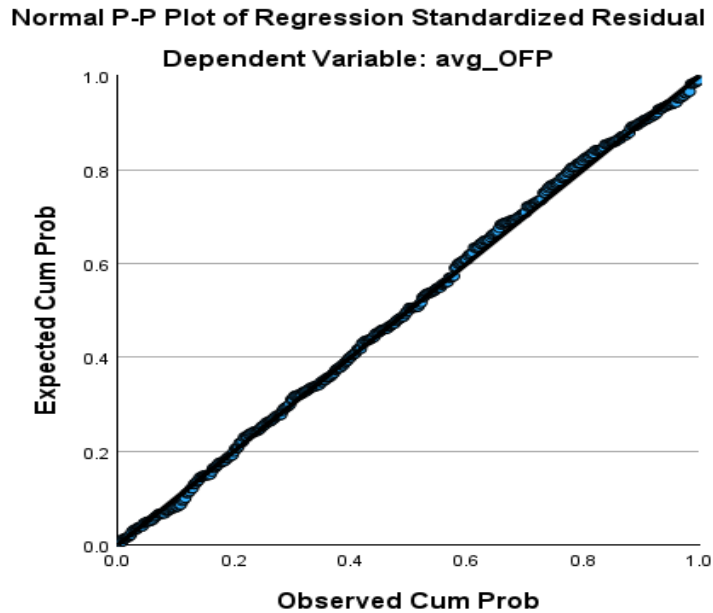
Another test of normality was undertaken that is termed as the Kolmogorov-Smirnov and Shapiro-Wilk value were given (Appendix 1). Which states that If the non-significant value is found to be more than .05 then it is taken to be normal (Pallant, 2016). The result showed that the values are above .05 hence the normality is acceptable, but for further clarity normality of the data was further checked as per Pallant (2016) if the data is large then the value is common, for this purpose Q-Q plot was taken in to consideration. It was found out that the mean distribution of the variable also did not stray from the normal distribution line as shown in the Appendix 2.

5.2.4 Linearity and Homoscedasticity

Since PLS path modelling belongs to regression analysis, it is therefore essential to examine if the linearity and homoscedasticity assumptions are met so that underestimation of the relationship between the variables can be avoided (Park et al., 2020). Normal Predicted Probability (P-P) plot is a most acceptable and a common tool which is used to test both the linearity and homoscedasticity assumptions (Barker & Shaw, 2015; Kim, 2019). According to Kim (2019), it was found out that when the scatters falls on or close to the normal distribution line in a P-P plot it is an indicator that the linearity and homoscedasticity assumption is met as show in the figure 5.1.

Figure 5.1

P-P Plot



5.3 Profile of Respondents

This section presents the demographic profile of the respondents, including their gender, age, academic semester, study level, ethnicity, and frequency of online purchase behavior. Understanding the characteristics of the sample is essential for interpreting the study results within the appropriate contextual framework.

The final sample comprised 381 digital natives recruited from multiple university campuses. The sample included 166 males (43.6%) and 215 females (56.4%). Age distribution was concentrated in young adulthood: 229 participants (60.1%) were aged 20–24, 114 (29.9%) were 25–29, 21 (5.5%) were 30–34, 19 (5.0%) were 15–19, and 11 (2.9%) were 35–40.

Regarding academic progression, 58 respondents (15.2%) reported being in semesters 1–3, 111 (29.1%) were in semesters 4–7, and 225 (59.1%) were in their final semester. In terms of study level, 251 participants (65.9%) were undergraduates, 104 (27.3%) were postgraduate (master’s) students, 20 (5.2%) were enrolled in diploma programs, and 6 (1.6%) identified as PhD/postgraduate research students.

The sample was ethnically diverse: 127 respondents (33.3%) identified as Malay, 137 (35.9%) as Chinese, 30 (7.9%) as Indian, and 100 (26.2%) as “Other” (largely international students from neighboring countries). This multicultural composition supports broader applicability of the findings across different cultural groups represented on foreign-branch campuses.

Online purchase frequency varied: 11 respondents (2.9%) reported daily purchases, 92 (24.1%) weekly, 118 (30.9%) fortnightly, 52 (13.6%) monthly, and 121 (31.7%) quarterly. These results indicate that most participants purchase online intermittently rather than on a daily basis an important consideration when interpreting intention–behavior relationships for routine consumer goods such as groceries.

All demographic data discussed are summarized in Table 5.2, which provides a detailed breakdown of respondents’ characteristics for clearer interpretation.

Table 5.2

Respondents Distribution.

	N	%
Gender		
Male	166	42.1
Female	215	54.6
Prefer not to say	13	3.3
Age		
15-19	19	4.8
20-24	229	58.6
25-29	114	28.9
30-34	21	4.8
35-40	11	2.8
Semester		
1st – 3rd	58	14.7
4th – 7th	111	28.2
Final semester	225	57.1
Level		
Bachelors	251	63.7
Diploma	20	5.1
Master	104	26.4
PHD	13	3.3
Post Grad studies	6	1.5
Ethnicity		
Malay	127	32.2
Chinese	137	34.8
Indian	30	7.6

Others	100	25.4
Purchase Frequency		
Everyday	11	2.8
Weekly	92	23.4
Fortnightly	118	29.9
Monthly	52	13.2
Quarterly	121	30.7

5.4 Measurement Model

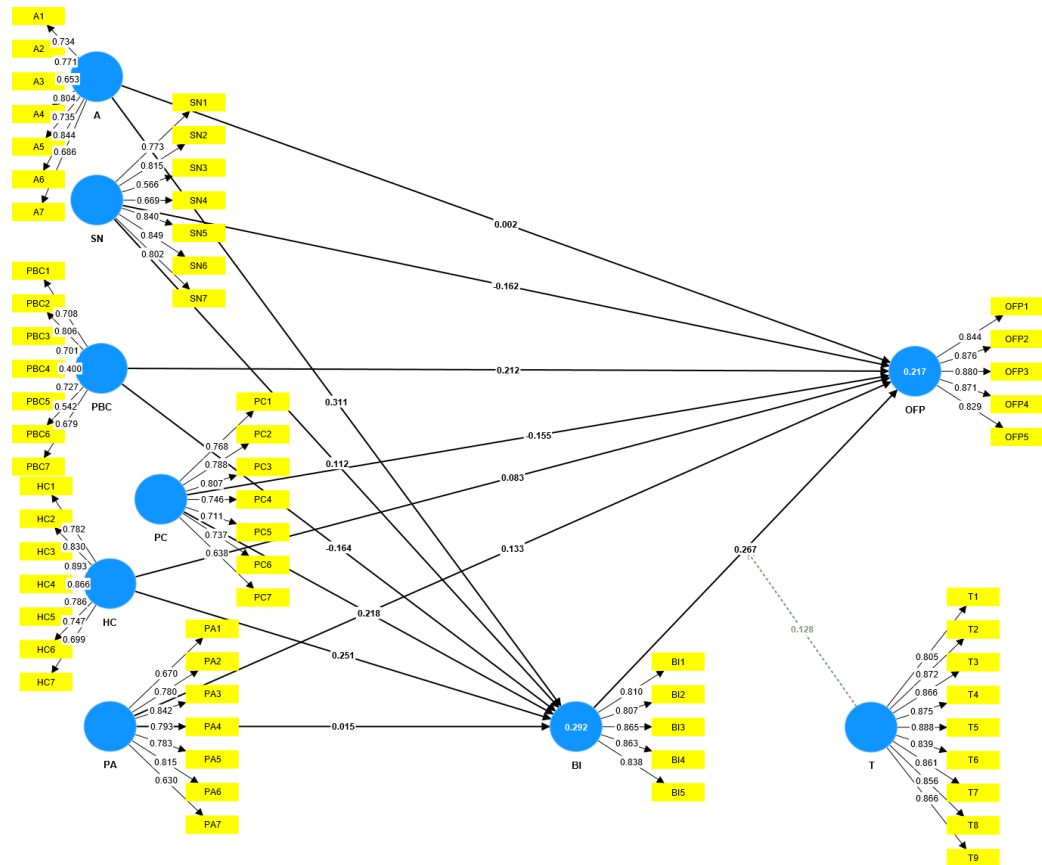
The research model taken aboard consisted of 9 constructs and 61 corresponding indicators or items that were used to measure these constructs. The indicators with their exogenous variables were :

Behavioural intentions being the mediating variable was measured by BI1, BI2, BI3, BI4, BI5, whereas the moderating variable was measured by T1, T2, T3, T4, T5, T6, T7, T8, T9 and Organic Food Purchase being the outcome variable was measure by OFP1, OFP2, OFP3, OFP4, OFP5. Similarly other variables with their corresponding indicators were : Attitude by ATT1, ATT2, ATT3, ATT4, ATT5, ATT6, ATT7, subjective norms was measured by SN1, SN2, SN3, SN4, SN5, SN6, SN7, Perceived behavioural control was measured by PBC1, PBC2, PBC3, PBC4, PBC5, PBC6, PBC7, product cost was measured by PC1, PC2, PC3, PC4, PC5, PC6, PC7, health consciousness was measured by HC1, HC2, HC3, HC4, HC5, HC6, HC7, product availability was measured by PA1, PA2,

PA3, PA4, PA5, PA6, PA7. The very initial run of the PLS algorithm is shown below in Figure 5.2a

Figure 5.2a:

Primary Measurement Model with Outer Loadings (before item deletion)”.



After the running it was revealed that the average variance extracted (AVE) for Perceived Behavioural control and PCs did not meet the criterion of above .50, it was deduced by Hair et al., (2017) indicators which are below .70 may be omitted if their removal tends to increase the AVE and Composite Reliability (CR). But, it is to be noted that in several situations, indicators with even a loading less than .70 can be taken aboard (Hair et al., 2017). On the basis of this it was decided to hold the indicators with loadings whose AVE was meeting the criterion hence two indicators from Perceived Behavioural control as PBC4 and PBC6 which increased the AVE criterion of .50. The model was then re-evaluated after

the omitting of each indicators to detect changes. The table 5.3 shows the AVE and CR after removal of the 2 indicators.

Figure 5.2b

Primary Measurement Model with Outer Loadings (after item deletion)

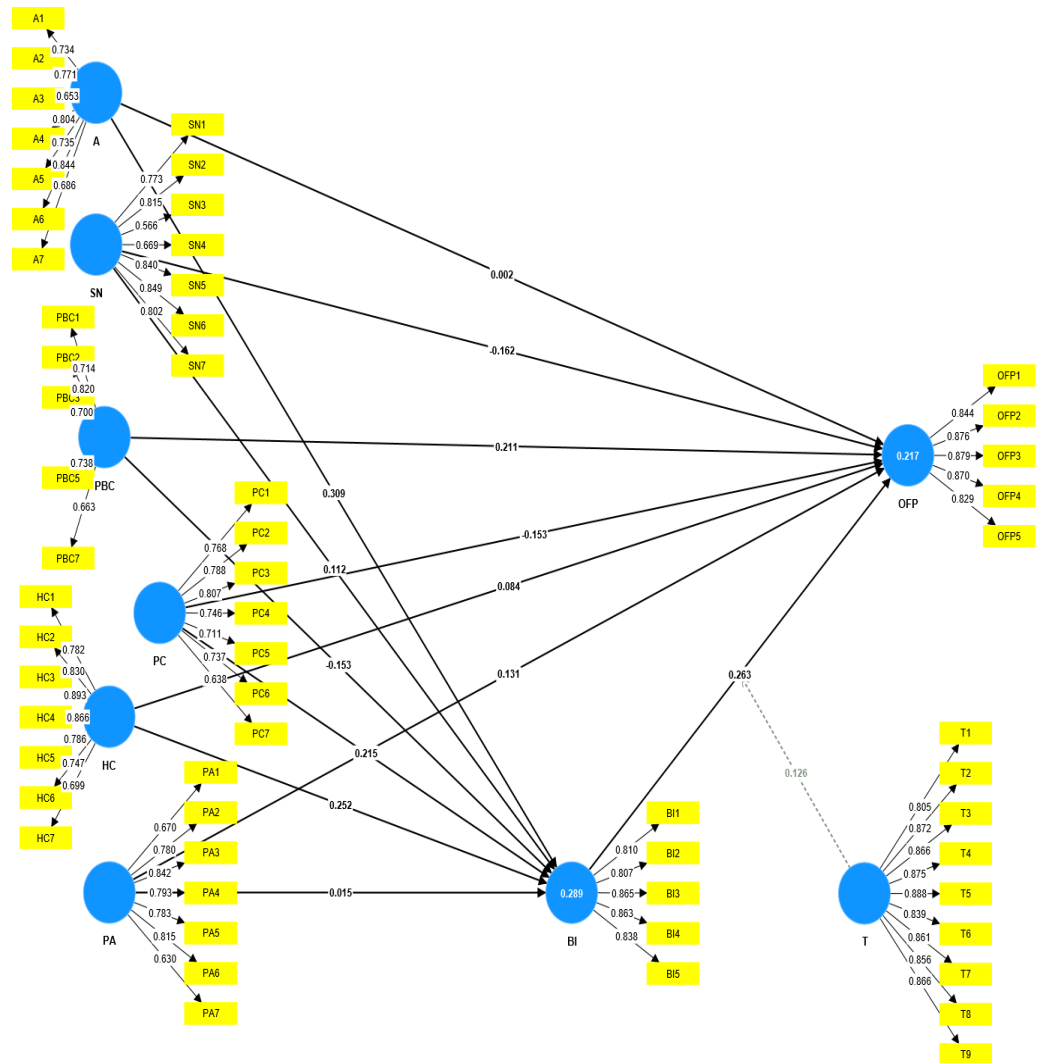


Table 5.3

AVE and Composite Reliability

	(AVE)	Composite reliability
A	0.561	0.899
BI	0.701	0.921
HC	0.645	0.927
OFP	0.740	0.934
PA	0.581	0.906
PBC	0.531	0.849
PC	0.554	0.896
SN	0.586	0.907
T	0.738	0.962

The reliability and validity assessment of the measurement model indicated satisfactory results. As shown in table 5.3, all constructs demonstrated CR values ranging from 0.849 to 0.962, exceeding the recommended threshold of 0.70, thereby confirming strong internal consistency among the indicators. Similarly, the AVE values ranged between 0.531 and 0.740, surpassing the acceptable cut off value of 0.50, which indicates adequate convergent validity. These results confirm that the measurement items reliably represent their respective latent constructs, ensuring the robustness and quality of the measurement model for further structural analysis.

5.5 Internal Consistency Reliability

The Cronbach's alpha is a more acceptable way of evaluating the internal consistency for the indicators measurement. Considering PLS, the internal consistency is evaluated by using CR, which is considered robust and better than Cronbach's alpha, as it takes account of each indicator loadings (Chin, 1998; Hair et al., 2017).

The rule says that the acceptable range of CR falls between .6 and .7 for a starting stage of research, and for an advance stage between .7 and more shows an excellent reliability (Hair et al., 2021). The CR is acceptable and demonstrates satisfactory internal consistency. The table 5.3 shows that the constructs in the measurement model were found out to be above the threshold level of .70 with the values that ranges from 0.85 to 0.96, thereby showing a satisfactory internal consistency.

5.6 Convergent Validity

The convergent validity is assessed with the reliability of an individual indicator and the AVE, considering the individual indicator reliability, a variable has to have an outer loading of more than .70 (Hair et al., 2021). All out loadings of the indicators were above the threshold level of .70 with a few exceptions that were close to .70 can be retained (Hair et al., 2021).

In terms of Average variance extracted, this evaluates the convergent validity at the level of the construct. Following the logic which described the indicators reliability, the AVE must be more than .50 in order to be acceptable (Hair et al., 2017). The AVE was found out to be ranging from .531 to .740 which is acceptable for all constructs as shown in table 5.3.

5.7 Discriminant Validity

The discriminant validity of the constructs was evaluated using two common methods: the Fornell-Larcker criterion and the HTMT (Heterotrait-Monotrait)

ratio of correlations (HTMT). These methods are widely used in structural equation modelling to make sure that there is distinctiveness between the constructs

Fornell-Larcker Criterion: According to this criterion, the discriminant validity is recognized when the outer loadings (indicators' loadings on their respective constructs) are greater than all the cross loadings (indicators' loadings on other constructs) (Hair et al., 2017b). This method ensures that each indicator primarily measures the intended construct and is not strongly influenced by other constructs.

HTMT Ratio of Correlations : This criterion involves assessing the correlations between each pair of exogenous constructs. Discriminant validity is affirmed when the correlation between any pair of constructs does not exceed 0.85 (Henseler et al., 2015). This approach is used to prove that the constructs are sufficiently different from each other in terms of their relationships.

The use of both these methods for assessing discriminant validity is a robust practice in structural equation modelling. It ensures that the constructs in the research model are indeed distinct and are not measuring the same underlying concept. The HTMT criterion, in particular, has gained recognition and support from several researchers (Benitez et al., 2019; Cheah et al., 2018; Hair et al., 2017a ; Rahi et al., 2017; Rezaei, 2018), making it a widely accepted approach in the field of SEM.

Therefore, in this study both Fornell-Larcker and HTMT criterion analyses were performed. Table 5.6 and Table 5.7 illustrate that the requirements of both Fornell-Larcker and HTMT criterion were met, respectively.

Table 5.6

Fornell-Larcker criterion

	A	BI	HC	OFP	PA	PBC	PC	SN	T
A	0.749								
B	0.382	0.837							
I	-								
H	0.041	0.271	0.803						
C	0.119	0.258	0.211	0.86					
O	0.082	0.164	0.459	0.254	0.762				
FP	0.082	0.164	0.459	0.254	0.762	0.729			
P	0.283	0.004	0.003	0.202	0.184	0.729	0.744		
A	0.331	0.34	0.167	0.047	0.141	0.236	0.744		
BC	-								
P	0.09	0.043	0.054	0.13	0.12	0.765			
S	0.483	0.243	0.09	0.043	0.054	0.13	0.12	0.765	
N	0.416	0.417	0.066	0.244	0.128	0.091	0.305	0.292	0.859
T									

Note : A denotes attitude, Bi denotes Behavioral Intentions, HC denotes Health Consciousness, OFP denotes Organic Food purchase, PA denotes Product Availability, PBC denotes Perceived Behavioral Control, PC denotes Product Cost, SN denotes Subjective Norms and T denotes Technophobia

To assess the distinctiveness of the constructs, this study employed the Heterotrait-Monotrait Ratio of Correlations (HTMT) by examining the cross-

loadings. Table 5.7 presents the HTMT values. It is essential to highlight that the HTMT confirmed the validity of all the constructs.

The HTMT serves as an estimate of the true correlation between two constructs, assuming that these constructs are measured with reliability (Hair et al., 2017). As shown in table 5.7, all the HTMT correlations among the constructs comfortably met the criteria, being below .85, and, in certain instances, below .90 (Gold et al., 2001; Kline, 2011).

Table 5.7

HTMT ratio

A	0.3								
BI	93								
	0.0	0.2							
HC	98	95							
OF	0.1	0.2	0.2						
P	23	84	27						
	0.1	0.1	0.4	0.2					
PA	04	58	91	55					
PB	0.3	0.1	0.0	0.2					
C	53	06	59	28	0.2				
	0.3	0.3	0.1	0.1	0.1	0.2			
PC	91	55	72	28	45	89			
	0.5	0.2	0.1	0.0	0.0	0.1	0.1		
SN	28	71	24	71	9	96	35		
	0.4	0.4	0.0	0.2	0.1	0.1	0.3	0.	
T	44	49	85	57	4	14	08	314	

Note : A denotes attitude, Bi denotes Behavioral Intentions, HC denotes Health Consciousness, OFP denotes Organic Food purchase, PA denotes Product Availability, PBC denotes Perceived Behavioral Control, PC denotes Product Cost, SN denotes Subjective Norms and T denotes Technophobia

To further verify the constructs and ensure that they are conceptually distinct from one another, the current study assessed discriminant validity using the outer

loadings of the measurement indicators. As shown in Table 5.8, the indicators demonstrated their highest loading on the constructs they were intended to measure, with these primary loadings highlighted in bold. This pattern confirms that each item is more strongly associated with its respective latent construct than with any other construct in the model. Such results provide evidence that the constructs do not overlap excessively and that each one captures a unique dimension of the underlying theoretical framework, thereby satisfying the criteria for discriminant validity.

Table 5.8										
Cross loading										
	A	BI	HC	OFF	PA	PBC	PC	SN	T	T x
A1	0.734	0.231	-	0.12	0.083	0.198	0.251	0.359	0.238	0.062
A2	0.771	0.219	-	0.088	0.073	0.217	0.26	0.309	0.29	0.046
A3	0.653	0.148	0.058	0.016	0.057	0.295	0.24	0.212	0.215	0.033
A4	0.804	0.374	0.017	0.126	0.096	0.212	0.262	0.453	0.397	-0.08
A5	0.735	0.179	0.059	0.065	0.029	0.195	0.173	0.338	0.34	0.03
A6	0.844	0.406	0.012	0.121	0.053	0.208	0.274	0.434	0.349	0.089
A7	0.686	0.273	0.098	0.028	0.031	0.227	0.264	0.314	0.292	0.049
BI1	0.274	0.81	0.202	0.226	0.087	0.017	0.27	0.159	0.334	0.266
BI2	0.347	0.807	0.231	0.214	0.173	0.014	0.264	0.165	0.329	0.271
BI3	0.303	0.865	0.313	0.219	0.222	0.019	0.286	0.229	0.342	0.283
BI4	0.326	0.863	0.183	0.21	0.087	0.035	0.316	0.225	0.374	0.289
BI5	0.348	0.838	0.196	0.211	0.105	0.027	0.285	0.235	0.367	0.304
HC1	0.031	0.236	0.782	0.226	0.372	0.007	0.158	0.019	0.107	0.027
HC2	0.034	0.212	0.83	0.195	0.351	0.021	0.12	0.087	0.099	0.012
HC3	0.088	0.256	0.893	0.162	0.412	0.026	0.165	0.115	0.031	0.103
HC4	0.063	0.219	0.866	0.157	0.394	0.025	0.189	0.062	0.064	0.061
HC5	0.009	0.233	0.786	0.15	0.331	0.008	0.109	0.077	0.063	0.097
HC6	0.089	0.18	0.747	0.142	0.412	0.004	0.07	0.099	0.004	0.044
HC7	0.072	0.168	0.699	0.137	0.303	0.05	0.111	0.118	0.032	0.023
OFF1	0.071	0.257	0.221	0.844	0.241	0.172	0.06	0.055	0.191	0.005
OFF2	0.077	0.188	0.182	0.876	0.231	0.164	0.021	0.065	0.181	0.078
OFF3	0.139	0.246	0.201	0.879	0.19	0.207	0.062	0.006	0.248	0.038
OFF4	0.104	0.21	0.167	0.87	0.234	0.154	0.007	0.053	0.222	0.055

OFP5	0.123	0.201	0.128	0.829	0.194	0.171	0.05	-	0.206	0.072
PA1	0.024	0.001	0.227	0.068	0.67	0.1	0.007	0.067	0.097	0.101
PA2	0.123	0.109	0.308	0.181	0.78	0.125	0.105	0.104	0.097	0.018
PA3	0.098	0.082	0.412	0.178	0.842	0.152	0.124	0.079	0.112	0.078
PA4	0.077	0.122	0.281	0.187	0.793	0.148	0.058	0.045	0.102	0.064
PA5	0.062	0.078	0.355	0.157	0.783	0.117	0.087	0.004	0.146	0.098
PA6	0.038	0.214	0.412	0.258	0.815	0.143	0.115	0.013	0.088	0.012
PA7	0.016	0.125	0.359	0.2	0.63	0.171	0.175	0.014	0.064	0.02
PBC1	0.241	0.022	0.024	0.114	0.111	0.714	0.154	0.169	0.024	0.001
PBC2	0.202	0.031	0.028	0.184	0.155	0.82	0.154	0.066	0.043	0.028
PBC3	0.177	0.048	0.042	0.094	0.054	0.7	0.112	0.076	0.016	0.086
PBC5	0.348	0.1	0.009	0.16	0.234	0.738	0.289	0.146	0.164	0.024
PBC7	0.057	0.121	0.008	0.151	0.074	0.663	0.122	0.033	0.054	0.009
PC1	0.256	0.249	0.144	0.097	0.174	0.204	0.768	0.091	0.267	0.112
PC2	0.292	0.294	0.161	0.078	0.184	0.209	0.788	0.148	0.255	0.125
PC3	0.211	0.304	0.157	0.114	0.102	0.164	0.807	0.093	0.262	-0.02
PC4	0.23	0.274	0.115	0.05	0.093	0.15	0.746	0.118	0.279	0.039
PC5	0.208	0.227	0.13	0.111	0.072	0.12	0.711	0.01	0.14	0.069
PC6	0.311	0.212	0.055	-0.05	0.009	0.202	0.737	0.074	0.178	0.134
PC7	0.281	0.084	0.019	0.101	0.012	0.246	0.638	0.023	0.096	0.059
SN1	0.384	0.16	0.055	0.044	0.037	0.093	0.042	0.773	0.173	-0.04
SN2	0.381	0.198	0.134	0.065	0.029	0.062	0.081	0.815	0.19	0.105
SN3	0.323	0.124	0.082	0.128	0.051	0.24	0.1	0.566	0.072	0.147
SN4	0.233	0.184	0.008	-0.01	0.056	0.037	0.074	0.669	0.304	0.004
SN5	0.385	0.221	0.058	0.022	0.095	0.139	0.114	0.84	0.261	0.095
SN6	0.413	0.209	0.106	0.009	0.016	0.073	0.112	0.849	0.304	0.062
SN7	0.464	0.188	0.082	0.004	0.036	0.16	0.115	0.802	0.218	0.073
T1	0.284	0.374	0.141	0.241	0.188	0.026	0.253	0.225	0.805	0.072
T2	0.38	0.355	0.054	0.192	0.116	0.082	0.258	0.287	0.872	-0.11

T3	0.393	0.384	0.095	0.197	0.112	0.062	0.23	0.281	0.866	-0.16
T4	0.361	0.336	0.03	0.23	0.122	0.041	0.267	0.244	0.875	0.055
T5	0.404	0.363	0.006	0.217	0.058	0.065	0.273	0.303	0.888	0.088
T6	0.365	0.312	0.005	0.157	0.041	0.14	0.249	0.22	0.839	0.092
T7	0.297	0.382	0.091	0.229	0.129	0.066	0.281	0.249	0.861	0.058
T8	0.38	0.321	0.014	0.173	0.091	0.148	0.261	0.242	0.856	-0.08
T9	0.37	0.374	0.044	0.22	0.098	0.108	0.274	0.203	0.866	0.109

Note : A denotes attitude, Bi denotes Behavioral Intentions, HC denotes Health Consciousness, OFP denotes Organic Food purchase, PA denotes Product Availability, PBC denotes Perceived Behavioral Control, PC denotes Product Cost, SN denotes Subjective Norms and T denotes Technophobia

5.8 Structural Model Validation

This section encompasses the various assessments utilized to validate the structural model in the present study. The evaluation of the structural model will involve testing the significance of path coefficients, exploring potential mediation effects, as well as determining the level of coefficient determination (R^2), effect sizes, and predictive relevance.

5.8.1 Path coefficients

Each path in structural model portrays the research study's hypothesised relationships between two constructs that are exogenous and endogenous. By using a complete bootstrapping of 5000 cases the paths were analysed with the option of bias-corrected and accelerated 95% confidence interval. It can be said that bootstrapping samples were obtained by repetitive estimation of the coefficients with 5000 re-samples. The significance of the path coefficients were then determined by noting the critical values of its corresponding T-statistics.

The table 5.9 below shows the results from bootstrapping including the original sample (O) which are the original values of the coefficients for the relationships between the different constructs, it is that value that represents the direction and the strength of the relationship between the various constructs. The Sample mean (M) on the other hand is the average value for each of the coefficient across the sample. We can simply term the sample mean as the aggregated and summarized values of the actual values. Then comes the standard deviations (STDEV) which measures the dispersion of the actual values, in other words it tells how much the

coefficient varies from the mean. T Statistics ($|O/STDEV|$) assesses if the relationship between the variables is significant statistically. It is deduced that the larger the value of T-statistic, the more significant statistically the relationship is. Next comes the P Values which is associated with the T-statistics that are provided in the table. The P value shows that the probability of observing the relationship of the coefficients in the data. Low P values generally depicts that the relationship is statistically significant typically < 0.05 (Hair et al., 2017).

The significance of the path coefficients is to be determined by the critical values of its corresponding T-value or T-statistics. The value of t-statistics or t-value should be more than 1.96 to be considered significant (Hair et al., 2017). A relationship to be considered as statistically significant the P-Value is taken to be less than 0.05 or even 0.01. For instance in the first relationship “Attitude towards Behavioural Intentions ($A \rightarrow BI$) relationship shows that the original coefficient is 0.309, the mean is 0.307, whereas the standard deviation is 0.049, the T-statistics is 6.362 and with the P-value as 0.000. this relationship is statistically significant along with a positive coefficient thereby indication a positive relationship between Attitude and Behavioural intentions. Having a T-value more than 1.96 is supported and deemed significant. The support of the hypothesised relationships were decided.

Figure 5.3.

Final Measurement Model With Outer Loadings

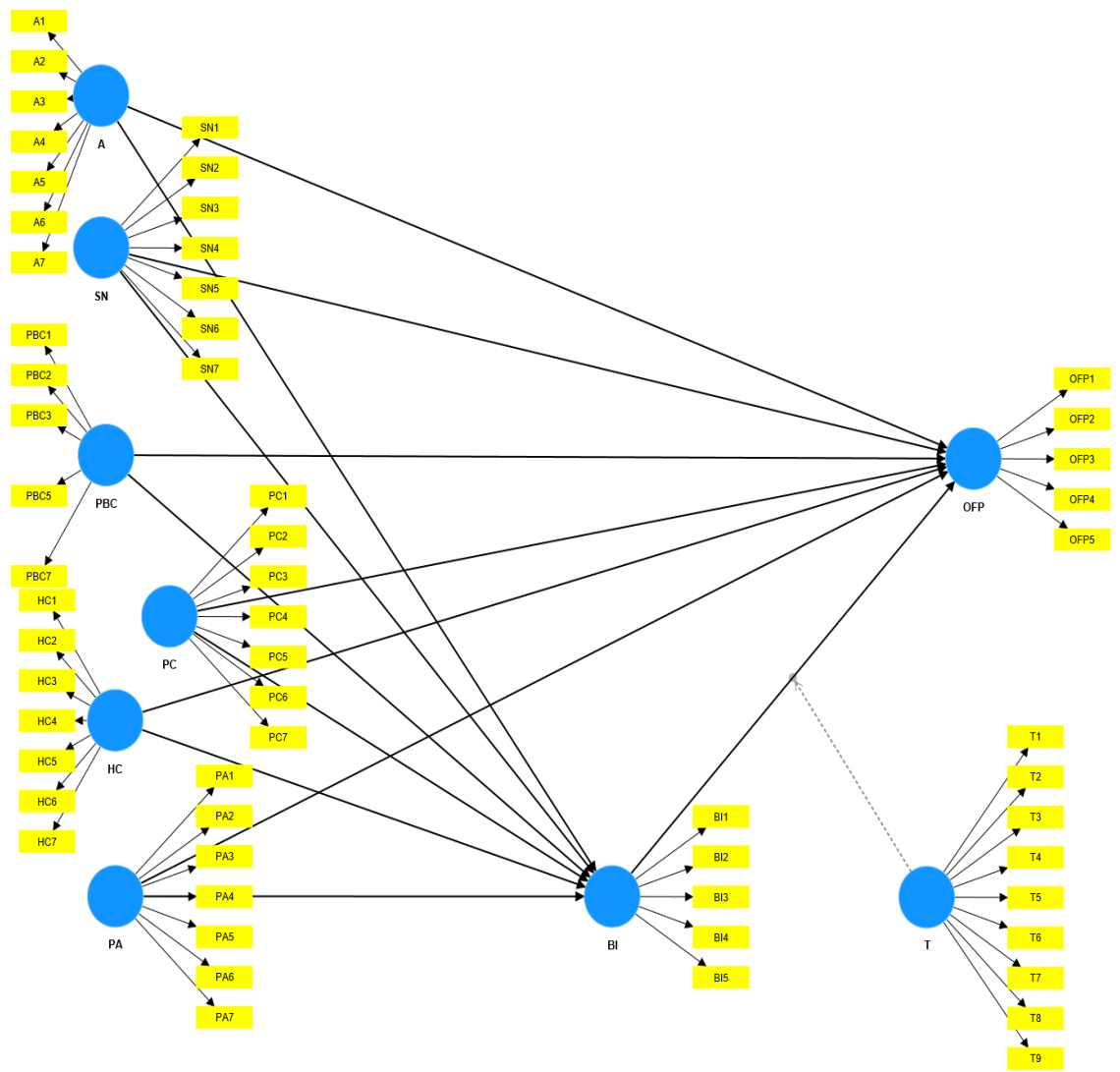


Table 5.9

Path Coefficients

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Decision
A -> BI	0.309	0.307	0.049	6.362	0.000	Supported/significant
A -> OFP	0.002	0.005	0.058	0.040	0.968	Not - Supported/insignificant
BI -> OFP	0.263	0.263	0.066	3.953	0.000	Supported/ significant
HC - > BI	0.252	0.256	0.051	4.908	0.000	Supported/ significant
HC - > OFP	0.084	0.082	0.060	1.398	0.162	Not Supported/ insignificant
PA - > BI	0.015	0.014	0.048	0.302	0.763	Not Supported/ insignificant
PA - > OFP	0.131	0.137	0.046	2.847	0.004	Supported/ significant
PBC -> BI	-0.153	-0.144	0.065	2.354	0.019	Supported/ significant
PBC -> OFP	0.211	0.215	0.057	3.683	0.000	Supported/ significant
PC - > BI	0.215	0.216	0.039	5.509	0.000	Supported/ significant
PC - > OFP	-0.153	-0.154	0.061	2.524	0.012	Supported/ significant
SN - > BI	0.112	0.115	0.044	2.522	0.012	Supported/ significant
SN - > OFP	-0.162	-0.164	0.058	2.776	0.006	Supported/ significant
T x BI - > OFP	0.126	0.126	0.051	2.488	0.013	Supported/ significant

Note : A denotes attitude, Bi denotes Behavioral Intentions, HC denotes Health Consciousness, OFP denotes Organic Food purchase, PA denotes Product Availability, PBC denotes Perceived Behavioral Control, PC denotes Product Cost, SN denotes Subjective Norms and T denotes Technophobia

The structural model results reveal varying degrees of support for the hypothesized relationships among the constructs. Attitude (A) demonstrated a significant positive influence on behavioral intention (BI) ($\beta = 0.309$, $p < 0.001$), but its direct effect on actual online food purchasing (OFP) was insignificant ($\beta =$

0.002, $p = 0.968$), suggesting that attitude influences purchasing behavior primarily through intention. Behavioral intention itself had a significant positive effect on OFP ($\beta = 0.263$, $p < 0.001$), confirming its mediating role between attitudinal and behavioral variables.

HC significantly influenced BI ($\beta = 0.252$, $p < 0.001$), though its direct effect on OFP was insignificant ($\beta = 0.084$, $p = 0.162$), implying that health-oriented values translate into intentions but not necessarily immediate behavior. Perceived availability (PA) did not affect BI ($\beta = 0.015$, $p = 0.763$) but significantly influenced OFP ($\beta = 0.131$, $p = 0.004$), indicating that practical factors like product accessibility directly facilitate purchase actions.

PBC negatively influenced BI ($\beta = -0.153$, $p = 0.019$) but positively influenced OFP ($\beta = 0.211$, $p < 0.001$), suggesting a complex dynamic where perceived ease may not enhance intention but does promote actual behavior once consumers act. Similarly, perceived convenience (PC) was significant for both BI ($\beta = 0.215$, $p < 0.001$) and OFP ($\beta = -0.153$, $p = 0.012$), indicating that convenience enhances intentions but may have differing effects when other situational constraints intervene. SN significantly affected both BI ($\beta = 0.112$, $p = 0.012$) and OFP ($\beta = -0.162$, $p = 0.006$), underscoring the mixed role of social influence in both forming intentions and executing behavior. Finally, technophobia ($T \times BI$) significantly moderated the BI–OFP relationship ($\beta = 0.126$, $p = 0.013$), confirming that technology anxiety alters how intentions translate into actions.

In conclusion, out of 14 hypothesized paths, 11 were supported and 3 were not, indicating a generally strong model. Most significant relationships were consistent with the TPB, confirming that behavioral intention is the most reliable predictor of actual purchase behavior, while direct effects of attitudes and HC remain weak. Moreover, technophobia emerged as a meaningful moderator, suggesting that technology-related anxiety still constrains consumers' online organic food purchasing actions in emerging markets

5.9. Coefficient of Determination.

The Coefficient of Determination (R^2) is a statistical measure used to assess the predictive power of a structural model. It indicates the proportion of variance in a specific endogenous construct that is explained by all the exogenous constructs connected to it. While there isn't an absolute, universally accepted value for R^2 , the literature provides some criteria for its classification.

According to Hair et al. (2017), R^2 values can be categorized as substantial, moderate, or weak based on specific thresholds. They suggested that values of .75, .50, and .25 can be considered substantial, moderate, and weak, respectively. Cohen (1988) offered a different classification, where R^2 values of .26, .13, and .02 correspond to substantial, moderate, and weak explanatory power, respectively. Falk and Miller (1998) recommended that an R^2 value should exceed 0.10 to be considered substantial. These criteria serve as guidelines for interpreting the strength of the relationship between constructs in a structural model.

As shown in table 5.10, the R^2 for OFP is 0.22 (0.217) denoting that its predictors explained 22% of its variance, whereas R^2 for BI is 0.29 (0.289) denoting that its predictors explained 29%, according to the aforementioned criterion by Cohen (1998), Falk and Miller (1998) and Hair et al., (2017) these values are substantial to moderate.

Table 5.10

Coefficient of Determination

	R^2 R^2 adjusted	
BI	0.289	0.278
OFP	0.217	0.199

5.9.1 Effect Size

Effect size is a measure that indicates the relative significance of an exogenous construct on an endogenous construct within a structural model. It quantifies the impact of an exogenous construct on an endogenous construct by assessing the change in the F^2 statistic of the endogenous construct when the exogenous construct is excluded from the analysis. The calculation of F^2 effect size can be performed using SmartPLS software. It is typically interpreted in terms of small, medium, and large effect sizes, as defined by Cohen (1988). In this context, F^2 values of .02, .15, and .35 are used to represent small, medium, and large effect sizes, respectively. These effect sizes help researchers understand the magnitude of the relationships between constructs in the model.

Table 5.11

Effect Size

	Coefficient of determinatio n R^2	BI	HC	OFP
A	0.29	0.089		0
BI				0.053
HC		0.067		0.006
OFP	0.22			
PA		0		0.016
PBC		0.028		0.048
PC		0.055		0.023
SN		0.013		0.025
T				0.037
T x BI				0.018

5.9.2 Predictive Relevance.

The assessment of R^2 values is complemented by Stone-Geisser's Q^2 index, which evaluates the out-of-sample predictive capability of the structural model (Hair et al., 2021; Sarstedt et al., 2022). This index measures how accurately the structural model can predict data that were not used during the model estimation process, thus providing a robust indicator of the model's predictive relevance (Shmueli et al., 2019; Cepeda-Carrion et al., 2023).

To perform this test, a blindfolding procedure is applied, in which every 7th data point is systematically omitted from the analysis. The PLS-SEM algorithm treats these omitted observations as missing data and estimates their values to predict the omitted cases (Hair et al., 2022). This approach provides a cross-

validated measure of the model's predictive accuracy beyond the observed dataset, addressing concerns about overfitting in model estimation (Richter et al., 2023; Ali et al., 2022).

The Q^2 values are calculated through cross-validated redundancy analysis, which evaluates the predictive relevance of both the measurement and structural models simultaneously (Hair et al., 2021). According to established guidelines, Q^2 values greater than zero indicate that the model exhibits predictive relevance for a particular endogenous construct, whereas values of zero or below implies a lack of predictive capability (Henseler et al., 2009; Sarstedt et al., 2022; Richter et al., 2023).

In this study, all Q^2 values for the endogenous constructs were greater than zero, thereby confirming that the structural model possesses adequate predictive relevance. This finding supports the robustness of the proposed model and indicates that it can effectively predict future observations for the analyzed constructs, aligning with recommendations by Hair et al. (2021) and Shmueli et al. (2019) regarding predictive validation in PLS-SEM.

Table 5.12

Predictive Relevance

BI	0.256
OFP	0.136

5.10 Discussion of the findings

This study aimed to explore the impact of PA, PC and HC on the Malaysian digital natives to purchase organic food products along with the moderation effect of technophobia, similarly the impact of attitude, SN and PBC on BI to purchase organic food products was also studied. The effects were studied by taking the data from several different foreign campuses in Malaysia, taking Malaysian digital natives into account. Fourteen hypotheses were developed based on eleven objectives. The overall objective of the study was to examine the customers' behavior when the customers are option for an organic food product online, the objective was not just to examine but also to check the effects of TPB extended variables on the customers' behavior when purchasing online organic food products with the moderating effect of technophobia.

Research Objective 1

The first research objective was to Investigate whether the TPB can positively influence BI and customers' online purchasing of organic food products of Malaysian digital natives.

The study aimed to examine how the variables of the TPB influence the BI and OFP of Malaysian digital natives, focusing on how tech-savvy individuals make decisions about buying organic food online. Discussion of each research hypothesis is presented in the following titles:

5.10.1 Attitude ->Behavioural Intention H1

The variable of attitude has a significant positive impact on customers' BI to purchase organic food online. As attitudes toward organic food products improve, customers are more inclined to make online purchases. This finding aligns with the TPB (Ajzen, 1991; Ajzen, 2020), which posits that an individual's attitude toward a behavior is one of the key determinants of their intention to perform it. Specifically, in the context of organic food purchasing, the positive relationship between attitude and BI reflects how customers' favorable perceptions of organic products often associated with health benefits, environmental sustainability, and ethical awareness directly influence their intention to purchase these products online (Huang & Sun, 2025; Wang et al., 2023).

This result is supported by several recent studies. For instance, Zhu et al. (2022) argue that consumer attitudes significantly shape online shopping intentions, particularly for organic products where health and environmental motivations are central. Similarly, Thøgersen et al. (2021) found that favorable attitudes toward organic products, driven by ethical and sustainability concerns, strongly predict online purchasing intentions. Recent research by Hasan et al. (2024) further confirms that attitude is a powerful predictor of OFP intention through mobile delivery platforms, emphasizing that positive evaluations of product quality and sustainability enhance behavioral intention. In addition, Liu et al. (2024) found that consumers' positive attitudes toward organic food brands,

especially those emphasizing transparency and eco-certification, significantly boost their online purchase decisions.

In comparison with earlier work, this study aligns with the findings of Kumar et al. (2023), who noted that consumers in emerging markets like Malaysia exhibit a strong link between positive attitudes and BI toward online OFP. The present results also resonate with Nguyen et al. (2022), who demonstrated that health-conscious consumers tend to hold favorable attitudes toward organic food and are more likely to purchase it online. More recently, Pahari et al. (2023) emphasized that attitude mediates the relationship between environmental concern and purchase intention, highlighting its centrality in organic food marketing.

In the context of this study, these findings are particularly relevant given the growing interest in health-oriented and ethical consumption among Malaysian digital natives. As these consumers are highly active in online shopping, their positive attitudes toward organic food shaped by health, environmental, and social consciousness serve as critical drivers of online purchase intention. Therefore, attitude remains a pivotal determinant of BI, guiding both marketers and policymakers in formulating effective strategies to promote organic food consumption through online platforms (Huang & Sun, 2025; Hasan et al., 2024).

5.10.2 Attitude -> Online Food Purchase H2

The relationship between attitude and actual online food purchasing is notably weaker than its relationship with BI. Although a positive association exists, the

effect of attitude on actual online food purchases remains minimal, suggesting that while favorable attitudes may slightly encourage online OFP, they do not strongly drive this behavior. This implies that attitude may exert a limited direct influence on consumers' actual purchasing behavior, which could be more significantly shaped by factors such as convenience, perceived risk, and situational constraints (Huang & Sun, 2025; Liu et al., 2024).

This outcome can be contextualized within the framework of the TPB, which posits that attitudes, alongside SN and PBC, influence BI, but actual behavior is contingent upon both intention and situational facilitators (Ajzen, 1991; Ajzen, 2020). While a favorable attitude may increase intention, the transition from intention to actual behavior often depends on contextual and environmental factors (Wang et al., 2023; Hasan et al., 2024).

This finding is consistent with prior research highlighting a discrepancy between attitude and actual purchasing behavior in online shopping contexts. For instance, Lim et al. (2022) observed that even as positive attitudes toward organic products increased, actual purchases were more strongly determined by product accessibility, convenience, and delivery reliability. Similarly, Hansen et al. (2021) argued that while attitude significantly predicts intention, actual behavior is often moderated by external influences such as time constraints, website usability, perceived trust, or promotional triggers. Recent studies further corroborate this gap: Kumar et al. (2023) found that although consumers in emerging markets exhibit favorable attitudes toward online organic food, transactional trust and

platform reliability are stronger predictors of actual purchase behavior. Likewise, Nguyen and Tran (2024) reported that perceived risk and logistic barriers weaken the link between attitude and actual purchase decisions for organic food online.

In the context of this study, these findings underscore the evolving nature of online shopping behavior among Malaysian digital natives. While they express positive attitudes toward organic food and a strong willingness to engage in online purchasing, their actual behavior is influenced by external and operational barriers such as perceived complexity of online transactions, delivery uncertainties, or concerns about product authenticity and freshness (Pahari et al., 2023; Hasan et al., 2024). Therefore, bridging the attitude–behavior gap requires addressing practical, trust-related, and service-quality factors that inhibit actual purchases. Marketers and policymakers should thus focus not only on fostering positive attitudes but also on reducing transactional barriers and enhancing platform reliability to convert intention into action (Huang & Sun, 2025; Liu et al., 2024).

5.10.3 Subjective Norms -> Behavioural Intention H3

The relationship between SN and BI demonstrates that the opinions and expectations of important others such as family, friends, and peers positively influence an individual's intention to purchase organic food online. This finding aligns with the core assumptions of the TPB, which posits that SN, representing the perceived social pressures to engage or not engage in a behavior, play a crucial role in shaping BI (Ajzen, 1991). Essentially, when individuals perceive that

significant people in their lives expect them to purchase organic food online, their intention to do so strengthens.

This finding is consistent with past research highlighting the role of SN in shaping online shopping behavior. For instance, a study by Li et al. (2021) found that SN were a significant predictor of online shopping intentions, particularly in collectivist cultures like Malaysia, where social influence tends to carry more weight. In another study, Arvola et al. (2020) observed that consumers' decisions to purchase organic food were often influenced by social expectations, especially within eco-conscious communities where purchasing organic products is viewed as a socially responsible behavior.

The findings of this study also emphasize the contextual relevance of SN for digital natives in Malaysia. Given the interconnectedness and social dynamics of this demographic, the influence of peers and social circles on online purchasing behaviors is likely to be significant. Digital natives are highly active on social media platforms, where sharing and discussing consumer experiences is common. This environment creates a strong platform for SN to shape not just intentions but also perceptions of organic food consumption as a socially desirable behavior.

These insights suggest that in order to effectively promote online OFP among this group, marketers and businesses may need to leverage social influence and community endorsements. By aligning marketing strategies with social trends and creating a sense of community around organic food consumption, businesses can

tap into the powerful influence of SN to encourage stronger BI among potential customers.

5.10.4 Subjective Norms -> Online Food Purchase H4

The relationship between SN and actual online food purchasing behavior reveals an interesting dynamic, suggesting that while social influences do have an impact, their direct effect on purchasing behavior may be more complex. Typically, SN refer to the perceived social pressure from others to engage in certain behaviors (Ajzen, 2020). In the context of online food purchasing, this means that the opinions and expectations of significant others, such as family, friends, or social groups, may shape how individuals approach online purchases. However, the findings indicate that while subjective norms may influence intentions, they do not necessarily translate into actual behavior.

This result may seem counterintuitive, as SN are typically associated with social acceptance and conformity. However, it is important to recognize that in the context of purchasing behavior, intentions and actions do not always align perfectly. While individuals may be motivated to conform to social expectations in expressing an intention to buy organic food online, actual purchases could be influenced by other factors like convenience, personal attitudes, or PBC (Ajzen, 2020). In other words, even if social pressures are strong, they may not be sufficient to compel individuals to take action without the support of other facilitating factors.

Comparing these findings to previous studies, several researchers have observed similar discrepancies between SN and actual behavior. For example, Hansen et al. (2018) found that while social influence played a role in forming purchase intentions for organic products, the translation into actual purchases was weaker. This gap between intention and behavior may be attributed to situational factors or personal constraints, such as perceived ease of purchase or financial limitations, which inhibit the direct effect of SN on behavior. Similarly, another study by Zhou et al. (2021) highlighted that SN are more likely to affect behavior when reinforced by PBC, further emphasizing the complex interplay of factors.

In the context of this study, which focuses on digital natives in Malaysia, the nuanced role of SN can be explained by their active participation in social networks, where trends and social cues shape consumer behavior. However, the act of purchasing organic food online involves more than just conforming to social expectations. Digital natives may face barriers such as uncertainty over product authenticity, delivery logistics, or price sensitivity, which weaken the direct effect of social influence. Thus, while subjective norms may play a role in forming intentions, they need to be reinforced by other enablers, such as positive attitudes or perceived ease of purchase, to impact actual behavior.

These insights highlight the importance of a multi-faceted approach to understanding consumer behavior in online food purchasing. For businesses, this suggests that marketing strategies should not only focus on leveraging social influence but also address other factors such as PA, ease of purchase, and trust in

the online system. By addressing these factors, businesses can close the gap between intention and actual purchase behavior, making it easier for socially influenced individuals to complete their purchase journey.

5.10.5 Perceived Behavioral Control -> Behavioral Intention H5

The relationship between PBC and BI highlights the significance of individuals' perceived ability to navigate the online food purchasing process. According to the TPB, PBC is one of the key determinants of BI (Ajzen, 2020). In this study, the results suggest that when consumers feel that they have greater control over the online purchasing process such as ease of navigating websites, making payments, and managing delivery options they are more likely to develop strong intentions to buy organic food online. This sense of control increases confidence in the purchasing process, encouraging positive BI.

These findings are consistent with the existing literature, which demonstrates the critical role of perceived control in online shopping environments. For instance, past research by Lim et al. (2016) found that perceived control significantly influences BI in online contexts, particularly when consumers believe that they can overcome any potential barriers to completing their purchase. Similarly, Chu and Chen (2020) indicated that in e-commerce settings, perceived ease of use a concept closely related to PBC strengthens consumers' intentions to engage in online transactions. When applied to organic food, which may involve considerations like delivery logistics and product freshness, the importance of perceived control becomes even more pronounced. If consumers

feel uncertain about these aspects, their intention to purchase may weaken, but if they perceive high levels of control, their behavioral intentions are strengthened.

In the context of this study, which focuses on digital natives in Malaysia, the role of PBC is particularly relevant. Digital natives, as a tech-savvy generation, often have higher expectations of ease, speed, and convenience when it comes to online transactions. When they perceive a high level of control over the online purchase process for organic food especially given the complexities associated with food authenticity, availability, and logistics they are more likely to intend to make these purchases. This underscores the importance of creating seamless, user-friendly online experiences to boost purchase intentions among this demographic. Businesses targeting digital natives in Malaysia must therefore prioritize simplifying the purchase process and removing any perceived barriers to online shopping in order to enhance consumers' sense of control.

Overall, the positive relationship between PBC and BI underscores the value of ease and manageability in the online shopping experience. As consumers become more confident in their ability to handle online transactions effectively, their intention to engage in purchasing organic food online is strengthened, contributing to the broader understanding of consumer behavior in the e-commerce domain.

5.10.6 Perceived Behavioral Control -> Online Food Purchase H6

The relationship between PBC and OFP suggests that individuals' perceived control over the process of purchasing food online significantly impacts their actual purchasing behavior. In the context of this study, when consumers feel that they have a high degree of control over the online purchasing environment such as ease of navigation, payment options, and delivery flexibility they are more likely to complete online transactions. This outcome aligns with the TPB, which posits that PBC directly affects both BI and actual behavior (Ajzen, 1991; Ajzen, 2020). The sense of control gives consumers the confidence to follow through on their intentions and engage in the behavior.

This finding supports previous research that highlights the role of PBC in determining actual online behavior. For example, studies by Hansen et al. (2018) emphasize that consumers who feel empowered to manage the purchasing process are more inclined to act on their intentions. In their research, perceived ease of use, which is closely related to PBC, was found to be a critical predictor of online shopping behavior. Similarly, Lim and Heinrichs (2016) noted that in the online food sector, perceptions of control, particularly regarding delivery and quality assurance, strongly influence customers' decisions to purchase.

In the context of Malaysian digital natives, this relationship is particularly pertinent. These consumers, who are accustomed to seamless digital interactions, expect a smooth and efficient process when making online purchases. If they perceive obstacles such as difficulty in navigating websites, unclear pricing, or

unreliable delivery services their likelihood of purchasing declines. Conversely, if they feel empowered by the control they have over these factors, they are more likely to complete the purchase. This reflects the growing importance of user experience in online platforms, particularly in the organic food sector, where concerns about freshness, authenticity, and timely delivery are paramount.

Compared to earlier studies that explored consumer behavior in online food purchasing, this research highlights the increasing importance of perceived control in shaping not just intention but actual behavior. Past studies, such as those by Chu and Chen (2020), similarly found that when consumers feel confident in their ability to navigate online transactions, they are more likely to convert their intentions into actual purchases. However, this study adds a layer of insight by focusing on OFP, where the stakes of product quality and reliability are even higher.

In summary, the relationship between PBC and OFP demonstrates that consumers' sense of control is a crucial driver of online purchasing behavior. Particularly in the organic food sector, ensuring that consumers feel confident in their ability to manage the purchasing process from selecting products to receiving them can significantly enhance actual purchasing behavior. For businesses targeting digital natives in Malaysia, ensuring an intuitive, user-friendly platform that enhances perceived control is essential for converting intention into actual purchases.

Research Objective 2

The second objective was to examine whether customer product price of organic food products online can positively influence and predict the BI towards online OFP. Considering the Malaysian digital natives who are studying in the foreign campuses in Malaysia. Product price plays an important role when a customer goes for any purchase, specifically if it's an online purchase. It is accepted that product price does effect the online purchase intentions when the customer opts for an online purchase when going for an organic food product. Discussion of each research hypotheses is presented in following titles:

5.10.7 Product Cost -> Online Food Purchase H7

The relationship between perceived product cost (PC) and online food purchase (OFP) reveals a counterintuitive dynamic. As perceived PC increase, individuals exhibit a greater likelihood of engaging in online food purchases. This finding challenges conventional economic theories, which typically posit that higher prices discourage purchasing behavior. In this context, individuals may interpret higher costs as indicators of superior quality or luxury, potentially enhancing the appeal of the products rather than deterring purchases.

The positive effect size indicates a meaningful association between higher perceived PC and increased online food purchase behavior, suggesting that the perception of value linked to price can play a crucial role in consumer decision-making. This insight aligns with emerging literature that highlights the evolving nature of consumer behavior in the digital marketplace, where factors such as

brand perception and product quality may outweigh traditional price sensitivity (Chinomona & Dubihlela, 2014; Kuehnl et al., 2019).

Moreover, the statistical significance of this relationship underscores the reliability of the findings. Past studies have similarly indicated that perceived value, rather than price alone, can drive purchasing intentions (Bendapudi & Leone, 2003). This suggests that consumers are increasingly willing to invest in products they perceive as offering greater benefits, even if those products come with a higher price tag.

In the context of the present study, these findings indicate a need for retailers to strategically communicate the value proposition of their products. By emphasizing quality, exclusivity, and benefits, businesses may leverage higher PC to attract discerning consumers who are willing to invest in perceived quality. This approach can be particularly effective in markets where consumers prioritize health and sustainability, as seen in the organic food sector.

In summary, the findings suggest that perceived PC can have a paradoxical effect on online food purchases. As consumers perceive products to be more expensive, they may be more inclined to purchase them, driven by perceptions of quality and value rather than traditional price sensitivity. Future research should continue to explore these dynamics to better understand the factors influencing online purchasing behavior in a rapidly evolving digital landscape.

5.10.8 Product Cost -> Behavioral Intention H10

The relationship between PC and BI indicates that as individuals perceive the costs associated with online food purchases, their intentions to engage in these behaviors increase. This suggests that PC is not merely a barrier but a catalyst in shaping consumer behaviors in the online food market. When consumers feel that affordable food options are available to them online, they are more likely to express intentions to make those purchases. This understanding of consumer psychology emphasizes the importance of perceived cost as a key driver in the decision-making process regarding online food shopping.

The results demonstrate a moderate to strong positive relationship, indicating that consumers' perceptions of PC significantly influence their intentions to engage in online food purchases. This aligns with existing literature on consumer behavior, which underscores the importance of pricing in shaping purchase intentions. Recent studies support this finding, showing that consumers are increasingly price-sensitive in their online shopping decisions. For instance, a study by Sinha and Reddy (2023) highlights that perceived affordability directly impacts consumers' likelihood to purchase organic food online, reinforcing the notion that competitive pricing can drive consumer engagement in the online food sector.

Moreover, the significance of this relationship reinforces the necessity for retailers to understand the dynamics of pricing strategies. As the study indicates a reliable and meaningful connection between perceived PC and BI, it becomes

imperative for online food retailers to continually evaluate their pricing structures to remain appealing to consumers. Research by Ryu et al. (2023) emphasizes that retailers can enhance purchase intentions by effectively communicating value and cost-effectiveness, further supporting the idea that perceived PC play a crucial role in online food purchasing decisions.

In the context of this study, the implications of these findings are substantial. They suggest that marketers and retailers in the online food sector should prioritize the communication of price advantages and value propositions. By emphasizing affordability and cost-effectiveness, retailers can enhance consumer interest and intention to purchase online food products. This insight is particularly relevant given the growing competitive landscape of e-commerce, where consumers are increasingly discerning and price-sensitive.

In summary, the results emphasize the crucial role of perceived PC in shaping individuals' intentions to engage in online food purchases. As consumers increasingly seek cost-effective solutions in their shopping experiences, understanding this relationship becomes essential for retailers aiming to optimize their strategies in the digital marketplace.

Research Objective 3

The third objective was to explore whether HC can positively influence a customer's purchase of organic food products online and predict the BI towards online OFP considering the Malaysian digital natives who are studying in the foreign campuses in Malaysia. HC plays an important role when a customer goes

for any purchase, specifically if it's an online purchase. It is accepted that HC overall does effect the online purchase intentions when the customer opts for an online purchase when going for an organic food product. Discussion of each research hypotheses is presented in following titles:

5.10.9 Health Consciousness -> Online Food Purchase H8

The relationship between HC and online food purchase behavior in this study suggests that individuals with higher levels of HC are only slightly more likely to engage in online food purchasing. HC typically reflects an individual's awareness and concern for their health and well-being, often including considerations about the nutritional value of the food they consume. In the context of online food purchases, health-conscious consumers may be motivated by the convenience of accessing healthier choices online (Huang & Sun, 2025).

However, the study's results indicate that this relationship is relatively weak. While health-conscious individuals may show a slight preference for online food purchases, other factors such as convenience, price, product availability, and delivery reliability likely exert a more significant influence on their purchasing decisions. This weak association is consistent with the findings of Wang et al. (2023), who observed that although HC influences food attitudes, it does not necessarily lead to consistent online purchasing behaviors. Similarly, Hasan et al. (2024) found that health consciousness alone did not strongly predict loyalty or continued use of mobile organic food delivery applications, as consumers' behavior was more influenced by social support and sustainability perceptions.

The lack of statistical significance in this study further supports the notion that HC does not consistently or reliably influence online food purchase behavior in the examined sample.

Comparing these findings with prior studies, the weak association between HC and online food purchasing appears to be a recurring trend rather than an anomaly. Tan and Mohd-Any (2023) also reported a minimal impact of HC on online purchasing decisions among Malaysian consumers, suggesting that other pragmatic factors such as price and accessibility often overshadow health motives. Likewise, Lin, Featherman, and Sarker (2022) noted in a cross-cultural study that although HC can influence online food shopping, its effect is often diminished by contextual elements like convenience and economic considerations. More recent evidence by Sripathi, Dehury, and Neeragatti (2023) confirms this, revealing that while consumers acknowledge the importance of healthy eating, their online purchasing intentions are more strongly guided by labeling, price, and peer influence rather than intrinsic health awareness.

In the context of this study, the non-significant relationship between HC and online food purchase behavior (H8) was not entirely unexpected. Recent literature continues to show that while HC may shape attitudes, it rarely serves as a primary behavioral driver in digital food environments (Pahari et al., 2023). Consumers may perceive online platforms as convenient but may not necessarily associate them with healthier options, thus diluting the influence of health-related motivations. Overall, the findings suggest that HC, though relevant, remains a

secondary determinant in predicting online food purchase behavior, overshadowed by practical and situational considerations such as convenience, affordability, and availability.

5.10.10 Health Consciousness -> Behavioural Intention H11

The study's findings on the relationship between HC and BI suggest that individuals who exhibit higher levels of HC are more likely to express a positive intention to engage in online purchases of organic products. HC refers to an individual's awareness of and concern for their health, influencing their behavior toward making healthier choices. In the context of online food shopping, this HC translates into a preference for products that promote well-being, such as organic foods, which are often perceived as healthier options.

The results indicate a moderate to strong positive relationship between HC and BI, implying that as individuals become more conscious of their health, their likelihood of engaging in online shopping for organic food products increases. This aligns with the TPB, which posits that individuals' attitudes and awareness, such as HC, can influence their intentions and behaviors. The findings of this study support the idea that health-conscious individuals are motivated by health-related concerns to seek out organic products through online shopping platforms.

These findings are consistent with previous research in consumer behavior and e-commerce. Biswas et al. (2009) emphasized that health-conscious consumers are more likely to choose products and shopping methods that align with their

health goals, often turning to organic and eco-friendly products. Similarly, Aschemann-Witzel et al. (2015) highlighted that health-conscious individuals not only focus on the nutritional benefits of their purchases but are also more likely to explore convenient and health-supporting avenues for shopping, such as online platforms.

In the context of this study, the results reflect broader trends in Malaysian consumer behavior. The rising health awareness among digital natives, driven by increasing concerns about lifestyle diseases and well-being, is a key driver of online shopping for organic food. This is particularly relevant in Malaysia, where health-related information is becoming more accessible, and consumers are increasingly prioritizing health-conscious decisions in their daily lives. The preference for organic products online allows these consumers to bypass traditional shopping channels and explore a wider range of options that meet their specific dietary needs.

These findings add to the growing body of research on how HC affects online purchasing behaviors. While previous studies have confirmed that health-conscious individuals tend to prefer healthier options, this study reinforces that this preference extends to online shopping for organic products, reflecting how HC can influence digital consumer behaviors in the context of organic food purchasing.

Research Objective 4

The fourth objective was to determine if PA can positively influence a customer's purchase of organic food products online and predict the BI towards online OFP considering the Malaysian digital natives who are studying in the foreign campuses in Malaysia. PA plays an important role when a customer goes for any purchase, specifically if it's an online purchase, because if the product is not available at the time of purchase the customer might switch to other options. It is accepted that availability of the product overall does effect the online purchase intentions when the customer opts for an online purchase when going for an organic food product. Discussion of each research hypotheses is presented in following titles:

5.10.11 Product Availability -> Online Food Purchase H9

The relationship between PA and online food purchasing behavior underscores that when individuals perceive a broad selection of products as available online, they are more likely to engage in purchasing. PA plays a critical role in consumer decision-making for e-commerce, particularly in the context of food shopping, where access to various products enhances convenience and increases consumer satisfaction.

Recent studies confirm the significance of PA in online food shopping behavior. For example, Wang et al. (2022) demonstrated that perceived availability of products directly influences consumers' purchase intentions in online grocery shopping. Similarly, a study by Cleeren et al. (2021) highlighted

that online grocery retailers offering a wider range of product selections significantly improve consumer engagement and purchasing frequency. This suggests that PA contributes not just to immediate purchasing decisions but also to long-term consumer loyalty and preference for online platforms.

Further supporting this view, research by Kim and Park (2020) explored how perceived PA alleviates uncertainties in online shopping. Their findings emphasize that consumers are more likely to choose online shopping platforms that offer a variety of products, as it increases their sense of security and convenience. This aligns with the findings of the current study, where a positive association was found between PA and online food purchases.

The results of this study reflect the ongoing importance of PA in shaping online consumer behavior. When customers believe that a wide variety of products are accessible and available, they are more likely to make repeat purchases online. Therefore, ensuring consistent PA is critical for online retailers to enhance customer satisfaction and foster greater engagement in online shopping platforms. This consistent finding across various studies suggests that PA remains a key driver of online purchasing decisions (Cleeren et al., 2021; Kim & Park, 2020; Wang et al., 2022).

These results align with previous literature and confirm the central role of availability in the context of online shopping, particularly for food products. As such, enhancing PA should be a focus for e-commerce platforms looking to boost consumer engagement and sales.

5.10.12 Product Availability -> Behavioral Intention H12

The data suggests a weak relationship between PA and BI to purchase organic food products online. While PA generally refers to the ease with which consumers can find and purchase items online, the findings of this study show that it may not be a strong determining factor in driving consumer intentions to purchase organic food. Despite a positive relationship, the association is minimal, indicating that perceived availability of organic food products may not play a substantial role in motivating online purchases.

This contradicts traditional expectations in e-commerce research, where PA is typically considered a crucial factor influencing consumer behavior. Several studies have highlighted the importance of availability in online shopping contexts, suggesting that when consumers believe that products are easily accessible, they are more likely to engage in purchasing behavior (Cleeren et al., 2021; Wang et al., 2022). However, in the specific case of organic food, this relationship appears to be less pronounced.

One possible explanation for this discrepancy is that consumers of organic food products may prioritize other factors, such as price, quality, or health benefits, over mere availability. Research by Lin and Huang (2022) suggests that for niche products like organic foods, factors such as trust in product authenticity, certification, and quality assurance are more significant drivers of consumer behavior than availability. Additionally, Cleeren et al. (2021) argued that product variety might play a more critical role than mere availability in influencing

consumer purchases, especially when it comes to health-related products like organic foods.

In the context of this study, the weak association between PA and BI could indicate that individuals are not necessarily motivated to purchase organic food products simply because they are available online. This may reflect a shift in consumer priorities, where availability takes a backseat to other product attributes, such as quality or price. Further research is needed to explore whether this trend is specific to organic food or extends to other categories of health-related products.

Research Objective 5

The fifth objective was to examine whether customer's BI can have a positive effect on their online OFP behavior considering the Malaysian digital natives who are studying in the foreign campuses in Malaysia. The BI towards the purchase of organic food products can be a deciding factor considering the Malaysian digital natives. Discussion of each research hypotheses is presented in following titles:

5.10.13 Behavioral Intention -> Online Food Purchase H13

The findings indicate a positive relationship between BI and actual online food purchase behavior, demonstrating that as individuals' intentions to buy organic food products online increase, so do their actual purchases. This moderate strength of association highlights the significant role behavioral intention plays in driving online food shopping, particularly for organic products. Essentially, when

individuals strongly intend to engage in online food purchasing, they are more likely to follow through on those intentions.

This result aligns with the TPB, which posits that behavioral intention is a key predictor of actual behavior (Ajzen, 1991). Numerous studies in the context of e-commerce have confirmed that consumers' intentions directly influence their purchasing behaviors. For example, recent research by Lee et al. (2023) has found that strong intentions toward online shopping are significantly correlated with actual purchase behavior, particularly in the organic food sector. Similarly, Pappas et al. (2022) emphasize that behavioral intention in online food shopping is shaped by factors such as trust, product quality, and convenience, which in turn affect actual purchasing behavior.

This finding is particularly relevant to the context of this study, as it suggests that fostering strong BI among consumers especially through health-conscious messaging and convenience can effectively lead to higher conversion rates in online OFP. Consumers who value organic products for health or ethical reasons may form strong intentions to buy online, and these intentions translate into purchasing actions, as confirmed by studies like those of Nguyen et al. (2022) and Yadav and Pathak (2017), who explore the role of health awareness and sustainability concerns in OFP.

While the relationship between BI and actual behavior is statistically significant, it is crucial to consider the role of external factors such as PA, ease of use, and trust in online platforms. Even when strong intentions exist, these factors

can either facilitate or inhibit the actual purchase. For instance, research by Kim et al. (2023) points out that while intention is a critical factor, actual purchase behavior can be moderated by perceived ease of transaction and product variety. This underscores the importance of creating a seamless online shopping experience that supports consumers' intentions and encourages follow-through.

In summary, the data highlights that fostering strong BI is crucial in promoting online food purchases, particularly for organic products. By addressing consumers' motivations and ensuring a convenient and trustworthy online environment, businesses can effectively translate consumer intentions into actual purchases, thereby increasing online sales in the organic food sector.

Research Objective 6

The sixth objective was to Investigate whether technophobia can moderate the relationship between BI and the customer's online OFP considering the Malaysian digital natives who are studying in the foreign campuses in Malaysia. After COVID-19 there has been tremendous business who went online for the ease of customers, but with ease difficulty comes as well, technophobia is the fear of using technology, which can act as a catalyst between customers' BI for the purchase of organic food products online. Discussion of each research hypotheses is presented in following titles:

5.10.14 Technophobia X Behavioral Intentions -> Online Food Purchase H14

The results indicate a positive relationship between the interaction of technophobia and BI on online food purchase behavior. This suggests that when individuals who experience higher levels of technophobia also possess strong intentions to purchase food online, technophobia plays a moderating role by influencing the extent to which BI translate into actual purchases. Specifically, despite the negative association typically linked with technophobia where individuals fear or avoid technology strong BI can still positively impact actual purchasing behavior. In this case, technophobia moderates the relationship by either enhancing or reducing the strength of the behavioral intention's effect on online food purchases.

The findings show that technophobia has a moderate impact in this moderating role. Technophobia acts as a catalyst, influencing whether strong BI will ultimately lead to online food purchases. In contexts where technophobia is present, individuals with higher BI to shop online are still able to follow through with their purchases, as the strength of their intentions mitigates the negative effects of technophobia.

The significance of this interaction is reinforced by the analysis, confirming that the relationship is statistically reliable. This suggests that while technophobia generally serves as a barrier to online shopping, its effects are less pronounced when individuals already have strong intentions to purchase food online.

These results align with prior research on consumer behavior and technophobia in e-commerce. For instance, Yang and Forney (2020) found that while technophobia can deter consumers from adopting online shopping, strong purchase intentions, driven by convenience or necessity, can reduce the negative influence of technophobia. Similarly, Mariani et al. (2022) identified that although technophobia negatively affects technology adoption, consumers with high BI toward online shopping can overcome their apprehensions, leading to actual purchases. These dynamic highlights the complex relationship between personal technology fears and the strength of consumer intentions.

In the context of this study, these findings are particularly relevant. As technophobia becomes increasingly significant in the growing digital economy, understanding its moderating role can help businesses tailor their marketing and customer engagement strategies to individuals who may hesitate due to technological anxieties. This also suggests that fostering strong BI through user-friendly interfaces, transparent communication, and consumer trust-building measures can mitigate the potential negative effects of technophobia. Studies like those by Lee et al. (2023) and Martins et al. (2023) support this idea, indicating that overcoming technophobia through customer education and user-experience optimization can further enhance online purchasing behavior, especially in the organic food market.

In summary, the findings reveal that while technophobia can hinder online food purchases, strong BI moderate this effect, allowing consumers to proceed with

their purchases despite initial technological hesitations. This underscores the importance of strategies aimed at reducing technophobia while fostering robust BI to enhance online food shopping behavior.

CHAPTER 6

CONCLUSION

The chapter highlights the discussion on the findings with its contributions in terms of both the theoretical and practical point of view. Lastly, limitations of this research study with the recommendations for future research will also be discussed in this chapter.

6.1 Hypothesis Validation

Based on the bootstrapping and finding the path coefficient summary shown in the table, the proposed structural models' path can be used to response the following research questions and hypothesis.

6.1.1 Customers attitude notably effect behavioural intention

A customer's attitude is a cognitive process that effects the BI, where the customer uses their rationality which is termed as the ability to upset the balance of the customer's mindset (Hoyer, MacInnis, & Pieters, 2018 ; Ravis et al., 2009). This evaluation influences their intention to engage in specific behaviors, such as making a purchase (Fishbein & Ajzen, 1975; Hoyer, MacInnis, & Pieters, 2018).

Within the TPB framework, attitudes towards the intentions of the customer towards purchase of products proves to be a strong and an influential factor in the customers which shows a positive exhibit and preferences towards the purchase of organic food products. As per the previous researches they have reported a

particularly positive impact of attitude and BI (Chen and Tung, 2014, Kim et al., 2013; Schiffman & Wisenblit, 2019). It can be deduced that the customers who have a positive attitude are more likely to opt and purchase and hence their intention tends towards the purchase. Hypothesis one suggested that the customers attitude has a notable effect on the behavioural intentions to purchase online organic food. It showed a significant influence with a P value < 0.05, hence hypothesis one is supported. A positive attitude has been shown to significantly influence consumers' behavioral intentions to purchase a product, as favorable perceptions often lead to stronger intentions and higher likelihoods of actual purchase (Almousa et al., 2023; Li et al., 2022; Singh & Verma, 2023)

Table 6.1

Hypothesis 1

	Standard deviation	T statistics	P values	Decision
A -> BI	0.049	6.362	0.000	Supported

6.1.2 There is a positive relationship between Attitude and online organic food purchase

Attitudes play a crucial role in influencing customers' intentions, as a positive attitude is often associated with a greater intention to engage in a specific behavior (Ajzen, 2020; Tarkiainen & Sundqvist, 2005). Research indicates that a stronger attitude toward a particular behavior leads to a higher intention to carry out that

behavior (Ajzen, 1991; Ajzen, 2020). Studies have suggested that attitudes indeed impact customers' purchase intentions for organic food products (Roy, Gosht & Vashisht 2023; Smith & Paladino, 2010; Tarkianen & Sundqvist, 2005).

However, contrasting findings exist in the literature, with some studies showing that positive attitudes do not significantly drive purchase intentions (Magnussen, Arvola, & Husti, 2001). While some behavioral studies support a positive correlation between attitudes and the intention to purchase organic food (Chen, 2007; Magnusson et al., 2001; Roy, Gosht & Vashisht 2023; Tarkianen & Sundqvist, 2005; Werner & Alvensleben, 2011), it's important to note that empirical results regarding this relationship remain inconclusive.

For instance, Padel and Foster (2005) found that attitudes have a limited effect on intentions. On the contrary, Radulescu et al. (2021) emphasized the significance of attitudes in purchase intentions for organic food products. However, Tung et al. (2012) discovered inconsistencies in customers' attitudes when it comes to buying organic food products. This suggests that even if customers possess a positive attitude toward purchasing organic food, they may still have uncertainties.

In the context of this study, hypothesis two proposed a positive relationship between attitude and OFP. However, the findings did not show a significant influence on online OFP, as evidenced by a $p\text{-value} > 0.05$. Therefore, hypothesis 2 is not supported. These mixed results emphasize the complexity of the

relationship between attitudes and purchase intentions, warranting further investigation and consideration of various factors influencing consumer behavior.

Table 6.2

Hypothesis 2

	Standard deviation	T statistics	P values	Decision
A -> OFP	0.058	0.040	0.968	Not Supported

6.1.3 Customers Subjective Norms notably effect behavioural intention

Studies take SN as a variable from the TPB framework, which enables the researcher to capture the customer's perception of the social pressure when a customer is performing a particular behavior intention (Aertsens et al., 2009; Mufarih, Jayadi & Sugandi, 2020). Accordingly, the assumption is that SN measures the normative beliefs and the motivational factors to conform the expectations of family friends and close relatives for the customers' behavior (Ajzen, 2020). Khan, Hameed & Akram (2023) found out that the BI towards the purchase of an organic product positively increases when customers conform with the desires of the other people. Similarly, Dangi, Narula & Gupta (2020) also found a positive effect towards the BI influences by the societal norms in OFP. Moreover, Chen and Tung (2014) also confirmed SN as a positive and significant predictor of the intentions. Similarly, the hypothesis three suggested that customers' SN notable effects the BI to purchase OFP online. The finding showed that there exists a significant influence with a P value<0.05 hence the hypothesis is supported.

Table 6.3

Hypothesis 3

	Standard deviation	T statistics	P values	Decision
SN ->				Supported
BI	0.044	2.522	0.012	

6.1.4. There is a positive relationship between SN and online organic food purchase

Many studies have incorporated the SN variable from the TPB framework to gauge customers' perception of the social pressures that influence their decision to purchase a particular product. SN essentially reflects the internalized view of how significant an individual is in a customer's life, which, in turn, influences their desire to act in a certain way (Omrane & Bag, 2022; Smith & Paladino, 2010). It encompasses the approval and expectations of various reference groups, such as friends, family members, and other influential individuals, that can reinforce a person's intention to buy organic food products.

However, it's worth noting that there has been some inconsistency in previous literature regarding the role of SN as an antecedent of customers' purchase intentions for organic food products. While SN has been found to be a positive predictor of purchase intentions in health-related domains (Bagozzi, 1992; Holst

& Iversen, 2011; Mamun et al., 2021), its influence on the purchase intentions of organic food products has yielded mixed results.

In this study, hypothesis four proposed a positive relationship between customers' SN and online OFP. The findings indicated a significant influence with a p-value < 0.05, thereby supporting hypothesis four. This suggests that, in the context of online OFP, customers' perceptions of social pressures and approval from reference groups do play a significant role in shaping their intentions.

Table 6.4

Hypothesis 4

	Standard deviation	T statistics	P values	Decision
SN -> OFP	0.058	2.776	0.006	Supported

6.1.5. Customers Perceived Behavioural Control notably effect behavioural intentions

PBC for a customer is defined as the confidence that the customer is capable of performing a particular behavior (Ajzen, 1991). Ajzen (2021) incorporated PBC as a factor that evidently reduces the deviation towards the OFP. It was found out that the variables perceived abilities and the perceived barriers are the most appropriate to measure the concept of purchasing. PBC has two aspects which are

how much a customer has control over the behaviors and secondly how confident a customer feels about being able to perform a particular behavior. It is to be deduced that the more control a customer's feels about an intention towards an online purchase the more likely the customers will be to do so. Nonetheless Kwon and Park (2008) found different results; on the contrary, the results from the Hypothesis 5 suggested that customers PBC notable effects the BI to purchase organic food products online. The finding showed that there exists a significant influence with a P value<0.05 hence the hypothesis is supported.

Table 6.5

Hypothesis 5

	Standard deviation	T statistics	P values	Decision
PBC - > BI	0.065	2.354	0.019	Supported

6.1.6. There is a positive relationship between PBC and online organic food purchase

Ajzen (2001) introduced the concept of PBC as a factor that significantly impacts the deviation from OFP. When it comes to the purchase and consumption of organic foods, various factors have been identified as influencing the decision-making process. These factors include the high price premium associated with organic foods (Hughner et al., 2007; Pawlewicz, 2020), the perceived lack of availability (Rodriguez et al., 2008, Rodriguez-Bermudez et al., 2020),

uncertainty (Thøgersen, 2007), and the lack of information about organic food products (Platania, Santisi & Zammitti 2020; Padel & Foster, 2005). However, the importance of these factors varies depending on whether a customer is making an online purchase of organic foods.

PBC refers to a customer's assessment of the accessibility of information, resources, and opportunities necessary for online shopping (Lin, 2007). According to Giantari et al. (2013), PBC plays a crucial role in predicting online purchase intentions and actual purchase behavior. When a customer has a positive PBC, they are more likely to engage in online shopping. If the online shopping experience is satisfactory, the customer's assessment of PBC is influenced by their previous experiences and the trust they have developed, ultimately leading to a positive outlook on online purchasing (Giantari et al., 2013; Sadiq et al., 2022). Several researchers have found a positive relationship between PBC and intentions to purchase organic foods (Dean et al., 2008; Haq et al., 2023; Kumar et al., 2023 ; Lopez-mosquera, 2014; Vermeir & Verbeke, 2008). Hypothesis 6 in this study posited a positive relationship between customers' PBC and online OFP. The findings supported this hypothesis, indicating a significant influence with a p-value of <0.05 . Therefore, it can be concluded that customers' perceptions of their ability to control and navigate the online purchasing process have a substantial impact on their intentions to buy organic food products online.

Table 6.6

Hypothesis 6

	Standard deviation	T statistics	P values	Decision
PBC - > OFP	0.057	3.683	0.000	Supported

6.1.7. Product prices can positively influence a customer purchase of online organic food products

The well-known economic principle of supply and demand suggests that changes in price influence consumer purchasing behavior for example, when a product's price decreases, consumers are likely to buy more, leading to higher demand (Casassus et al., 2009; Kuncoro & Kusumwati, 2021; Nezakati, et al., 2011). Accordingly, Katt & Miexner (2020) found out that there exist customers who are inclined towards the purchase of products that are organic grown and that the customers are more willing to pay more for organic food products. It is worth mentioning that the customer's behavior towards the purchase of a products are related to the customers' willingness to pay more if the product is organic (Zhen et al., 2012). Customers tend to be highly sensitive to price and the customers' intention will undoubtedly be affected by the price and the price fluctuation. The selection of high-priced product are found to be elastic (Katt & Miexner, 2020; Lin & Huang, 2012). It is to be noted that the major portion of customers taking organic products have a positive perception towards the price as the customer wants to pay a premium price for the organic products (Eriksson, 2004; Laroche et al., 2001; Lung, 2010; Zhang, Xiao & Zhou, 2020), hence Hypothesis 7 suggested that product price can positively influence a customer purchase for

online organic food products. The finding showed that there exists a significant influence with a P value<0.05 hence the hypothesis is supported.

Table 6.7

Hypothesis 7

	Standard deviation	T statistics	P values	Decision
PC -> OFP	0.061	2.524	0.012	Supported

6.1.8 Health Consciousness can positively influence a customer purchase intention of online organic food products

HC refers to the awareness and understanding that individuals have regarding health-related issues, particularly the changes that occur with age. Many customers strongly believe that organic food is richer in nutrients (Akhter et al., 2023; Hill & Lynchechaun, 2002). Organic foods are known to contain higher levels of vitamins, iron, magnesium, and fewer nitrates. Additionally, the use of pesticides is significantly lower in organic foods compared to non-organic counterparts. Past research has consistently shown that individuals who choose organic foods tend to be more health-conscious and take greater responsibility for their health and food safety. This HC is a major reason why customers opt for organic food products online (Huber et al., 2011; Nagaraj, 2021; Siriein et al., 2011).

Health is considered a primary factor when customers make online purchases of organic food products (Chakrabari, 2010; Xie et al., 2015). Customers who choose organic foods are more conscious of the impact of the products they consume, and they opt for healthier options (Saba & Messina, 2003). Several studies have demonstrated a strong connection between HC and the purchase of organic foods (Alphonse & Alfnes, 2012; Nagaraj, 2021; Yadav & Pathak, 2016; Zagata, 2012).

However, the findings of the current study diverge from this trend. The study did not find a significant influence of HC on the online purchase of organic food products. Hypothesis 8 suggested that HC positively influences customers' purchases of organic food products online, but the findings did not support this hypothesis, with a $p\text{-value} > 0.05$. Therefore, it can be concluded that, in the context of this study, HC does not significantly impact customers' intentions to buy organic food products online.

Table 6.8

Hypothesis 8

	Standard deviation	T statistics	P values	Decision
HC -> OFP	0.060	1.398	0.162	Not Supported

6.1.9 Product Availability can positively influence a customer purchase intention of online organic food products

The PA and rich product variety is one of the most important reasons for customers that go online to purchase food products online (Gillett, 1976; Stephen & Toubia, 2010; Wolfinbarger & Gilly, 2001; Zheng et al., 2020). Hence it can be deduced that PA and a rich product variety is a strong determinant and a reason for customers to opt for online purchases (Lee et al., 2020 ; Liu et al., 2013), in other words it can be said that a customer might feel and get a dull feeling if the customer cannot find enough product online. Similarly, Agarwal (2022) opined that a reliable and timely availability of the purchased products is one of the major objectives for the online shoppers. It is crucial to note that online shoppers complete the orders at the customers' office, home or while having coffee, and thereby expect the online purchased item to be delivered at a convenient time, this timely and reliable delivery makes the customers satisfied and hence forcing them to keep using the online shopping platform (Agarwal 2022; Tony & Han, 2004). Hypothesis 9 suggested that PA can positively influence a customer purchase for

online organic food products. the finding showed that there exists a significant influence with a P value<0.05 hence the hypothesis is supported.

Table 6.9

Hypothesis 9

	Standard deviation	T statistics	P values	Decision
PA -> OFP	0.046	2.847	0.004	Supported

6.1.10 Product Prices can predict online organic food purchase behavioral intention

Price is a crucial factor that significantly influences purchasing intentions, whether the purchase is made online or offline, across a wide range of products. Research by Chetioui et al. (2021) highlights the importance of price as a determining factor in customers' intentions when making online purchases. Price remains one of the most influential factors shaping customer purchasing behavior. Customers are highly price-sensitive, and their intentions are undeniably affected by fluctuations in price. Notably, the rise of e-commerce can be attributed, in part, to how it offers more favorable and competitive prices compared to traditional retail (Wei et al., 2019). Currently, e-commerce is considered to be in its early stages, and as a result, customer BI in this domain are still evolving.

Hypothesis 10 posited that product price predicts the BI to purchase organic food products online. The findings of the study support this hypothesis, indicating

a significant influence, with a p-value < 0.05 . Therefore, it can be concluded that product price plays a substantial role in shaping customers' intentions to purchase organic food products online.

Table 6.10

Hypothesis 10

	Standard deviation	T statistics	P values	Decision
PC -> BI	0.039	5.509	0.000	Supported

6.1.11 Health Consciousness can predict online organic food purchase behavioural intention

HC has been studied as one of the major factors that alters the customers' BI when customer is doing any purchase that includes the purchase of organic food products (Frash, Dipietro & Smith, 2015; Kabir & Islam, 2022; Kim, Eves & Scarles, 2009). Any health-conscious customer will alter their BI that complies with their personal health, accordingly health-conscious customers tends to be much more aware of their personal health and a motivation to further enhance their health, it can be deduced that the customers with HC in their mind have a great motivation to go for healthier option when they are going for any purchase thereby altering their BI (Lee et al., 2014). Similarly, Baker et al., (2022) found out that the customers who are more health conscious tends to behave differently and tends to pay more to a product that offers more health benefits. Health conscious customers might take HC to a new level and tend to change their

behavior when selecting a product (Shin & Mattila, 2019). There exists a strong connection between HC and the purchasing intention of the customers. Similarly, hypothesis 11 suggested that HC can predicts online OFP behavioural intention. The finding showed that there exists a significant influence with a P value<0.05 hence the hypothesis is supported.

Table 6.11

Hypothesis 11

	Standard deviation	T statistics	P values	Decision
HC -> BI	0.051	4.908	0.000	Supported

6.1.12 Product Availability can predict online organic food purchase behavioral intention

A critical factor that defines how a customer thinks and decide whether to go for a specific product is PA, which means that a seller can sell a product or service to the customer whenever the customer wants to buy it (Kurata, 2014). Barton, Ziatevska & Oppewal (2022) found out that nearly 50% of the customers can turn down a product purchase and the intention can be lost due to out of stock or unavailability of the product, similarly Corsten and Gruen (2004) also mentioned that making the product available can actually boost up the sales by 10%, and in a retail business such as grocery stores, availability of the product is taken as a key service factor. Karthink and Ganapathy (2021) found out that a wide product

assortment gives a more pleasurable feeling to a customer hence the purchasing intention of the customer is altered. But that was not the case with hypothesis 12 where it suggested that PA can predicts online OFP behavioural intention. The finding showed that no significant influence with a P value >0.05 hence the hypothesis is not supported.

Table 6.12

Hypothesis 12

	Standard deviation	T statistics	P values	Decision
PA -> BI	0.048	0.302	0.763	Not Supported

6.1.13 Customers behavioural intention has a positive effect on the customer online purchase behaviour

It has been well-established that having a positive attitude and intention towards a specific activity is likely to result in a stronger intention to engage in that behavior (Ajzen & Fishbein, 1975; Ajzen, 2021). Numerous studies have validated the positive relationship between BI and the final purchase decision (Chen et al., 2020; Chen, 2007; Smith & Paladino, 2010; Tarkianen & Sundqvist, 2005), although some studies have produced contrasting results.

Of particular significance, Aitken et al., (2020) found compelling evidence of a positive relationship between intentions and the purchase of organic food products. Intention can be defined as an individual's cognitive inclination or willingness to perform a specific behavior, and it is widely regarded as the best predictor of the behavior itself (Ajzen, 1991). The relationship between behavior and intentions has been studied in various contexts and across different countries (Kaiser & Gutscher, 2003; Quoquab et al., 2017).

Within the Malaysian context, Hypothesis 13 posited that customers' BI have a positive effect on their online purchase behavior for organic food products. The study's findings support this hypothesis, revealing a significant influence with a p-value of less than 0.05. Therefore, it can be concluded that customers' BI play a significant role in shaping their online purchase behavior for organic food products.

Table 6.13

Hypothesis 13

	Standard deviation	T statistics	P values	Decision
BI -> OFP	0.066	3.953	0.000	Supported

6.1.14 Technophobia moderates the relation between behavioural intentions and customer online organic food purchase

Technophobia can be taken as a noteworthy difficulty in today's society, as numerous people carry a negative mindset towards new technology and avoid using it despite of the fact that the newer technology might be beneficial for the user (Troisi et al., 2022; Tekinarsalan, 2008). Many users are and remain in a state of comfortless whenever they use a new technology and tend to use any traditional method, with the increasing penetration of new technology in areas such as education, business, online purchasing the problem of technophobia is becoming more crucial than ever (Martinez-Corcoles, 2017). Technophobia is a term used

as a proxy by a number of studies when actually they are referring to the fear of going for an online purchase (Khawsawneh, 2018).

Many studies conducted have taken technophobia into account have found out a moderation effect on the online activities of the customers of countries like UK (Bozioneios, 1996), Iran (Mobaraki & Targhi, 2013), Turkey and Netherlands (Tekinarslan, 2008) and Germany, Italy and Ireland (Troisi et al., 2022). Technophobia can be termed colloquially as an anxiety that individuals develops as a result to a new incitement that comes from using the technology which actually modifies the customer routine of performing a purchase. Technophobia is used as alternative by a lot of researches when the study is being referred to computer anxiety (e.g. Di Giacomo et al., 2019; Mcilroy, Sadler & Boojwon, 2007; Rosen & Weil, 1990).

Several researches suggested that there exists a strong correlation between technological fear and the BI towards online purchase due to which it can be inferred that this technophobia can act as a moderator between the BI and the OFP thus hypothesis 14 suggested that Technophobia moderates the relationship between behavioural intentions and the customers online purchase for organic food products. The finding showed that there exists a significant influence with a $P \text{ value} < 0.05$ hence the hypothesis is supported.

Table 6.14

Hypothesis 14

	Standard deviation	T statistics	P values	Decision
T x BI				Supported
-> OFP	0.051	2.488	0.013	

Table 6.15 presents the results of the hypothesis testing, summarizing the statistical findings for each proposed relationship in the study. It highlights whether the hypothesized associations among the key variables were supported or rejected based on the significance values, path coefficients, and t-statistics.

Table 6.15

Hypothesis Decision

Hypothesis	Decision
A -> BI	Supported/significant
A -> OFP	Not -Supported/insignificant
BI -> OFP	Supported/ significant
HC -> BI	Supported/ significant
HC -> OFP	Not Supported/ insignificant
PA -> BI	Not Supported/ insignificant
PA -> OFP	Supported/ significant
PBC -> BI	Supported/ significant
PBC -> OFP	Supported/ significant
PC -> BI	Supported/ significant
PC -> OFP	Supported/ significant
SN -> BI	Supported/ significant
SN -> OFP	Supported/ significant
T x BI -> OFP	Supported/ significant

Table 6.15 presents the results of the hypotheses testing for this study. Based on the findings, out of a total of fourteen hypotheses, eleven were supported and found to be statistically significant, while three were not supported due to insignificance in their relationships. These results indicate that most of the proposed associations among the study variables are validated, confirming the robustness of the conceptual framework. The supported hypotheses particularly highlight the strong influence of BI, PBC, PA, SN, and technophobia on online organic food purchasing behavior.

6.2 Summary of Key Findings

The research model that is utilized in this study is based on the fusion of the TPB. The TPB takes the center stage in this research study as it serves as the theoretical framework tested to get the knowhow of the customers' online OFP. Notably Niaura (2013) emphasized that the TPB precisely defines the BI as an indicator of an individual readiness to engage in a specific behavior. In a similar manner Azjen (1991) found out that BI indicated how an individual is inclined towards performing a specific behavior and also provided such a behavior is under the persons control, besides this BI acts as a motivating factor (Azjen, 1991), According to TPB, the three factors that can affect the purchasing behavior of online organic food (Gu & Wu, 2019); attitude, SN, and PBC, originally the TRA was of the view that a customer usually behaves what the customer intended to behave which was formed by attitude and SN.

SN are taken as the perceived societal pressure on whether to do or not to do a particular act followed by a particular behavior (Ajzen, 1991). It is to be taken this point under consideration that the TPB is an extension and an enhanced version of the TRA, now the TPB is with an addition of an important factor that is the PBC. PBC is taken as the individuals' attention of the circumstances that can facilitate the behavior performance (McLaughlin et al., 2020; Pavlou & Fygenson, 2006). PBC can be referred as the ease or the difficulty of performing the behavior with the reflection of the particular experience as well anticipated obstacles (Gu & Wu, 2019).

TPB is composed across the expectancy value model of attitude (Ajzen & Fishbein, 2020). Accordingly, this model a customer's attitude is based on and follows from beliefs which can further guide the customers' behavior. It is worth mentioning that beliefs can differ in terms of the capacity to process the appropriate information (Gu & Wu, 2019). It can be therefor deduced that attitudes are both shaped by beliefs and other surrounding effects, indicating that these factors influence the attitudes and are considered useful to predict the behavioral outcomes (Holland et al., 2012). Previous research findings indicate that a customer's attitude is more likely to influence behavior that depends on the degree to which attitude is formed on experience basis, the strength of certainty with the attitude, and also how well the persons' attitude is defined (Fazio & Zanna, 1978; Luttrell & Sawicki, 2020).

It is crucial to note that the collective effect of experience with beliefs and how the attitude is explained helps to find out whether the attitude is on the positive side or the negative side. An attitude that is positive will yield a positive outcome whereas an attitude that is negative will tends towards an outcome that is negative (Cacioppo & Bernston, 1994). If taken under the setting of online purchasing, customers tend to form a favorable attitude when online purchasing is seen favorably. For most customers, online shopping is taken as favorable when the customers save their crucial time and also, they found out that its convenient to shop wherever they are and gather the right information within seconds (Lin, 2007), however this is not just the case. Customers will also have a keen look over the benefits against the incurred costs, the security breach, wait time for delivery and the fact that online purchasing one cannot inspect the goods the customers are buying.

SN on the other hand typically refers to how customers perceive the social approval regarding a particular behavior. In most cases, the customers draw their preferences, beliefs and feedback of their social network that can include their family members and friends (Sadati & Mohammadi, 2012). This implies that when the customers share their experiences with the online shipping there is an expectation that these feedbacks will influence the purchasing intentions. If we put the other way around, a customers' goal is abreast by the subjective beliefs of significant others' conviction that a purchase or a strategy ought to or ought not be made. A customer may hold the view that peers and friends and members of the family incline toward online buying conduct and these convictions are

accepted to affect the customers' intentions and thusly, behavior. As per (Pavlou & Chai 2002), SN can be perceived as involved two ranges of effect. For instance, a customer may believe that their peers and family members prefer online shopping and these convictions are thought to impact the customers' intention and, consequently their behavior (Pavlou & Chai, 2002).

PBC refers to a customer's assessment of the availability of essential information, resources, and opportunities for engaging in online shopping (Lin, 2007). According to Giantari et al. (2013), PBC plays a crucial role in predicting both online purchase intentions and the actual behavior of making online purchases. When a customer holds a positive perception of their ability to control their online shopping experience, they are more likely to participate in online shopping. If the customer's previous online shopping experiences have been satisfactory and have built trust, this positively influences their assessment of PBC, leading to a favorable view of online purchasing (Giantari et al., 2013; Pena-Garcia et al., 2020).

The other variables that were taken to strengthen the framework were PC, PA and HC which have a staunch effect on the BI of the customers.

Product pricing is considered notorious for being a strong factor in the deciding the demands of the customers (Sivagnanam & Srinivasa, 2010). It can be deduced that a price conscious customer is more aware of the trends and prices and hence tends to seek out the cheapest available option that included the products that are on sale (Lopez-Fernandez, 2020). Clausen (2004) defined price sensitivity as the

“degree to which the decision making is influenced by the price in order to purchase a product or a particular service. Similarly, Stolz et al., (2011) found out that considering the organic products; customers showed a strong preference towards the organic products and were found out to be less price sensitive.

Besides a customer being price conscious, there are customers who look after their personal health as well, which can be taken as a motivator for the healthy choices that are made by the customers, several researches among the adult age bracket found that personal health is not only the major individual motive for the selection of a healthier food product due to the lack of information regarding the long-term benefits of healthier eating (Horacek & Betts, 1998). There are number of researches that are focused on adult customers to eat healthier food in order to stay healthy and to take care of their personal health (Brennan et al., 2020; Eikenberry & Smith, 2004). As far as a healthier choice is concerned, it is usually related to organic food products as it is free from many chemicals that includes fertilizers, and by selecting these organic food products it can be taken as a good step towards the healthier living (Saleki, 2019). Considering the rapid increase in awareness, now customers are more concerned about the food they eat and buy, and also concerned about the issues related to non-organic food products (Miles & Frewer, 2001; Ortega & Tschirley, 2017).

Besides HC there is another critical factor when the customers go for an online OFP is the PA, which means whether the seller can offer a product right at an instant when the customer wants to buy it (Kurata, 2014). Oyuke (2019) found

out that nearly 50% of the customers can turn down a product purchase and the intention can be lost due to out of stock or unavailability of the product, similarly Corsten and Gruen (2004) also mentioned that making the product available can actually boost up the sales by 10%, and in a retail business such as grocery stores, availability of the product is taken as a key service factor.

HC is a significant determinant in customers' decision to purchase organic food online. Consumers who are more aware of health benefits tend to prefer organic products due to their perceived health advantages. This aligns with previous research indicating that health benefits are a primary motivation for purchasing organic foods (e.g., Magnusson et al., 2003; Michaelidou & Hassan, 2008). PA is a critical factor for customers when purchasing organic food online. The ability to provide a product immediately when the customer wants to buy it significantly influences purchasing decisions (Kurata, 2014).

Oyuke (2019) found that nearly 50% of customers might abandon a purchase if the product is out of stock or unavailable. This highlights the importance of maintaining inventory levels to meet consumer demand. Corsten and Gruen (2004) further support this finding by stating that PA can boost sales by 10%. In retail, especially grocery stores, PA is considered a key service factor, emphasizing its importance in customer satisfaction and retention.

Retailers must focus on effective inventory management to ensure consistent PA. This includes accurate demand forecasting and efficient supply chain management. Marketers should highlight the availability of organic products in

their promotions to attract health-conscious consumers and assure them of a reliable supply. Retailers need robust inventory management systems to track stock levels and predict demand accurately. This can help in reducing out-of-stock situations. Marketing efforts should emphasize the health benefits of organic products and assure customers of their availability to attract and retain health-conscious buyers. Ensuring PA can significantly enhance customer satisfaction, leading to increased customer loyalty and repeat purchases.

All of these have a considerable effect on the BI of the customers towards the purchase of organic food products online, but on the same side it is worth mentioning that since the COVID-19 most of the business have gone online, so technophobia is something that can act as variable that can intervene in the BI towards the organic food product purchase online. Technophobia can be termed as the disliking of modern technologies but most studies do not use the term technophobia but use computer anxiety and sometimes cyber phobia (Nimrod, 2021). Technophobia can be termed colloquially as a fear and anxiety that individuals develop as a result to a new stimulus that comes from the form of technology the individual is using which in terms modifies the individual actual routine of performing a task/job (Khasawneh, 2018). In the online activities context, there are many other negative factors that come in technophobia as well. They all root from a broad background of technophobia. When purchasing online the risk of privacy loss is related to customer purchasing behavior (Dai, Forsythe & Kwon 2014). These threats of technophobia may be so strong that the customers may actually not perform the digital activity (Mason, Stevenson & Freedman,

2014) and also the digital purchase (Khasawneh, 2019). Considering this technophobia was taken as a moderator between the variables, BI and OFP, since technophobia can act as a catalyst between the independent and the dependent variable.

In terms of the main construct it was found out that attitude, SN and PBC does have an effect on BI and OFP, but the findings revealed that Attitude does not have a significant effect on the OFP, other than that all the constructs had a significant effect on both the BI and the online OFP. The three other constructs which were PC, PA and HC also had a significant on BI and online OFP, but it was found out that HC does not significantly affect the online OFP, similarly also PA also does not have a significant effect on the BI of the customers. It was found out that the moderating variable which was technophobia is significant in moderating the relationship between BI and the OFP. It was revealed that all the variables have a significant effect except for attitude which does not significantly affects the OFP, similarly HC does not affect OFP whereas PA does not significantly affect the BI of the customers.

6.3 Theoretical Implications

This study advances the existing literature by extending the traditional TPB framework through the inclusion of HC, technophobia, and digital engagement as critical external variables shaping online organic food purchasing behavior. While the classical TPB emphasizes the influence of attitude, SN, and PBC (Ajzen, 1991), this research critically reexamines and enriches these constructs to reflect

the realities of digital consumption and health-oriented decision-making in the post-pandemic era.

The integration of HC as an antecedent to attitude enhances the explanatory power of TPB by linking consumer health awareness to pro-environmental and organic purchasing motivations. In contrast to earlier TPB-based studies that primarily associate attitudes with product quality or trust (Yadav & Pathak, 2017; Yazdanpanah & Forouzani, 2015), this research demonstrates that health-related concerns have become a dominant attitudinal driver, particularly among digital natives after COVID-19. This modification extends TPB's attitudinal construct beyond cognitive evaluations of products toward affective and self-care motivations, reinforcing the theory's applicability to sustainable and health-conscious consumption contexts (Lee et al., 2023).

The introduction of technophobia as a moderating variable significantly refines the PBC construct. Traditional TPB models assume that perceived ease or difficulty of performing a behavior is internally determined (Ajzen, 2002); however, this study identifies external digital factors such as technology anxiety, user interface design, and digital literacy as critical influences on online purchasing capability. Findings suggest that technophobia dampens consumers' behavioral intentions and weakens the link between intention and actual purchase. This insight extends the model's explanatory capacity in technology-mediated contexts, aligning with recent studies that highlight the moderating effects of

digital readiness and anxiety on online shopping behaviors (Wang et al., 2022; Chen et al., 2023).

Furthermore, this research re-conceptualizes SN by expanding their scope from traditional social influence to digital social endorsement. The findings align with emerging evidence that social media interactions increasingly drive normative pressure and brand-related behavior in e-commerce (Lim et al., 2022; Alalwan, 2023). This redefinition not only validates TPB in a digital environment but also introduces a novel conceptual bridge between social influence and digital marketing dynamics.

The inclusion of product-related factors like product price and availability further enhances the model's predictive capacity. These variables were found to mediate the relationships between attitudes and purchase intentions, suggesting that even positive attitudes toward organic food are contingent upon accessibility and affordability. This observation challenges earlier TPB-based studies that treated attitudes as stable predictors, underscoring the need to consider situational and contextual factors in behavioral prediction (Paul et al., 2016; Wang & Wong, 2023).

Overall, this theoretical extension enhances TPB's explanatory and predictive power within the e-commerce domain by accounting for digital, psychological, and contextual determinants. By critically evaluating the influence of technophobia, digital engagement, and HC, the study not only reaffirms TPB's robustness but also demonstrates its flexibility in explaining technologically

mediated consumer behaviors. This contribution positions the model as a more dynamic framework, adaptable to evolving digital and health-driven consumption environments. Consequently, the research not only strengthens theoretical understanding but also provides practical insights for marketers and policymakers aiming to promote online OFP among health-conscious and technology-sensitive consumers.

6.4 Practical Significance

The practical significance of this research lies in its contribution to understanding the behavioral dynamics that influence online OFP intentions among Malaysian consumers in the post-pandemic digital economy. The findings have implications for marketers, policymakers, and e-commerce platforms seeking to promote sustainable consumption while capitalizing on the growing digital marketplace. As the Malaysian retail landscape continues to evolve, the integration of organic food marketing with e-commerce platforms offers both opportunities and challenges for industry stakeholders (BusinessWire, 2024).

The research provides actionable insights for marketers and policymakers to adapt their strategies in line with changing consumer behaviors and market dynamics. Specifically, it highlights the growing preference among Millennials and Generation Z consumers for health-conscious and eco-friendly lifestyles, which are increasingly influencing their purchasing decisions (Lee, 2025). These demographic groups are more responsive to authenticity, transparency, and social responsibility in brand communication. Consequently, marketers can design

segmented campaigns that emphasize the nutritional benefits and environmental value of organic food while aligning brand messaging with consumers' ethical and sustainability-driven values. Such strategies can foster emotional engagement and long-term loyalty, positioning organic products not merely as commodities but as lifestyle choices that reflect personal identity and social consciousness.

At the same time, the research underscores the need to address technophobia a persistent psychological barrier among consumers who remain hesitant to engage in online shopping. Despite the widespread adoption of e-commerce in Malaysia, a portion of consumers still express discomfort with digital platforms due to perceived risks, lack of familiarity, or mistrust of online payment systems (Krishnan, Jayabalan, Guo, & Susanto, 2024). Tackling this issue requires businesses to invest in consumer education and digital literacy initiatives, develop intuitive and user-friendly platforms, and ensure strong cybersecurity measures that instill confidence. E-commerce platforms should also incorporate customer-centric features such as live chat support, virtual assistance, and personalized recommendations to make the online purchase experience seamless and reassuring.

Moreover, the findings suggest that price sensitivity remains a major constraint in the organic food market. Many consumers perceive organic products as premium-priced, which hinders regular purchasing behavior. To counter this, marketers can develop value-added strategies such as loyalty programs, bundle offers, and subscription-based models that make organic consumption more

affordable and convenient. For instance, offering discounts for repeat purchases or providing flexible delivery subscriptions can create a sense of value and consistency for consumers.

From a policy perspective, the research offers valuable insights for government agencies, particularly those involved in agriculture, public health, and digital economy development. Policymakers can play a crucial role in making organic food more accessible by providing incentives and subsidies for organic farmers, promoting sustainable farming practices, and ensuring the credibility of certification systems. Supporting small and medium-sized enterprises (SMEs) through grants and infrastructure development, particularly in rural areas, can further strengthen the digital inclusion of organic producers (Hen et al., 2023). Additionally, public health campaigns that emphasize the long-term benefits of organic food consumption could help normalize such products as part of a healthy lifestyle, contributing to Malaysia's broader sustainability and health goals (Seman et al., 2025).

Overall, this study bridges a critical gap between consumer psychology, digital adoption, and sustainable marketing. It provides a roadmap for marketers to design adaptive, data-driven strategies while guiding policymakers in promoting inclusive and environmentally responsible growth. By leveraging these findings, Malaysia's organic food industry can simultaneously enhance consumer trust, strengthen market competitiveness, and advance national objectives related to sustainability and digital transformation.

6.5 Limitations and Future Recommendations

While this study offers significant contributions to understanding online organic food purchasing behavior among Malaysian digital natives, several limitations highlight avenues for future research. The first limitation concerns the generalizability of the findings. The sample primarily consisted of Malaysian digital natives many affiliated with foreign-based campuses who may not reflect the full spectrum of Malaysian consumers. This demographic is typically younger, more educated, and digitally literate, potentially leading to an overestimation of confidence in online shopping and underrepresentation of older or rural consumers with limited digital exposure. To enhance external validity, future research should employ stratified sampling across multiple demographic strata, including non-student and rural populations. Comparative research between Malaysia and neighboring Southeast Asian countries (e.g., Indonesia, Thailand, Vietnam) could also reveal how cultural, infrastructural, and digital maturity differences influence consumer adoption of online organic food shopping.

A second limitation lies in the cross-sectional and self-reported nature of the data. Self-reported surveys, while practical, are prone to social desirability bias and recall inaccuracies, potentially distorting participants' actual behaviors or attitudes toward organic food. Future studies should employ mixed-method approaches combining quantitative surveys with qualitative interviews, behavioral tracking, or ethnographic observations to capture more authentic consumer insights. The adoption of longitudinal or experimental designs could also improve causal inference by monitoring behavioral changes over time or

testing specific marketing interventions, such as price adjustments or digital nudges, to observe their real-time effects on purchase intentions.

A further limitation involves contextual and macro-level factors not explicitly accounted for in this study. Another limitation is that the method employed can introduce biasness. External variables such as inflation, digital policy shifts, environmental awareness campaigns, and socio-economic disparities may influence online shopping behaviors, especially within Southeast Asia's rapidly changing economic environment. Future studies could integrate these macro factors into the research design by employing multi-level modeling or structural equation modeling (SEM) that includes contextual moderators, offering a more holistic representation of consumer decision-making dynamics.

The study's conceptualization of technophobia also requires refinement. Traditional technophobia scales often overlook modern digital concerns such as AI-driven personalization, data privacy fears, and algorithmic distrust, all of which increasingly shape consumers' comfort with e-commerce. Future research should update technophobia measurement instruments to include these dimensions, perhaps through the use of psychometric validation methods or AI-driven sentiment analysis of consumer reviews and social media data. Furthermore, researchers could explore how AI-enabled shopping tools, such as chatbots or recommendation algorithms, mitigate or exacerbate technophobia by influencing consumer trust and perceived control in digital environments.

Emerging themes like sustainability labeling, digital traceability, and socio-psychological barriers in Southeast Asia present promising directions for future investigation. As consumers become more aware of environmental issues, the impact of eco-labels, carbon footprint indicators, and blockchain-based product tracking systems on trust and purchase intention deserves deeper analysis. Similarly, exploring socio-psychological constructs such as green self-identity, perceived moral obligation, and collective cultural values could enrich the theoretical understanding of online organic food consumption. Researchers may also examine how localized cultural narratives such as the Malaysian emphasis on community and halal integrity interact with sustainability-oriented behaviors in e-commerce.

In conclusion, future research should move beyond traditional TPB-based quantitative models toward integrative, technology-driven, and culturally grounded methodologies. By embracing mixed methods, experimental approaches, and emerging digital tools, scholars can capture the evolving interplay between technology, psychology, and culture in shaping online organic food purchasing. Such advancements will not only refine theoretical frameworks like TPB and TAM but also generate actionable insights for policymakers and marketers navigating the rapidly digitizing consumer landscape in Southeast Asia.

6.6 Conclusion

In the digital age, where online shopping has become an integral part of daily life, this study set out to understand the complex factors influencing the online

purchase of organic food products among Malaysian digital natives. Guided by the TPB and enriched by the TAM, the research sought to answer key questions about how psychological, behavioral, and technological factors interact to shape both purchase intentions and actual buying behavior.

The study's findings provide clear answers to the research objectives. First, attitude, SN, and PBC were confirmed as significant predictors of BI, validating the applicability of TPB within the Malaysian e-commerce context. Second, HC, PA and PC emerged as crucial determinants that further explain why consumers choose to engage or hesitate to engage in online OFP. Third, the research establishes behavioral intention as a critical mediating variable, translating consumer perceptions and attitudes into concrete online purchase actions.

One of the most important contributions of this study lies in the identification of technophobia as a significant moderating variable. The results reveal that technological apprehension can either strengthen or weaken the impact of TPB constructs on online purchase behavior. Specifically, consumers with higher levels of technophobia are less likely to convert their positive attitudes and intentions into actual purchases. This finding is especially salient in emerging markets like Malaysia, where digital adoption varies across demographic groups. It highlights a key challenge for marketers and policymakers to not only promote positive attitudes toward organic products but also mitigate technology-related barriers to ensure smoother digital adoption.

In the context of the COVID-19 pandemic and the rapid acceleration of digital commerce, these insights are timely and consequential. The findings shed light on how health-oriented values, digital accessibility, and consumer confidence jointly influence online consumption in a post-pandemic environment. This contributes theoretically by integrating TPB and TAM to better explain online consumer behavior and practically by offering actionable implications for e-commerce platforms and organic food retailers aiming to enhance customer engagement and trust.

Nevertheless, this study is not without limitations. Its cross-sectional design and focus on Malaysian digital natives restrict the generalizability of results to other cultural or demographic contexts. Additionally, as technology and consumer habits continue to evolve, future research should adopt longitudinal approaches or experimental methods to capture dynamic behavioral shifts over time.

In conclusion, this research advances both theory and practice by providing a comprehensive model that elucidates the psychological, technological, and contextual factors driving online OFP. By highlighting the nuanced role of technophobia, the study bridges the gap between consumer intention and actual behavior, contributing valuable insights for academics, practitioners, and policymakers seeking to understand and influence sustainable consumption in the digital era. As digital ecosystems continue to evolve, these findings serve as a foundation for future investigations into the interplay between consumer

psychology, technology acceptance, and ethical consumption in online marketplaces.

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Appendix

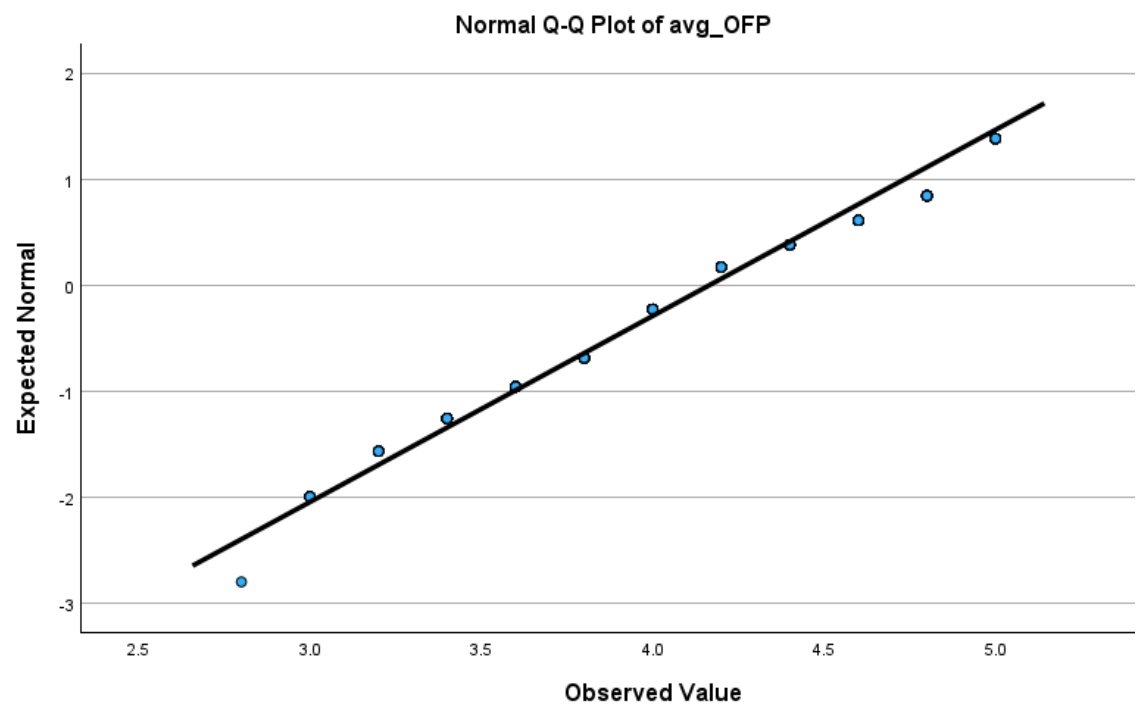
Appendix 1

Test of Normality

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
avg_OF	.145	394	<.001	.942	394	<.001
P						
avg_BI	.161	394	<.001	.938	394	<.001
avg_A	.159	394	<.001	.965	394	<.001
TT						
avg_SN	.100	394	<.001	.973	394	<.001
avg_PB	.149	394	<.001	.966	394	<.001
C						
avg_TE	.122	394	<.001	.943	394	<.001
CH						
avg_PC	.213	394	<.001	.926	394	<.001
avg_H	.241	394	<.001	.899	394	<.001
C						
avg_PA	.203	394	<.001	.912	394	<.001

a. Lilliefors Significance Correction

Appendix 2
QQ Plot



Appendix 3
Skewness and Kurtosis

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
	c	c		c	
avg_BI	394	-.465	.123	-.745	.245
avg_OFP	394	-.115	.123	-.787	.245
avg_ATT	394	-.387	.123	-.101	.245
avg_SN	394	.309	.123	-.317	.245
avg_PBC	394	-.099	.123	.358	.245
avg_TECH	394	-.034	.123	-.952	.245
avg_PC	394	.301	.123	.282	.245
avg_HC	394	-.799	.123	1.025	.245
avg_PA	394	-.639	.123	1.226	.245
Valid N (listwise)	394				

Appendix 4

Questionnaire

The purpose of the survey is to fulfill the requirement for doctoral degree research. This survey covers the Impact of product availability, health consciousness and product price on Malaysian digital natives to purchase organic food products with a moderation effect of technophobia. Participation in this survey is voluntary; however, we hope that you will complete this questionnaire since your views are very important to complete this research. We would very much appreciate your participation in this illustrated survey. Your responses will be kept in the strictest confidence and will not be shared with any third party.

Thank you very much for your co-operation.

Omar Sajid,

FACULTY OF BUSINESS AND FINANCE

Universiti Tunku Abdul Rahman, Jalan Universiti, Bandar Barat, 31900
Kampar, Perak. Malaysia

Procedure: You will be asked questions regarding your demographic details with your purchasing intention towards organic food products online. The questionnaire will take no more than 15 minutes to fill.

Withdrawal rights: You may choose not to answer any questions you do not want to answer. You may also withdraw from the study at any point of time. There will be no negative consequences if you do not want to participate, or if you initially agree to participate and decide to withdraw later.

Identification of Investigators: The research is conducted by Mr. Omar Sajid, a doctoral candidate at faculty of Business and Finance, Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia. You may clarify any questions you have with him. If you have any queries after survey, kindly contact Mr. Omar Sajid via email: omarsajid@1utar.my

Consent: I consent to participate in the research investigation entitled “Impact of product availability, health consciousness and product price on Malaysian digital natives to purchase organic food products with a moderation effect of technophobia”. The nature of the research including the procedures has been explained to me and is summarized on the information letter.

Gender

Male :

Female:

Age/Birth Year:

Ethnicity : Malay

Chinese

Indian

Others

University year/semester :

	When you go for online purchase in the near future you will definitely only buy organic food product	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
	Will you choose to buy organic food products online over conventional products					
	Do you often buy organic food products while shopping for other things online?					
	Whenever you buy food products online you select organic food products					
	I will be purchasing organic food products online again within the next fortnight.					
	When you buy grocery					

	online, you most likely select organic grocery?					
	Whenever you opt for online shopping you tend to buy organic food products					
	When buying households online I often select organic food products					
	Most of the grocery you buy online contains organic food products?					
	I will most likely select an organic food product online within the next fortnight					
	Buying organic food products over the internet is a good idea.					
	Online organic food shopping is an efficient way to shop.					
	Online organic food shopping saves the hassle and time.					

	Online organic food shopping is something I will do repeatedly.					
	I am able to access different online organic stores from a single platform.					
	I have a satisfactory experience when shopping organic food online.					
	I have access to more information regarding organic product when I shop online.					
	People who influence my behaviour think I should buy organic food online.					
	People who are important to me think I should buy organic food online.					
	I care about other people's experience of online organic food purchasing.					

I feel pressured to go for online organic food purchasing as everyone else is.						
My friends think that I should go for online organic food purchase						
My mentors think that I should go for online organic food purchase.						
My parents want me to purchase organic food online						
Online platforms for organic food products are convenient than physical shopping.						
I am capable of buying organic food products online.						
I have the resources, ability and knowledge to buy organic food online.						
I feel bothered that I cannot physically check the organic						

	product before the purchase.					
	I feel comfortable buying organic food products online.					
	I see other people reviews and experiences before I go for an organic food purchase online.					
	I get bothered to wait for a faulty and unsatisfactory organic product to get replaced					
	I feel afraid to buy organic products online because someone might be using technology to watch what I do.					
	Whenever I purchase organic products online I am afraid because of a possible identity theft.					
	Whenever I purchase organic					

	products online I am afraid because of a possible theft of financial information					
	Whenever I purchase organic products online I am afraid because of a possibility that someone might be tracking my purchases.					
	I feel afraid buying organic food products online because it's easier to stalk online					
	I feel afraid to buy organic products online because websites can use my personal data for any other purpose					
	I feel afraid to use new technologies to buy organic products online					
	I feel afraid to buy organic products					

	online because the website might share my credentials with anyone else.					
	I feel afraid that the website might share my shopped items without my permission.					
	Online platforms for organic food products are cheaper than offline stores.					
	Organic products are available at an attractive price over e-commerce platforms.					
	I am willing to pay more to purchase organic food products online compared to non-organic					
	I am willing to pay an extra amount on top of my bill to purchase organic food products online.					
	I would purchase organic food					

	products online again if I found them cheaper					
	I would buy an organic product online after comparing the prices at different platforms.					
	I would buy organic food products online if I find them good value for money					
	I am very self-conscious about my health therefore I use organic food products.					
	I use organic food products because I pay attention to my inner feelings about my health.					
	I use organic food products because I am alert of the changes in my health.					
	I use organic food products because I am involved and					

	keep a check on my health.					
	I feel organic food products are a healthier choice as they contain more vitamins and minerals					
	I feel organic food products are a healthier choice as it contains less preservatives .					
	I feel organic food products are a healthier choice overall as they are better for health.					
	Online platforms have a variety of organic food products.					
	I am able to find the right organic products from online platforms.					
	The organic food which interests me are easily available online					
	I can depend on the online					

	platforms to deliver the right organic food.					
	I know the online platforms have organic food available all the time.					
	I can depend on the online platforms to deliver my organic food on the right time..					
	I get bothered to wait for an expired and unsatisfactory organic product to get replaced					