DOCTOR
OF
BUSINESS ADMINISTRATION

An Empirical Study on Vietnamese Chocolate Consumers' Behaviors and Purchasing Paradigms: A New Approach with Innovation Resistance Theory (IRT) for Downstream Chocolate Businesses in Vietnam.

Tran Van Lieng

Advisor: Dr. Maria Joseph Xavier

2025

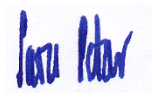
-

AN EMPIRICAL STUDY ON VIETNAMESE CHOCOLATE CONSUMERS' BEHAVIORS AND PURCHASING PARADIGMS: A NEW APPROACH WITH INNOVATION RESISTANCE THEORY (IRT) FOR DOWNSTREAM CHOCOLATE BUSINESSES IN VIETNAM.

by

Tran Van Lieng

APPROVED BY



Prof.dr.sc. Saša Petar, Ph.D., Dissertation chair

RECEIVED/APPROVED BY:

Renee Goldstein Osmic

Admissions Director

ACKNOWLEDGMENT

I would like to express my deepest gratitude to all the individuals and organizations who have supported and contributed to the successful completion of this research.

First and foremost, I extend my sincere appreciation to Dr. Maria Joseph Xavier, Associate Professor Doctor Ha Minh Tri and Dr. Nguyen Ngoc Hien for their invaluable guidance, expert knowledge, and continuous encouragement throughout this research. Their insightful feedback and constructive criticism have been instrumental in shaping the direction and quality of my study. Without their dedicated mentorship, this research would not have been possible.

I am also profoundly grateful to Ms. Bui Ngoc Hoang, Ms. Tu Le Bao Tran and Ms. Tu Thi Ngoc Huyen for their support and assistance during the research process. Their contributions to various aspects of this study have been invaluable.

Additionally, I would like to extend my heartfelt thanks to Vietnam Cocoa Joint Stock Company for their generous support. Their provision of essential resources, data, and industry insights has greatly enriched my research. I highly appreciate their willingness to share expertise and provide valuable materials that have contributed to the practical implications of this study.

Beyond the direct contributors to this research, I would like to express my sincere appreciation to my colleagues, friends, and family members. Their unwavering encouragement, emotional support, and understanding have been a constant source of motivation. Their belief in my work has helped me stay focused and committed to completing this research.

Finally, I acknowledge the broader academic and scientific community whose prior research and contributions have laid the foundation for my study. I am grateful for the knowledge, methodologies, and discussions that have inspired and guided me throughout this journey.

Once again, I extend my deepest appreciation to everyone who has supported me in various ways. This research is a reflection of the collective efforts and contributions of many individuals and organizations, and I am truly grateful for their assistance.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

This study applies Innovation Resistance Theory (IRT) to analyze consumer resistance in context, using domestically produced chocolate consumption in Vietnam as a case. The primary objective is to analyze how resistance to innovation in terms of usage, and risk barriers, as well as psychological ones such as image, affects consumers' purchasing intentions towards domestically produced chocolate products. The analysis also considers cultural values like collectivism, as well as consumer traits like innovative individuals, openness to change, in moderating resistance barrier development in a purchasing context.

A quantitative approach was used to collect data through offline and online surveys to ensure diversity and representative sampling. The data were collected from 415 Vietnamese consumers between January and March 2025, and all of them had been exposed to and were aware of domestic chocolate brands. After collecting the survey, we did the data screening in SPSS by eliminating inconsistent, outlier, and incomplete data. The final dataset was then analyzed using SmartPLS, a capable statistical software for testing complex conceptual frameworks consisting of multiple latent variables, through SEM techniques.

The results show that the risk barrier, one of the resistance barrier types, has a significant and negative relationship with consumers' purchase intention. In other words, customers are not willing to buy domestic chocolate the more they perceive it as risky, for example, in terms of quality, safety, or the uncertainty of origin. Besides, usage barrier and image barrier are identified, but their results are substratified by socio-cultural and psychological characteristics. Specifically, consumers who score high on collectivism are more likely to be affected by image barriers, presumably

because social norms and group-oriented decision-making processes play a fundamental role in their consumption decisions. On the other hand, consumers scoring high on changeability and innovativeness tend to be less affected by resistance barriers overall.

Based on these results, the study suggests that producers, marketers, and retailers of domestic chocolate products in Vietnam should design targeted strategies to overcome innovation resistance. Marketing campaigns can emphasize product safety, quality assurance, and positive brand image to reduce perceived risk and image barriers. At the same time, it is important to align messaging with cultural values like collectivism, which may involve community endorsements, social proof, or group-based incentives. Finally, initiatives that foster innovation-friendly mindsets through product sampling, storytelling, or interactive campaigns could prove effective in enhancing acceptance and adoption of locally made chocolate.

Keywords: Innovation Resistance Theory (IRT), purchase intention, domestic chocolate products, consumer behavior, Vietnam

CHAPTER 1

INTRODUCTION

The global chocolate market was estimated at USD 119.39 billion in 2023 and is projected to grow to USD 156.74 billion by 2030, reflecting a compound annual growth rate (CAGR) of approximately 4.1% between 2024 and 2030. Another industry outlook projects an expansion from USD 141.56 billion in 2024 to USD 148.75 billion in 2025, and ultimately reaching USD 221.11 billion by 2033, representing a CAGR of about 5.1% over the forecast period. These projections reflect the global sector's resilience and the rising demand for chocolate products across both emerging and mature economies (Grand View Research, 2024; Global Growth Insights, 2025).

Within the larger market, premium and super premium chocolate categories are growing faster than their mass-market counterparts. The global premium chocolate segment was valued at USD 31.87 billion in 2024, with estimates projecting expansion to USD 40.60 billion by 2030, driven by a CAGR of 4.3%. Similarly, the super premium chocolate category, estimated at USD 12.85 billion in 2024, is anticipated to reach USD 18.65 billion by 2030. This trend is underpinned by consumer tastes in developed markets for products that provide a more elevated taste experience, greater provenance and bean-to-bar transparency and artisanal elements (Grand View Research, 2024; Intel Market Research, 2024).

On the supply side, the industry has been facing some considerable challenges. In 2024, cocoa prices topped USD 11,000 per metric ton as a result of poor weather and reduced yields in producing nations across West Africa. Yet at the same time, the International

Cocoa Organization expected global cocoa production to grow by 7.8% to reach 4.84 million tonnes during the 2024–2025 season, even as global grinding volumes were projected to fall by 4.8%, resulting in a surplus and a stock-to-grinding ratio of 31.8%. This is prompting leading chocolate manufacturers to place an increased emphasis on traceable sourcing, adhering to deforestation regulations and investing in regenerative practices (International Cocoa Organization, 2025; Financial Times, 2025; Reuters, 2025).

Vietnam's chocolate market is still developing but has strong potential. Revenue in Vietnam's confectionery market is expected to reach USD 1.77 billion by 2025, growing at a compound annual rate (CAGR) of 6.8% between 2025 and 2030 (Statista, 2025). Meanwhile, chocolate alone grew to USD 842.1 million in 2024 and is forecast to increase by 2.1% annually through 2033 (IMARC Group, 2025). Domestic chocolate and candy sales in 2023 were an estimated USD 518 million, with chocolate alone rising by 8.6% annually to reach USD 140 million (Research and Markets, 2024). These numbers suggest Vietnamese consumers, especially the growing urban middle class, are hungry for both imported and locally-made chocolate products.

Health and premium trends are influencing chocolate consumption in Vietnam. In 2023, retailers observed growing interest in lower-sugar, functional, and nut-, fruit- and herb-enhanced dark chocolates (Euromonitor International, 2023). Urban supermarkets and convenience stores tend to be the main outlets, preferred for their air-conditioned storage which is important in Vietnam's tropical climate (Euromonitor International, 2023). Online is also steadily growing, catering to younger, more digitally-connected consumers with specialty handmade or single-origin labels (6W Research, 2020).

Seasonal peaks around Valentine's Day and similar holidays also help boxed and gifting chocolate grow, though inflation has held back volume growth in recent years (Euromonitor International, 2023).

Vietnam has seen a rise in domestic craft chocolate businesses. More than 30 bean-to-bar producers surfaced between 2011 and 2023, such as Marou, Vesococa, The Cocoa Project, Belvie, Alluvia, Stone Hill, and Legendary Chocolatier—all of which export in addition to catering to the local market (VnEconomy, 2023). Marou, Vietnam's first craft chocolate brand, now owns 18 Maison Marou stores across major cities and has received global praise, being featured by the New York Times and winning at the International Chocolate Awards (VnEconomy, 2023; Wikipedia, 2025). Meanwhile, global players including Mondelez Kinh Do (Cadbury), Mars Vietnam, and Nestlé utilize their wide distribution channels and brand recognition (Euromonitor International, 2023; Research and Markets, 2024). Experts say that domestic brands are ramping up local storytelling, unique packaging, and health-focused recipes to fight against both international corporations and growing Vietnamese consumers' standards (VnEconomy, 2023; 6W Research, 2020).

Downstream chocolate processors in Vietnam play a pivotal role in transforming raw cacao into diverse, value-added products such as bars, ice-creams, cakes, and pastries. A notable example is Puratos Grand-Place, which not only leads in B2B chocolate supply but also developed a "60 DAYS" tree-to-bar chocolate line, emphasizing carbon-neutral production and a shortened value chain. This approach elevates product quality and sustainability, differentiating local brands while responding to consumers'

increasing awareness of ethical sourcing and environmental impact (VnEconomy, 2023).

Retailers and artisanal chocolate brands are reshaping the Vietnamese market by emphasizing brand experience and premium product positioning. Maison Marou, founded by Marou Faiseurs de Chocolat, now operates nearly 20 retail cafés and boutiques across major cities, delivering immersive chocolate experiences. These outlets help solidify customer loyalty while promoting Vietnam's fine chocolate craftsmanship and regional cacao origins. This growing retail presence illustrates how downstream players serve as important brand ambassadors in the domestic and international markets (VnEconomy, 2023).

A well-developed distribution infrastructure is essential to ensure product quality, especially given Vietnam's tropical climate. Supermarkets and mini-marts dominate chocolate sales, as they are equipped to maintain proper storage conditions. In addition, large firms such as Mondelez Kinh Do have invested in visicoolers for smaller retailers to maintain freshness and expand market reach. Meanwhile, e-commerce platforms are becoming increasingly important for reaching younger, tech-savvy consumers, and they offer an accessible channel for domestic artisanal brands seeking wider exposure (Euromonitor, 2023; Scribd, 2022).

Downstream businesses also contribute significantly to upstream ecosystem development by fostering direct relationships with cacao farmers and supporting community initiatives. For instance, Marou collaborates with over 500 farmers across seven provinces and engages in agroforestry and sustainable sourcing programs. These efforts promote consistent quality and fair trade while ensuring long-term supply

stability. The adoption of digital systems, such as Marou's partnership with NaviWorld for ERP implementation, further enhances supply chain transparency and operational efficiency (Advertising Vietnam, 2022; NaviWorld, 2025).

In recent years, growing demand for premium, health-conscious, and ethically sourced chocolate products has reshaped consumer behavior and encouraged diversification in chocolate origins. However, despite being a producer of cocoa, Vietnam remains a relatively unknown origin in the global chocolate landscape. According to Everaert (2022), Vietnamese cocoa has promising characteristics and could become a valuable source for single-origin chocolate, but research and market presence are still limited (Helena Everaert, 2022).

Despite global growth, the domestic chocolate industry in Vietnam faces significant challenges. Vietnamese people consume only 0.5 kg of chocolate per capita annually, placing the country among the lowest consumers worldwide (International Cocoa Organization, 2019).. Moreover, in 2022, Vietnam imported approximately USD 126 million worth of chocolate and cocoa products (Statista, 2024) - a figure that reflects the dominance of foreign chocolate brands and the limited success of local producers in the domestic market.

This mismatch between production potential and consumption behavior reveals a structural problem in the value chain: raw cocoa is exported, while value-added chocolate is imported, leaving the local chocolate industry underdeveloped and underappreciated.

Previous studies have addressed chocolate consumption behaviors globally, with a focus on preferences, health concerns, or sustainability. However, there is limited empirical research on the factors that inhibit Vietnamese consumers from purchasing locally-produced chocolate, especially from the lens of innovation resistance theory (Ram & Sheth, 1989; Talke & Heidenreich, 2013). While studies have examined general purchasing behaviors in Vietnam (Dan & Ngoc, 2022) and the influence of cultural heterogeneity on innovation diffusion (Pineda et al., 2023), few have applied these frameworks to local chocolate consumption. Furthermore, prior work on adoption dynamics involving contrarian and regretful consumers (Gordon et al., 2016) and cross-cultural chocolate preferences (Nguyen et al., 2023) lacks contextual relevance to Vietnam. Although IRT has been applied in various contexts to assess consumer resistance to product/service innovation, this is the first study to apply this theory in the context of resistance to local brands, specifically chocolate in Vietnam. There is a noticeable gap in the literature regarding developing concepts and measurement scales in the context of local chocolate consumption in Vietnam. Additionally, the study develops the model by exploring how cultural factors (Collectivism) and consumer characteristics (Personal Innovativeness, Openness to change) influence consumer resistance factors.

This study aims to:

- Identify the resistance factors both functional and psychological that contribute to Vietnamese consumers' reluctance to adopt locally-produced chocolate

- Examine how cultural values and consumer characteristics influence the formation of barriers to innovation in the context of domestic chocolate
- To explore how consumer perceptions of risk and "newness" influence their purchasing decisions regarding locally produced chocolate.
- To provide actionable insights for local chocolate producers and entrepreneurs to overcome these barriers and enhance domestic consumption.

The research focuses on individuals currently residing in Vietnam, across diverse demographic groups. The findings are intended to reflect the broader national consumer market and provide actionable insights for stakeholders in the chocolate and cocoa industry.

This study uses a quantitative approach, specifically Structural Equation Modeling (SEM), to empirically examine the relationships between the constructs of innovation resistance theory and consumer purchase behavior. SEM is well-suited for assessing complex models involving multiple latent variables and moderating effects.

The study aims to contribute both theoretically and practically:

- Theoretical contribution: Extend innovation resistance theory by applying it in an emerging market context (Vietnam) and incorporating the moderating role of product knowledge.
- Practical contribution: Provide actionable insights for local chocolate producers and policymakers to reduce consumer resistance, improve product communication strategies, and stimulate domestic consumption.

Ultimately, this research supports the revitalization of Vietnam's chocolate industry, aligning with national ambitions to participate in the growing global premium chocolate market.

CHAPTER 2
LITERATURE REVIEW

The literature review serves as the foundation of a dissertation, explaining the study's necessity and relevance through a critical examination of relevant, peer-reviewed literature. It includes an introduction outlining the research problem, criteria for literature selection, and is organized by topical headings, concluding with a summary that connects key points and previews Chapter 3.

The Economics of Chocolate" (Oxford University Press, 2016), edited by Mara P. Squicciarini and J. Swinnen, provides extensive research on global chocolate production, governance, and consumption, including insights into emerging markets such as China. However, regarding the Vietnamese chocolate industry, particularly domestic consumption, recent research has primarily focused on the upstream and midstream sectors of the cocoa supply chain. Studies have explored topics such as the genetics, chemical characterization, and flavors of Vietnamese cocoa (H. Everaert, 2022), as well as specific cocoa cultivars in Vietnam (H. Everaert et al., 2020). Vietnamese cocoa's aroma profile has also been analyzed in comparison to prominent cocoa producers worldwide (T. Bickel Hasse et al., 2021). The focus on the raw material side of the supply chain is the reflection of Vietnam's constant position as the supplier of raw cocoa.

As above mentioned, it is not only a big gap in national chocolate consumption knowledge but also a tremendous void in understanding the local chocolate market, which absolutely needs to fill out and provide a full pledged comprehension on

customers' total picture as well as their purchasing decision patterns viewed from the angle of empirical study, which consummates the supply chain, contributes an evidence-based approaches for policy-makers, marketers, local as well as international players at a large-scaled applicability in Vietnamese cocoa industry and the world.

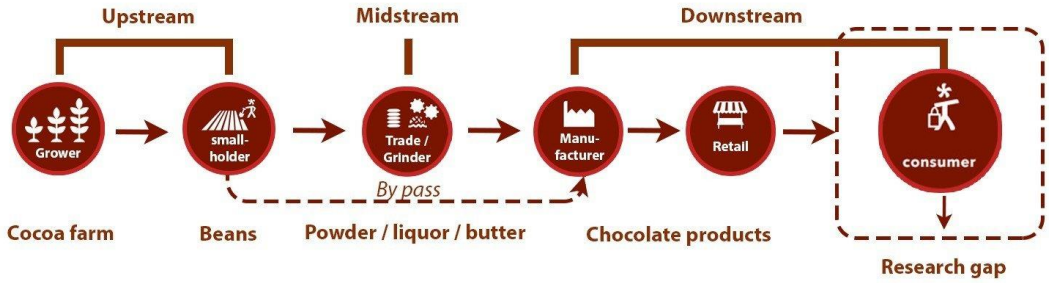


Figure 1. Cocoa/chocolate Supply Chain (A. Fountain and F. Huetz-Adams, 2018).

Vietnam cocoa supply chain starts from grower/smallholder (some big state farms) to international bean trader and stops there. Or, second supply chain branch continues to the liquor grinder, chocolate manufacturer, retail and finally consumer. A significant approach goes to the second branch without exporting the beans via international trader is recommended, where the final consumer is centered.

In addition, it is still widely unknown how Vietnamese consumers buy and use chocolate, along with the lack of popularity of a product, which is one of the sweetest in the world. Therefore, the knowledge of chocolate consumption drivers and consumer behavior in Vietnam is a must. Gaining insights into consumer preferences, perceptions, and motivations in purchasing chocolate can empower local chocolate businesses to better target specific segments, explore new channels, and identify fresh sales opportunities (M. Del Prete and A. Samoggia, 2020). When the industry has a

clear understanding of these drivers, it will be able to exploit its capacity in domestic markets and go global at the same time.

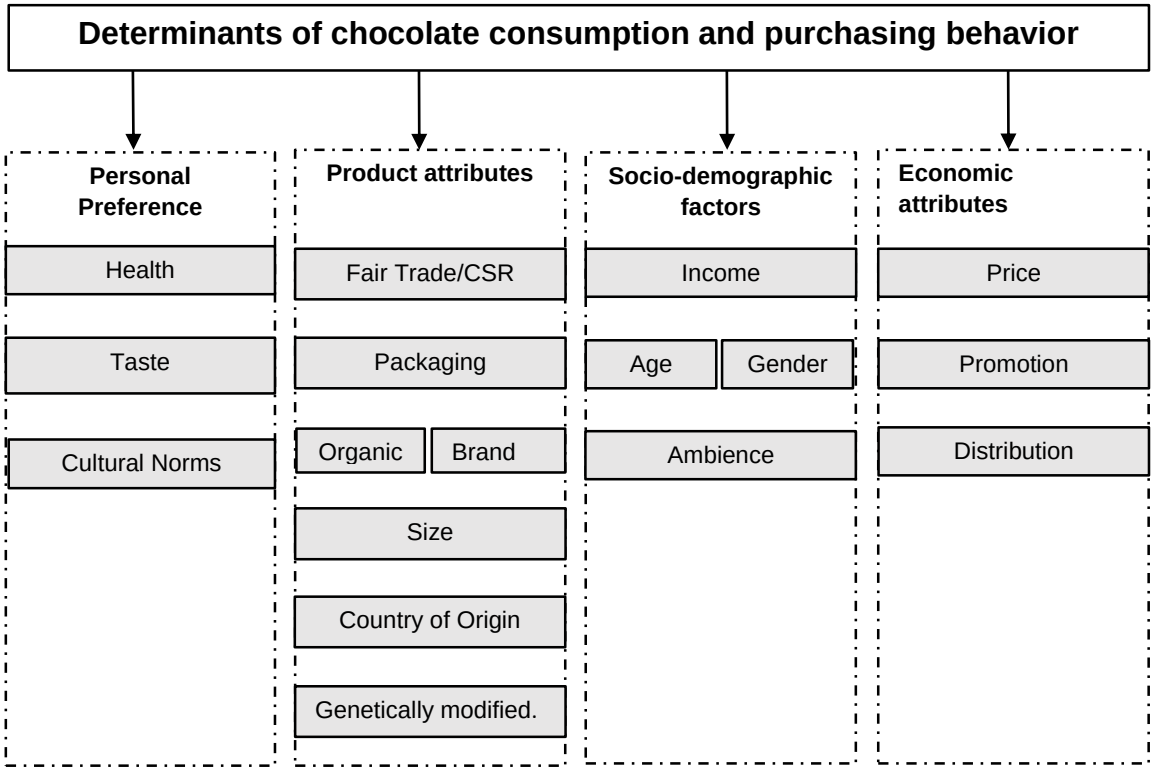


Figure 2. Determinants of chocolate consumption and Purchasing Behavior (M. Del Prete and A. Samoggia, 2020)

One of the important steps as part of the development of marketing strategies is to identify the determinants of chocolate consumption and to ascertain the impact of these determinants in the choice of the consumers. The major aspects of the strategies involve new product development, pricing, distribution, and promotion of niche products, which are designed for the local market mostly. In the setting of Vietnam, first and foremost, these factors can help businesses to come up with ideas that speak to local consumer needs and habits.

The fusion of half a percent of the rise of the e-commerce industry and the introduction of artificial intelligence may assist in accessing new sources of supply relevant to the local setting thus offering a new range of choice and opportunities for the suppliers.These technologies can affect consumer judgments in a positive way by giving them new experiences, thus increasing the chances of successfully marketing products that a consumer really needs/wants. With the increasing importance of personalisation, targeted promos, and convenience in shaping the consumer behaviour in the modern marketplace, brands are creating a great deal of emotional gratification and more brand loyalty than they got from previous offerings. Through the marriage of digital and offline, marketing strategies can be made more sturdy and influential to reach out to the Vietnamese market.

2.1. Chocolate Consumption Panorama

Chocolate is not bound to be only an FMCG (fast-moving consumer good) or a simple confectionery item. The consumption story of chocolate is huge, the decision to buy chocolate is driven by its intrinsic value and the emotions of the consumption by a consumer, and also the emotions that are part of the decision-making process and the preferences of the consumers. In order to obtain a full understanding of consumer attitudes towards and knowledge of the social aspects of food labeling, it is necessary to go ahead with the empirical research first, since only empirical research can serve as the foundation for any future marketing strategies to be devised (Merlino et al., 2021). Furthermore, these multiple studies also describe that chocolate type, and brand preferences are perfectly examined by various approaches that take individuals'

lifestyles, eating habits, and socio-demographic information into account (Massaglia et al., 2023).

Employing the one-of-a-kind product idea in the market has the edge in drawing customer attention, for example, with the method of giving the food the power of seaweed (macroalgae) to do. The outcomes of the research so presented rely on the primary function of airdropping new products so that it can work as a sustainer to additional resources that help other brands beat the market leaders. Not only that, but the former also reveals the kinds of sensations and characteristics that will most likely appeal to future customers of this new genre of chocolate. (Salgado et al., 2023)

For a long time, chocolate has been typically accused of a mix of traits of sweetness and fat, which play a central role in the deterioration of consumer behavior. There is a direct correlation between the levels of sweetness and fats from a reduction in fat significantly cuts the intensity of sweetness (Pedersen et al., 2023). A similar idea is followed by Pedersen and team by examining hypotheses concerning nontraditional sweeteners, such as sucrose and acesulfame-K, to find supporting data. Their results in relation to the fruity and lactic region demonstrate that a decrease in sucrose is associated with a decrease in consumer preference for that part of milk fat and at the same time provide the reader with proof, which suggests a change of the product to cheese flavor in the respondents' opinion and the like.

Chocolate "functionalities" have shaped a multifaceted and massive chocolate industry that serves different sectors and age groups well, in a new study led by Abedini et al. (2023). To this end, a new method has been attempted, namely the approach to fortify chocolate with health benefits to make chocolate work in a different way. The plan's

goal is to have an entity that should take care of the growth of chocolate not only as the only issue of health benefit but also as a functional, worth-keeping, nutritional, and healing product.

It has been reported that, in line with the changing demographic profile of Japan, the chocolate industry attempts to introduce a new kind of chocolate that is not only enjoyable but also a potential treatment for a variety of chronic diseases such as high blood pressure, dementia, arteriosclerosis, skin problems, and allergies, by stressing the healing power of cocoa polyphenols, the substance in chocolate (Kawasaki et al., 2019). The researchers' basic idea is that if the youth were to eat chocolate every day, the older people in Japan might be better off in terms of health, despite the current health and lifestyle that are, and will be, the most challenging aspects of Japan's society.

As a primary factor, age has been shown to have an effect on chocolate consumption. Feelings of hunger and cravings and the guilt of consuming chocolate are important determinants (Velarde et al., 2018).

A recent survey employing a neuro-approach to chocolate consumption uncovered that the broader the prefrontal cortex is activated, the less likely the ability to resist chocolate will be impaired. Attention is drawn to the necessity for methodological considerations to be developed for future research addressing health behaviors by the findings of the study (To et al., 2018).

With reference to the field of examining and determining Willingness to Pay (WTP) for chocolate, the Electroencephalography (EEG) approach has been used to implicitly predict, and to a limited extent, also explicitly stipulate WTP (Semenova et al., 2023).

EEG, a non-invasive neurophysiological diagnostic technique that measures the electrical activity of the cerebral cortex, was used to determine the relationship between the taste of chocolate and the beta power from the frontal EEG to WTP. The results indicate that frontal signals in EEG are positively correlated with the packaging impact on chocolate WTP, indicating that packaging can lead to the overvaluation of not-so-famous brands.

Communication strategies are essential for small and medium enterprises (SMEs) in the chocolate industry, especially those operating on the internet, as this is one of the most critical aspects of influencing consumer behavior. These strategies should also cover the product's different aspects and that it is healthy, such as the mention on the package that a dark chocolate brand is ecological or having "light" products like sugar-free or reduced-calorie options. The health claims associated with cocoa flavonoids, which have been linked to benefits such as lowering blood pressure and improving cholesterol levels, have driven a rise in dark chocolate consumption in recent years as consumers increasingly recognize the connection between cocoa and health (Blanc et al., 2022).

Blanc and his group (2022) also cover the basic aspects of sustainability, innovation, and the product origin in chocolate communication campaigns. The origin of chocolate plays a crucial role in consumer behavior, particularly during the purchasing process, as it connects the product to sustainability, organic sourcing, and the social inclusion of indigenous communities involved in cultivation and across the entire value chain. Chocolates with certified origins are often perceived as premium products, signifying high quality and local authenticity. Consumers also recognize voluntary labels such as

fair trade, which add value to chocolate. Younger consumers, in particular, seem more inclined to pay a premium for products associated with ethical attributes, though opinions on this vary. Despite the growing awareness of features like organic, fair-trade, single-origin, and no-sugar-added chocolate, the sensory experience remains the dominant factor in chocolate consumption.

A panel of researchers from the University of Turin, comprising five experts, was selected to analyze chocolate-related websites using the AGIL framework (Blanc et al., 2022). The researchers identified 20 indicators across five subdimensions for each dimension of the AGIL scheme, which were used to assess the communication style of the websites.

Table 1. Indicators and subdimensions of the AGIL scheme (Blanc et al., 2022)

Dimensions	**Subdimensions**	**Indicators**
Adaptation (A)	Brand recognition	Degree of ease in brand recognition
	Site design	Degree of customization and uniqueness
	Free-from products	Presence of products free from certain ingredients (sugar-free, gluten-free, lactose-free, etc.)
	Fat-reduced products	Presence of fat-reduced products
	Vegan products	Presence of vegan products
Goal-attainment (G)	Taste and texture	Quantity of indication about the product taste and texture
	Availability of information	Quantity of intrinsic information about chocolate and its label

Dimensions	**Subdimensions**	**Indicators**
	Certifications	Presence of certified product lines (i.e., organic, vegan, etc.)
	Health benefits links	Presence of product lines with health benefits (polyphenols - flavones)
	Product use	Information about the possible product uses (e.g., for preparations, cooking)
Integration (I)	Price	Expression of the importance of the price of products
	International profile	Number of foreign languages available
	Interactive website	Presence of chat rooms, forums, social networks
	User-friendly	Degree of intuitiveness, ease of navigation and easy access to information
	E-commerce	Presence of an online shop
Latent pattern maintenance (L)	Communication of innovation	Originality and innovation of the process and the product
	Origin	Presence of references to the place of origin of the raw material and the place of processing
	History-tradition	Presence of references to the history tradition of chocolate and territorial identity
	Environmental sustainability	Presence of references to environmental sustainability

Dimensions	Subdimensions	Indicators
	Social sustainability	Presence of references to the relationship with farmers or producers (social aspects, fair trade)

This research provides a valuable tool for SME artisan chocolate businesses to develop their communication and promotion strategies, helping them effectively present information online and tap into underutilized market opportunities. The findings emphasize the importance of the relationship that manufacturers seek to establish and maintain with their customers, particularly through brand association. While traditional communication and promotion styles, grounded in the manufacturer's reputation for tradition and product origin, remain strong, the study reveals significant potential for enhancing customer interactions through social media as a key tool for relationship-building.

Further research has focused on chocolate labeling, particularly regarding taste ratings, food safety, origin labeling, and consumers' willingness to pay (WTP) (Schott et al., 2022). It was found that origin labels can influence taste perceptions, creating a "sensory bias" that favors products from recognized food origins. Importantly, the study also suggests that higher taste evaluations are associated with higher prices for well-known chocolates, opening up competitive opportunities for developing regions through the use of origin labels.

A branding study revealed that brand loyalty is particularly strong among younger and more highly educated chocolate consumers. These groups tend to favor manufacturer's brands over private label (store) brands (Kiss et al., 2022). Interestingly, sugar-free

chocolate was found to be less preferred by consumers compared to conventional options.

In terms of ethical consumption and willingness to pay (WTP), research by Grafenstein et al. (2022) highlights that although consumers often lack a deep understanding of fair trade, they tend to trust brands with clear Fairtrade certification and are willing to pay a significant price premium for products bearing this label. However, caution should be exercised as these findings may be specific to certain countries or regions.

A survey conducted by Coutinho et al. (2021) explored new technology in chocolate processing, focusing on the use of cold plasma. The primary objective of the study was to evaluate the reaction of the consumers that included food technology neophobia, familiarity with the technology, willingness to buy the product, as well as sensory attributes and perceived quality compared to traditional processing methods. The results showed that customers thought the technology to be a little bit "exaggerated" and besides, they still liked those traditional chocolate aspects like the brown color, chocolate and milk flavor, and a high consistency. The study further clarified the need to provide chocolate products with clear, comprehensive, and trustworthy information, as consumption of health-related claims is likely to boost consumers' willingness to pay.

Laura García-Herrero et al. (2019) delved into environmental and ethical considerations in the consumption of chocolate, focusing on preserving the production supply chain of chocolate within the context of global sustainability. They highlighted that the challenge lay in ensuring economic profit while, at the same time, protecting the environment and ensuring long-term societal advantages. The sustainability of this

sector largely depends on the consumers themselves since their purchasing power has a direct effect on the demand for chocolate, a product that has been traditionally consumed in developed countries where the implementation of regulations of environmental, economic, and social impacts of chocolate supply chains are not strict and are, in fact, limiting.

The research aimed to understand consumer perceptions of sustainability throughout the chocolate life cycle, from cocoa beans to finished bars, and to identify value-chain gaps related to cocoa crop production, deforestation, and the poverty experienced by growers in the upstream supply chain. The study also underscored that consumer trust in every stage of the supply chain, from cocoa beans to the final product, hinges on reputable certifications a resource that is currently insufficiently available.

The study by Adriana Reis de Andrade Silva et al. (2017) explores the impact of sustainability labeling on consumer purchase intentions and perceptions of product quality, particularly in relation to organic agriculture. As the global food market increasingly favors sustainable and organic practices to promote development, the research demonstrated that labels indicating quality and sustainability influence sensory acceptance of products. However, sensory attributes, especially flavor, remain key drivers of consumer behavior. This study provides valuable insights for the cocoa and chocolate supply chain, helping producers and companies understand how quality and sustainability labeling can influence consumer choices.

Boutique or craft chocolate, which emphasizes handmade production, represents a growing trend in chocolate consumption. Specialty chocolate, as affirmed by Jeana Cadby (2021), has been a driving factor behind the economic growth of local

communities with benefits such as sustainable farming, ethical sourcing, and consumer education, highlighting the long-term impacts of the same as it has led to a shift in business strategies like the use of e-commerce and the practice of transparent pricing, which significantly boosts sales.

New product development (NPD) is an imperative initiative for attracting new customers, and the product that has been the best fit between chocolates and various kinds of nuts is worth mentioning; because chocolates with different nuts have been well received by consumers. However, the scarcity of scientific research remains the key issue as Linda Isabel Paz et al. (2021) identify the further source of the problem. A study involving the use of the TimeSens© software to examine the flavor of chocolate and determine the taste and flavor interactions of chocolate and nuts, showed that chocolates that possess sweet, milky, creamy, and buttery flavors make a good match with nuts, while those which have bitter, roasted, cocoa, and sour tastes are not successful.

Bean processing technology, according to the work of Alan P. McClure et al. (2022), is a field that revolves around studying the impacts of roasting time, and temperature on bitterness intensity, and the chocolate acceptance by consumers. It was found that perfect roasting conditions can be used to minimize the aftertastes of 100% chocolate to be less bitter, sour and astringent supported by the tested prospects for greater chocolate consumption. Moreover, the cacao's country of birth and the basic flavor profile are as well of great importance in terms of the patron's preferences.

In the study conducted by Jenny Morris et al. (2020), it was investigated how the food-related automatic thoughts could act as an initial trigger for further craving that can lead

to the consumption of unhealthy and harmful food, with the help of Load Theory. The results showed that when the perceptual load was significantly high, it led to lower cravings for chocolate and thus supported the idea that focusing on an activity, which demands a great deal of mental energy, may be a potential long-term strategy to prevent the development of the craving stage.

2.2. IRT (Innovation Resistance Theory)

In the 1980s, firms across the globe increasingly poured investments into product and service innovations to widen their competitive advantage. Yet, the ironic situation was that despite the availability of great, affordable, and technically superior products many such innovations failed to take off in the market. Conventional models such as the Technology Acceptance Model and Diffusion of Innovations focused on the determinants of acceptance, but paid less attention to the reasons for consumer resistance. To fill this void, Jagdish N. Sheth and Subhash Ram developed Innovation Resistance Theory as an alternative conceptual lens through which to understand why consumers often react poorly to innovations. In their view, resistance is not outright rejection but a natural and initial psychological response that consumers display prior to fully evaluating or adopting an innovation (Ram & Sheth, 1989).

IRT was founded on the belief that consumers do not automatically embrace innovations, even when the product or service being offered is seemingly superior. Sheth and Ram posited that resistance is a natural and predictable psychological force, often rooted in consumer's prior usage behaviors, perceived risks, conflicting images, or cultural inappropriateness. They conceptualized resistance in two higher-order types: psychological and functional barriers. By treating resistance as a decision stage prior to

acceptance, IRT offered a highly utilitarian perspective for understanding the earliest stages of consumer behavior. It was an insightful addition to marketing scholarship, especially in thinking about how to launch new products and educate consumers. IRT taught that if firms want to successfully diffuse innovations in the market, they need to understand resistance just as well as acceptance.

When IRT was introduced, dominant consumer research paradigms were mostly upbeat assuming that innovation automatically generates value and will ultimately be adopted. Yet the repeated market failures of innovative products, from first-generation camcorders to online banking services, proved that consumer resistance is a real and often overlooked problem. IRT surfaced as a pointed theoretical rejoinder to this optimism, recasting resistance as a managerial marketing problem. Beyond its conceptual contribution, Sheth and Ram also provided managerial remedies to reduce resistance, such as upfront transparency, enabling trial, and incremental fit with cultural meaning. For its conceptual elegance and managerial relevance, IRT quickly gained traction in the broader consumer behavior field.

Innovation Resistance Theory (IRT) is a brand new, interdisciplinary and varied theoretical framework which realizes its potential by drawing from numerous theoretical traditions. Behavioral psychology, particularly the status quo bias concept, is the main influence of IRT. The status quo bias suggests that people usually choose familiar routines and resist changes without a strong incentive. At the same time marketing theory talks about the risks and uncertainty that come with innovations, especially if the consumers don’t see the good immediately. Additionally, IRT also draws upon the classical Diffusion of Innovations model by Rogers (1962), however,

only the part about the spread of the innovations is the focus of DOI whereas IRT still concentrates on the initial resistance stage. This joining of theories enables IRT to account for consumer behavior not as a straight adoption road, but as a more complex journey of wavering, doubting, and occasionally even refusal.

What distinguishes IRT from other consumer behavior theories is that it has a different focus on adoption barriers of the innovation instead of the facilitators. Tools such as the Technology Acceptance Model and Theory of Planned Behavior are based on cognitive assessments like perceived usefulness or subjective norms, whereas IRT is focused on the psychological frictions that hinder adoption. These are the main frictions: usage barriers, value barriers, risk barriers, tradition barriers, and image barriers. This focus provides a deeper insight into the range of possible scenarios of the failure due to resistance that can occur even with good innovations. Thus, IRT is in the process of complementing, not contradicting, main models by revealing a crucial, yet often ignored consumer's response phase.

Annamoment Research Theory is a psychological and functional approach that explicitly specifies the components which enable the reception by consumers of the new product that becomes a resistance and opens the theoretical gap in consumer innovation research. Consumer resistance to change is no longer seen as a binary "accept/reject" result, but as a complex concept that includes delay, doubt, and even direct opposition. This viewpoint is particularly applicable to the nature of current consumer markets that are unstable and, on the one hand, are complicated by the occurrence of less trust in new technologies, brands, or practices. Hence, the theory invites marketers to create proactive strategies that cancel out resistance to the greatest

extent possible for example by product simplification, trialability, or cultural alignment prior to launching the new offerings. Thus, IRT becomes not only a research instrument but also a strategic tool for the effective management of consumer attitudes throughout the innovation lifecycle.

Innovation Resistance Theory (IRT) has been reenergized since the 2000s with renewed interest in it especially in consumer markets and that is because they have become more complex and the innovation cycles have shortened. Authors started to empirically prove and develop the original IRT model in different areas. One of such examples is Laukkanen (2007) who utilized IRT in mobile banking and observed that risk barriers (security issues) and image barriers (the fear of being old-fashioned and untrustworthy) were the main factors that influenced adoption resistance. This opening of the energy towards the positive identification of context-specific barriers and thus, the possibility of domain-level refinements has been recognized. With technology being everywhere and in all parts of our life, responding to the resistance in its various forms has thus become an essential part of innovation design and marketing strategy.

Building on Sheth and Ram's seminal article, subsequent authors such as Kleijnen et al. (2009) and Heidenreich and Talke (2014) have further refined and developed the conceptualization of IRT by introducing the distinction between passive and active resistance. Passive resistance refers to subtle forms of resistance, such as delay in adoption or indifference to innovation, whereas active resistance describes behaviors such as outright rejection of the innovation or negative word-of-mouth communications. These extensions of IRT have contributed to the progression of IRT as a more fine-grained behavioral continuum of resistance rather than a dichotomous

categorization of adoptor versus resister. In addition, Talke and Heidenreich (2014) further extended Kleijnen et al.'s (2009) conceptualization of IRT by incorporating emotional resistance and consumer innovativeness into the IRT framework. Talke and Heidenreich (2014) argue that in the context of innovation adoption, personality dimensions and emotional reactions to the innovation per se in terms of anxiety, skepticism or exuberance also matter, leading to 'emotional resistance' among some consumers. This extension of IRT has contributed to link IRT to psychological and personality domains and has further advanced the usefulness of IRT by supporting its application to broader consumer segments.

Over the last couple of decades, IRT has been applied with great success in a variety of industries, from healthcare, financial services and education to consumer packaged goods. In healthcare, for instance, IRT was employed to understand public resistance to COVID-19 vaccines, particularly in emerging markets where traditional and image barriers are strong. In food, innovations like plant-based meat or upmarket local chocolate didn’t meet with success due to quality issues but because they were out of step with cultural taste preferences or the consumer’s entrenched habits. This shows that IRT applies to much more than just high-tech products but can also be used for behavioural, habitual and cultural consumption. It has also become popular in cross-cultural research, as it can shed light on why innovations are accepted or rejected by consumers from different national, regional or ethnic backgrounds.

What is clear from recent publications is that one of the future directions for IRT is to position it as a general model of innovation resistance. This is particularly relevant when innovation adoption takes place in uncertain, complex or turbulent environments.

Here, firms face many different forms of resistance in such complex environments, giving rise to what they term a resistance web. Over the last two decades, innovation resistance theory has sought to broaden the scope of the five obstacles posited by Ram and colleagues. This has included investigating environmental resistance, particularly in relation to eco-innovations, as well as expanding our understanding of how social and emotional resistance to adoption can be overcome. This research has shown that innovation resistance theory provides a complementary perspective to other innovation-adoption theories, such as the Unified Theory of Acceptance and Use of Technology. It has also been combined within broader theoretical paradigms, such as Consumer Culture Theory, to develop a more holistic understanding of consumers' reaction to innovations. Moreover, it has been used to understand individual forms of resistance, such as social resistance, cultural resistance or subcultural backlash against innovation. All of these developments suggest that IRT is no longer just a theory for explaining why adoption fails. Instead, it can be viewed as a diagnostic tool that can be used in the innovation process to design innovations that resistor-proof products/issues from the very outset.

These results demonstrate that consumers' reluctance toward Vietnamese chocolate is not only based on taste preference but also on a more complex psychological and cultural mechanism. In line with Mohd et al. (2021) and Sang et al. (2022), this study revealed that tradition, image and risk barriers are the main sources of consumers' resistance toward new products and this evidence is obviously found during this research in Vietnam while consumers are familiar with imported chocolate brands and most of them are loyal with traditional chocolate taste.

Triantafyllidi's study (2021) on circular fashion further reveals that socio-demographic variables like age, income, and education are the major factors affecting innovation resistance. The same pattern is observable in Vietnam, where younger, urban, and more educated consumers are more likely to experiment with local chocolate brands, while older or rural populations may hold on to traditional norms more firmly.

Moreover, our study of smart clothing conducted by Naan Ju and Kyu-Hye Lee (2020) highlights the importance of trust, good brand image, and product features as the main driving forces in their research. The same is true of the chocolate market in Vietnam. Brands from this local area have not yet been able to establish trust and brand loyalty among consumers.

Huynh et al. (2021) likewise illustrate that value, risk, and usage barriers influence consumer behavior in the organic food sector in Vietnam, which are also the barriers in chocolate consumption. Although there is an increase in the health awareness of people, the safety of the product, the guarantee of the quality, and the price still form the obstacles that hamper the further implementation of domestic chocolate.

Farah Shishan and other co-authors (2022) in their study of cryptocurrency adoption have shown that the innovation resistance phenomenon occurs even in very developed markets. The authors' results are in line with the proposition that new products, regardless of the technology or the benefits they bring, may be initially rejected if the barriers to customers' psychology and society are not properly removed.

In summary, these interdisciplinary insights have verified the usefulness of Innovation Resistance Theory (Ram and Sheth, 1989) in analyzing the Vietnamese chocolate industry. Identifying and managing the root causes of resistance, such as the

psychological, cultural, and demographic factors outlined above, are crucial to overcoming resistance and increasing consumer acceptance of domestic chocolate products.

2.3. Construct Explanation

2.3.1. Collectivism

According to Hofstede (2011), collectivism is defined as the degree to which people see themselves as part of a larger group such as a family, community or work organisation. In such cultures, values such as interdependence, cooperation, mutual help, and social harmony tend to be emphasised. The needs and wants of the individual are often seen as secondary to the needs and interests of the group, as cultural values stress group cohesion and solidarity. These social norms within collectivist cultures have been found in various investigations to be good predictors of ethnocentrism and thus related to a consumer's propensity toward environmentally friendly and sustainable consumption (McCarty, 2001; Shrum, 2010).

Furthermore, research has shown that people from collectivistic cultures are more likely to take into account the concerns of others when making consumption decisions. This concern for others, which can be linked to empathy and social responsibility, is often stronger in collectivistic cultures than in individualistic cultures and has been identified as an important driver for green, ethical, or sustainable products (Luchs, 2015). The strong collectivist culture reinforces behaviours such as recycling, saving resources, and buying organic or environmentally friendly products (Chan, 2001; Kareklas, 2014).

Additionally, the solidarity that is displayed in such societies helps individuals to make sacrifices for the sake of environmental sustainability in the long-run. Individuals in collectivist societies are usually more accepting to transform their consumption habits which might be required for a sustainable future (Morais, 2020). This was identified not only at a broad level but also at a national level. For instance, in India and Sri Lanka which are considered collectivist countries, collectivism was found to have a favorable impact on environmental attitudes and was a strong predict of consumers' green purchasing intention (Sreen, 2018; Samarasinghe, 2012).

Furthermore, the vertical nature of collectivist societies where hierarchy and respect to authority is important combined with the widespread altruistic norm of such cultures, creates a culture where societies pursue sustainability not only for economic or social benefits but also out of a genuine concern to contribute to the welfare of the world. This altruistic motivation further strengthens pro-environmental behavior and makes such societies more amenable to sustainability initiatives (Leonidou, 2019).

2.3.2. Personal Innovativeness

The construct of personal innovativeness or consumer innovativeness has been identified as a key personality trait that pushes consumers to seek novel and unique consumption experiences to satisfy their inner need for change and novelty. The idea was proposed by Steenkamp and Gielens (2003), who argued that such consumers are predisposed to experiment with unfamiliar products and services as a way to express themselves and develop their self-identity. Within this context, personal innovativeness refers to the level at which an individual perceives a product as having typical

characteristics of innovation, such as newness, uniqueness, and differentiation from current alternatives (Kim & Bae, 2020).

Empirical evidence has abundantly confirmed the role of personal innovativeness in contemporary consumption behaviour over the past decade. One of the clearest indications of this is the growing global phenomenon of the consumption of international or globalized products. These products are often associated not only with technologization and a modern lifestyle, but also with social status, cosmopolitanism and cultural openness. Thus, they are often adopted as a sign of being up-to-date or progressive in terms of consumption.

In such a light, it is unsurprising that consumers high in personal innovativeness exhibit high receptivity towards these products. Their higher sensitivity to innovation and typically higher acceptance toward change make innovative consumers more receptive to emerging trends and new product categories that promise new experience or superior performance. Innovative consumers are thus more likely to be early adopters of global products, assisting in the permeation of such products within local markets and, consequently, speeding up the pace of product globalization.

2.3.3. Openness to change

According to Yeh and Harmel (2018), openness to change is defined as a basic personal value that refers to the degree to which individuals are inclined to embrace new experiences, ideas, or products. In other words, openness to change is a psychological force that drives people to willingly participate in new behaviors or make new choices without the influence of external forces. Such individuals who are open to change often

exhibit a trait referred to as innovativeness by marketing researchers, which is characterized as the tendency to be receptive to and enthusiastic about new ideas and products. More generally, as a motivational value, openness to change has been identified in the consumer behavior literature as a meaningful predictor of how innovative and new product purchasing will be received and processed by consumers. In their study, Hansen et al. (2018) found that consumers who place strong importance on openness to change are also more likely to have a positive attitude toward purchasing new and innovative product offerings. In addition, an openness to change values fosters a willingness to consider alternatives outside of one's customary choices and in doing so, this value can be seen as a critical link in the chain leading to acceptance and adoption of new market offerings, especially in market contexts experiencing rapid technological or cultural change.

2.3.4. Functional Barriers

2.3.4.1. Risk barrier

The extent to which consumers perceive the notion of a "risk barrier" serves as an important determinant of the degree to which perceived risk is associated with innovations or novel products. Ram and Sheth (1989) characterize this barrier as the level or degree of risk consumers associate with the introduction of new concepts or products. It reflects the degree to which consumers believe an innovation to be fraught with uncertainty, unpredictability or the potential for negative consequences—be these monetary, functional, social or psychological in nature.

Previous research has found that the extent to which the features, benefits or consequences of an innovation are ambiguous or unclear is strongly associated with

higher levels of perceived risk among prospective adopters. For example, Chen and Kuo (2017) explain that greater ambiguity exacerbates feelings of uncertainty which in turn acts to significantly increase consumer hesitation or opposition toward adoption. When consumers are left unclear about what to expect from an innovation or uncertain of its claimed benefits, they are more prone to perceive it a risky and inhibit their engagement with it.

Furthermore, Molesworth and Suortti (2002) argue that such risk perceptions do not necessarily result in outright rejection but rather in deferred adoption. Many consumers favour a "wait-and-see" strategy, delaying their purchase of the new product until its performance, safety or value has been proven through broader usage, social endorsement or further information. This is consistent with Ram and Sheth's (1989) original statement that the greater the perceived level of risk associated with an innovation, the more consumers are deterred, and correspondingly, the slower the rate of adoption tends to be across the market.

2.3.4.2. Usage barrier

Innovations that imply changes in consumers' traditional behaviors or daily routines usually require a long period of development and adjustment before they succeed in conquering the mass market. According to Herbig and Day (1992), when an innovation challenges established consumption habits, it generally faces some inertia that slow down its adoption and take up by the mainstream. This is directly related to what Ram and Sheth (1989) call "the use barrier", which exists when a new product or service is not compatible with consumers' existing habits, procedures or usage patterns.

In other words, the use barrier is of the perceived incompatibility of the innovation with the consumer's established lifestyle or behavioral routines, and it constitutes a resistance that is not necessarily related to the product quality nor to its perceived benefits or value, but to the disturbance and adaptation effort required by the user of the product, to the extent that the user may perceive the product as inconvenient or cumbersome to use in the existing way of doing things. Mani and Chouk (2018) specify that the use barrier comes from the consumer's perception of the degree of change or effort required to transform her/his daily life in order to adapt to the new product. The more the adoption of the innovation forces the consumer to learn or change her/his established behavioral routines, the harder the resistance is likely to be.

Moreover, Tandon et al. (2020) point out that this use related resistance can be a significant hindrance to consumers' adoption of unfamiliar or innovative products. Their study shows that unfamiliarity along with doubts about the product's functionality or the value it delivers often results in reluctance or outright rejection. In such situations, consumers may prefer to stick with a familiar and convenient option, even if it is less efficient or effective, rather than investing the mental or practical effort required to learn and adapt a new product or way of using it. Therefore, overcoming the use barrier is essential for companies aiming to facilitate smoother product integration and to accelerate innovation adoption in the marketplace.

2.3.5. Psychological Barriers

2.3.5.1. Image barriers

The concept of the image barrier refers to the cognitive dissonance that arises when there is a noticeable discrepancy between the negative perception consumers may hold

about a product and the more positive perception they might otherwise have had based on expectations or needs (Mani and Chouk, 2018). Such negative perception might have originated from a variety of sources like branding, marketing messages, or the socio-cultural connotations in a broader sense that are associated with the product or its place of origin. When consumers have such negative views, their willingness to think about or adopt the product in question is significantly reduced (Strebel et al., 2004). The farther undesirable impressions go, the more the effects are highlighted, especially in cases where the properties of the brand are emphasized or the negative stereotypes related to the country of origin of the product prevail (Joachim et al., 2017).

Research studies of Ram & Sheth (1989), Garcia, Bardhi, & Friedric (2007), and Lian & Yen (2013) have all concluded that the image barriers are triggered by unsafe feelings that may be caused by distrust, stereotypes, or a lack of understanding of the innovation's source. Even if a product is objectively advantageous, these barriers can still dominate since consumers tend to make quick decisions relying on heuristic indications such as the extent of brand recognition or the reputation of the country when they try to figure out what is new. The issue has been consistently explored during the last few years in the light of the change occurring in social values and consumer mindsets. For example, Claudy et al. (2014) focus on how social norms, cultural narratives, and collective perceptions not only form the image of an innovation but also continue to nourish the resistance consumers might feel toward it.

If an innovation happens to be negatively associated with socially or culturally, then it will become a very strong inhibiting factor for consumer acceptance. The most common reasons for such a negative image are the low quality that might be associated with the

product, ethical issues, or just the fact that it is something new and unfamiliar to the consumers. As evidenced by Claudy et al. (2014), the perceptions of society wield a firm influence over consumer behavior, especially in cases where affiliation to the group and social acceptance are of principal importance. In the thus, image barriers not only influence individual opinions but also encompass broader socio-cultural conditions that marketers need to deal with when launching new products in diverse markets.

2.3.6. Purchase Intention

Purchase intention is a term most people would agree that it is the extent to which a person is mentally ready or willing to carry out a certain purchasing behavior in a particular situation (Ajzen, 1991). It reflects a person's conscious decision or tendency to carry out a future act of buying, and therefore, it is still the most frequent choice as a proxy for consumer decision forecasting. Fishbein and Ajzen (1975) underlined that among the different sources of consumer behavior, purchase intention is the most immediate and the strongest predictor of actual purchasing actions. According to this theoretical viewpoint, people are in general consistent with their intentions, providing they are not interrupted by some external factors.

In other words, purchase intention is a key concept to marketers and consumer researchers, as it links consumers' inside impressions with that which is visible in the market. It describes the mental process through which consumers imagine or decide their buying choices from the point of attitudes, beliefs, and the expected results. Yang et al. (2025) still substantiate this opinion by revealing that purchase intention is a go-ahead signal of consumer expectations, catching their willingness to carry out the

purchasing behavior. Hence, getting the reasons for purchase intention gives an abundance of knowledge about customer motivation, thus enabling businesses to develop their strategies so that they can influence more effectively the real purchase results.

2.4. Hypotheses Development

2.4.1. The usage barrier and intention to purchase domestic chocolate brands

Mani and Chouk (2018) define the usage barrier as a mental and/or behavioral resistance that occurs when consumers are faced with a new product that requires a significant change in current habits or ways of doing things. Consequently, they are often reluctant to try or adopt the product, especially if they are satisfied with the products they currently consume. In the Ugandan chocolate market, this barrier can be seen for consumers of established and/or imported chocolate brands, who tend to be reluctant to purchase local chocolate because of a lack of brand familiarity and perceived product quality inconsistencies that make it difficult to shift from their current consumption patterns and preferences.

Findings from previous studies in the context of green and organic products also echo this idea. For example, Ghazali et al. (2017), Kushwah et al. (2019a), and Tandon et al. (2020) have underscored that limited availability and unreliable product quality are among the barriers that lead to consumer reluctance or inconsistent purchase behavior. They tend to be deterred from buying new or unfamiliar product categories as they prefer to choose the options that are safe, reliable, and readily available in the market. Along similar lines, Hasimu et al. (2017) found that the irregular availability of organic products was among the major reasons for inconsistent purchase behavior.

Furthermore, the study of Lillywhite et al. (2013) supports the claim that consumers often behave cautiously by choosing traditional products instead of new or unfamiliar options. The main reason for this behavior is that consumers feel a sense of risk and hence prefer to prioritize certainty and dependability in their purchasing decision.

Hence, it can be argued that consumption-related barriers such as lack of knowledge, perceived risk, and inconsistent availability in the local chocolate market significantly impact and possibly inhibit consumers' purchase intention towards local chocolate products. These barriers may lower confidence and trust, and thus hinder the wider acceptance of local chocolate brands in the competitive market of confectionery.

H1: *The usage barrier influences the purchase intention of the domestic chocolate brands.*

2.4.2. The risk barrier and intention to purchase domestic chocolate brands

Consumers often define risk in terms of the perceived personal loss they may experience when adopting a new product (Lichtenstein et al., 1993). Risk has long been recognised as a key barrier to consumer purchase intentions, especially for green and sustainable products (Sadiq et al., 2020). The greater the extent of consumers' perceptions that a green product may not fulfill their desires, expectations or needs in terms of quality, green/sustainable attributes, performance or value, the less likely they are to purchase the green alternative. Perceived risk is often exacerbated when the product is relatively new, or less well understood by consumers, which may be due to a lack reliable and accurate product information and knowledge, making it more difficult for consumers to assess the risks and benefits of purchasing the green product (Sadiq et al., 2021).

For instance, consumers may be reluctant or refuse to purchase when there is limited or unclear information available about the product's attributes, eco-labels, green benefits, or performance. This lack of information may be magnified in emerging or niche markets where consumers have limited knowledge and expectations (Sadiq et al., 2021). In addition, Sadiq et al. (2021) argued that this situation becomes worse by the occurrence of fake advertising and exaggerated marketing claims that distort consumer perception and reduce consumers' trust. As a result, consumers become more sceptical about the product offerings and less willing to consider substitutes to conventional products. In this light, lack of transparency and exaggerated benefits not only make it increasingly difficult for consumers to appraise the value of green products but also serve as major psychological impediments to the diffusion of green products.

Addressing such risk-related issues is therefore important. As per Sang et al. (2022), one of the measures to overcome the risk barrier is to communicate the product benefits clearly and accurately, be transparent in the promotional message, and provide trustworthy, good quality alternatives to conventional products. By providing detailed information and transparent presentations, firms can reduce uncertainty, thereby developing greater confidence from potential customers. The authors explain that such a strategy not only reduces the mental effort required by consumers but also allows consumers to justify the shift towards unfamiliar substitutes with greater ease.

It is noteworthy that the impact of risk barriers is not confined to green or sustainable products alone. Similar consumer behavior has been found in the acceptance of other technology and service innovations. For example, Lu et al. (2011) found perceived risk to have a negative impact on user intention for mobile payment technology, and

Moorthy et al. (2017) found a similar impact in mobile commerce adoption. This suggests that risk aversion is a common characteristic of consumer behavior across many different fields.

Considering these arguments, it is reasonable to assume that risk barriers may prove to be important in determining consumers' intention to purchase in the local chocolate industry as well. Ambiguity about product origin, product quality, manufacturing process, and health concerns could deter consumers from trying or adopting local chocolate products. Therefore, mitigating perceived risk through educational products, certification, and transparent marketing is likely to be critical to increasing the acceptability and competitiveness of domestic chocolate products in the market at large. These insights indicate that there could have a relationship between the risk barrier and the purchase intentions in the domestic chocolate buying scenario as well:

H2: *The risk barrier influences the purchase intention of the domestic chocolate brands.*

2.4.3. The image barrier and intention to purchase domestic chocolate brands

Studies on consumer behavior toward organic food show that image-related barriers play an important role in purchase decisions. One of the most common barriers is the consumers’ lack of knowledge or understanding of organic products. For example, Bhutto et al. (2020) and Kushwah et al. (2019b) note that a considerable proportion of consumers cannot clearly distinguish between organic and non-organic products, leading to doubts and skepticism about labeling and positioning. This affects the perceived uniqueness of organic products. This means that consumers have a hard time

understanding what makes organic products special, which lowers their image and reduces their ability to differentiate on the market.

In the same vein, Misra and Singh (2016) make the same observation for the larger family of environmentally friendly products. Consumers often look at these products with a certain mistrust: they doubt the environmental claims put forward, and/or the quality of the products sold. Indeed, despite an increasing awareness of sustainability and ethical concerns, consumers often wonder if "green" products really live up to their expectations. They may be facing communication problems, consumers rarely see certificates, they may have been victims of greenwashing in the past. All of these things contribute to a negative corporate or brand image.

Haider et al. (2022) add a little more dimension to this by stating that image barriers may also develop from how the consumers perceive the environment availability of the product, and the brand image or brand authenticity. This means that these image barriers are not solely caused by the product but also by the producer or the retailer affecting the customer's perception of image. Bhutto and Rūtelionė (2024) agree with this stance by stating that authenticity issues are at the core of consumer resistance. When consumers doubt the authenticity of a claim made about the product's origin, ingredients, or manufacturing standards, their intention to buy drops significantly. This perceived lack of authenticity doesn't only create doubt but also creates a resistance to trying out or switching to other options.

This idea can be reasonably applied to the domestic chocolate market where chocolate brands formed domestically serve only as image barriers. So, a product, which is essentially produced under the same high standard, may be viewed as a less favourable

product because of a preconceived image about the capability of local manufacturing, branding issues, or lack of international recognition. Consumers may struggle to believe that a chocolate produced domestically can be the same as the quality, flavour, or sophistication as can be found with the known foreign brands. Also, if the product names are associated with particular regions the local chocolate is produced (e.g., “highland cacao” or “craft artisan chocolate”), the same way as other chocolate companies do it, this would also cause resistance unless there is additional supportive evidence or certification. This consumer uncertainty could turn indifference and form a barrier to purchase if there is a readily available alternative they trust.

In view of the afore-mentioned concern, it is tend to infer that image barriers such as sincerity and trust issues, product and brand image is influencing the consumers attitude toward buying locally made chocolate. The hypothesis goes:

H3: *Image Barrier has an impact on the intention to purchase domestic chocolate brands.*

2.4.4. Impact of Collectivism on Consumer Innovation Resistance

In societies where collectivism is dominant such as in Vietnam, which is considered a highly collectivist society (Hofstede, 2011) cultural values, such as tradition, social harmony, and collective interests, are important in influencing the way members of the society accept or reject innovations. In collectivist cultures, the decision to adopt is not always based on individual discretion but often based on the expectations of the community, family, social appropriateness, and conformity. Therefore, the diffusion of innovation in collectivist cultures is cautious and slow as individuals regard the

compatibility of their innovation adoption behaviour with the collective norms and values.

Based on Innovation Resistance Theory, consumers may be reluctant to adopt product innovations because they perceive certain barriers related to that innovation. These are risk barriers (perceived risk or uncertainty), value barriers (consumers' assessment that the innovation is not inferior to alternatives), usage barriers (the degree of the innovativeness of the product or the extent to which the innovation can be adapted to current usage or lifestyle), tradition barriers (existing beliefs and behaviors as well as cultural norms), and image barriers (consumers' perception as to the origin, manufacturer, or users of the product). The five of these dimensions constitute the primary reasons why consumers resist certain product innovations, even though the latter may provide functionally superior features.

Han (2017) finds evidence that collectivist cultures may strengthen the link between consumers' opinions and their purchase intentions. In these cultures, people are more inclined to accept what others value and to base their purchase choices on the collective assessment rather than on their individual trial of a new product. This indicates the greater adoption resistance in collectivist societies, especially for innovations that appear to challenge people's established habits, traditional purchasing behaviour, or culturally conditioned expectations. Consumers' resistance is then not just a result of functional evaluation, approval or disapproval of the innovation, but also deeply grounded in social and cultural identity.

Similarly, Triandis (2002) suggests collectivism is a core construct when studying consumer behaviour in many Asian and developing countries. It captures how much a

person ‘defines’ herself in terms of her membership in the group and the degree to which coherence with the group and the approval of the group’s norms is more important than personal autonomy. Consumers in such contexts are then unlikely to adopt unfamiliar goods and services unless they have been socially verified, approved of by respected word-of-mouth leaders, or demonstrated to be consistent with tradition. Accordingly, each of the innovation resistance drivers risk, value, usage, tradition, and image barriers is expected to be exacerbated in collectivist cultures, where any departure from established norms may be met with scepticism or disapproval.

Since collectivism is a cultural value in Vietnam and many similar societies, it can be hypothesised that cultural collectivism makes consumers more sensitive to the innovation adoption barriers, which then play a more important role in discouraging the adoption of new products or practices that deviate from the conventions or lack communal approval. Therefore, it can be hypothesized that:

***H4a-c**: Collectivism has an impact on the Usage Barrier, Risk Barrier and Image Barrier*

2.4.5. Impact of Personal Innovativeness on Consumer Innovation Resistance

One of the earliest studies to consider personal innovativeness as a determinant in resisting innovation was conducted by Agarwal and Prasad (1990). Their study in the context of the adoption of technological services stopped a negative relationship between the two concepts. It means that the individuals with a high degree of personal innovativeness are less likely to reject technological innovations and novelties. In other words, consumers with a natural tendency to be a pioneer and to go out on a limb with a technology are less subject to psychological/behavioral resistances to technological

innovations, in particular in the field of digital and services. This finding laid the foundation for several theoretical contributions in the way that individual-level psychological characteristics may play a crucial role in predicting the acceptance of innovations.

Following this approach, Parveen and Sulaiman (2008) developed an extended version of the TAM by adding personal innovativeness in order to reduce resistance to the use of the wireless Internet through mobile device technologies. Their results corroborate the conclusions of Agarwal and Prasad by showing empirically that users who have the tendency to try new technologies (in particular the use of the Internet on a mobile device) tend to be less resistant to technology. Such users would be more likely to intend to adopt technological innovation, to integrate it into their routines and to continue to use it.

Furthermore, Parveen and Sulaiman (2008) extended this idea by positing the reinforcing effect of perceived compatibility. In other words, besides being innovative, adopters who perceived the new technology to be compatible with their existing values, needs, habits, or lifestyle were more inclined to accept the innovation easily. The joint influence of innate innovativeness and perceived compatibility on reducing resistance to the innovation suggested that these factors should not be ignored in identifying psychological and contextual phenomena associated with adoption of an innovation.
Overall, this suggests that personal innovativeness should be taken into consideration as it reinforces consumer tendencies to adopt innovations but also potentially mitigates resistance stemming from uncertainty, perceived risk, complexity, and other factors. Innovatively inclined consumers are typically more open and willing to try new

products and services, and are therefore better able to navigate the uncertainties and challenges that come with new experiences.

In this respect, personal innovativeness is likely to be a relevant variable in any innovation adoption context including new or emerging product categories such as domestic chocolate with sustainability attributes or smart packaging. It may moderate or diminish the effect of resistance variables, thereby helping boost chances of new product success on the market. Accordingly, a similar hypothesis is proposed within the context of domestic chocolate products, as follows:

H5a-c: *Personal Innovativeness has an impact on the Usage Barrier, Risk Barrier, and Image Barrier*

2.4.6. Impact of Openness to change on Consumer Innovation Resistance

Openness to change is one of the fundamental values that shapes a person's overall perspective toward new experiences, ideas, and external influences. In the words of Yeh and Harmel (2018), this value drives the individual to act independently, deviate from established traditions, and seek out new experiences. People high in openness tend to consider various options, reexamine preferences, and undertake behavior outside their usual routines. As a result, openness to change is associated with active decision-making and a higher acceptance of innovations, making it an important psychological construct in consumer research especially in the context of dynamic environments.

In this vein, Utama et al. (2024) have examined how openness may affect consumer behavior across different settings such as new product innovation and service technology acceptance. These authors found that openness is not just a personality trait

but it spurs individuals to act in a certain way. That is, those who are high in openness will be prone to respond to novel attributes, new product categories or new technologies positively because they see these changes as opportunities for self-development or value development rather than perceiving them as obstacles or threats to the status quo. Recent research in technology-mediated contexts has underscored the role of openness, especially in how consumers perceive and react to AI-based restrictions or suggestions. Ye et al. (2024), Samimi Dehkordi et al. (2025), and Zhang et al. (2025) point out that consumers higher in openness exhibit greater cognitive flexibility, which allows them to interpret AI-based restrictions not as hard and fast limits but as cues for a creative process that ends in different ways of engaging or solving a problem. Individuals lower in openness are more likely to respond with algorithmic addiction—overdependence on algorithmic recommendations or reactant resistance a rejection of innovation on the grounds of a general discomfort with change. Both can harm perceived self-efficacy and, ultimately, harm innovative or exploratory behavior.

Despite both theoretical and empirical interest, openness to change is still under-researched in some consumer areas especially in relation to product categories at home where habit, familiarity, and perceived quality often play a strong role in choice. In particular, in domestic chocolate consumption, consumers' openness to change may have a role to play in their attitudes toward local, unfamiliar, or unexpectedly packaged chocolate offerings. However, it appears that no studies have specifically focused on the relationship between openness to change and innovation resistance in this context. In light of the mix of cultural taste preferences, product image, and increasing sustainability-related expectations in many local chocolate markets, understanding the

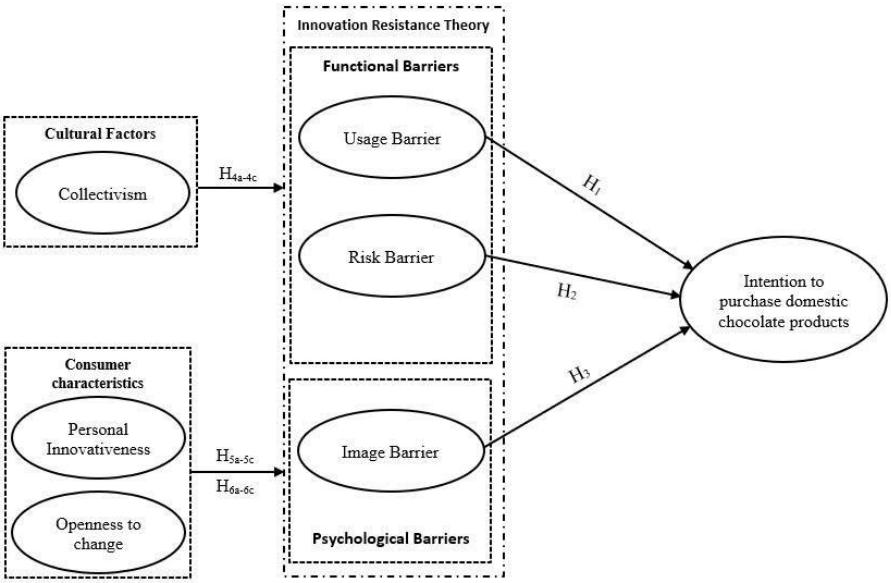
role of openness could be important in overcoming consumer resistance and promoting more positive attitudes toward domestic alternatives.

Therefore, additional empirical research seems appropriate in order to investigate how openness to change as a consumer trait interacts with perceived innovation barriers in the chocolate industry and how this ultimately impacts purchase intention and consumer trust. Thus, we propose the following hypotheses:

H6a-c: *Openness to change has an impact on the Usage Barrier, Risk Barrier, and Image Barrier*

2.5. Research Model of Consumer Resistance to Domestic Chocolate Products

Building upon this foundation, we developed a conceptual model — as illustrated in Figure 2 to empirically test the hypothesized relationships between various dimensions of innovation resistance(usage barriers, image barriers, risk barriers) and consumer attitudes toward domestic chocolate products. In addition to the core resistance constructs, the model also integrates relevant psychological and cultural factors such as collectivism, personal innovativeness, and openness to change, which are expected to influence how consumers interpret and respond to domestic innovations. These variables help capture the broader sociocultural and individual differences that may shape resistance behaviors, thereby providing a more comprehensive understanding of the factors that hinder consumer adoption in the context of domestic chocolate brands.



.

Figure 3. Research Model proposal (Sadiq et al., 2020; Long et al., 2024; Hien et al., 2023)

Hypothesis statement:

As mentioned in part of the Hypotheses Development, hypotheses are determined below:

H1: Usage Barrier has an impact on the intention to purchase domestic chocolate products.

H2: Risk Barrier has an impact on the intention to purchase domestic chocolate products.

H3: Image Barrier has an impact on the intention to purchase domestic chocolate products.

H4a-c: Collectivism has an impact on the Usage Barrier, Risk Barrier, and Image Barrier

H5a-c: Personal Innovativeness has an impact on the Usage Barrier, Risk Barrier, and Image Barrier

H6a-c: Openness to change has an impact on the Usage Barrier, Risk Barrier, and Image Barrier

CHAPTER 3

METHODOLOGY

Chapter 3 presents the research methodology, detailing the design, procedures, and data collection methods used, ensuring sufficient detail for reliability and validity. It contains parts that center on the population and sample selection, instrumentation, and data analysis techniques,offering a complete blueprint for others to be able to reproduce the investigation.

3.1. Measurement

The measurement model consists of seven underlying factors that are related to the intention of the consumers buy of domestic chocolate products. The measurement instruments were adopted from previous studies that confirmed the scale validity and were then revised according to research requirements. The questionnaire was split into two distinct sections. The questionnaire's first part was biographic, demographic items eliciting the participants' gender, age, occupation, education, and income level. The second part of the survey was consistently evaluated against the most up-to-date literature.

More precisely, the collectivism construct (six items) was taken with changes from Sreen et al.(2017), and the personal innovativeness dimension (seven items) has been used from the studies of Vu et al. (2023) and Shanmugavel and Micheal (2022). The construct openness to change (four items) was developed by employing the scales of Hien et al. (2023) and Dhir et al. (2021). Furthermore, apart from the mentioned factors, another was also integrated into the figure: usage barrier (five items), risk barrier (four

items), and image barrier (four items) were adopted from the research of Sadiq et al. (2020). At last, the purchase intention construct was derived from the scales validated by Kushwah et al.(2019) and Roseira et al. (2022).

Because of the differences in the study setting between this study and the previous studies specifically, culture and market-specific factors a qualitative validation stage was also conducted to further develop the measures. In total, five cocoa industry stakeholders were used for the semi-structured interviews to evaluate the content validity of the initial questionnaire and to obtain advice for the improvement of the tool. Based on their feedback, slight changes were made to ensure that the survey items are clearer and fit the context. Moreover, new observed variables were appended to the research to understand consumer perceptions better. When it comes to the usage barrier scale, for instance, two additional statements were included: “I am concerned about the quality of domestic chocolate products due to improper storage conditions” and “I believe domestic chocolate products are only available in large supermarkets and are typically priced higher due to taxes and additional costs.” The risk barrier scale saw the inclusion of two new items: “I am concerned that domestic chocolate may contain additives, preservatives, or harmful substances” and “I worry that the quality of domestic chocolate is inferior to the products I have previously consumed.” A single extra item was appended to the image barrier scale: “I doubt the credibility of Vietnamese chocolate brands due to their limited reputation and brand recognition.”

An initial trial of 20 citizens from Vietnam, which was a good representation of the target market, was done to see if the questions were clear and if they had the expected effects on the respondents. Interviews using the semi-structured questionnaire were

carried out to identify potential ambiguities and also to check whether the items were well understood. In short, the expert panel and the pre-test respondents were the ones who were able to give suggestions for the changes in the questions before the final version was ready; their answers were the basis for its validity and contextual fit.

3.2. Sample and data collection

The main target population for this study was consumers aged above 18 who were chocolate lovers and are frequent buyers of chocolate products. The rationale behind the choice of this target consumer segment was based on the following widely accepted assumptions: adult consumers tend to be the main decision makers and bearers of the financial consequences when they buy consumer packaged goods, especially indulgent treats such as chocolate confectionery; adults tend to have more diverse and complex experiences as consumers, which are the result of their exposure over time to various sources of marketing communications and to a wide range of product alternatives. The research was interested in building a deep understanding of either the magnitude of consumers' buying habits in this target segment or of the main psychological (beliefs and attitudes), social (pressure from significant others) and demographic characteristics of consumers behind these buying habits.

In order to obtain a sample that was as close as possible representative of the cluster of frequent buyers and chocolate lovers procured from the research, a convenience sampling method was the main technique used to recruit respondents. Indeed, despite a well documented lack of randomness and lack of generalizability of results, convenience sampling has the advantage, especially at the exploratory phases of a research, of being both fast and easy to implement. During the analysis phase, in an

attempt to reduce potential bias, the sample was stratified by two core demographic variables that have been found in the literature to influence food choice (including choice of confectionery and other sweet products), health concerns, brand loyalty and impulse purchase: gender and age. In this way, the researchers obtained a sample that was balanced in terms of gender and across several age groups, which enabled secondary analysis and comparisons between groups.

The respondents were asked interview questionnaires from January to March 2025. The duration of three months is considered an appropriate time period for the responses to the frequencies of face-to-face and online interviews, a mixed mode of survey questionnaire was utilized to collect the respondents. Through the personal interview route, the researcher directly met the respondents in various physical settings like cafe, shopping mall, coffeeshops and on college campuses as these places attract the chocolate consumers. However, in the case of the online questionnaires, it is considered that the respondents due to lack of time, health or other concerns, or the location is unable to contact the researcher, the convenience and accessibility of the online questionnaire also those respondents achieved.

After the end of the data collection process, the data collected went through a thorough data cleaning process to validate and ensure its accuracy and reliability before further statistical analysis. For this purpose, as a guideline, the general data screening techniques described by Hair et al. (2010); Hair et al. (2014) were adopted. First of all, all the questionnaires were examined; questionnaires with incomplete, inconsistent or unrealistic answers (for example, interested illogical age, key demographic information not given, double) etc. were discarded. This step was a necessary quality control

measure to ensure that the data are not flawed as a result of careless, inattentive or insincere respondents and to successfully complete subsequent statistical analyses. After this data screening and cleaning process, the remaining 415 questionnaires were considered suitable for data analysis. This number of sample studies is considered appropriate not only for the descriptive statistical analysis, but also for the successful application of inferential statistical analysis methods such as factor analysis and multiple regression analysis. In addition, this number meets the minimum sample size requirements specified in the behavioral research literature and is sufficient to represent the population of the study.

3.3. Statistical analysis method

To understand the characteristics of the sample and to identify any outliers in the data, the researcher plunged into the descriptive statistics available in SPSS. After this, the individual models (measurement and structural) with the help of Smart PLS were analyzed and tested using PLS-SEM. The measurement model was checked for reliability and validity, whereas the structural model was verified with the technique of bootstrapping. This was done to support the initial relations amongst the constructions of the model.

Sampling Adequacy (KMO & Bartlett's Test):

- Kaiser-Meyer-Olkin (KMO) was used to determine the adequacy of sample data for factor analysis. A value of 0.50 or higher is considered acceptable.

- Bartlett's Test of Sphericity checks the null hypothesis that the correlation matrix is an identity matrix. A significance value (p) < 0.05 indicates suitability for factor extraction.

Reliability: Cronbach's Alpha was computed to measure internal consistency. A value of 0.50 or higher is considered acceptable. Items with low item-total correlations were considered for removal to improve reliability.

Factor Loadings: Items should load ≥ 0.50 on their respective constructs to be retained in the model. Loadings below this threshold suggest weak contribution to the factor.

Total Variance Explained: Factors with Eigenvalues ≥ 1.0 were retained. The cumulative variance explained should be at least 60% to ensure adequate construct representation.

Measurement Model Evaluation:

- Convergent Validity: The Average Variance Extracted (AVE) for each construct should exceed 0.50. This ensures that the items used to measure a construct explain at least 50% of the variance in the construct.
- Discriminant Validity: Discriminant validity is evaluated using the Fornell-Larcker criterion and cross-loadings. The square root of the AVE for each construct should be higher than its correlations with other constructs to confirm that the constructs are distinct.
- Reliability: Cronbach's Alpha and Composite Reliability (CR) were used to assess the internal consistency and reliability of the constructs. Both values should exceed 0.70 to ensure the reliability of the measurement model.

Structural Model Evaluation:

- Path Coefficients: The relationships between constructs were tested using Bootstrapping (with 5,000 resamples). Path coefficients with a p-value < 0.05 are considered statistically significant and suggest strong relationships between the constructs.
- R-squared (R^2): The R^2 values for endogenous constructs were calculated to determine the proportion of variance explained by the model. An $R^2 > 0.10$ is considered acceptable, though higher values indicate better explanatory power.
- Effect Size (f^2): The f^2 values were assessed to measure the strength of each relationship. An f^2 value above 0.02 is considered small, 0.15 medium, and 0.35 large, indicating the magnitude of the effect of one construct on another.

Model Measurement:

- SRMR (Standardized Root Mean Square Residual): An absolute measure of model fit. Values below 0.08 indicate a good fit between the proposed model and observed data.
- Chi-square/df (χ^2/df): A ratio ≤ 3 suggests a good fit; values up to 5 are acceptable, accounting for model complexity.
- Tucker–Lewis Index (TLI): Reflects model parsimony. A value ≥ 0.90 denotes a good fit.
- Goodness-of-Fit Index (GFI): Indicates the proportion of variance accounted for by the model. GFI ≥ 0.90 is good; ≥ 0.80 is acceptable.
- Comparative Fit Index (CFI): Compares the model with an independent baseline. CFI ≥ 0.90 indicates good model fit.

- RMSEA (Root Mean Square Error of Approximation): Evaluates approximation error. RMSEA ≤ 0.06 is good; ≤ 0.08 is acceptable.
- PCLOSE: Tests the null hypothesis that RMSEA ≤ 0.05. A value ≥ 0.05 supports a close model fit.

CHAPTER 4

RESULT

Chapter 4 details the results from data collection and analysis, presenting findings using charts, graphs, tables, and statistics, organized according to the research questions outlined in Chapter 1. Each section addresses specific research questions, summarizes statistical analyses, and concludes with whether related hypotheses were supported, followed by a summary of the overall findings.

4.1. Descriptive statistics

Table 2. Descriptive of respondents' gender

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	144	34.7	34.7	34.7
	Female	271	65.3	65.3	100.0
	Total	415	100.0	100.0	

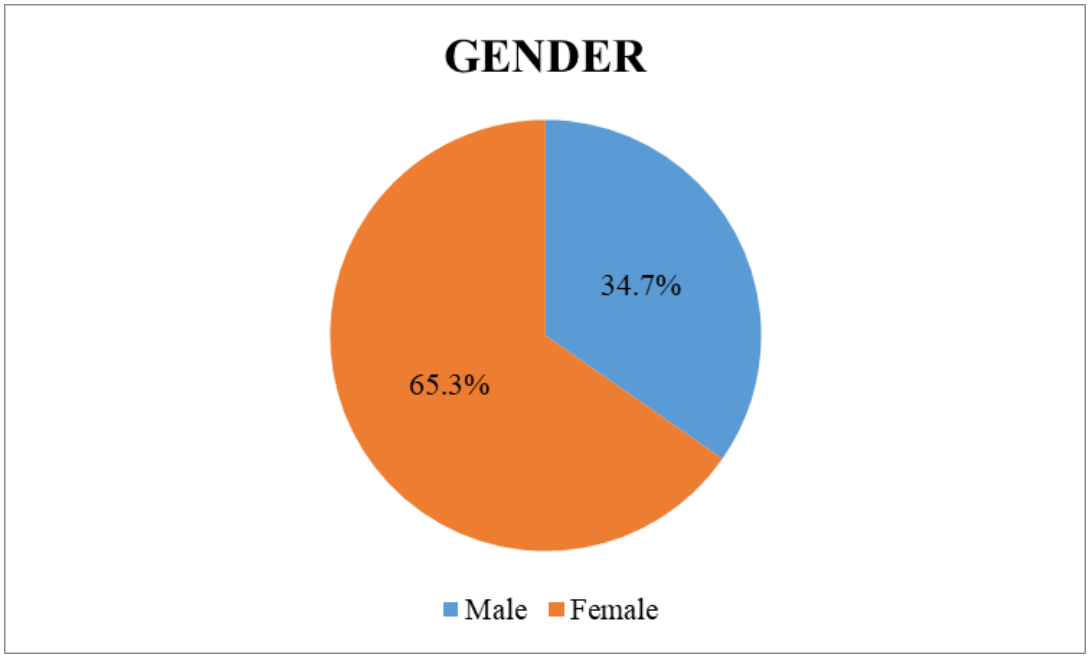


Figure 4. Percentage of respondents' gender

Out of the 415 respondents included in the analysis , the majority were female respondents were 271, making up 65.30% of the total respondents. Which means females consumed nearly two-thirds of the sample, indicating a slight gender bias in favor of female respondents. Male respondents, on the other hand, were 144 accounting for 34.70% of the sample size. Female consumers were more responsive during the survey exercise, although both gender categories were represented.

Table 3. Descriptive of respondents' age

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 24	228	54.9	54.9	54.9

	25 - 34	127	30.6	30.6	85.5
	35 - 45	44	10.6	10.6	96.1
	Over 45	16	3.9	3.9	100.0
	Total	415	100.0	100.0	

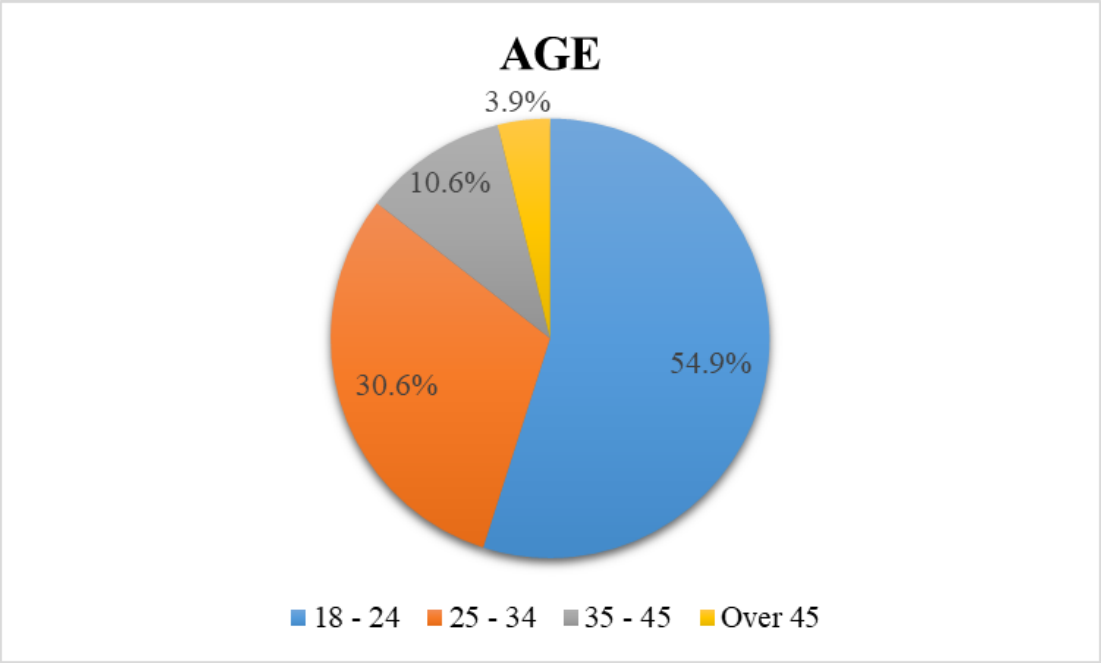


Figure 5. Percentage of respondents' age

Based on the pie chart, respondents are divided into four specific age groups: 18 - 24, 25 - 34, 35 - 45, and over 45. Among them, the age group of 18 - 24 comprises the largest percentage, accounting for 54.94%, with 228 respondents. On the other hand, the age group of over 45 has the smallest proportion, at 3.9% with 16 participants.

Table 4. Descriptive of respondents' education level

Education level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Intermediate/College	66	15.9	15.9	15.9
	University	273	65.8	65.8	81.7
	Postgraduate	49	11.8	11.8	93.5
	Other	27	6.5	6.5	100.0
	Total	415	100.0	100.0	

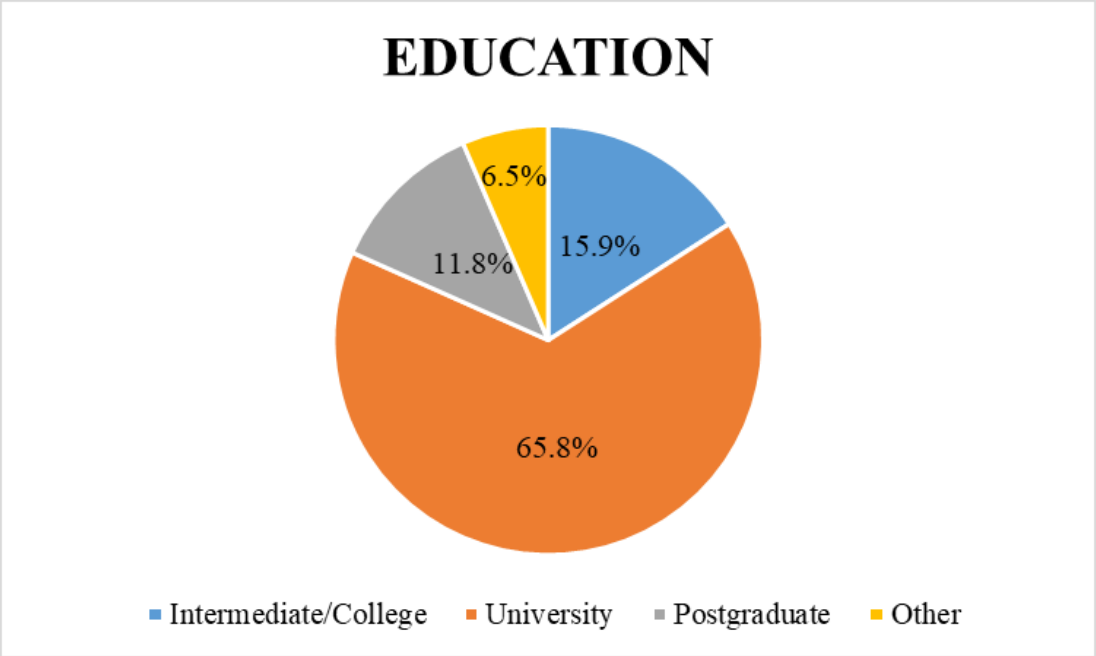


Figure 6. Percentage of respondents' education level

As the result, the respondents mainly had university degrees (65.8%), followed by intermediate and college degrees (15.9%) and postgraduate degrees (11.8%).

Table 5. Descriptive of respondents' occupation

Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	160	38.6	38.6	38.6
	Officer	142	34.2	34.2	72.8
	Manager/Businessman	22	5.3	5.3	78.1
	Freelancer	62	14.9	14.9	93.0
	Other	29	7.0	7.0	100.0
	Total	415	100.0	100.0	

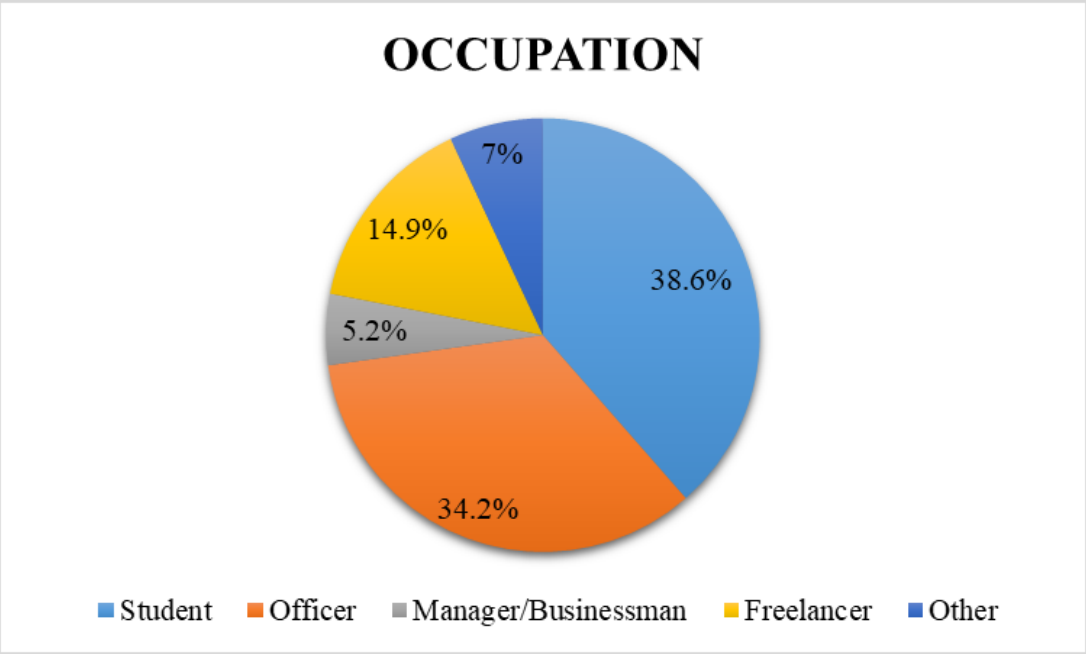


Figure 7. Percentage of respondents' occupation

Table 6. Descriptive of respondents' total income

Total Income					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4,5M - 7,5M*	202	48.7	48.7	48.7
	7,5M - 15M	124	29.9	29.9	78.6
	15M - 30M	69	16.6	16.6	95.2
	30M - 45M	12	2.9	2.9	98.1
	45M - 75M	5	1.2	1.2	99.3
	75M - 150M	0	0.0	0.0	99.3

	Over 150M	3	0.7	0.7	100.0
	Total	415	100.0	100.0	
*Milions dong (M)					

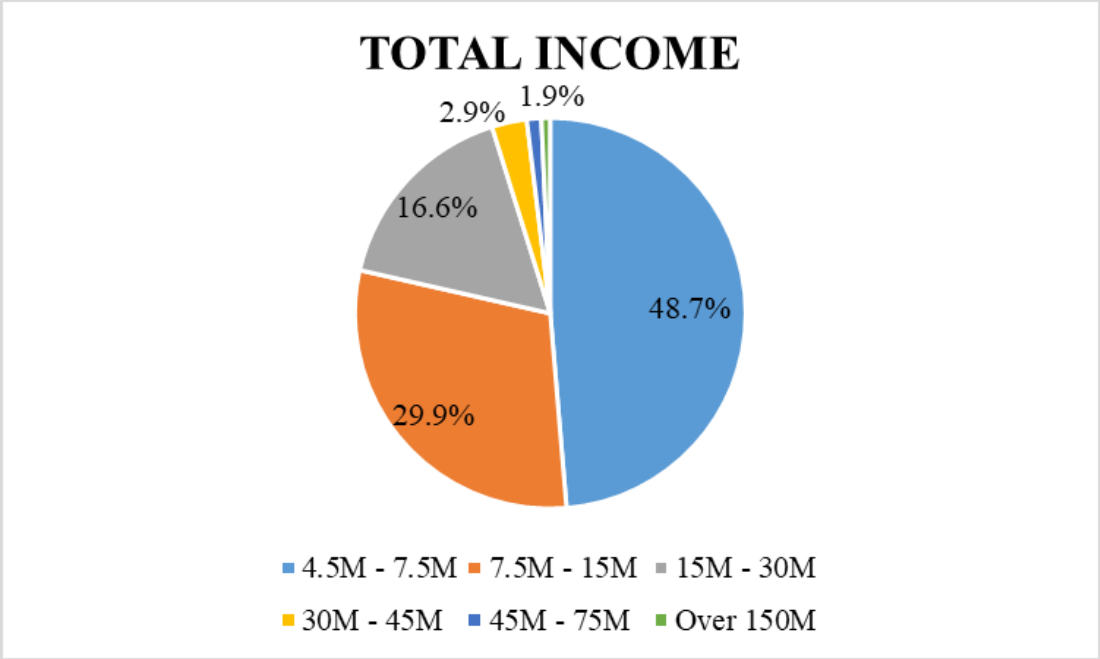


Figure 8. Percentage of respondents' total income

In terms of occupation, the majority of respondents were employees (34.5%). In addition, those with incomes from VND 10 million to VND 15 million accounted for a high proportion of the sample structure. Of which, students (38.6%) and office workers (34.2%) accounted for the highest proportion. The remaining occupational groups such as freelancers, managers/businessmen and other occupations accounted for a lower proportion. The most common income level was from VND 4.5 to VND 7.5 million (48.7%), followed by VND 7.5 to VND 15 million (29.9%). Very few people had incomes above VND 30 million, accounting for less than 5% of the total.

Table 7. Descriptive of respondents' marital status

Marital Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	288	69.4	69.4	69.4
	Married	109	26.3	26.3	95.7
	Other	18	4.3	4.3	100.0
	Total	415	100.0	100.0	

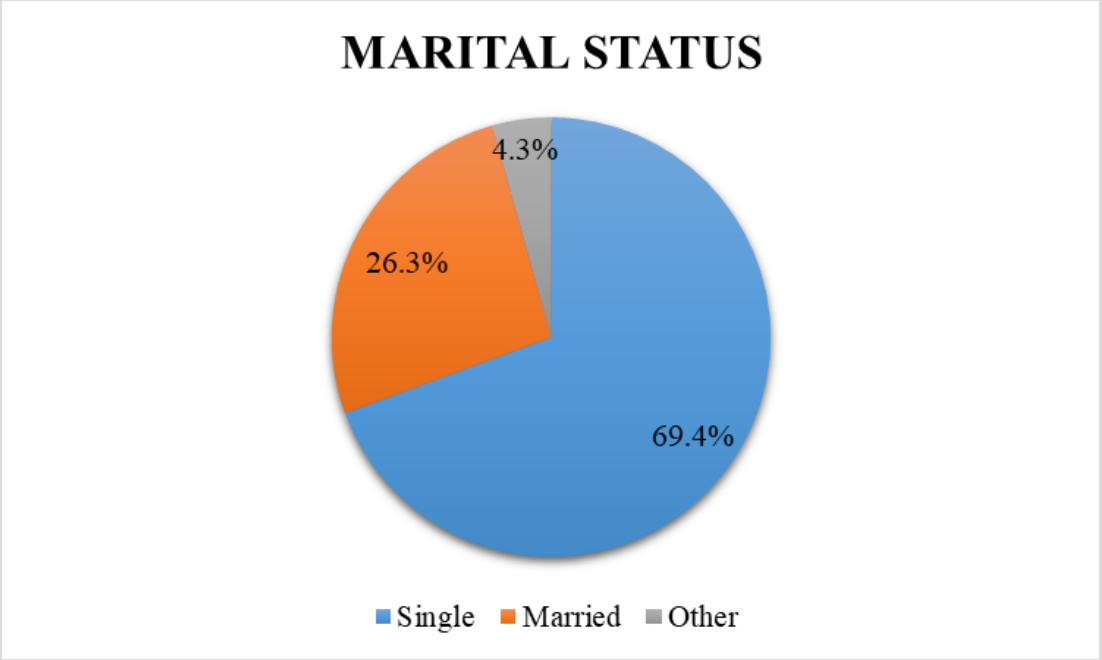


Figure 9. Percentage of respondents' marital status

The majority of survey respondents were single (69.4%), while only 26.3% were married and 4.3% were in the other group.

4.2. Reliability Test

Table 8. Reliability Statistics

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of items
Usage Barrier	0.821	0.820	5
Risk Barrier	0.900	0.900	4
Image Barrier	0.858	0.858	3
Collectivism	0.852	0.850	6
Personal Innovativeness	0.863	0.863	7
Openness to Change	0.812	0.812	4
Purchase Intention	0.862	0.862	4

Table 9. Usage Barrier Item-Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Square Multiple Correlation	Cronbach's Alpha if Item Deleted
UB1	12.7229	12.447	0.537	0.435	0.808
UB2	12.6193	12.526	0.537	0.439	0.808
UB3	12.7349	11.282	0.682	0.496	0.766
UB4	12.7952	11.033	0.675	0.582	0.767
UB5	12.6554	11.342	0.641	0.539	0.778

Table 10. Risk Barrier Item-Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Square Multiple Correlation	Cronbach's Alpha if Item Deleted
RB1	9.2530	9.919	0.695	0.494	0.900
RB2	9.4217	9.244	0.812	0.662	0.857
RB3	9.4289	9.521	0.812	0.683	0.858
RB4	9.4217	9.472	0.790	0.655	0.866

Table 11. Image Barrier Item-Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Square Multiple Correlation	Cronbach's Alpha if Item Deleted
IB1	6.4723	3.936	0.699	0.492	0.830
IB2	6.3398	3.616	0.762	0.583	0.771
IB3	6.3928	3.616	0.734	0.538	0.798

Table 12. Collectivism Item-Total Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Square Multiple Correlation	Cronbach's Alpha if Item Deleted
COL1	17.5783	17.800	0.645	0.537	0.826
COL2	17.4506	17.562	0.707	0.617	0.815
COL3	17.6265	17.423	0.683	0.530	0.819
COL4	17.5904	17.059	0.735	0.612	0.809
COL5	17.5349	17.819	0.710	0.565	0.815

COL6	17.2313	20.874	0.356	0.155	0.875

Table 13. Personal Innovativeness Item-Total Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Square Multiple Correlation	Cronbach's Alpha if Item Deleted
PIN1	25.3855	13.228	0.660	0.465	0.840
PIN2	25.2916	13.594	0.696	0.591	0.835
PIN3	25.2940	13.479	0.653	0.471	0.841
PIN4	25.3976	13.602	0.653	0.489	0.841
PIN5	25.3157	13.791	0.596	0.411	0.849
PIN6	25.2578	14.032	0.581	0.447	0.851
PIN7	25.3831	13.957	0.592	0.470	0.849

Table 14. Openness to Change Item-Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Square Multiple Correlation	Cronbach's Alpha if Item Deleted
OC1	12.0145	5.270	0.639	0.444	0.760
OC2	12.0530	5.036	0.672	0.477	0.744
OC3	11.7325	5.506	0.656	0.438	0.756
OC4	11.8675	5.874	0.559	0.340	0.796

Table 15. Purchase Intention Item-Total Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Square Multiple Correlation	Cronbach's Alpha if Item Deleted
PI1	11.4072	5.817	0.625	0.401	0.857
PI2	11.6072	5.205	0.756	0.599	0.805
PI3	11.6313	5.093	0.794	0.650	0.789
PI4	11.6988	5.511	0.669	0.477	0.841

The tables above show that all Cronbach's alpha is greater than 0.7: Collectivism (COL) is 0.874, Personal Innovationess (PIN) is 0.863, Openness to change (OC) is 0.812, Usage barrier (UB) is 0.820, Image barrier (IB) is 0.858, Risk barrier (RB) is 0.900, Purchase Intention (PI) is 0.862 and the correlation coefficient of the total variable (Corrected Item-Total Correlation) of the observed variables in each scale measured both higher than 0.3. Additionally, the Corrected Item-Total Correlation values for all 24 items are above 0.3, indicating a strong correlation between each item and the other items within the same factor. Therefore, the observed variables will be kept for later confirmatory factor analysis.

4.3. Exploratory factor analysis

Having determined the scale's reliability, the researcher then used Exploratory Factor Analysis (EFA) to analyze its validity.

EFA is a statistical procedure most often applied to reduce and organize complicated datasets. It enables the elimination of non-significant items from the measuring scale and aggregates related variables into consistent factors, the latter of which may mirror or deviate from the original constructs.

According to the guidelines laid down by Hair et al. (2006), EFA in the present research was done on the basis of the following criteria:

- The Kaiser–Meyer–Olkin (KMO) sampling adequacy measure should be ≥ 0.5, and Bartlett’s Test of Sphericity should give a p-value of < 0.05, to establish the data’s fitness for factor analysis.
- Terms with Eigenvalue ≥ 1 were kept, indicating their significant contribution to the model.

- The Total Variance Explained should be at least 50% to indicate a sufficient degree of explanation of the variance in the data.
- Factor loadings were evaluated to determine the practical significance of the items in each factor. Loadings of more than 0.30 have been proposed by Hair et al. (2006) as the minimum requirements, loadings of more than 0.40 as significant, and loadings of more than 0.50 as reflective of high practical significance

EFA process consists of 2 rounds:

4.3.1. First round of EFA

Table 16. KMO and Barlett's test 1st round result

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.897
Bartlett's Test of Sphericity	Approx. Chi-square	7981.801
	df	528
	Sig	.000

The KMO coefficient (Kaiser-Meyer-Olkin) is used to consider the suitability of factor analysis and this coefficient must be greater than or equal to 0.5 (0.5=<KMO=<1) to be eligible for the purpose of factor analysis (Hair et al, 2010). As the result, KMO = 0.897 and Bartlett's test of sphericity with Sig = .000 (< 0.05) meets the previously stated condition. This shows that this analysis is appropriate.

Table 17. The total variance extracted from the data – 1st round

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	8.714	26.406	26.406	8.714	26.406	26.406	5.355
2	5.161	15.640	42.046	5.161	15.640	42.046	5.398
3	3.049	9.240	51.286	3.049	9.240	51.286	4.901
4	2.026	6.138	57.424	2.026	6.138	57.424	5.192
5	1.322	4.006	61.430	1.322	4.006	61.430	4.919
6	1.234	3.740	65.169	1.234	3.740	65.169	5.706
7	1.011	3.065	68.234	1.011	3.065	68.234	4.930
8	0.791	2.396	70.63				
9	0.748	2.266	72.896				
10	0.645	1.954	74.85				
11	0.622	1.885	76.736				
12	0.605	1.833	78.568				

13	0.581	1.759	80.327				
14	0.512	1.55	81.877				
15	0.482	1.459	83.337				
16	0.464	1.408	84.744				
17	0.425	1.289	86.033				
18	0.405	1.227	87.261				
19	0.395	1.196	88.457				
20	0.358	1.085	89.542				
21	0.351	1.063	90.605				
22	0.346	1.049	91.654				
23	0.332	1.006	92.66				
24	0.33	0.999	93.659				
25	0.299	0.906	94.565				
26	0.28	0.848	95.413				
27	0.267	0.809	96.222				
28	0.253	0.768	96.99				

29	0.229	0.693	97.682				
30	0.213	0.646	98.328				
31	0.202	0.612	98.94				
32	0.183	0.554	99.494				
33	0.167	0.506	100.000				

Table 18. Pattern matrix 1st round result

Component							
	1	2	3	4	5	6	7
PIN1	0.729						
PIN2	0.778						
PIN3	0.842						
PIN4	0.872						
PIN5	0.699						
PIN6						0.583	
PIN7							
IB1		0.869					

IB2		0.852					
IB3		0.866					
COL1			0.721				
COL2			0.834				
COL3			0.858				
COL4			0.844				
COL5			0.722				
COL6					0.733		
RB1				0.755			
RB2				0.842			
RB3				0.897			
RB4				0.844			
PI1					0.724		
PI2					0.803		
PI3					0.830		
PI4					0.858		

OC1						0.817	
OC2						0.932	
OC3						0.804	
OC4						0.544	
UB1		0.744					
UB2		0.729					
UB3							0.805
UB4							0.791
UB5							0.774

Exploratory factor analysis (using Principal Component technique with promax rotation, fixed number of factors = 7) was applied for all observed variables. At eigenvalue = 1.011, 7 factors were extracted and the extracted variance was 68.234% which means that the total variance explained was adequate. Meanwhile, PIN7 has a factor loading factor less than 0.5 so it was eliminated. When considering the variables PIN6, OC4, COL6, PI1, UB1, UB2, although the loading factors were high, they did not contribute to distinguishing the factors and were no longer consistent with the original theoretical structure. Specifically, these variables did not load strongly enough on the originally expected factor or could cross-load onto multiple factors, reducing the unidimensionality of the scale. To ensure the convergent validity and theoretical

consistency of the measurement model, the researcher decided to eliminate these variables. Then, the second EFA was conducted.

4.3.2. Second round of EFA

Table 19. KMO and Barlett's test final round result

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.861
Bartlett's Test of Sphericity	Approx. Chi-square	5486.055
	df	276
	Sig	.000

After using the SPSS software, we obtained a KMO coefficient of 0.861, which proves that our data is suitable for factor analysis. Statistical significance of Bartlett test for Sig = 0.000 (<0.05) shows that observed variables are correlated with each other.

Table 20. The total variance extracted from the data - Final round

Total Variance Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.545	27.272	27.272	6.545	27.272	27.272	4.569

2	3.716	15.484	42.756	3.716	15.484	42.756	3.503
3	2.802	11.673	54.429	2.802	11.673	54.429	4.254
4	1.645	6.854	61.284	1.645	6.854	61.284	3.445
5	1.149	4.785	66.069	1.149	4.785	66.069	3.392
6	1.042	4.343	70.413	1.042	4.343	70.413	4.120
7	0.915	3.813	74.226	0.915	3.813	74.226	3.711
8	0.668	2.782	77.008				
9	0.578	2.407	79.415				
10	0.509	2.122	81.537				
11	0.485	2.02	83.557				
12	0.472	1.967	85.524				
13	0.401	1.673	87.197				
14	0.393	1.637	88.834				
15	0.358	1.492	90.326				
16	0.338	1.41	91.735				
17	0.313	1.303	93.038				

18	0.303	1.263	94.301				
19	0.283	1.18	95.481				
20	0.254	1.06	96.541				
21	0.232	0.965	97.505				
22	0.218	0.907	98.412				
23	0.194	0.809	99.221				
24	0.187	0.779	100.000				

The results after analysis have extracted 7 factors with an Eigenvalue of 0.915 and total variance extracted of 74.226% (> 50%), which shows that the model is suitable. The results after extracting 7 factors is 74.226%, which means they lost 25.774% of the variation of observed variables.

Table 21. Pattern matrix final round result

Component							
	1	2	3	4	5	6	7
COL1	0.726						
COL2	0.835						
COL3	0.870						

COL4	0.858						
COL5	0.763						
PIN2		0.759					
PIN3		0.827					
PIN4		0.853					
PIN5		0.717					
RB2			0.833				
RB3			0.952				
RB4			0.883				
PI2				0.856			
PI3				0.871			
PI4				0.876			
IB1					0.880		
IB2					0.885		
IB3					0.849		
UB3						0.887	

UB4						0.836	
UB5						0.776	
OC1							0.778
OC2							0.914
OC3							0.789

After using SPSS to remodified the model, 24 variables remained that satisfied the EFA criteria when no factor loading value was less than 0.5. Accordingly, no variables were eliminated in this round.

4.4. Structural Model

4.4.1. Multicollinearity

Table 22. Outer VIF Value

	VIF
COL1	2.093
COL2	2.581
COL3	2.095
COL4	2.555
COL5	2.226

IB1	1.968
IB2	2.397
IB3	2.211
OC 1	1.779
OC 2	1.871
OC 3	1.537
PI2	2.333
PI3	2.808
PI4	1.868
PIN 2	1.765
PIN 3	1.769
PIN 4	1.803
PIN 5	1.586
RB2	2.582
RB3	3.095
RB4	2.904
UB3	1.827
UB4	2.366
UB5	2.159

The Variance Inflation Factor (VIF) values for all observed variables are below the critical threshold of 3.3, indicating that multicollinearity is not a concern in this measurement model. Most indicators exhibit VIF values ranging from approximately 1.5 to 2.8, which falls well within the acceptable range. Although a few indicators under the RB construct show relatively higher VIF values (above 3.0), they still remain under the critical threshold and therefore do not pose a serious threat to the model's validity.

4.4.2. Outer loadings

Table 23. Outer loadings

	COL	IB	OC	PI	PIN	RB	UB
COL1	0.795						
COL2	0.849						
COL3	0.799						
COL4	0.831						

COL5	0.799						
IB1		0.890					
IB2		0.887					
IB3		0.866					
OC1			0.881				
OC2			0.861				
OC3			0.780				
PI2				0.894			
PI3				0.931			
PI4				0.814			
PIN2					0.759		
PIN3					0.827		
PIN4					0.860		

PIN5					0.741		
RB2						0.911	
RB3						0.913	
RB4						0.916	
UB3							0.851
UB4							0.873
UB5							0.898

Since all indicator loadings exceed 0.7, this indicates that the measurement scales exhibit strong reliability, thereby eliminating the need for item removal. The next step is to evaluate the model's quality by assessing the Composite Reliability (CR) and Average Variance Extracted (AVE) for each construct.

4.4.3. Construct Reliability and Validity

Table 24. Construct Reliability and Validity

	rho_A	Composite Reliability	Average Variance Extracted (AVE)

COL	0.878	0.908	0.664
IB	0.877	0.912	0.777
OC	0.824	0.879	0.708
PI	0.895	0.912	0.777
PIN	0.892	0.883	0.602
RB	0.908	0.938	0.834
UB	0.872	0.907	0.764

Based on the results, all constructs demonstrate acceptable levels of internal consistency reliability. Specifically, Cronbach's Alpha, rho_A, and Composite Reliability (CR) values for all constructs exceed the commonly accepted threshold of 0.70, indicating strong internal reliability. Additionally, the Average Variance Extracted (AVE) values for all constructs are above 0.50, confirming that each construct explains a substantial proportion of the variance in its indicators.

These findings suggest that the measurement model satisfies the criteria for both reliability and convergent validity (Hair et al, 2010). As a result, it is not necessary to take away or redefine any signs or constructs at this point.. The model is considered robust and appropriate for subsequent structural model evaluation and hypothesis testing.

4.4.4. Discriminant Validity

Table 25. Discriminant Validity

	COL	IB	OC	PI	PIN	RB	UB
COL							
IB	0.080						
OC	0.363	0.289					
PI	0.343	0.177	0.534				
PIN	0.170	0.256	0.624	0.406			
RB	0.459	0.438	0.127	0.039	0.062		
UB	0.473	0.485	0.197	0.225	0.078	0.603	

Most correlations are moderate or weak, suggesting that the variables are somewhat related but still distinct. The strongest correlations are observed between RB and UB (0.693), IB and UB (0.485), and OC and PIN (0.624), indicating these pairs have significant relationships. Variables like PI and RB (0.039), PIN and RB (0.062), and PI and UB (0.225) show weak to very weak correlations, implying minimal or almost no relationships. Overall, the table suggests some shared variance between certain variables, but many relationships are weak or moderate, indicating that the variables maintain their distinctiveness.

4.4.5. Analysis of Effect Sizes and Model Fit

Table 26. R square and R square Adjusted

	R Square	R Square Adjusted
IB	0.090	0.083
PI	0.065	0.058
RB	0.173	0.167
UB	0.176	0.17

The table presents the R-Square (R^2) and Adjusted R-Square values for different variables: IB (Image Barrier), PI (Purchase Intention), RB (Risk Barrier), and UB (Usage Barrier).

- R-Square represents the proportion of variance in the dependent variable explained by the independent variables. The highest R^2 values are for UB (0.176) and RB (0.173), indicating they explain the most variance in the model. On the other hand, IB (0.090) and PI (0.065) have low explanatory power.
- Adjusted R-Square accounts for the number of predictors in the model. It slightly decreases for all variables compared to R^2, reflecting the model's explanatory power after adjusting for the number of predictors. UB (0.170) and RB (0.167) remain the most influential variables, although their explanatory power decreases slightly in the adjusted version.

In summary, UB and RB are the most significant variables, with Adjusted R-Square providing a more reliable measure of model fit than R^2, particularly when accounting for multiple predictors.

Table 27. f square

	COL	IB	OC	PI	PIN	RB	UB
COL		0.000				0.192	0.177
IB				0.011			
OC		0.020				0.000	0.002
PI							
PIN		0.032				0.000	0.000
RB				0.018			
UB				0.042			

The f^2 values indicate the effect size of each predictor variable on others in the model. Variables such as PI, PIN, and OC generally have very small or no effect on others, with most of their values being 0.000. On the other hand, COL and UB show larger effect sizes, especially the correlation between COL and UB, which has a value of 0.177, indicating a moderate effect.

The variables IB and RB also show some effect on other variables, particularly UB and RB with values like 0.018 and 0.042. These suggest that IB and RB have small but noticeable effects on UB and each other.

4.4.6. Model measurement

Table 28. Model Fit Assessment

Model-fit measures	Criteria	References
Chi-square/df (χ^2/df)	≤ 3 (Good); ≤ 5 (Accepted)	Hu & Benler (1999)
Tucker Lewis Index (TLI)	≥ 0.9 (Good)	
Goodness-of-Fit Index (GFI)	≥ 0.90 (Good); ≥ 0.8 (Accepted)	
Comparative Fit Index (CFI)	≥ 0.90 (Good)	
Root Mean Squared Error of Approximation (RMSEA)	≤ 0.06 (Good); ≤ 0.08 (Accepted)	
PCLOSE	≥ 0.05 (Good); ≥ 0.01 (Accepted)	

Table 29. CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	86	753.015	349	0.000	2.158
Saturated model	435	0.000	0.000		

Independence model	29	6980.005	406	0.000	17.192

Table 30. RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	0.051	0.888	0.861	0.713
Saturated model	0.000	1.000		
Independence model	0.292	0.302	0.252	0.281

Table 31. Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	0.892	0.874	0.939	0.929	0.939
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000

Table 32. RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.053	0.048	0.058	0.177
Independence model	0.198	0.194	0.202	0.000

According to the model fit indices presented in table above and in comparison with the benchmark criteria established by Hu and Bentler (1999), the overall model demonstrates a strong and acceptable fit to the data. All reported indices either fall within the “good” threshold or, at a minimum, meet the “accepted” level, indicating that the model is statistically sound and suitable for further analysis.

Specifically, the Chi-square/df ratio (χ^2/df) is reported as 2.158, which is well within the “good fit” threshold of ≤ 3, and certainly below the maximum accepted value of 5. This suggests a reasonable level of model parsimony and a low discrepancy between the observed and model-implied covariance matrices.

The Tucker-Lewis Index (TLI) reaches 0.929, and the Comparative Fit Index (CFI) is 0.939 both exceeding the recommended cut-off of 0.90 for a good fit, signifying that the model compares favorably against the null model and accounts for incremental variance very effectively.

The Goodness-of-Fit Index (GFI) and Adjusted GFI (AGFI) are reported at 0.888 and 0.861, respectively. While these values are slightly below the ideal benchmark of 0.90, they exceed the minimum accepted threshold of 0.80, indicating an acceptable degree of fit, especially considering the model’s complexity and number of estimated parameters.

Crucially, the Root Mean Square Error of Approximation (RMSEA) is 0.053, which lies within the good fit range (≤ 0.06), suggesting minimal residual error in approximating the population model. In addition, the PCLOSE value is 0.177, which is well above the recommended threshold of 0.05, supporting the conclusion that the

hypothesis of close fit cannot be rejected.Therefore, it can be inferred that this model fits the data and achieves values from good to excellent.

4.4.7. Hypotheses testing result

Table 33. Hypotheses Testing Result

Hypotheses	β	p-values	Result
H1: Usage Barrier → Purchase Intention	0.257	0.000	Supported
H2: Risk Barrier → Purchase Intention	-0.164	0.004	Supported
H3: Image Barrier → Purchase Intention	0.115	0.026	Supported
H4a: Collectivism → Usage Barrier	0.402	0.000	Supported
H4b: Collectivism → Risk Barrier	0.419	0.000	Supported
H4c: Collectivism → Image Barrier	-0.004	0.928	Not supported
H5a: Personal Innovativeness → Usage Barrier	0.009	0.844	Not supported
H5b: Personal Innovativeness → Risk Barrier	-0.004	0.941	Not supported
H5c: Personal Innovativeness → Image Barrier	0.192	0.000	Supported

H6a: Openness to change → Usage Barrier	0.042	0.408	Not supported
H6b: Openness to change → Risk Barrier	-0.012	0.811	Not supported
H6c: Openness to change → Image Barrier	0.158	0.008	Supported

(Hypothesis has p-values < 0.05 is supported)

Analysis of the p-value in the table 35 shows that hypotheses with a p-value of 0.00 are accepted because a p-value <0.05 indicates a statistically significant relationship. Based on the data, hypotheses namely H1, H2, H3, H4a, H4b, H5c, H6c are accepted in the research model as their p-values are < 0.05 as following:

H1: Usage Barrier has a positive impact on the intention to purchase domestic chocolate products.

H2: Risk Barrier has a negative impact on the intention to purchase domestic chocolate products.

H3: Image Barrier has a positive impact on the intention to purchase domestic chocolate products.

H4a: Collectivism has a positive impact on the Usage Barrier

H4b: Collectivism has a positive impact on the Risk Barrier

H5c: Personal Innovativeness has a positive impact on the Image Barrier

H6c: Openness to change has a positive impact on the Image Barrier

Furthermore, the other hypotheses are all not accepted including:

H4c: Collectivism has an impact on the Image Barrier

H5a: Personal Innovativeness has an impact on the Usage Barrier

H5b: Personal Innovativeness has an impact on the Risk Barrier

H6a: Openness to change has an impact on the Usage Barrier

H6b: Openness to change has an impact on the Risk Barrier

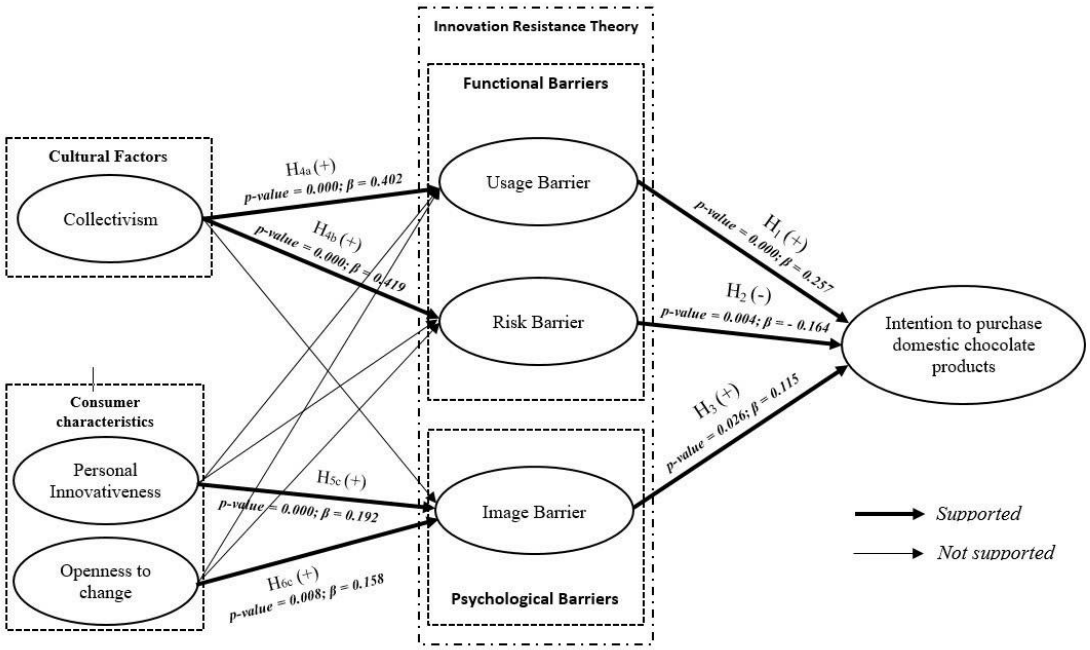


Figure 10. Hypotheses testing result

The results of the structural model reported that usage barriers and image barriers were positively related to the intention to purchase domestic chocolate products (H1: β = 0.257, p = 0.000 and H3: β = 0.115, p = 0.026). In contrast, risk barriers (H2: β =

−0.164, p = 0.004) were also negatively associated, suggesting that all three types of barriers reduce consumers' purchase intention. Furthermore, collectivism was found to have a positive impact on both usage and risk barriers (H4a: β = 0.402, p = 0.000 and H4b: β = 0.419, p = 0.000), indicating that individuals with a stronger collectivist orientation may observe more barriers in the adoption of domestic chocolate products. Moreover, personal innovativeness and openness to change were positively related to image barriers (H5c: β = 0.192, p = 0.000 and H6c: β = 0.158, p = 0.008), suggesting that those who are more open and innovative might be more sensitive to the social image and symbolic meanings of domestic products.

Table 36. Result Interpretation

Hypothesis Path		**Direction**	**Strength (β)**	**p-value**	**Meanings**
H1	Usage barrier → Purchase Intention	(+)	0.257	0.000	Usage concerns increase intention - this may seem counter intuitive, perhaps users feel confident once usage is clarified
H2	Risk barrier → Purchase Intention	(-)	-0.164	0.004	Risk perception lowers intention

H3	Image barrier → Purchase Intention	(+)	0.115	0.026	Positive image slightly increases intention
H4a	Collectivism → Usage barrier	(+)	0.402	0.000	Strong collectivism leads to greater concerns about product usage.
H4b	Collectivism → Risk barrier	(+)	0.419	0.000	Collectivist people see more risk in new/local products
H5c	Personal Innovativeness → Image barrier	(+)	0.192	0.000	Innovative people are more influenced by image barriers
H6c	Openness to change → Image barrier	(+)	0.158	0.008	Similar effect: open people still react to image concerns

CHAPTER 5

DISCUSSION, CONCLUSIONS AND IMPLICATIONS

Chapter 5 discusses the findings and conclusions regarding research hypotheses, highlighting implications for practice and suggestions for future research. It includes a summary of the study, a review of findings, and practical recommendations for implementation.

5.1. Findings

The research has shown that the concept of risk barriers was the most influential factor in limiting the intention of consumers to buy local chocolate products. Consumers in Vietnam were casting doubts to the utmost about the overall safety, consistency, and quality of the domestic chocolate brands. Most of the respondents gave examples of the features that make them unreliably different and among such features were the artificial ingredients like the additives, preservatives, or the unregulated sweeteners that were only to be expected and hence, they were disappointed. The lack of visible regulatory authorities and unclear information about the sources and the manufacturing process only fanned the skepticism of those consumers. The psychological barrier was the most significant one, and it was created especially among the consumers who are health conscious, hence, preventing them from the purchase of the local chocolate.

Besides, a large group of participants was predominantly of the opinion that local chocolate products look inferior to the most famous international brands, especially when it comes to the taste, the texture, the packaging sophistication, and the brand reputation. Consumers were still tricked by the idea that local chocolate producers had

less reliable and safer ingredients, and that foreign producers of chocolate are the ones who have better quality control systems, so it is logical that they ended up perceiving local chocolate as the one of inferior quality, thus adding up to their resistant attitude against the local products.

One more thing, the study actually proves that collectivism has a strong and positive relation with functional barriers, and especially with those of the Usage Barrier and the Risk Barrier. Those consumers who have collectivist nature traits as their dominant ones are actually the ones who point out the most that they will have the issues with the practicalities as well as with the safety when it comes to employing the domestic chocolate in their lives. Such individuals are those who report that they are less inclined to use the product, which seems to them to be new or not convenient or lacks the number of people who support it in their social network. These people, especially, said that locally made chocolate has limits by e.g. not having perfect and extensive distribution channels, having less variety on shelves, and that the product may still be different depending on the place and time of purchase.

Besides, these collectivist consumers often spoke of a shared responsibility in avoiding uncertain products just because of the family or group. So, their behavior was only indirectly influenced by their individual perception but rather by collective attitudes as well. Few respondents were worried that if they decide to purchase products that contain unknown ingredients or whose preparation method will be changed, then the people around them or the members of their households will not be happy. This tendency really signifies that cultural values play a crucial role in both the way the

product quality is perceived and in the ways the consumers conduct their risk evaluation.

Issues with product packaging, expiration date labeling, and storage conditions were also discussed. Few consumers raised the issue of whether Vietnamese chocolate manufacturers followed industry-standard practices not only for product freshness but also for contamination prevention during transportation. The lack of trust is at the core of feelings toward local producers and retailers, among those who go so far as to see branding and labeling as vague or amateurish, thus, they generally distrust such local sources of product supply.

While the presence of functional barriers was very obvious, their results also implied that there is the potential for locally produced chocolate to go over the parts of barriers that local people think are the most unique and have a particular cultural meaning. Some of the participants showed their acceptance of Vietnamese chocolate when it contained the symbols of its natives, such as the use of traditional Vietnamese ingredients, the fact that the cacao was from a particular region, or the introduction of innovative flavor combinations that were in line with the Vietnamese culinary identity. Such cultural signs became more powerful emotionally and were even mentioned as a way of overcoming the skepticism of some consumers.

In terms of image barriers, the research found that personal psychological traits at the individual level, namely openness to change and personal innovativeness, have been identified as major moderators that can significantly diminish the resistance of corresponding types. People characterized by high openness to change were extremely

willing to test unfamiliar local brands, especially if the product was presented as giving a new sensory experience, having a modern look or if the product was in accordance with personal exploration values. Similarly, those who consider themselves highly innovative reported that the brand's reputation or the negative image of “made in Vietnam” labels were hardly their concern, and in fact, they were more interested in the newness and the uniqueness of the chocolate product that drove them to decide so.

People possessing those characteristics were less impacted by the bad things that are associated with less-known domestic brands and showed a lot more adaptability in pathfinding the uncertainty that concerns product quality, labeling accuracy, or manufacturer transparency. They also were very much likely to be driven by their own desire and work of curiosity instead of social recognition or group decisions. This mini-set of consumers proved their higher willingness to experiment with new products, even if the image or the brand awareness was low, as long as the presentation of innovation was trendy, modern, or different.

Thus, the results lead us to the conclusion that local functional and image-related barriers constitute a great obstacle in the intention of Vietnamese consumers to buy locally produced chocolate, however, the degree of those barriers is not the same and it depends on cultural orientations and personal psychological characteristics. Risks and usage issues are intensified among collectivist consumers, whereas those with high levels of openness and innovativeness can more easily deal with image barriers.

5.2. Discussion and Implications

The findings suggest several barriers and culturally ingrained elements that impact and, in many instances, obstruct Vietnamese consumers' perceptions of and attitude towards buying domestic chocolate. One of the main obstacles discovered was the risk-related concerns regarding local chocolate. Vietnamese consumers were particularly apprehensive about the quality and safety of chocolate produced domestically. This apprehension is understandable, as it is emblematic of a larger view that domestically produced goods, especially in the food category, are less technologically developed and less rigorously controlled than their imported counterparts. This skepticism seems to be aligned with a general conception that imported products have greater worth because they are manufactured using better production technology and are more stringently maintained to high accordance with quality criteria.

This perception and related conception have been developed for some time in the minds of the Vietnamese consumers. As discussed in the work of Nguyen, Nguyen and Barrett (2008), Vietnamese consumers have been documented to be very concerned about the use of additives and preservatives in domestically manufactured foods, which affects their trust and the extent to which they perceive the foods to be safe and healthy. Similar to these findings, the present study demonstrates that this lack of confidence negatively influences consumer willingness to consider local chocolate as an option. This is not unique to Vietnam. As documented by White and Argo (2009), a similar consumer behavior is seen in other developing countries, where locally produced items are often seen as lower in quality and value, largely due to inherent disadvantages in the areas of manufacturing, regulation and branding as compared to foreign-produced alternatives.

In Vietnam's case, this perception of inferiority is heightened in product categories such as chocolate, which is conventionally seen as a premium, indulgent item that requires sophisticated manufacturing skills. Imported chocolate, particularly from markets like Europe or Japan, comes with an inherent promise of quality and reliability. Domestic chocolate, by comparison, is often viewed with distrust, not only in terms of technical quality but also in terms of hygiene, ingredients transparency, and adherence to safety regulations. Thus, consumers may see opting for a foreign chocolate brand not simply as a matter of taste or extravagance, but as a safer, more dependable choice altogether.

This comparative perspective through which consumers judge domestic versus foreign products is further supported by Kauppinen-Räisänen and Björk (2018). Their study points to the inclination among consumers in developing markets to judge local products in relation to their imported alternatives, often concluding that foreign ones provide a better assurance of quality. This orientation is strongly manifested in the findings of the present study, where consumers disproportionately preferred imported chocolate brands, citing their perceived advantages in compliance, manufacturing technology, and global quality audits. This hints at a continuing imbalance in perceived value between local and imported products, particularly in categories where safety and product quality are crucial.

Added together, these findings highlight the importance of product trust to influence consumer behaviors & purchases in the Vietnamese chocolate product category. It is not just about taste or awareness but instead a serious concern for authenticity and

reliability of domestic products. This means that even if they are cheaper or if the consumers are buying out of love for the domestic brand, this may not fully translate into consumer preference for the domestic brand. Instead, domestic chocolate brands will have to invest time, effort and resources into developing credible quality cues & signals. These include transparent manufacturing processes, trusted certifications & evidence of meeting international quality and safety standards. Failing to do so, consumers may continue to resist domestic brands, no matter how accessible or affordable they may be.

In addition to product-related issues, our findings highlight the significance of cultural values especially collectivism in particular in shaping consumer perceptions and preference toward locally produced products. Collectivism, as one of the most important dimensions of national culture of many Asian countries including Vietnam, highlights the importance of group harmony, social conformity, and compliance with group norms. Within such contexts, buying decisions are not made entirely by evaluating the products or based on one's individual desires but more importantly by evaluating the product and the choice based on group norms and the group48's collective decision. Consumers in Vietnam living in this collectivist society often consider how others will view their purchase and this social perspective strongly shapes their attitude toward locally produced products.

Indeed, the propensity to be risk averse for consumers in collectivist societies has important implications for the adoption of innovation and attitude toward local brands. As Salem and Salem (2018) argued, consumers from collectivist cultures tend to give

stronger attention to product quality, especially when an item is not validated by the group. In Vietnam, this is reflected in the hesitated attitude of consumers toward locally produced chocolate, which, as revealed in this study, are seen as less safe and less credible compared to foreign alternatives. Importantly, even when consumers perceive local products as quality they will view them as risky if they have not garnered social approval and are not regularly consumed by many others.

This is also in line with Besharat, Nardini and Mesler (2024)'s findings that collectivist consumers tend to make purchase decisions based on group consensus and norm adherence. This amplifies their sensitivity to risk and risk perception, especially in product categories where trust, safety, and brand credibility are important such as food and confectionery, where any uncertainty about product trustworthiness can lead to high suspicion even though the said product might not be of low quality. For many consumers in Vietnam, the fact that local chocolate brands are not widely known or endorsed leads to the assumption that these products are less safe, less regulated, or less socially accepted.

Furthermore, the cultural values of conformity and risk aversion mean that consumers in Vietnam may be reluctant to adopt or endorse products that are outside of the norm, especially if this would leave them exposed to social sanction or put them at odds with the group. This is especially true of newer or less visible domestic brands which may find it difficult to build momentum in a market where WOM, peer effect, and group-based trust dominate in the spread of consumer acceptance.

Given these dynamics, it is clear that domestic chocolate brands cannot simply focus on improving basic product attributes like taste, price, or nutritional value. Instead, they must also consider the social and psychological challenges posed by collectivist value orientations. This would require the development of communication approaches that reflect social values, minimise perceived risk and reassure the public about quality and safety. Messaging might thus seek to build on shared values such as community welfare, national pride, or health as long as they are themes that appeal to collectivists.

In addition, domestic brands should strive to establish social trust and social validity by consistently communicating key messages, providing endorsements from trusted community members, and demonstrating compliance with established quality standards. Only by alleviating both social risk and product-related risk will domestic brands be able to change consumer perceptions and encourage the wider acceptance of domestically produced chocolate in Vietnam’s collectivist culture.

Notwithstanding these obstacles, the research further reveals that domestic chocolate brands have the potential to attract a substantial portion of consumers if they play up cultural authenticity and pride. Past research has revealed a growing interest among consumers in buying goods reflecting their national identity. Yang et al. (2018) discovered that goods with deep-rooted cultural factors, including flavors and packaging with national pride messages, are likely to win the support of domestic consumers. This view is corroborated by Salem and Salem's (2018) finding that authenticity is increasingly playing a critical role in consumer purchasing decisions. For a brand to succeed in the market, it must demonstrate to the customers "what's in it

for them". Marketing has become the key to business success. In their search for competitive advantage, businesses are adopting the marketing concept that calls for the identification and satisfaction of customers' needs and wants. The market is a consumer-driven economy where companies that want sustainability must put major worth on listeners' notes. Now more than ever, the customers' feedback is the base of any company's stay in the market.Companies that today put more emphasis on incorporation and transparency earn the trust of customers who are bombarded by uncertainties or doubts. The consumer's perspective is regarded as the most remarkable when it comes to marketing. Companies that don't practice the consumer's perspective are seen as those who choose not to recognize this important key to market success and sustainable growth (Benson, 2012). In particular, branding focused on "Vietnamese authenticity" might strike a chord with consumers who are increasingly looking for goods embodying their national pride and culture.

Finally, personal characteristics such as openness to change and personal innovativeness have also been proved as boundary conditions for the effect of various barriers. The more customers that are open to experimenting are in general less affected by the fear of labeling inaccuracy or brand authenticity and hence less likely to be influenced by others to change their original plan. This is consistent with Dubois (2020), who pointed out that extremely open customers are more willing to experiment with new products, particularly if they are of the opinion that they deliver unmatched experiences. Similarly to that, Yang et al. (2018) stated that innovative consumers who are the minority compared to the skeptics are still swayed by traditional barriers such as skepticism about domestic goods but can be lured into trying new locally-produced

chocolate, based on the perception of the product as being original or having an individual taste fit.

5.3. Theoretical Contributions and Practical Contributions

5.3.1. Theoretical contributions

This research contributes to the literature by applying the Innovation Resistance Theory to the context of domestic chocolate consumption in a collectivistic society. While previous studies have adopted IRT to high-involvement innovations such as technological advances and organic products, this research confirms the applicability and usefulness of this theory in a low-involvement product category that is culturally embedded whereby consumers' choices of buying domestic chocolate are influenced not only by the products' attributes, but also by quality perceptions, cultural identities, and cultural norms.

The findings reveal three types of barriers including risk and usage and image barriers, that deter consumer intention to buy domestic chocolate. Usage and image barriers positively affect resistance towards domestic chocolate, indicating that consumers are less likely to buy domestic chocolate when the chocolate is hard to obtain or unfamiliar, or when the consumption of domestic chocolate is not socially attractive. In contrast, risk barriers have a negative effect on domestic chocolate purchase intention, meaning that consumers' concerns about safety, skepticism towards quality, and lack of confidence in domestic manufacturers impede consumers from substituting local products for imported brands. This finding deepens the innovation resistance literature

by showing that symbolic, functional, and psychological resistance can co-exist and matter even in routine consumer goods.

Besides validating these barriers, this study also contributes to the theory by exploring how cultural and psychological characteristics moderate the association between resistance barriers and consumer intentions to buy domestic chocolate. While traditional IRT considers barriers as independent dimensions, the findings in this study show that collectivism as a cultural value intensifies the perceptions of usage and risk barriers. In collectivistic culture such as Vietnam where social conformity, group cohesiveness, and uncertainty avoidance are emphasized, consumers tend to be more cautious in purchasing products that have not become the norm or are not supported by the collectivity. This suggests that innovation resistance is a phenomenon embedded in a social context and culture-specific, rather than solely an individual matter.

Moreover, the study unveils a complex relationship between personal innovativeness and openness to change and the image barrier. While such traits are generally linked to lower resistance, results show that consumers higher on these traits may nevertheless be susceptible to social image and symbolic value. If the product is seen as inconsistent with their self-concept or aspired identity less contemporary, trendy or respectable they may still resist. This calls attention to the intricate relations between personal traits and social evaluation, broadening the theoretical boundaries of IRT beyond functional utility to include perception of prestige, symbolicness and self-image consistency.

In sum, these findings portray innovation resistance as a multi-faceted and contingent concept, one influenced not only by product-related deficiencies but also by enduring socio-cultural norms, group-level pressures and individual psychological traits. By situating the theory in an emerging-market context, this study advances a more holistic and culturally sensitive conceptualization of IRT, particularly relevant in markets where consumer confidence in local brands is limited and where collectivistic values heighten perceived obstacles.

5.3.2. Practical contributions

In addition to the aforementioned theoretical contribution, this study also provides a number of valuable practical implications for domestic manufacturers, marketers, and policy makers who wish to facilitate the acceptance of domestically produced chocolate among consumers in collectivist, emerging-market contexts such as Vietnam.

First of all, the findings reveal that perceived risk especially in terms of product safety, quality, and transparency of ingredients is one of the most important obstacles to consumer acceptance. Many consumers are doubtful about the standards of domestically produced chocolate and thus inclined to think that imported ones are more hygienic and in conformity with regulations. Domestic manufacturers thus need to pay greater attention to quality assurance initiatives and obtain more third-party certificates, to be able to publicize them to consumers. Transparent and accurate product labeling, clear ingredient disclosure, and certificates from reputable food safety organizations can further improve consumer trust and alleviate perceived risks.

Second, the significance of usage barrier and image barrier indicates some of consumer resistance is associated with product quality but some of which is related to ease of getting the product, ease of consuming and social desirability of the product. Some domestic chocolate can be perceived as un-familiar to consumers in terms of packaging, taste or branding, and may thus be reluctantly adopted. Besides, some other domestic chocolate brands may face the image barrier, as they are perceived as “inferior” and “less reputable” than foreign brands. To overcome these contextual barriers, companies may focus on designing consumer-friendly packaging and clearer brand positioning strategies. In addition, marketing communication of domestic chocolate should try to associate it with modern living, aspirational needs, and positive social roles, and frame it as a desirable product, because this would help normalize the consumption of domestic chocolate and reform the symbolic image of the product.

Third, the study indicates that collectivism is a major driver of consumers' perception of barriers, especially risk and usage barriers. Since Vietnamese culture values social conformity, family acceptance, and group harmony, communication efforts should highlight collective messages, such as family support, community recommendation, or patriotic themes. By fostering a sense of mutual experience and trust towards domestic chocolate, it may mitigate the perception of being out of group expectations and enhance the social justification for purchasing local brands.

Furthermore, the findings of personal innovativeness and openness to change provide some implications for market segmentation. Even though these characteristics are not common, consumers with high scores on these characteristics can be the first group to

consume or support the brand. Marketing activities need to target this group with activities such as first use of products, packaging for only a certain time, campaigns that allow interaction, thereby encouraging them to influence others through word of mouth communication or social networking. Although this group is still subjective to brand image risk, their adventurous spirit and willingness to experiment can be used strategically.

Last but not least, the study highlights the increasing role of cultural authenticity in developing consumer preference. In the context that consumers tend to buy meaningful products and national pride is increasing in consumption, it is recommended to emphasize the Vietnamese cultural identity in the product such as unique traditional flavors, stories of local origin and use, or Vietnamese design inspiration to create stronger emotional bonding. It is similar to the trend in the world where consumers prefer brands that represent their cultural identity and social values. Therefore, the domestic chocolate manufacturers need to invest in authentic brand stories development, cultural branding, and brand identity to help the brands stand out more strongly, strengthen consumer loyalty, and increase domestic market share.

In sum, these findings offer practical guidance to firms seeking to mitigate consumers' innovation resistance towards local brands. By addressing functional and psychological risk factors, capitalising on cultural resources and targeting consumer characteristics, firms can more effectively position local chocolates as a credible, appealing and culturally proud alternative to foreign brands.

5.4. Conclusions and Future Research

The paper is based on the Innovation Resistance Theory of Ram and Sheth (1989) to investigate the causes of resistance to domestically made chocolates using theory. As a new approach to the research, the paper investigates two untried independent constructs: collectivism as cultural factors and personal innovativeness and openness to change as the consumer characteristics. This appears to be the first study to use the Innovation Resistance Theory in a direct examination of food sector consumption patterns and chocolates in general. The analysis for the paper revealed several new and significant findings that shed new light on the nature of resistance in the case of chocolates. Vietnamese consumers generally prefer foreign chocolate because it carries a prestige symbol and a superior quality reputation. Their resistance to buying domestic chocolate centers on safety concerns that include the use of additives and poor quality checks when producing the chocolates. These concern levels exert a strong negative impact on the intention to buy. Collectivistically inclined consumers are highly attuned to functional barriers in the form of little variety, inaccessibility, and questionable standards in the storage and production of the chocolates. Foreign chocolates need not have distinct features to overcome both these types of barriers. Nevertheless, local chocolates do have varying degrees of appeal when offering distinct characteristics that include traditional cultural heritage or Vietnamese identity or new and distinct flavors and packaging. Openness to change and being a relatively personally innovative consumer are also conducive to breaking through the barriers of images and consuming new local products as exploratory or taste-compatible values are observed.

While the current study makes some interesting and valuable contributions, it also has some limitations. Firstly, while this model is structured compared to previous research in linking cultural factor collectivism and consumer attributes such as personal innovativeness and openness to change, three obstacles, and purchasing intentions of domestic chocolate products, it is still narrowed-down in its framework from the IRT theory. Therefore, it might have neglected other potential obstacles to domestic chocolate consumption. Additional limitations are that the current study uses just two consumer attributes compatibility and personal innovativeness and does not consider other potential characteristics.

Secondly, it is vital to point out that the real data used to estimate and verify the model developed in this research are cross-sectional data. Using cross-sectional data means certain inherent limitations. Specifically, cross-sectional data measure consumer perceptions and behaviors at a single point in time. It is therefore difficult to evaluate what changes and developments happen in consumer attitudes and behaviors over time. They do not provide the chance to track the development of behaviors or changes in consumers' preferences over time for domestic chocolate consumption. Therefore, our interpretations based on this data set are subjected to this limitation, and one should be careful in interpreting the data as representing the long term consumer behavior or the development of the domestic chocolate market.

Finally, the study employs a convenience sampling technique that captures only Vietnamese consumers who were accessible and willing to respond at the time of data collection. While this technique enables researchers to collect data quickly and to gain

a broad spectrum of perspectives, it nonetheless weakens the external validity and representativeness of the research outcomes. In particular, the results may not be generalized to target groups with a narrower scope, such as specific age cohorts, income levels, or consumer profiles. Moreover, since this study is confined to the context of chocolate consumption, it would not be reasonable to apply the findings to other product categories without additional empirical validation.

Looking ahead to future research, there are many ways to improve upon the methodological and conceptual limitations of this study. For example, consumer trait characteristics such as personal innovativeness and openness to change are avenues for future research, as this study demonstrated an interaction between these traits and perceived barriers that merits further investigation across a variety of demographics and cultures.

In addition, future studies could identify or validate additional resistance factors by extracting them from other theoretical frameworks or by integrating other models, such as the Technology Acceptance Model, Diffusion of Innovations, or the Theory of Planned Behavior. Also, longitudinal research which requires repeated observations over time would provide insight into how consumer attitudes toward domestic chocolate might develop over time, and why consumers might or might not accept it in the long run.

Furthermore, in order to test the proposed model for its applicability and robustness beyond the context of domestic chocolate, future research could repeat this research

with other products, other consumer groups, or other national cultures to assess the generalizability and theoretical boundaries of the model.

In brief, by addressing the above limitations of the current study in future research through the adoption of more appropriate sampling methods, the use of longitudinal data, and the inclusion of other related variables in the analytical framework, richer insights can be generated and more meaningful and actionable contributions to the innovation resistance and consumer behaviour literature and practice can be made.

REFERENCES

Abedini, A., Dakhili, S., Bazzaz, S., Moghaddam, S. K., Mahmoudzadeh, M., & Andishmand, H. (2023). Fortification of chocolates with high-value-added plant-based substances: Recent trends, current challenges, and future prospects. *Food Science & Nutrition*, *11*(7), 3686–3705. https://doi.org/10.1002/fsn3.3387

Baptista, I., Valentin, D., Saldaña, E., & Behrens, J. (2021). Effects of packaging color on expected flavor, texture, and liking of chocolate in Brazil and France. *International Journal of Gastronomy and Food Science*, *24*, 100340. https://doi.org/10.1016/j.ijgfs.2021.100340

Barrientos, S. (2014). Gendered Global Production Networks: Analysis of Cocoa–Chocolate Sourcing. Regional Studies, 48(5), 791–803. https://doi.org/10.1080/00343404.2013.878799

Besharat, A., Nardini, G. & Mesler, R.M. Bringing Ethical Consumption to the Forefront in Emerging Markets: The Role of Product Categorization. J Bus Ethics 191, 777–792 (2024). https://doi.org/10.1007/s10551-024-05667-2

Bhutto, M. Y., & Rūtelionė, A. (2024). Analyzing organic food purchase intentions: eco-literacy and innovation resistance. *British Food Journal*, *126*(4), 1633–1653. https://doi.org/10.1108/bfj-08-2023-0756

Blanc, S., Merlino, V. M., Versino, A., Mastromonaco, G., Sparacino, A., Massaglia, S., & Borra, D. (2022). The role of chocolate Web-Based communication in a regional context: Its implication for open innovation. *Journal of Open Innovation Technology Market and Complexity*, *8*(2), 84. https://doi.org/10.3390/joitmc8020084

Cadby, J. (2021). Can COVID-19 melt the craft chocolate industry? *Food Ethics*, *6*(2). https://doi.org/10.1007/s41055-021-00087-8

Cadby, J., & Araki, T. (2022). The recent rise of craft chocolate in Japan: A 2019 snapshot. *Journal of Agriculture and Food Research*, *7*, 100273. https://doi.org/10.1016/j.jafr.2022.100273

Chan, R.Y.K., 2001. Determinants of Chinese consumers' green purchase behavior. Psychol. Mark. 18, 339–413. https://doi.org/10.1002/mar.1013

Chen, P.T., Kuo, S.C., 2017. Innovation resistance and strategic implications of enterprise social media websites in Taiwan through knowledge sharing perspective, Technological Forecasting and Social Change, Volume 118,2017, Pages 55-69, ISSN 0040-1625, https://doi.org/10.1016/j.techfore.2017.02.002.

Chryssochoidis, G., Krystallis, A., Perreas, P., 2007. Ethnocentric beliefs and country-of- origin (COO) effect: impact of country, product and product attributes on Greek consumers' evaluation of food products. Eur. J. Market. 41 (11–12), 1518–1544. http://dx.doi.org/10.1108/03090560710821288

Claudy, M. C., Garcia, R., & O'Driscoll, A. (2014). Consumer resistance to innovation—a behavioral reasoning perspective. *Journal of the Academy of Marketing Science*, *43*(4), 528–544. https://doi.org/10.1007/s11747-014-0399-0

Coutinho, N. M., Silveira, M. R., Guimarães, J. T., Fernandes, L. M., Pimentel, T. C., Silva, M. C., Borges, F. O., Fernandes, F. A., Rodrigues, S., Freitas, M. Q., Esmerino, E. A., & Cruz, A. G. (2021). Are consumers willing to pay for a product processed by emerging technologies? The case of chocolate milk drink processed by cold plasma. *LWT*, *138*, 110772. https://doi.org/10.1016/j.lwt.2020.110772

Curvelo, I. C. G., De Morais Watanabe, E. A., & Alfinito, S. (2019). Purchase intention of organic food under the influence of attributes, consumer trust and perceived value. Revista De Gestão, 26(3), 198–211. https://doi.org/10.1108/rege-01-2018-0010

Dan, N. T. T., & Ngoc, P. T. K. (2022). Factors Influencing Consumer Buying Behavior of Confectionery Products of Domestic Enterprises: An Empirical Study in Hanoi. Proceedings of the 4th Asia Pacific Management Research Conference (APMRC 2022), 537–552. https://doi.org/10.2991/978-94-6463-076-3_43

De Andrade Silva, A. R., Bioto, A. S., Efraim, P., & De Castilho Queiroz, G. (2017). Impact of sustainability labeling in the perception of sensory quality and purchase intention of chocolate consumers. *Journal of Cleaner Production, 141*, 11–21. https://doi.org/10.1016/j.jclepro.2016.09.024

De Morais, L. H. L., Pinto, D. C., & Cruz-Jesus, F. (2021). Circular economy engagement: Altruism, status, and cultural orientation as drivers for sustainable consumption. Sustainable Production and Consumption, 27, 523–533. https://doi.org/10.1016/j.spc.2021.01.019

Del Prete, M., & Samoggia, A. (2020). Chocolate Consumption and Purchasing Behaviour Review: Research Issues and Insights for Future Research. *Sustainability*, *12*(14), 5586. https://doi.org/10.3390/su12145586

Del Prete, M., & Samoggia, A. (2020). Chocolate Consumption and Purchasing Behaviour Review: Research issues and Insights for Future research. *Sustainability*, *12*(14), 5586. https://doi.org/10.3390/su12145586

Del Prete, M., & Samoggia, A. (2020). Chocolate consumption: A cross-national analysis of consumer behavior and attitudes. Food Research International, 132, 109101. https://doi.org/10.1016/j.foodres.2020.109101

Dubois, D. (2020). Fulfilling social needs through luxury consumption. In Research Handbook on Luxury Branding (pp. 140-155). Edward Elgar Publishing. https://doi.org/10.4337/9781786436351.00015

Everaert, H. (2022). *From genetics to chemical characterisation and flavour profiling of Vietnamese cocoa*. https://biblio.ugent.be/publication/8742178

Everaert, H. (2022). Nghiên cứu thị trường ca cao, sô cô la thế giới và Việt Nam giai đoạn 2019–2024 và dự báo. Logistics.gov.vn. https://logistics.gov.vn/nghien-cuudao-tao/nghien-cuu-thi-truong-ca-cao-so-co-la-the-gioi-va-viet-nam-giai-doan-2019-2024-va-du-bao

Everaert, H., De Wever, J., Tang, T. K. H., Vu, T. T. N., Maebe, K., Rottiers, H., Lefever, S., Smagghe, G., Dewettinck, K., & Messens, K. (2020). Genetic classification of Vietnamese cacao cultivars assessed by SNP and SSR markers. *Tree Genetics & Genomes*, *16*(3). https://doi.org/10.1007/s11295-020-01439-x

Forecast. Soc. Change 118, 55–69.

Fountain, A. C., & Hütz-Adams, F. (2018). *Cocoa Barometer 2018*. Retrieved from http://www.cocoabarometer.org/Cocoa_Barometer/Download_files/2018 Cocoa Barometer 180420.pdf

García-Herrero, L., De Menna, F., & Vittuari, M. (2019). Sustainability concerns and practices in the chocolate life cycle: Integrating consumers' perceptions and experts' knowledge. *Sustainable Production and Consumption*, *20*, 117–127. https://doi.org/10.1016/j.spc.2019.06.003

Ghazali, E., Soon, P. C., Mutum, D. S., & Nguyen, B. (2017). Health and cosmetics: Investigating consumers' values for buying organic personal care products. *Journal of Retailing and Consumer Services*, *39*, 154–163. https://doi.org/10.1016/j.jretconser.2017.08.002

Gordon, M. B., Laguna, M. F., Goncalves, S., & Iglesias, J. R. (2016). Adoption of Innovations with Contrarians and Repentant Agents. arXiv preprint arXiv:1612.08949. https://arxiv.org/abs/1612.08949

Haase, T., Schweiggert-Weisz, U., Ortner, E., Zorn, H., & Naumann, S. (2021). Aroma Properties of Cocoa Fruit Pulp from Different Origins. *Molecules*, *26*(24), 7618. https://doi.org/10.3390/molecules26247618

Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010) Multivariate Data Analysis. 7th Edition, Pearson, New York.

Herbig, P. A., & Day, R. L. (1992). Customer acceptance: the key to successful introductions of innovations. Marketing Intelligence & Planning, 10(1), 4–15. https://doi.org/10.1108/02634509210007812

Hien, N. N., Vo, L. T., Ngan, N. T. T., & Ghi, T. N. (2023). The tendency of consumers to use online travel agencies from the perspective of the valence framework: The role of openness to change and compatibility. Journal of Open Innovation Technology Market and Complexity, 10(1), 100181. https://doi.org/10.1016/j.joitmc.2023.100181 high-involvement high-cost purchases. Journal of Consumer Behaviour, 2, 154–169.

Hofstede, G. Cultures and Organizations: Software of the Mind; McGrawHill: New York, NY, USA, 1991.

Hu, L. T., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives. Structural Equation Modeling, 6, 1-55. http://dx.doi.org/10.1080/10705519909540118

Huang, D., Coghlan, A., & Jin, X. (2022). A process perspective on consumer innovation resistance to Airbnb: A narrative approach. *International Journal of Hospitality Management*, *107*, 103306. https://doi.org/10.1016/j.ijhm.2022.103306

International Cocoa Organization. (2019). Annual report 2019. https://www.icco.org

International Cocoa Organization. (2019). Quarterly Bulletin of Cocoa Statistics - Vol. XLV, No. 1, *Cocoa year 2018/19*. Retrieved from https://www.icco.org/statistics/Quarterly-review-of-the-cocoa-market.html

Joachim, V., Spieth, P., & Heidenreich, S. (2018). Active innovation resistance: An empirical study on functional and psychological barriers to innovation adoption

in different contexts. *Industrial Marketing Management, 71*, 95–107. https://doi.org/10.1016/j.indmarman.2017.12.011

John, A. V., & Brady, M. P. (2011). Consumer ethnocentrism and attitudes toward South African consumables in Mozambique. African Journal of Economic and Management Studies, 2(1), 72–93. https://doi.org/10.1108/20400701111110786

Ju, N., & Lee, K. (2020). Consumer resistance to innovation: smart clothing. *Fashion and Textiles, 7*(1). https://doi.org/10.1186/s40691-020-00210-z

Kareklas, I., Carlson, J. R., & Muehling, D. D. (2014). "I eat organic for my benefit and yours": egoistic and altruistic considerations for purchasing organic food and their implications for advertising strategists. Journal of Advertising, 43(1), 18–32. https://doi.org/10.1080/00913367.2013.799450

Kauppinen-Räisänen, H., & Björk, P. (2018). How consumers' need for uniqueness, self-monitoring, and social identity affect their choices when luxury brands visually shout versus whisper. *Journal of Business Research*, 93, 26-34. https://doi.org/10.1016/j.jbusres.2017.11.012

Kawasaki, K., & Asahi, Y. (2019). New habits to increase 5 times the annual chocolate consumption of Japan. In *Lecture notes in computer science* (pp. 437–448). https://doi.org/10.1007/978-3-030-22660-2_32

Khan, M. a. S., Du, J., Malik, H. A., Anuar, M. M., Pradana, M., & Yaacob, M. R. B. (2022). Green innovation practices and consumer resistance to green innovation products: Moderating role of environmental knowledge and pro-environmental behavior. *Journal of Innovation & Knowledge*, *7*(4), 100280. https://doi.org/10.1016/j.jik.2022.100280

Kholousy, R. M. F. A., & Triantafyllidi, A. (2021). *An Innovation Resistance Theory Perspective on Sustainable Fashion*. LUP Student Papers. https://lup.lub.lu.se/student-papers/search/publication/9056549

Kim, D., & Bae, J. K. (2020). The effects of protection motivation and perceived innovation characteristics on innovation resistance and innovation acceptance in internet primary bank services. *GLOBAL BUSINESS & FINANCE REVIEW*, *25*(1), 1–12. https://doi.org/10.17549/gbfr.2020.25.1.1

Kiss, M., Czine, P., Balogh, P., & Szakály, Z. (2022a). The connection between manufacturer and private label brands and brand loyalty in chocolate bar buying decisions – A hybrid choice approach. *Appetite*, *177*, 106145. https://doi.org/10.1016/j.appet.2022.106145

Kiss, M., Czine, P., Balogh, P., & Szakály, Z. (2022b). The connection between manufacturer and private label brands and brand loyalty in chocolate bar buying decisions – A hybrid choice approach. *Appetite*, *177*, 106145. https://doi.org/10.1016/j.appet.2022.106145

Klein, J. G. (2002). Us versus them, or Us versus everyone? Delineating consumer aversion to foreign goods. Journal of International Business Studies, 33(2), 345–363. https://doi.org/10.1057/palgrave.jibs.8491020

Klein, J. G., & Morris, R. E. a. M. D. (1998). The animosity model of foreign product purchase: An Empirical test in the People's Republic of China. Journal of Marketing, 62(1), 89–100. https://doi.org/10.2307/1251805https://www.jstor.org/stable/1251805

Kushwah, S., Dhir, A., & Sagar, M. (2019). Understanding consumer resistance to the consumption of organic food. A study of ethical consumption, purchasing, and choice behaviour. Food Quality and Preference, 77, 1–14. https://doi.org/10.1016/j.foodqual.2019.04.003

Leonidou, L. C., Leonidou, C. N., & Kvasova, O. (2010). Antecedents and outcomes of consumer environmentally friendly attitudes and behaviour. Journal of Marketing Management, 26(13–14), 1319–1344. https://doi.org/10.1080/0267257x.2010.523710

Liang, Y. (2012). The Relationship between Consumer Product Involvement, Product Knowledge and Impulsive Buying Behavior. Procedia - Social and Behavioral Sciences, 57, 325–330. https://doi.org/10.1016/j.sbspro.2012.09.1193

Loan, H. T. K., & Hiền, N. N. (2021). NHỮNG YẾU TỐ THÚC ĐẨY VÀ KÌM HÃM ý ĐỊNH MUA THỰC PHẨM HỮU CƠ CỦA NGƯỜI TIÊU DÙNG TẠI THÀNH PHỐ HỒ CHÍ MINH. *Journal of Science and Technology - IUH*, *50*(02). https://doi.org/10.46242/jst-iuh.v50i08.948

Long, N. T., Luu, D. X., Trung, N. Q., & Hien, N. N. (2024). Barriers to the adoption of Sharing-Based Accommodations: the role of personal innovativeness and compatibility. SAGE Open, 14(4). https://doi.org/10.1177/21582440241289840

Long, N. T., Luu, D. X., Trung, N. Q., & Hien, N. N. (2024). Barriers to the Adoption of Sharing-Based Accommodations: The Role of Personal Innovativeness and Compatibility. SAGE Open, 14(4). https://doi.org/10.1177/21582440241289840

Lu, Y., Yang, S., Chau, P.Y.K., Cao, Y., 2011. Dynamics between the trust transfer process and intention to use mobile payment services: a cross-environment perspective. Inf. Manag. 48. https://doi.org/10.1016/j.im.2011.09.006.

Luchs, M.G.; Miller, R.A. Consumer responsibility for sustainable consumption. In Handbook of Research on Sustainable Consumption; Reisch, L., Thøgersen, J., Eds.; Edward Elgar Publishing: Cheltenham, UK, 2015; pp. 254–267. http://dx.doi.org/10.4337/9781783471270.00027

Mani, Z., & Chouk, I. (2018). Consumer Resistance to Innovation in Services: Challenges and barriers in the Internet of Things era. Journal of Product Innovation Management, 35(5), 780–807. https://doi.org/10.1111/jpim.12463

The economics of chocolate. (2016). In Oxford University Press eBooks. https://doi.org/10.1093/acprof:oso/9780198726449.001.0001

Markets and Data. (2024). Chocolate Confectionery Market Report (2023–2031)..https://www.marketsandata.com/industry-reports/chocolate-confectionery-market

Massaglia, S., Merlino, V. M., Brun, F., Sparacino, A., Blanc, S., & Borra, D. (2023). What do chocolate consumers want? Exploring individual preferences and profiles, considering lifestyle, food habits and socio-demographic features. *International Journal of Gastronomy and Food Science*, *32*, 100746. https://doi.org/10.1016/j.ijgfs.2023.100746

McCarty, J. A., & Shrum, L. (1994). The recycling of solid wastes: Personal values, value orientations, and attitudes about recycling as antecedents of recycling behavior. Journal of Business Research, 30(1), 53–62. https://doi.org/10.1016/0148-2963(94)90068-x

McClure, A. P., Hopfer, H., & Grün, I. U. (2022). Optimizing consumer acceptability of 100% chocolate through roasting treatments and effects on bitterness and other important sensory characteristics. *Current Research in Food Science*, *5*, 167–174. https://doi.org/10.1016/j.crfs.2022.01.005

Merlino, V. M., Mota-Gutierrez, J., Borra, D., Brun, F., Cocolin, L., Blanc, S., & Massaglia, S. (2021). Chocolate culture: Preferences, emotional implications and awareness of Italian consumers. *International Journal of Gastronomy and Food Science*, *25*, 100374. https://doi.org/10.1016/j.ijgfs.2021.100374

Molesworth, M., & Suortti, J. (2002). Buying cars online: the adoption of the web for high-involvement, high-cost purchases. Journal of Consumer Behaviour, 2(2), 155–168. https://doi.org/10.1002/cb.97

Moorthy, K., Suet Ling, C., Weng Fatt, Y., Mun Yee, C., Ket Yin, E.C., Sin Yee, K., Kok Wei, L., 2017. Barriers of mobile commerce adoption intention: perceptions of generation X in Malaysia. J. Theor. Appl. Electron. Commer. Res. 12. https://doi.org/10.4067/ S0718-18762017000200004.

Morris, J., Ngai, M. Y. K., Yeomans, M. R., & Forster, S. (2020). A high perceptual load task reduces thoughts about chocolate, even while hungry. *Appetite*, *151*, 104694. https://doi.org/10.1016/j.appet.2020.104694

Narang, R. (2016). Understanding purchase intention towards Chinese products: Role of ethnocentrism, animosity, status and self-esteem. Journal of Retailing and Consumer Services, 32, 253–261. https://doi.org/10.1016/j.jretconser.2016.05.010

Nguyen, T. D., & Nguyen, T. T. M. (2008). Consumer ethnocentrism, cultural sensitivity, and intention to purchase local products—evidence from Vietnam. Journal of Consumer Marketing, 25(6), 383-391. https://onlinelibrary.wiley.com/doi/abs/10.1002/cb.238

Nguyen, T. D., & Nguyen, T. T. M. (2008). Consumer ethnocentrism, cultural sensitivity, and intention to purchase local products—evidence from Vietnam. Journal of Consumer Marketing, 25(6), 383-391. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1002/cb.238

Nguyen, T., Vuong, T.-V., Duong, T., & Nguyen, M. T. T. (2023). A cross-cultural study: How product attributes and cultural values influence chocolate preferences. Food Research International, 162, 112068. https://doi.org/10.1016/j.foodres.2022.112068

Nijssen, E. J., & Douglas, S. P. (2004). Examining the animosity model in a country with a high level of foreign trade. International Journal of Research in Marketing, 21(1), 23–38. https://doi.org/10.1016/j.ijresmar.2003.05.001

Paz, L. I., Januszewska, R., Schouteten, J. J., & Van Impe, J. (2021). Challenges of pairing chocolates and nuts: Perceptions, interactions and dynamics of contrasting chocolates with nuts. *Food Research International*, *148*, 110620. https://doi.org/10.1016/j.foodres.2021.110620

Pedersen, L., Bertelsen, A. S., Byrne, D. V., & Kidmose, U. (2023). Sensory Interactions between Sweetness and Fat in a Chocolate Milk Beverage. *Foods*, *12*(14), 2711. https://doi.org/10.3390/foods12142711

Pineda, A. M., Reia, S. M., Connaughton, C., Fontanari, J. F., & Rodrigues, F. A. (2023). Cultural heterogeneity constrains diffusion of innovations. arXiv preprint arXiv:2308.02931. https://arxiv.org/abs/2308.02931

Quispe-Sanchez, L., Mestanza, M., Oliva-Cruz, M., Rimarachín, N., Caetano, A. C., Chuquizuta, T., Goñas, M., Gill, E. R. A., & Chavez, S. G. (2023). Oxidative stability and physicochemical changes of dark chocolates with essential oils addition. *Heliyon*, *9*(7), e18139. https://doi.org/10.1016/j.heliyon.2023.e18139

Ram, S., & Sheth, J. N. (1989). Consumer resistance to innovations: The marketing problem and its solutions. Journal of Consumer Marketing, 6(2), 5–14. https://doi.org/10.1108/EUM0000000002542

Ram, S., Sheth, J.N., 1987. (1987). Bringing innovation to market: How to break corporate and customer barriers. New York.

Rašković, M., Ding, Z., Hirose, M., Žabkar, V., & Fam, K. (2019). Segmenting young-adult consumers in East Asia and Central and Eastern Europe – The role of consumer ethnocentrism and decision-making styles. Journal of Business Research, 108, 496–507. https://doi.org/10.1016/j.jbusres.2019.04.013

Ray, A., Bala, P. K., & Dwivedi, Y. K. (2022). Exploring Barriers Affecting e-Health Service Continuance Intention in India : From the Innovation Resistance Theory Stance. *Asia Pacific Journal of Information Systems*, *32*(4), 890–915. https://doi.org/10.14329/apjis.2022.32.4.890

Rini, L., Lagast, S., Schouteten, J., Gellynck, X., & De Steur, H. (2022). Impact of emotional state on consumers' emotional conceptualizations of dark chocolate using an emoji-based questionnaire. *Food Quality and Preference*, *99*, 104547. https://doi.org/10.1016/j.foodqual.2022.104547

Roseira, C., Teixeira, S., Barbosa, B., & Macedo, R. (2022). How Collectivism Affects Organic Food Purchase Intention and Behavior: A Study with Norwegian and Portuguese Young Consumers. Sustainability, 14(12), 7361. https://doi.org/10.3390/su14127361

S.Ragul Prasath, Dhanraj Ganapathy, & L. Keerthi Sasanka. (2020). CHOCOLATE CONSUMPTION HABITS AMONG SCHOOL STUDENTS. PalArch's Journal of Archaeology of Egypt / Egyptology, 17(7), 1306-1322. https://archives.palarch.nl/index.php/jae/article/view/1362

Sadiq, M., Adil, M., & Paul, J. (2020). An innovation resistance theory perspective on purchase of eco-friendly cosmetics. *Journal of Retailing and Consumer Services*, *59*, 102369. https://doi.org/10.1016/j.jretconser.2020.102369

Sadiq, M., Adil, M., & Paul, J. (2021). An innovation resistance theory perspective on purchase of eco-friendly cosmetics. *Journal of Retailing and Consumer Services*, *59*, 102369. https://doi.org/10.1016/j.jretconser.2020.102369

Salgado, A., Moreira-Leite, B., Afonso, A., Infante, P., & Mata, P. (2023). Chocolates enriched with seaweed: Sensory profiling and consumer segmentation. *International Journal of Gastronomy and Food Science*, *33*, 100747. https://doi.org/10.1016/j.ijgfs.2023.100747

Samarasinghe, R. (2012). The influence of cultural values and environmental attitudes on green consumer behaviour. The Journal of Behavioral Science, 7(1), 83–98. https://doi.org/10.14456/ijbs.2012.6

Sang, Y., Yu, H., & Han, E. (2022). Understanding the barriers to consumer purchasing of Zero-Waste products. *Sustainability*, *14*(24), 16858. https://doi.org/10.3390/su142416858

Sang, Y., Yu, H., & Han, E. (2022). Understanding the Barriers to Consumer Purchasing of Zero-Waste Products. Sustainability, 14(24), 16858. https://doi.org/10.3390/su142416858

Schott, L., Britwum, K., & Bernard, J. C. (2022). Can region labeling alter taste impressions and willingness to pay? A field experiment with chocolate bars. *Food Quality and Preference*, *100*, 104606. https://doi.org/10.1016/j.foodqual.2022.104606

Semenova, D., Kulikova, S., Shamgunova, Y. Z., & Molodchik, M. (2023). Measuring effects of packaging on willingness-to-pay for chocolate: Evidence from an EEG experiment. *Food Quality and Preference*, *107*, 104840. https://doi.org/10.1016/j.foodqual.2023.104840

Seth, H., Talwar, S., Bhatia, A., Saxena, A., Dhir, A., 2020. Consumer resistance and inertia of retail investors: development of the resistance adoption inertia continuance (RAIC) framework. J. Retailing Consum. Serv. 55, 102071.

Shanmugavel, N., & Micheal, M. (2022). Exploring the marketing related stimuli and personal innovativeness on the purchase intention of electric vehicles through Technology Acceptance Model. Cleaner Logistics and Supply Chain, 3, 100029. https://doi.org/10.1016/j.clscn.2022.100029

Sharma, P. (2014). Consumer ethnocentrism: Reconceptualization and cross-cultural validation. Journal of International Business Studies, 46(3), 381–389. https://doi.org/10.1057/jibs.2014.42

Sharma, S., Shimp, T. A., & Shin, J. (1995). Consumer ethnocentrism: A test of antecedents and moderators. Journal of the Academy of Marketing Science, 23(1), 26–37. https://doi.org/10.1007/bf02894609

Sharma, T. a. S. a. S. (1987). Consumer Ethnocentrism: Construction and validation of the CETSCALE. Journal of Marketing Research, 24(3), 280–289. https://doi.org/10.2307/3151638https://www.jstor.org/stable/3151638

Shishan, F., Hmoud, H., Zaidan, H., & Qasem, Z. (2022). The Innovation Resistance Theory: the case of cryptocurrencies. In *Lecture notes in networks and systems* (pp. 459–465). https://doi.org/10.1007/978-3-030-93464-4_45

Chen, P., & Kuo, S. (2017). Innovation resistance and strategic implications of enterprise social media websites in Taiwan through knowledge sharing perspective. Technological Forecasting and Social Change, 118, 55–69. https://doi.org/10.1016/j.techfore.2017.02.002

Sreen, N., Purbey, S., & Sadarangani, P. (2017). Impact of culture, behavior and gender on green purchase intention. Journal of Retailing and Consumer Services, 41, 177–189. https://doi.org/10.1016/j.jretconser.2017.12.002

Sreen, N.; Purbey, S.; Sadarangani, P. Impact of culture, behavior and gender on green purchase intention. J. Retail. Consum. Serv. 2018, 41, 177–189.

Statista. (2024). Import value of chocolate and cocoa products in Vietnam from 2012 to 2022. https://www.statista.com/statistics/1377616/vietnam-chocolate-and-cocoa-products-import-value/

Steenkamp, J. E. M., Ter Hofstede, F., & Wedel, M. (1999). A Cross-National Investigation into the Individual and National Cultural Antecedents of Consumer Innovativeness. Journal of Marketing, 63(2), 55. https://doi.org/10.2307/1251945

Sumner, W., 1907. Folkways: A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals. ginn and co, Boston.

Talke, K., & Heidenreich, S. (2013). How to overcome pro-change bias: Incorporating passive and active innovation resistance in innovation decision models. Journal of Product Innovation Management, 31(5), 894–907. https://doi.org/10.1111/jpim.12130

Talwar, S., Talwar, M., Kaur, P., & Dhir, A. (2020). Consumers' Resistance to Digital Innovations: A Systematic Review and framework development. *Australasian Marketing Journal (AMJ)*, *28*(4), 286–299. https://doi.org/10.1016/j.ausmj.2020.06.014

Tandon, A., Dhir, A., Kaur, P., Kushwah, S., & Salo, J. (2020). Behavioral reasoning perspectives on organic food purchase. Appetite, 154, 104786. https://doi.org/10.1016/j.appet.2020.104786

To, C., Falcone, M., Loughead, J., Logue-Chamberlain, E., Hamilton, R., Kable, J., Lerman, C., & Ashare, R. L. (2018). Got chocolate? Bilateral prefrontal cortex stimulation augments chocolate consumption. *Appetite*, *131*, 28–35. https://doi.org/10.1016/j.appet.2018.08.032

Tran, T. T. A., Lê, T. K. L., Lê, V. T. A., Trần, L. A., & Nguyễn, T. T. N. (2024). Factors affecting the shopping behavior of consumers for powdered milk - the moderating role of ethnocentric orientation. Tạp chí Khoa học Kinh tế, 11(01), 2023–2024. https://vjol.info.vn/index.php/due/article/view/94757

Utama, Y. A., Nurtantio, P., & Wismantoro, Y. (2024). Consumer Propensity to Use Ai Chatbot in Purchase Decision Making from The Perspective of Valence Framework: The Role of Openness to Change and Compatibility. *International Journal of Religion*, *5*(12), 1496–1511. https://doi.org/10.61707/sfwm7h49

Utama, Y. A., Nurtantio, P., & Wismantoro, Y. (2024). Consumer Propensity to Use Ai Chatbot in Purchase Decision Making from The Perspective of Valence Framework: The Role of Openness to Change and Compatibility. *International Journal of Religion*, *5*(12), 1496–1511. https://doi.org/10.61707/sfwm7h49

Vafaei-Zadeh, A., Wong, T., Hanifah, H., Teoh, A. P., & Nawaser, K. (2022). Modelling electric vehicle purchase intention among generation Y consumers in Malaysia. Research in Transportation Business & Management, 43, 100784. https://doi.org/10.1016/j.rtbm.2022.100784

Velarde, C., Moore, A., Boakye, E. A., Parkhurst, T., & Brewer, D. (2018). Consumption and emotions among college students toward chocolate product. *Cogent Food & Agriculture*, *4*(1), 1442645. https://doi.org/10.1080/23311932.2018.1442645

Visalli, M., Mahieu, B., & Schlich, P. (2023). A dataset on concurrent and immediate retrospective measures of sensory perception and preferences of dark chocolates. *Data in Brief*, *49*, 109314. https://doi.org/10.1016/j.dib.2023.109314

Von Grafenstein, L., Iweala, S., & Ruml, A. (2022). Information source and content – Drivers for consumers' valuation of fairly traded chocolate. *Cleaner and Responsible Consumption*, *6*, 100071. https://doi.org/10.1016/j.clrc.2022.100071

Vu, T. D., Nguyen, H. V., & Nguyen, T. M. N. (2023). Extend theory of planned behaviour model to explain rooftop solar energy adoption in emerging market. Moderating mechanism of personal innovativeness. Journal of Open Innovation Technology Market and Complexity, 9(2), 100078. https://doi.org/10.1016/j.joitmc.2023.100078

Financial Times. (2025). Food groups develop a taste for cocoa alternatives. Retrieved July 7, 2025, from https://www.ft.com/content/169c9fca-1a7a-4c0f-84e9-398777335629

Grand View Research. (2024). Chocolate Market Size, Share & Trends Analysis Report. Retrieved from https://www.grandviewresearch.com/industry-analysis/chocolate-market

Intel Market Research. (2024). Luxury Chocolate Market Outlook 2024–2030. Retrieved from https://www.intelmarketresearch.com/global-luxury-chocolate-2025-973-759

International Cocoa Organization. (2025). Quarterly Bulletin of Cocoa Statistics: February 2025. Retrieved from https://www.icco.org/february-2025-quarterly-bulletin-of-cocoa-statistics/

Reuters. (2025). Cocoa traceability rates fail to improve as EU deforestation law looms. Reuters. Retrieved from https://www.reuters.com/markets/commodities/cocoa-traceability-rates-fail-improve-eu-deforestation-law-looms-2024-10-01/

Chan, J. (2021, April 6). How Marou put Vietnam on the world's chocolate map. Jovel Chan. Retrieved from https://jovelchan.com/blog/how-marou-put-vietnam-put-on-the-worlds-chocolate-map

IMARC Group. (2025). Vietnam Confectionery Market Report by Product Type 2025–2033. Retrieved from https://www.imarcgroup.com/vietnam-confectionery-market

Marou Chocolate. (n.d.). Our Story. Retrieved 2025, from https://www.marouchocolate.com/pages/our-story

VnEconomy. (2023). Local chocolate eyes the world. Retrieved from https://vneconomy.vn/local-chocolate-eyes-the-world.htm

Euromonitor. (2023). Snacks in Vietnam: Full market report. Retrieved from https://fr.scribd.com/document/767985523

Scribd. (2022). Chocolate confectionery in Vietnam. Retrieved from https://es.scribd.com/document/643138345

Advertising Vietnam. (2022). Marou và hành trình khẳng định chocolate “made in Vietnam”. Retrieved from https://www.advertisingvietnam.com/marou-va-hanh-trinh-khang-dinh-chocolate-made-in-vietnam

NaviWorld. (2025). NaviWorld Vietnam partners with Marou Faiseurs de Chocolat for a digital transformation journey. Retrieved from https://naviworld.com.vn/2025/04/17/naviworld-vietnam-partners-with-marou-faiseurs-de-chocolat

Wang, Y., Wang, G., Zhang, D., Wang, L., Cui, X., Zhu, J., & Fang, Y. (2017). Learning to Dislike Chocolate: Conditioning Negative Attitudes toward Chocolate and Its Effect on Chocolate Consumption. Frontiers in psychology, 8, 1468. https://doi.org/10.3389/fpsyg.2017.01468

White, K., & Argo, J. J. (2009). Social identity threat and consumer preferences. *Journal of Consumer Psychology*, 19(4), 449-457. https://doi.org/10.1016/j.jcps.2009.03.007

Wittekind, C. E., Blechert, J., Schiebel, T., Lender, A., Kahveci, S., & Kühn, S. (2021). Comparison of different response devices to assess behavioral tendencies towards chocolate in the approach-avoidance task. *Appetite*, *165*, 105294. https://doi.org/10.1016/j.appet.2021.105294

Wu, Z., Takahashi, Y., & Yabe, M. (2022). Understanding Consumer Resistance to the consumption of Environmentally-Friendly Agricultural products: A case of Bio-Concentrated Liquid Fertilizer product. *Journal of Agricultural Science*, *14*(6), 1. https://doi.org/10.5539/jas.v14n6p1

Xue, Y., Zhang, X., Zhang, Y., & Luo, E. (2024). Understanding the Barriers to consumer purchasing of Electric Vehicles: The Innovation Resistance Theory. *Sustainability*, *16*(6), 2420. https://doi.org/10.3390/su16062420

Ye, X., Jin, J., Liang, C., Wang, J., Jiang, L., & Zhao, L. (2023). Effects of individual phospholipids on chocolate model systems: Particulate interaction, crystallization behavior, and fat bloom during storage. *Journal of Food Engineering*, *357*, 111618. https://doi.org/10.1016/j.jfoodeng.2023.111618

Erdogan, B. Z., & Uzkurt, C. (2010). Effects of ethnocentric tendency on consumers' perception of product attitudes for foreign and domestic products. Cross Cultural Management an International Journal, 17(4), 393–406. https://doi.org/10.1108/13527601011086595

Zhang, Q., Liao, G., Ran, X., & Wang, F. (2025). The Impact of AI usage on Innovation behavior at work: The moderating role of openness and job complexity. *MDPI*. https://doi.org/10.3390/bs15040491

Internet vs mobile banking: The impact of innovation and innovation resistance. International Journal of Innovation Management, 11(3), 403–425. https://doi.org/10.1142/S1363919607001921

Consumer adoption versus rejection decisions in seemingly similar service innovations: The case of the Internet and mobile banking. Journal of Business Research, 69(7), 2432–2439. https://doi.org/10.1016/j.jbusres.2016.01.013

What about passive innovation resistance? Investigating adoption-related behavior from a resistance perspective. Journal of Product Innovation Management, 32(6), 878–903. https://doi.org/10.1111/jpim.12161

An exploration of consumer resistance to innovation and its antecedents. Journal of Economic Psychology, 30(3), 344–357. https://doi.org/10.1016/j.joep.2009.02.004

APPENDIX A

QUESTIONNAIRE (ENGLISH VERSION)

CHOCOLATE SURVEY – RECEIVE A THANK-YOU GIFT!

Hello everyone,

Thank you all for your interest in Vinacacao's market research project on chocolate.

In order to better serve customers who are interested in chocolate, Vinacacao is conducting a market research survey. Each participant who completes the survey will receive a chocolate gift from Vinacacao!

To participate, please answer all the questions below as honestly and objectively as possible. This will help our project collect accurate and reliable data, allowing us to develop better strategies tailored to Vinacacao's customers.

All personal information you provide will be used solely for research purposes and for delivering the gift.

Once again, Vinacacao would like to sincerely thank everyone for your enthusiastic support and participation in our market research survey.

Best regards,

Vinacacao Company.

I. SCREENNING QUESTION

1. **Do you enjoy consuming chocolate products?**

□ Yes (Please continue with the next parts of the questionnaire)

□ No (You can stop doing this survey now; thanks for your help)

2. **Do you frequently buy chocolate products?**

□ Yes (Please continue with the next parts of the questionnaire)

□ No (You can stop doing this survey now; thanks for your help)

II. PERSONAL INFORMATION

1. Address to receive chocolate gift:
2. Name:
3. Phone number:

III. DEMOGRAPHIC INFORMATION

1. Gender

□ Male

□ Female

2. Age

□ 18 - 24

□ 25 - 34

□ 35 - 45

□ Over 45

2. Education level

□ Intermediate/College

□ University

□ Post graduate

□ Other

3. Occupation:

□ Student

□ Officer

□ Manager/Business man

□ Freelancer

□ Others

4. Monthly income:

□ From 4.5 to 7.5 millions VND

□ From 7.5 to 15 millions VND

□ From 15 to 30 millions VND

□ From 30 to 45 millions VND

□ From 45 to 75 millions VND

□ From 75 to 150 millions VND

□ Above 150 millions VND

5. Marrital status

□ Single

□ Married

□ Other

IV. MAIN PART OF INDIVIDUAL EVALUATION

Please select only **ONE** answer that best describes your opinion based on a scale of 1 to 5 for each section::

1: Strongly disagree – 2: Disagree – 3: Neutral – 4: Agree – 5: Strongly agree

Personal Innovativeness					
1. I always enjoy experimenting with new types of chocolate.	1	2	3	4	5
2. Overall, I like modern, innovative chocolate products and want to use them.	1	2	3	4	5
3. I often search for information about innovative chocolate products.	1	2	3	4	5
4. I know a lot about advanced chocolate products.	1	2	3	4	5

5. I look forward to using chocolate products with the most advanced.	1	2	3	4	5
6. I am willing to try new types of chocolate as soon as I hear about them.	1	2	3	4	5
7. Usually, I am among the first in my peer group to try new chocolate products.	1	2	3	4	5
Openness to Change					
1. I always look for new chocolate products.	1	2	3	4	5
2. I'm looking for discovery chocolate products.	1	2	3	4	5
3. I am open to new chocolate products.	1	2	3	4	5
4. I look for new chocolate products and like to take risks.	1	2	3	4	5
Image barrier					
1. I have doubts towards the domestic chocolate labelling.	1	2	3	4	5
2. I believe that the domestic chocolate currently sold in the market is not truly high quality.	1	2	3	4	5
3. I have doubts about the credibility of Vietnamese chocolate brands (due to their name recognition and reputation).	1	2	3	4	5

Usage barrier	
1. There is a little ability for choice domestic chocolate products for consumption.	1 2 3 4 5
2. The variety or range of domestic chocolate products is poor.	1 2 3 4 5
3. The reason I'm not purchasing domestic chocolate products is that they are unavailable in stores.	1 2 3 4 5
4. I concern about domestic chocolate products' quality due to improper storage.	1 2 3 4 5
5. I think domestic chocolate products are exclusively sold in major supermarkets and are typically priced high (due to taxes and additional costs).	1 2 3 4 5
Risk barrier	
1. I fear that domestic chocolate products claiming to be high-quality are not actually of high quality.	1 2 3 4 5
2. I fear that I am paying more money for domestic chocolate products without getting equivalent value.	1 2 3 4 5

3. I am concerned that domestic chocolate may contain additives, preservatives, or unsafe ingredients, potentially posing health risks.	1	2	3	4	5
4. I am concerned that the quality of the chocolate may not be comparable to the products I have previously consumed.	1	2	3	4	5
Collectivism					
1. I work hard for the goals of a group, even if it does not result in personal recognition.	1	2	3	4	5
2. I am a cooperative participant in group activities.	1	2	3	4	5
3. Group members should stick together, even if they do not agree.	1	2	3	4	5
4. The wellbeing of my group members is important to me.	1	2	3	4	5
5. I enjoy sharing items and spending time with my group members.	1	2	3	4	5
6. People who are important to me want me to buy domestic chocolate products.	1	2	3	4	5
Purchase Intention					

1. I am happy to buy the domestic chocolate products.	1	2	3	4	5
2. I intend to purchase the domestic chocolate products within the next fortnight.	1	2	3	4	5
3. I plan to buy the domestic chocolate products in the future.	1	2	3	4	5
4. I will make an effort to buy the domestic chocolate products in the future.	1	2	3	4	5

V. THANK YOU FOR YOUR CONTRIBUTION

All your contributions are valuable to help our business complete market research.

In addition, we hope everyone can support sharing by sending this Vinacacao survey to family and friends.

We sincerely thank you for taking the time to complete this survey

APPENDIX B

QUESTIONNAIRE (VIETNAMESE VERSION)

KHẢO SÁT SÔ CÔ LA, NHẬN QUÀ CẢM TẠ!

Xin chào tất cả mọi người, cảm ơn mọi người đã quan tâm đến dự án nghiên cứu thị trường của Vinacacao về Sô cô la.

Nhằm mục tiêu phục vụ khách hàng quan tâm đến Sô cô la tốt hơn, Vinacacao đang tiến hành khảo sát nghiên cứu thị trường. **Mỗi quý vị tham gia trả lời khảo sát sẽ nhận được một phần quà sô cô la từ Vinacacao!**

Để tham gia, vui lòng trả lời tất cả các câu hỏi dưới đây một cách trung thực và khách quan nhất. Điều này sẽ giúp dự án của chúng tôi thu thập dữ liệu chính xác và đáng tin cậy, từ đó xây dựng những chiến lược phù hợp hơn cho quý khách hàng của Vinacacao.

Mọi thông tin cá nhân của quý vị đều chỉ sử dụng với mục đích nghiên cứu và trao gửi quà.

Một lần nữa, công ty Vinacacao xin cảm ơn tất cả mọi người đã tích cực hỗ trợ và tham gia thực hiện khảo sát nghiên cứu thị trường cùng chúng tôi.

Trân trọng.

I. CÂU HỎI GẠN LỌC

1. **Bạn có thích ăn sô cô la không?**

□ Có (Vui lòng tiếp tục với các phần tiếp theo của bảng câu hỏi)

□ Không (Bạn có thể ngừng làm khảo sát này ngay bây giờ; cảm ơn sự giúp đỡ của bạn)

2. **Bạn có thường xuyên mua sô cô la không?**

□ Có (Vui lòng tiếp tục với các phần tiếp theo của bảng câu hỏi)

□ Không (Bạn có thể ngừng làm khảo sát này ngay bây giờ; cảm ơn sự giúp đỡ của bạn)

II. THÔNG TIN CÁ NHÂN

1. Địa chỉ nhận quà tặng socola:
2. Họ tên:
3. Số điện thoại:

III. THÔNG TIN NHÂN KHẨU HỌC

1. Giới tính

□ Nam

□ Nữ

2. Độ tuổi

□ 18 - 24

□ 25 - 34

□ 35 - 45

□ **Trên 45**

2. Trình độ học vấn

□ Trung cấp/Cao đẳng

□ Đại học

□ Sau đại học

□ Khác

3. Nghề nghiệp:

□ Sinh viên

□ Cán bộ

□ Quản lý/Doanh nhân

□ Làm việc tự do

□ Nghề khác

4. Thu nhập hàng tháng:

□ Từ 4,5 đến 7,5 triệu đồng

□ Từ 7,5 đến 15 triệu đồng

□ Từ 15 đến 30 triệu đồng

□ Từ 30 đến 45 triệu đồng

□ Từ 45 đến 75 triệu đồng

□ Từ 75 đến 150 triệu đồng

□ Trên 150 triệu đồng

5. Tình trạng hôn nhân

□ Độc thân

□ Đã kết hôn

□ Khác

IV. PHẦN CHÍNH CỦA ĐÁNH GIÁ CÁ NHÂN

Vui lòng chỉ chọn MỘT câu trả lời mô tả tốt nhất ý kiến của bạn dựa trên thang điểm từ 1 đến 5 cho mỗi phần:

1: Hoàn toàn không đồng ý – 2: Không đồng ý – 3: Trung lập – 4: Đồng ý – 5: Hoàn toàn đồng ý

Personal Innovativeness					
1. Bạn luôn thích thử nghiệm các loại sô cô la mới.	1	2	3	4	5
2. Nhìn chung, bạn thích và muốn sử dụng các sản phẩm sô cô la luôn được cải tiến liên tục.	1	2	3	4	5
3. Bạn thường tìm kiếm thông tin về các sản phẩm sô cô la cao cấp hiện đang có trên thị trường.	1	2	3	4	5
4. Bạn biết rất nhiều về các sản phẩm sô cô la cao cấp hiện nay.	1	2	3	4	5
5. Bạn mong muốn được sử dụng các sản phẩm sô cô la cao cấp nhất.	1	2	3	4	5
6. Bạn luôn trong tâm thế sẵn sàng thử nghiệm loại sô cô la mới ngay khi nghe về nó.	1	2	3	4	5
7. Thường thì, bạn sẽ là người đầu tiên khám phá ra các loại sô cô la mới trong nhóm bạn bè của mình.	1	2	3	4	5
Openness to Change					
1. Bạn luôn tìm kiếm những những loại sô cô la mới lạ và hấp dẫn.	1	2	3	4	5
2. Bạn đang mong muốn biết đến nhiều loại sô cô la hơn.	1	2	3	4	5
3. Bạn cởi mở trong việc chọn mua những loại sô cô la mới.	1	2	3	4	5
4. Bạn không ngại rủi ro khi quyết định mua loại sô cô la mới.	1	2	3	4	5
Image barrier					
1. Bạn nghi ngờ về độ uy tín của bao bì các thương hiệu sô cô la Việt Nam.	1	2	3	4	5
2. Bạn tin rằng sô cô la Việt Nam hiện đang bán trên thị trường không thực sự được làm từ cacao nguyên chất.	1	2	3	4	5

3. Bạn nghi ngờ về độ uy tín của các thương hiệu sô cô la Việt Nam (vì tên tuổi và danh tiếng của thương hiệu)	1	2	3	4	5
Usage barrier					
1. Khi đi mua hàng, bạn có ít sự lựa chọn đối với các loại sô cô la của Việt Nam.	1	2	3	4	5
2. Sô cô la của Việt Nam không đa dạng về mẫu mã, dòng sản phẩm,...	1	2	3	4	5
3. Lý do bạn không mua sô cô la Việt Nam vì chúng không có sẵn trong các cửa hàng.	1	2	3	4	5
4. Bạn lo ngại về chất lượng sô cô la Việt Nam do bảo quản không đảm bảo.	1	2	3	4	5
5. Bạn nghĩ rằng sản phẩm sô cô la chỉ được bán trong siêu thị lớn và thường có giá cao (do giá bao gồm thuế và các chi phí khác).	1	2	3	4	5
Risk barrier					
1. Bạn lo ngại rằng sô cô la của các thương hiệu Việt Nam có chất lượng không giống với quảng cáo của nhà sản xuất	1	2	3	4	5
2. Bạn lo lắng khi mua sô cô la Việt Nam với giá cao nhưng không đạt kỳ vọng, gây lãng phí	1	2	3	4	5
3. Bạn sợ rằng sô cô la Việt Nam có thể chứa phụ gia, chất bảo quản hoặc nguyên liệu không an toàn, gây ảnh hưởng đến sức khỏe.	1	2	3	4	5
4. Bạn lo ngại rằng sô cô la có chất lượng không như những sản phẩm sô cô la mà bạn đã từng sử dụng trước đây	1	2	3	4	5
Collectivism					
1. Bạn luôn nỗ lực vì mục tiêu chung của nhóm, ngay cả khi không ai biết đến hay công nhận đóng góp của bạn.	1	2	3	4	5

2. Bạn là người tích cực và sẵn sàng hợp tác trong các hoạt động của nhóm.	1	2	3	4	5
3. Các thành viên trong nhóm nên đoàn kết với nhau, ngay cả khi có những ý kiến khác biệt.	1	2	3	4	5
4. Bạn quan tâm đến cảm xúc và lợi ích của mọi người trong nhóm.	1	2	3	4	5
5. Bạn thích chia sẻ đồ dùng và dành thời gian vui vẻ bên các thành viên trong nhóm.	1	2	3	4	5
6. Gia đình, bạn bè và những người quan trọng với bạn khuyến khích bạn mua sô cô la Việt Nam.	1	2	3	4	5
Purchase Intention					
1. Bạn cảm thấy vui khi mua sô cô la Việt Nam.	1	2	3	4	5
2. Bạn có thể sẽ đi mua sô cô la Việt Nam trong vòng 2 tuần tới.	1	2	3	4	5
3. Bạn đang có kế hoạch đi mua sô cô la Việt Nam.	1	2	3	4	5
4. Bạn sẽ cố gắng tìm mua sô cô la Việt Nam nếu cửa hàng gần nhà không có sẵn.	1	2	3	4	5

V. LỜI CẢM ƠN

Mọi đóng góp của các bạn đều có mang giá trị giúp doanh nghiệp chúng tôi hoàn thiện việc nghiên cứu thị trường.

Ngoài ra, chúng tôi mong mọi người có thể hỗ trợ chia sẻ bằng cách gửi bài khảo sát này của Vinacacao đến gia đình và bạn bè.

Chúng tôi xin chân thành cảm ơn các bạn đã dành thời gian để thực hiện mẫu khảo sát này!

APPENDIX C

Table 34. Total Variance Explained first round

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	8,714	26,406	26,406	8,714	26,406	26,406	5,355
2	5,161	15,640	42,046	5,161	15,640	42,046	5,398
3	3,049	9,240	51,286	3,049	9,240	51,286	4,901
4	2,026	6,138	57,424	2,026	6,138	57,424	5,192
5	1,322	4,006	61,430	1,322	4,006	61,430	4,919
6	1,234	3,740	65,169	1,234	3,740	65,169	5,706
7	1,011	3,065	68,234	1,011	3,065	68,234	4,930
8	,791	2,396	70,630				
9	,748	2,266	72,896				
10	,645	1,954	74,850				
11	,622	1,885	76,736				
12	,605	1,833	78,568				
13	,581	1,759	80,327				
14	,512	1,550	81,877				
15	,482	1,459	83,337				
16	,464	1,408	84,744				
17	,425	1,289	86,033				
18	,405	1,227	87,261				
19	,395	1,196	88,457				
20	,358	1,085	89,542				
21	,351	1,063	90,605				
22	,346	1,049	91,654				
23	,332	1,006	92,660				
24	,330	,999	93,659				
25	,299	,906	94,565				
26	,280	,848	95,413				
27	,267	,809	96,222				
28	,253	,768	96,990				
29	,229	,693	97,682				
30	,213	,646	98,328				
31	,202	,612	98,940				
32	,183	,554	99,494				
33	,167	,506	100,000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

**In this context, the comma (',') is used as a decimal point ('.').*

Table 35. Total Variance Explained final result

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,545	27,272	27,272	6,545	27,272	27,272	4,569
2	3,716	15,484	42,756	3,716	15,484	42,756	3,503
3	2,802	11,673	54,429	2,802	11,673	54,429	4,254
4	1,645	6,854	61,284	1,645	6,854	61,284	3,445
5	1,149	4,785	66,069	1,149	4,785	66,069	3,392
6	1,042	4,343	70,413	1,042	4,343	70,413	4,120
7	,915	3,813	74,226	,915	3,813	74,226	3,711
8	,668	2,782	77,008				
9	,578	2,407	79,415				
10	,509	2,122	81,537				
11	,485	2,020	83,557				
12	,472	1,967	85,524				
13	,401	1,673	87,197				
14	,393	1,637	88,834				
15	,358	1,492	90,326				
16	,338	1,410	91,735				
17	,313	1,303	93,038				
18	,303	1,263	94,301				
19	,283	1,180	95,481				
20	,254	1,060	96,541				
21	,232	,965	97,505				
22	,218	,907	98,412				
23	,194	,809	99,221				
24	,187	,779	100,000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

**In this context, the comma (',') is used as a decimal point ('.').*

Pattern Matrix[a]

	Component						
	1	2	3	4	5	6	7
COL3	,870						
COL4	,858						
COL2	,835						
COL5	,763						
COL1	,726						
PIN4		,853					
PIN3		,827					
PIN2		,759					
PIN5		,717					
RB3			,952				
RB4			,883				
RB2			,833				
PI4				,876			
PI3				,871			
PI2				,856			
IB2					,885		
IB1					,880		
IB3					,849		
UB3						,887	
UB4						,836	
UB5						,776	
OC2							,914
OC3							,788
OC1							,778

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

**In this context, the comma (',') is used as a decimal point ('.').*