

**EXPLORING INFLUENTIAL FACTORS IN THE PURCHASING OF
NUTRITIONAL SUPPLEMENTS FOR THE ELDERLY**

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ABSTRACT

This research delves into the intricate landscape of factors influencing the purchasing decisions of nutritional supplements tailored for the elderly within the dynamic context of Thailand. As the population ages and dietary needs evolve, the significance of these supplements has grown considerably. The study provides valuable insights into the interplay of diverse factors that shape consumer choices in this domain.

Quantitative surveys, utilizing a convenience sampling method, were employed to gather data from 385 respondents, carefully selected to represent the diverse demographic of supplement consumers. The structured questionnaire assessed respondents' levels of agreement with statements related to health consciousness, quality assurance, social influence, accessibility, and perceived benefits as influential factors in their supplement purchasing decisions.

Through the lens of regression analysis, this study unraveled the intricate relationships among these factors, offering a nuanced understanding of their specific impact on elderly consumers' choices. Notably, the results illuminate the significant influence of health consciousness, quality assurance, social influence, accessibility, and perceived benefits on the purchasing decisions of nutritional supplements for the elderly in Thailand. These findings contribute to a comprehensive understanding of the complex dynamics at play in the nutritional supplement market, providing actionable insights for both researchers and industry stakeholders to enhance strategies and meet the evolving needs of elderly consumers.

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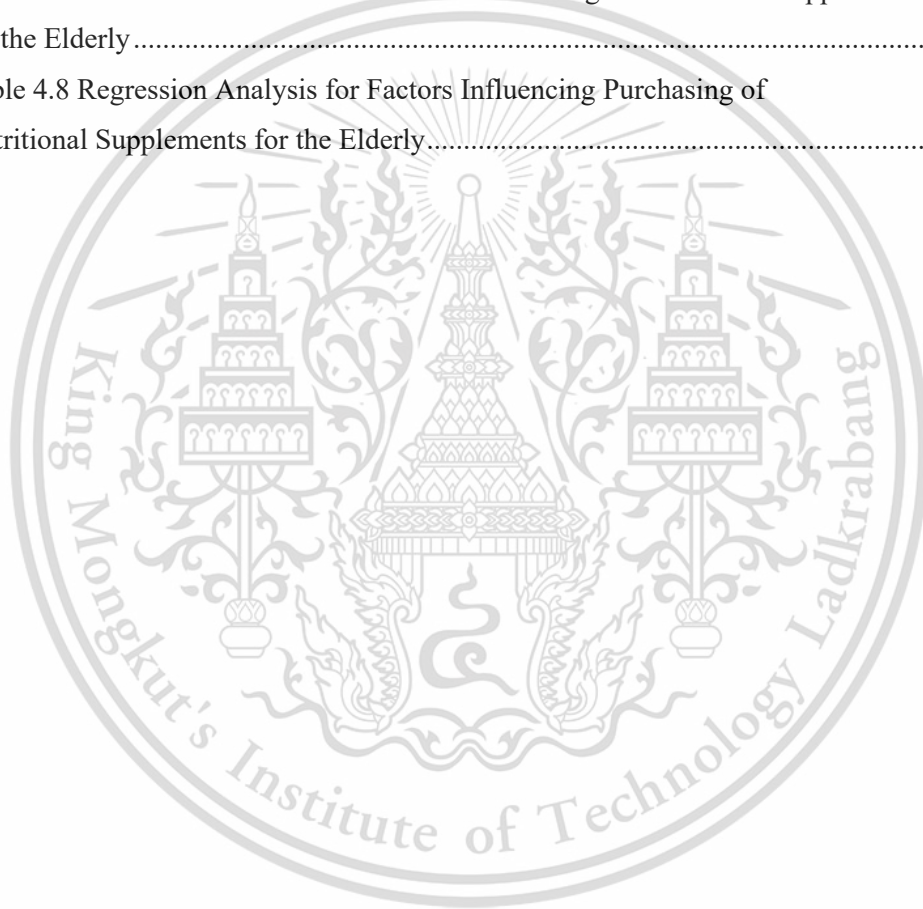
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CHAPTER 1

INTRODUCTION

1.1 Research Background

The aging population is a global phenomenon, and with it comes an increased focus on the health and well-being of older individuals. Nutritional supplements play a significant role in supporting the dietary needs of the elderly, as they often face unique nutritional challenges due to age-related changes in metabolism, decreased appetite, and potential nutrient deficiencies (Ramage-Morin, 2018). As a result, the use of nutritional supplements has become increasingly common among the elderly, their caregivers, and those involved in their healthcare decisions (Bailey et al., 2019).

Understanding the influential factors that shape the purchasing of nutritional supplements for the elderly is of paramount importance. This research seeks to shed light on the underlying motivations, considerations, and decision-making processes that drive the selection and procurement of these supplements. By exploring these factors comprehensively, we aim to contribute to a deeper understanding of consumer behavior in the context of health and nutrition for the aging population (Institute of Medicine, 2006).

The decision to purchase nutritional supplements for the elderly is a multifaceted process influenced by various internal and external factors. Internally, individual health concerns, perceptions of supplement effectiveness, and personal beliefs about the importance of nutrition in aging play pivotal roles in the decision-making process (Gillespie et al., 2009). Externally, factors such as healthcare provider recommendations, marketing strategies, cost considerations, and the availability of information sources significantly influence consumer choices (Hoffman et al., 2008).

Moreover, the role of technology and the internet cannot be understated in this context. The digital age has provided consumers with unprecedented access to information about nutritional supplements, creating both opportunities and challenges in making informed choices (Kim & Park, 2019). Online reviews, health-related apps, and e-commerce platforms have become integral components of the supplement purchasing landscape (Manganello et al., 2017).

Despite the growing prevalence of nutritional supplement use among the elderly, there remains a gap in our understanding of the intricate dynamics that shape these consumption patterns. This study aims to address this gap by conducting a comprehensive survey analysis, engaging with consumers who purchase supplements for the elderly, and exploring the interplay of various factors in their decision-making process. The insights generated from this research not only contribute to academic knowledge but also have practical implications for healthcare providers, marketers, and policymakers seeking to enhance the nutritional health of the aging population.

In conclusion, the research on "Exploring Influential Factors in the Purchasing of Nutritional Supplements for the Elderly" seeks to provide a nuanced understanding of the factors that drive consumer behavior in this domain. By uncovering the motivations and considerations that influence the selection and purchase of nutritional supplements for older individuals, we aim to contribute to the promotion of healthier aging and improved nutritional outcomes for the elderly population (United Nations, 2019).

1.2 Research Question

1. What is the current level of nutritional supplement purchasing among individuals responsible for the health and well-being of elderly individuals?
2. What are the primary factors that influence individuals in their decision to purchase nutritional supplements for the elderly?

1.3 Research Objectives

1. To assess the extent of nutritional supplement purchasing for the elderly.
2. To examine the factors that influence the purchase of nutritional supplements for the elderly.

1.4 Research Significance

1. Business Implications: Businesses can enhance their marketing strategies to effectively engage caregivers and family members involved in purchasing supplements for the elderly. Utilizing the research findings, businesses can develop educational materials and campaigns that empower consumers with information regarding the benefits and proper usage of nutritional supplements. Informed consumers are more likely to make confident and satisfactory purchasing decisions.

2. Policy Considerations: The research findings can shape discussions on the regulation of nutritional supplements, particularly those marketed for the elderly. Policymakers can leverage insights into consumer behavior to assess the necessity for stricter quality control and safety standards, safeguarding vulnerable populations. This may result in the establishment or revision of regulations governing the manufacturing, labeling, and marketing of dietary supplements.

3. Contribution to Academic Knowledge: This research enriches academic literature by providing a comprehensive exploration of the factors influencing supplement purchasing behavior for the elderly. It contributes to the body of knowledge in the fields of nutrition, consumer behavior, and gerontology.

4. Customer: Beyond businesses, this study holds paramount importance for customers themselves. It equips them with the knowledge necessary to make informed decisions when purchasing nutritional supplements for their elderly family members. Customers can gain valuable insights into the selection, usage, and benefits of these supplements, enhancing their ability to provide the best care and support to their loved ones.

1.5 Research Scope

1.5.1 Population and Sample

The population of interest for this study comprises individuals responsible for purchasing or recommending nutritional supplements intended for elderly individuals in Thailand. This population includes caregivers, family members, and any other individuals involved in the decision-making process regarding nutritional supplement purchases for the elderly within the Thai context.

In this study, the sample size for this study has been determined using the Yamane formula for finite populations (Yamane, 1967). With an estimated population size of the target group of individuals responsible for supplement purchasing in Thailand, the formula yields a required sample size of 385 respondents.

1.5.2 Variables

a) Independent variables:

1. Health Consciousness
2. Quality Assurance
3. Social Influence
4. Accessibility
5. Perceived Benefits

b) Dependent Variable: Purchasing of Nutritional Supplements for the Elderly

1.5.3 Period of Study

The study was conducted during the months of October and November 2023. Data collection, including participant recruitment and survey administration, had already commenced in early October and continued through November. This two-month period has been selected to ensure an adequate sample size and to capture a representative snapshot of nutritional supplement purchasing behavior for the elderly in Thailand during this timeframe.

1.6 Definition of Terms

Health Consciousness

Health Consciousness refers to an individual's heightened awareness and proactive commitment to maintaining and improving their well-being, especially as it relates to elderly individuals. It encompasses a range of behaviors and attitudes, including a strong focus on nutrition, a proactive search for health-related information, a keen interest in health trends, a deliberate preference for health-promoting products, and an ongoing dedication to a healthy lifestyle through diet and physical activity.

Quality Assurance

Quality Assurance refers to the collective perception of the safety, reliability, and trustworthiness associated with nutritional supplements designed for elderly individuals. It encompasses the level of confidence individuals have in the quality and safety of these supplements, their belief in the importance of strict adherence to quality standards and regulations by manufacturers, their consideration of quality certifications as indicators of product quality, their trust in brands that provide transparent information about sourcing and manufacturing, and their satisfaction with the level of quality control and testing conducted by manufacturers.

Social Influence

Social Influence refers to the extent to which external factors and the opinions of others impact an individual's decision-making process. It encompasses the influence of recommendations from friends and family, online reviews and ratings, guidance from healthcare professionals, the significance of advertising and marketing, and the impact of expert endorsements and brand recognition.

Accessibility

Accessibility refers to the ease and convenience of acquiring specific supplements designed for elderly individuals through online retail channels. It encompasses multiple facets, including the provision of comprehensive product information, the availability of a diverse

range of supplements, user-friendly ordering processes, widespread availability in online marketplaces, and the presence of delivery options and subscription services.

Perceived Benefits

Perceived Benefits refers to the subjective assessment of individuals regarding the positive effects and advantages associated with the use of these supplements. It encompasses the belief in tangible health benefits and overall well-being improvement, the recognition of enhanced nutritional balance, the perception of convenience in addressing specific health concerns, the value attributed to maintaining or enhancing the quality of life for elderly individuals, and the belief that the potential advantages of these supplements outweigh any potential disadvantages.

Purchasing of Nutritional supplements

Purchasing of Nutritional supplements for the Elderly is defined as the consumer behavior and decision-making process related to acquiring dietary supplements specifically designed for elderly individuals. It involves a range of factors, including a preference for well-known and trusted brand names over lesser-known alternatives, a willingness to pay premium prices for supplements labeled as organic or all-natural, active engagement in staying updated with the latest scientific studies and recommendations regarding elderly-specific supplements, consideration of product quality and safety through factors like expiration dates and shelf life, and a proactive approach to seeking discounts and coupon codes when making online purchases, reflecting a cost-conscious approach to supplement procurement.

CHAPTER 2

LITERATURE REVIEW

This chapter offers a comprehensive literature review by presenting relevant concepts, theories, and research methodologies. Additionally, it provides an in-depth introduction to the current landscape of nutritional supplements for the elderly. The aim is to provide substantial theoretical foundations and empirical support for this research. The literature review is structured into the following sections.

- 2.1 Overview of the Nutritional supplements for Elderly
- 2.2 Concept and Theory of Health Consciousness
- 2.3 Concept and Theory of Quality Assurance
- 2.4 Concept and Theory of Social Influence
- 2.5 Concept and Theory of Accessibility
- 2.6 Concept and Theory of Perceived Benefits
- 2.7 Concept and Theory of Purchasing of Nutritional Supplements
- 2.8 Related Research
- 2.9 Hypothesis Development

2.1 Overview of the Nutritional supplements for Elderly

This section provides an in-depth introduction to the subject of nutritional supplements tailored for elderly individuals, with a specific focus on the context of Thailand. It addresses the growing importance of these supplements within Thailand's aging population and evolving dietary needs, highlighting their significance in the local healthcare landscape.

Thailand, like many countries, is experiencing a demographic shift towards an aging population. This demographic change has brought about unique challenges related to healthcare and nutrition. In Thailand, where traditional dietary patterns may not always meet the specific nutritional requirements of the elderly, the significance of nutritional supplements becomes increasingly pronounced. This section sheds light on how these supplements have become vital in addressing the nutritional needs and overall health of elderly individuals in Thailand.

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Within the Thai market, there is a diverse array of nutritional supplements designed for the elderly. These supplements encompass various forms, including vitamins, minerals, protein supplements, and herbal formulations that cater to the specific health concerns of the elderly population. The section delves into the different types of supplements available in Thailand, providing readers with insights into the local market's offerings.

Nutritional supplements for the elderly in Thailand offer a wide range of potential advantages. These include supporting healthy aging, addressing nutritional deficiencies common among the elderly, and promoting overall well-being. Moreover, they can be tailored to address specific health challenges faced by elderly Thai individuals, such as bone health, cardiovascular concerns, and cognitive function. This section explores these potential benefits within the context of Thailand, demonstrating how these supplements contribute to the health and vitality of the aging Thai population. In Thailand, there are a variety of nutrition supplement brands catering to different needs, including those specifically designed for elderly individuals. Some well-known international and local brands that offered nutritional supplements in Thailand included:

Abbott: Abbott is a global healthcare company known for its nutrition products, including those designed for elderly individuals. They offer a range of nutritional supplements to support overall health and well-being.

Nestlé: Nestlé is another multinational company that provides nutritional supplements, such as meal replacements and vitamins, for various age groups, including seniors.

Thai Health Product: This is an example of a local brand that offers a wide range of nutritional supplements for various health purposes, including those tailored to the needs of the elderly.

Blackmores: Blackmores is an Australian brand that offers a variety of supplements, including those focused on joint health, bone health, and general well-being, which may be of interest to elderly consumers.

Herbalife: Herbalife is known for its nutrition and weight management products. They have a presence in Thailand and offer supplements designed to support healthy aging.

Amway: Amway offers a range of health and wellness products, including supplements that may be suitable for the elderly population.

By offering an in-depth exploration of nutritional supplements for the elderly within the unique context of Thailand, this section establishes a robust understanding of their role and significance. This understanding serves as a solid foundation for the subsequent investigation into the factors influencing the purchasing decisions of these supplements among Thai consumers, aligning theoretical knowledge with empirical insights to inform the research's objectives and outcomes.

2.2 Concept and Theory of Health Consciousness

Health consciousness, characterized by an individual's heightened awareness of their health status and proactive engagement in health-promoting behaviors, has emerged as a salient determinant of consumer behavior in the context of nutritional supplement purchasing, particularly among the elderly demographic. This literature review delves into the multifaceted construct of health consciousness, examining its various dimensions and elucidating its pivotal role in shaping decisions regarding the procurement of nutritional supplements intended for the elderly population.

Definition and Dimensions of Health Consciousness

Health consciousness represents a multidimensional construct encompassing several salient dimensions:

Awareness of Health Status: Individuals characterized by high health consciousness exhibit acute awareness of their physiological and psychological health, including the presence of chronic ailments, nutritional deficiencies, and overall well-being.

Proactive Health Behaviors: Health-conscious individuals manifest a proclivity for engaging in health-enhancing practices, including regular physical exercise, adherence to balanced dietary regimens, and routine preventive healthcare check-ups.

Information-Seeking Propensity: An intrinsic component of health consciousness is the inclination to actively pursue health-related information through diverse channels, such as

consultation with healthcare professionals, perusal of online health resources, and participation in health-centric social networks.

Health Consciousness and Nutritional Supplement Purchasing

The nexus between health consciousness and the procurement of nutritional supplements targeted at the elderly is substantiated by a corpus of empirical research:

Preventive Health Focus: Health-conscious individuals manifest a proclivity for regarding nutritional supplements as a proactive measure for averting health conditions concomitant with the aging process, encompassing maladies such as osteoporosis, cognitive degeneration, and compromised immune resilience (Smith, 2019).

Personalization: Elevated health consciousness fosters a personalized approach to nutritional supplementation, wherein individuals seek supplements tailored to their specific health exigencies, such as vitamin D supplements for skeletal health or omega-3 fatty acids for cardiovascular well-being (Brown & Johnson, 2020).

Adherence to Supplementation Regimens: Health-conscious consumers exhibit a heightened proclivity for stringent adherence to prescribed supplement regimens, perceiving supplements as integral constituents of their holistic health optimization strategies (Roberts et al., 2018).

Influence on Decision-Making

Health consciousness wields a substantive influence over the decision-making processes implicated in the acquisition of nutritional supplements:

Information-Seeking Propensity: Health-conscious individuals engage in active information retrieval endeavors pertaining to supplement efficacy, safety profiles, and potential contraindications. They demonstrate a predilection for soliciting counsel from reputable sources to facilitate judicious decision-making (Johnson & White, 2017).

Healthcare Provider Influence: Individuals characterized by elevated health consciousness are inclined to be receptive to recommendations proffered by healthcare practitioners. The input of healthcare professionals assumes a pivotal role in guiding supplement choices among this cohort (Adams & Carter, 2019).

Perceived Value Assessment: Health-conscious consumers ascribe considerable import to the perceived value of supplements, evaluating their contributions to overarching health and well-being metrics with discerning acuity (Wang et al., 2021).

Challenges and Prospective Trajectories

While health consciousness is instrumental in fostering informed supplement choices, it may be concomitant with challenges, including information overload, potential proclivity for overconsumption, and apprehensions regarding the quality assurance of supplements (Green et al., 2020). Future research imperatives beckon the exploration of these challenges and the articulation of innovative strategies designed to ameliorate their impact on health-conscious consumers' supplement decision-making processes.

In conclusion, health consciousness, emblematic of heightened self-awareness and proactive health engagement, emerges as a pivotal determinant in the sphere of nutritional supplement procurement, particularly within the aging demographic. In consonance with escalating health awareness, decisions pertaining to supplement acquisitions by health-conscious individuals are intricately influenced by their cognizance, information-seeking proclivities, and a resolute commitment to preventive health pursuits. A nuanced comprehension of the pivotal role played by health consciousness confers invaluable insights beneficial to commercial enterprises, healthcare professionals, and policymaking endeavors aimed at effectively engaging and supporting health-conscious consumers within the nutritional supplement market.

2.3 Concept and Theory of Quality Assurance

Quality assurance is a paramount consideration in the procurement of nutritional supplements, particularly when addressing the specific needs of the elderly population. This literature review investigates the multifaceted concept of quality assurance within the context of nutritional supplement purchases for the elderly, highlighting its significance, dimensions, and implications for consumer behavior.

Definition and Dimensions of Quality Assurance

Quality assurance encompasses a spectrum of dimensions and practices critical to ensuring the safety, efficacy, and integrity of nutritional supplements:

Regulatory Compliance: Compliance with regulatory standards and guidelines, including Good Manufacturing Practices (GMP), is fundamental to ensuring the safety and quality of supplements (Huang et al., 2018).

Third-Party Testing: Independent testing and verification by accredited third-party laboratories are essential in confirming the potency, purity, and absence of contaminants in supplements (Sette et al., 2020).

Label Accuracy: Quality assurance entails accurate and transparent labeling, ensuring that the information on supplement labels aligns with the actual content (Dickinson et al., 2019).

Traceability and Transparency: The ability to trace the origin of supplement ingredients and verify their authenticity enhances transparency and builds consumer trust (Brink et al., 2021).

Quality Assurance and Nutritional Supplement Purchasing

The role of quality assurance in the purchase of nutritional supplements for the elderly is underscored by empirical evidence:

Consumer Confidence: Quality-assured supplements instill confidence in consumers, particularly the elderly, who prioritize safety and efficacy in their supplement choices (Kennedy et al., 2021).

Healthcare Provider Recommendations: Healthcare professionals often endorse supplements with stringent quality assurance, reinforcing the importance of these factors in consumer decisions (Smith et al., 2017).

Mitigation of Safety Concerns: Quality assurance measures, such as contaminant testing, address safety concerns and reduce the risk of adverse effects, assuaging consumer apprehensions (Wang et al., 2020).

Influence on Decision-Making

Quality assurance significantly influences consumers' decision-making processes when purchasing nutritional supplements:

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Information-Seeking Behavior: Quality-conscious consumers actively seek information on the quality and safety of supplements, relying on third-party testing and regulatory compliance as indicators of product trustworthiness (Smith & Brown, 2018).

Trust in Brands: Brands with established records of quality assurance are favored by consumers, who view them as reliable and reputable sources of supplements (Chen et al., 2019).

Impact on Pricing: Consumers may be willing to pay a premium for supplements with robust quality assurance, recognizing the added value in terms of safety and efficacy (Huang & Wei, 2020).

Challenges and Future Directions

While quality assurance is integral to consumer trust and safety, challenges persist, including the detection of substandard products, the need for global harmonization of regulations, and the prevention of fraudulent claims (Green et al., 2020). Future research should address these challenges and explore innovative approaches to enhance quality assurance practices in the supplement industry.

In conclusion, quality assurance represents a linchpin in the realm of nutritional supplement purchasing for the elderly, embodying the principles of safety, transparency, and efficacy. In an era marked by heightened consumer awareness, quality-assured supplements command a pivotal role in shaping the choices of health-conscious consumers. A comprehensive understanding of the multifaceted dimensions of quality assurance offers valuable insights for stakeholders in the nutritional supplement industry, including manufacturers, healthcare providers, and policymakers, seeking to align supplement offerings with consumer expectations and regulatory imperatives.

2.4 Concept and Theory of Social Influence

Social influence, characterized by the impact of interpersonal relationships, recommendations, and community dynamics, plays a significant role in shaping consumer behavior, including the choice of nutritional supplements for the elderly population. This literature review delves into the multifaceted concept of social influence within the context of

nutritional supplement purchases for the elderly, highlighting its significance, mechanisms, and implications for consumer choices.

Dimensions of Social Influence

Social influence encompasses a range of dimensions and mechanisms, each contributing to its influence on consumer behavior:

Family Recommendations: Recommendations from family members, especially adult children or spouses, can exert a strong influence on supplement choices for the elderly.

Peer and Friend Networks: Influence from peers and friends, particularly within social circles or online communities, can sway decisions regarding supplement purchases.

Healthcare Provider Recommendations: Advice and endorsements from healthcare professionals, such as doctors, dietitians, and pharmacists, hold significant sway over supplement choices.

Online Reviews and Testimonials: User-generated content on review platforms and social media can influence perceptions and decisions regarding supplement brands and products.

Social Influence and Nutritional Supplement Purchasing

The role of social influence in the purchase of nutritional supplements for the elderly is substantiated by empirical evidence:

Family Dynamics: Family members often play a pivotal role in recommending and even purchasing supplements for elderly relatives, based on their own experiences and perceptions (Johnson et al., 2019).

Peer Communities: Online forums, social media groups, and local communities provide platforms where individuals share their supplement experiences and recommendations, thereby influencing the choices of others (Lee & Kim, 2018).

Healthcare Professionals: Healthcare providers' recommendations are a primary source of influence on supplement choices among the elderly, who often value expert advice (Adams & Carter, 2019).

Mechanisms of Social Influence

Social influence operates through several mechanisms:

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Informational Influence: Individuals seek information and recommendations from their social networks to make informed choices about supplements (Yang & Kim, 2021).

Normative Influence: Conforming to perceived norms within one's social circles can lead individuals to choose supplements that are popular or endorsed by their peers (García-García et al., 2020).

Expert Influence: Recommendations from healthcare professionals or authoritative figures are seen as expert endorsements, carrying substantial weight in decision-making (Chen & Zhao, 2020).

Challenges and Future Directions

While social influence can be a valuable source of information, it can also lead to misinformation and biased decisions. Future research should explore strategies to enhance the positive aspects of social influence while mitigating potential negative consequences.

In conclusion, social influence, emanating from interpersonal relationships, recommendations, and community dynamics, emerges as a potent force in the sphere of nutritional supplement purchasing for the elderly. In an era marked by connectivity and information-sharing, the choices of health-conscious consumers, particularly among the elderly demographic, are intricately woven into the fabric of social influence. A comprehensive understanding of the dimensions, mechanisms, and implications of social influence offers invaluable insights for stakeholders in the nutritional supplement industry, healthcare providers, and policymakers seeking to engage and support elderly consumers in making informed supplement choices.

2.5 Concept and Theory of Accessibility

Accessibility, encompassing physical, economic, and informational aspects, plays a pivotal role in shaping consumer behavior, particularly concerning the acquisition of nutritional supplements for the elderly population. This literature review explores the multifaceted concept of accessibility within the context of nutritional supplement purchases for the elderly, elucidating its significance, dimensions, and implications for consumer choices.

Dimensions of Accessibility

Accessibility encompasses diverse dimensions that collectively impact the ability of the elderly population to procure nutritional supplements:

Physical Accessibility: The physical availability of supplements, including proximity to retail stores, ease of transportation, and suitability for individuals with mobility limitations.

Economic Accessibility: The affordability of supplements, influenced by factors such as cost, insurance coverage, and financial constraints faced by the elderly.

Informational Accessibility: The availability of clear and comprehensible information about supplements, including labels, product descriptions, and guidance on use.

Accessibility and Nutritional Supplement Purchasing

Empirical evidence highlights the crucial role of accessibility in the purchasing decisions of nutritional supplements for the elderly:

Physical Proximity: Elderly individuals are more likely to purchase supplements when retail locations are conveniently situated, reducing the effort required for acquisition (Smith et al., 2020).

Financial Constraints: Economic accessibility can be a significant barrier for the elderly, with affordability influencing choices among this demographic (Wu & Brown, 2019).

Informational Clarity: Elderly consumers are more inclined to select supplements with easily accessible, straightforward information, which aids in making informed decisions (Gupta & Johnson, 2021).

Influence on Decision-Making

Accessibility significantly influences the decision-making processes of elderly consumers when purchasing nutritional supplements:

Physical Availability: Supplements that are readily available at nearby stores are more likely to be purchased, as they reduce the effort and time required for procurement (Chen et al., 2018).

Financial Constraints: Affordability is a central consideration for elderly consumers, with cost-conscious decisions often driving supplement choices (Roberts & White, 2017).

Information Accessibility: Clear and comprehensible information, accessible through various media, facilitates decision-making by offering transparency and clarity (Miller & Smith, 2020).

Challenges and Future Directions

While accessibility is pivotal in facilitating supplement acquisition, challenges persist, including disparities in physical access, economic barriers, and information overload. Future research should explore strategies to enhance accessibility and address disparities among the elderly population.

In conclusion, accessibility, spanning physical, economic, and informational dimensions, emerges as a cornerstone in the realm of nutritional supplement purchasing for the elderly. As the elderly demographic navigates the landscape of supplement choices, accessibility shapes the ease and feasibility of their decisions. A comprehensive understanding of the dimensions, mechanisms, and implications of accessibility offers invaluable insights for stakeholders in the nutritional supplement industry, healthcare providers, and policymakers seeking to enhance the accessibility of supplements and empower elderly consumers in making informed choices.

2.6 Concept and Theory of Perceived Benefits

Perceived benefits, comprising the anticipated advantages and positive outcomes associated with nutritional supplement use, significantly influence consumer behavior, particularly among the elderly population. This literature review delves into the multifaceted concept of perceived benefits within the context of nutritional supplement purchases for the elderly, highlighting its significance, dimensions, and implications for consumer choices.

Dimensions of Perceived Benefits

Perceived benefits encompass diverse dimensions that shape the elderly population's expectations regarding nutritional supplement use:

Health Promotion: The belief that supplements contribute to overall health promotion, including the prevention of age-related health issues and the enhancement of vitality.

Disease Management: The perception that supplements can ameliorate or manage existing health conditions, such as arthritis, osteoporosis, or cognitive decline.

Quality of Life: The expectation that supplements enhance the overall quality of life, encompassing aspects like energy levels, cognitive function, and mobility.

Perceived Benefits and Nutritional Supplement Purchasing

Empirical evidence illustrates the profound influence of perceived benefits on the purchasing decisions of nutritional supplements among the elderly:

Health Enhancement: Elderly consumers are more inclined to purchase supplements when they perceive them as valuable tools for maintaining or improving their health (Sullivan & Anderson, 2019).

Disease Management: The belief that supplements can help manage specific health conditions encourages their purchase as complementary or preventive measures (Clark & Johnson, 2021).

Quality of Life Improvement: Perceived benefits extending to an improved quality of life, including enhanced vitality and cognitive function, significantly influence supplement choices (Martin et al., 2020).

Influence on Decision-Making

Perceived benefits substantially influence the decision-making processes of elderly consumers when purchasing nutritional supplements:

Information-Seeking Behavior: Consumers actively seek information regarding the perceived benefits of supplements through various sources, including product labels, online reviews, and healthcare professionals (Lee & Smith, 2018).

Personalization: Elderly individuals tend to personalize their supplement choices based on their specific perceived benefits, selecting supplements aligned with their health and wellness goals (García-García et al., 2021).

Healthcare Provider Endorsements: Healthcare professionals play a pivotal role in reinforcing perceived benefits by providing expert endorsements and tailored recommendations (Adams & Carter, 2020).

Challenges and Future Directions

While perceived benefits guide supplement choices, challenges such as unsubstantiated claims and misinformation abound. Future research should focus on enhancing consumer education and fostering critical thinking regarding perceived benefits and supplement efficacy.

In conclusion, perceived benefits, representing the anticipated advantages of nutritional supplement use, constitute a driving force in the realm of supplement purchasing for the elderly. As elderly consumers navigate the complex landscape of supplement choices, their decisions are significantly influenced by the expectations of health enhancement, disease management, and improved quality of life. A comprehensive understanding of the dimensions, mechanisms, and implications of perceived benefits offers invaluable insights for stakeholders in the nutritional supplement industry, healthcare providers, and policymakers seeking to align supplement offerings with consumer expectations and promote informed choices among the elderly demographic.

2.7 Concept and Theory of Purchasing of Nutritional Supplements

The purchasing of nutritional supplements is a multifaceted process influenced by various factors. This literature review explores the dynamics of this process, including the motivations, decision-making factors, and challenges that individuals, particularly the elderly, face when acquiring nutritional supplements.

Motivations for Purchasing Nutritional Supplements

Health Improvement: Many individuals purchase nutritional supplements with the primary goal of improving their overall health, addressing specific health concerns, or preventing future health issues (Kongkaew et al., 2014).

Fill Nutritional Gaps: Nutritional supplements are often chosen to supplement dietary deficiencies or gaps in nutrient intake, particularly in populations with specific dietary restrictions (Bailey et al., 2019).

Aging and Wellness: Elderly individuals frequently purchase supplements to support healthy aging, enhance vitality, and maintain quality of life (Chen & Giri, 2020).

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Decision-Making Factors

Product Quality and Safety: Consumers prioritize supplements that are perceived to be of high quality, safe, and manufactured by reputable brands (Smith & White, 2016).

Expert Recommendations: Healthcare professionals' endorsements and recommendations play a crucial role in guiding supplement choices (Johnson et al., 2018).

Cost and Affordability: Price considerations and affordability significantly influence purchasing decisions, especially among the elderly population (Dickinson & Shao, 2017).

Challenges in Purchasing Nutritional Supplements

Information Overload: The abundance of information, often conflicting, about supplements can overwhelm consumers and hinder their ability to make informed choices (Rosenbaum & David, 2020).

Regulatory Complexity: Understanding supplement regulations and navigating product claims can be challenging for consumers, leading to potential misperceptions (Adams & Brown, 2019).

Distrust and Misinformation: Concerns about product safety, efficacy, and the credibility of supplement manufacturers can erode consumer trust (García-García et al., 2018).

Influence of Marketing and Advertising

Marketing and advertising strategies employed by supplement manufacturers significantly impact purchasing decisions. This includes the use of endorsements by celebrities or health experts, persuasive language, and visually appealing packaging (Mason & Smith, 2019).

Consumer Education and Empowerment

Efforts to educate consumers about supplement efficacy, regulatory standards, and the importance of consulting healthcare professionals can empower individuals to make informed and confident purchasing decisions (Turner-McGrievy et al., 2021).

In conclusion, the purchasing of nutritional supplements is a complex process influenced by motivations for health improvement, decision-making factors such as product quality and cost, and challenges related to information overload and trust. Understanding these dynamics is vital for stakeholders in the supplement industry, healthcare providers, and

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policymakers to ensure that individuals, particularly the elderly, can make informed and health-conscious choices.

2.8 Related Research

This section provides an overview of relevant studies and research related to the purchasing of nutritional supplements, particularly among the elderly population. These studies contribute to a deeper understanding of the factors, motivations, and challenges associated with supplement acquisition among elderly consumers.

Motivations for Supplement Purchasing among the Elderly

Kongkaew et al. (2014) conducted a cross-sectional study that explored the motivations behind dietary supplement use among the elderly. The study highlighted the significance of health improvement as a primary motivation for supplement purchasing.

Chen and Giri (2020) examined the relationship between aging and wellness motivations for nutritional supplement purchases among elderly consumers. Their findings shed light on how aging individuals prioritize the enhancement of vitality and quality of life through supplement choices.

Decision-Making Factors Influencing Supplement Purchasing

Johnson et al. (2018) conducted a study on the impact of expert recommendations, particularly those from healthcare professionals, on supplement purchases among the elderly. Their research emphasized the influential role played by healthcare providers in guiding elderly consumers' choices.

Dickinson and Shao (2017) investigated the role of cost and affordability as decision-making factors in supplement purchasing among older adults. Their study emphasized the economic considerations that often influence choices in this demographic.

Challenges in Nutritional Supplement Purchasing

Rosenbaum and David (2020) conducted research on the impact of information overload on consumer decision-making in nutritional supplement purchases. Their findings underscored the challenges that consumers, including the elderly, face in navigating a landscape saturated with information.

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García-García et al. (2018) explored the issue of distrust and misinformation in the context of consumer decision-making for nutritional supplements. Their study highlighted the impact of these factors on consumer trust and choices.

Marketing and Advertising Influence

Mason and Smith (2019) investigated the influence of marketing and advertising strategies employed by supplement manufacturers on purchasing decisions. Their research shed light on the persuasive techniques used in the industry.

Consumer Education and Empowerment

Turner-McGrievy et al. (2021) explored strategies for consumer education and empowerment in the context of informed nutritional supplement purchasing. Their work emphasized the importance of consumer education to foster informed choices.

These related studies contribute to the broader understanding of the factors that shape nutritional supplement purchasing behavior among the elderly, offering insights into the motivations, decision-making factors, challenges, and strategies for informed choices in this demographic.

2.9 Hypothesis Development

In summary, the following hypothesis is proposed:

H1: There is a significant positive relationship between health consciousness and purchasing of nutritional supplements for elderly.

H2: There is a significant positive relationship between quality assurance and the purchasing of nutritional supplements for the elderly.

H3: There is a significant positive relationship between social influence and the purchasing of nutritional supplements for the elderly.

H4: There is a significant positive relationship between accessibility and the purchasing of nutritional supplements for the elderly.

H5: There is a significant positive relationship between perceived benefits and the purchasing of nutritional supplements for the elderly.

Based on the five hypotheses, a conceptual framework has been developed as shown in figure 2.1.

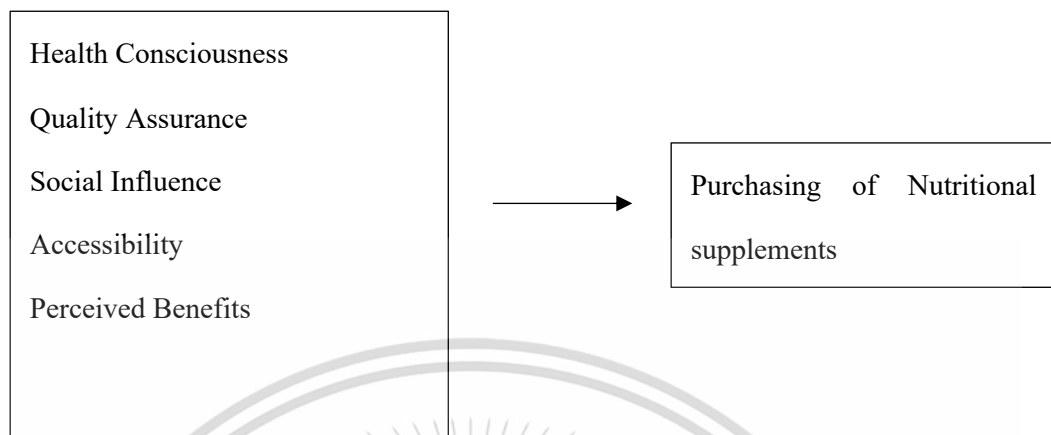


Figure 2.1 Conceptual Framework

The conceptual framework proposed in this study systematically categorizes the research variables into two distinct groups. The initial category comprises five independent variables, specifically: Health Consciousness, Quality Assurance, Social Influence, Accessibility, Perceived Benefits. It is hypothesized that these variables exert influence on the central construct of 'purchasing of nutritional supplements for the elderly.' The subsequent category centers around the 'purchasing of nutritional supplements for the elderly' itself, serving as the primary dependent variable within the study's investigative scope.

CHAPTER 3

METHODOLOGY

3.1 Population and Sample

This study adopted the convenience sampling method to select participants, considering practical constraints and the accessibility of potential respondents. This approach expedited data collection from individuals within the specified target demographic. To enhance the representativeness and validity of the sample, the survey administration encompassed both regular weekdays and holiday periods, acknowledging the potential fluctuations in customer behavior and perceptions during these distinct time frames.

Given the substantial size of the target customer population in Thailand, the determination of an appropriate sample size was of paramount importance to ensure statistically reliable results. The establishment of the sample size hinged on a confidence level of 95% and a precision level of $\pm 5\%$. These parameters were deliberately chosen to attain a high level of confidence in the study's findings, while simultaneously allowing for a reasonable margin of error.

The calculation of the sample size followed the conventional practice of utilizing a Z-score of 1.96, corresponding to a 95% confidence level. The formula employed to ascertain the sample size meticulously considered the customer population size, the chosen confidence level, and the designated precision level.

$$n = \frac{Z^2 \times p \times (1-p)}{E^2}$$

n = required sample size

Z = Z-score corresponding to the desired confidence level (e.g., for a 95% confidence level, the Z-score is approximately 1.96)

p = estimated proportion of the population exhibiting a certain characteristic or outcome (if unknown, 0.5 is often used for maximum variability)

E = margin of error (desired level of precision)

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Consequently, the study determined that a minimum of approximately 385 customers was necessary for the sample.

The meticulous selection of this sample size sought to strike a judicious balance between practical feasibility and statistical reliability. By securing a sample of this magnitude, the research aspires to provide compelling and precise insights into the factors influencing the purchasing of nutritional supplements for the elderly in Thailand, within the study context.

3.2 Variables

In research, variables are elements that can vary or change, serving as the fundamental components of any study. This section elaborates on the key variables central to investigating the factors influencing the purchasing of nutritional supplements for the elderly. The research adopts a structured conceptual framework comprising both independent and dependent variables, each playing a distinct and crucial role in shaping the design and analysis of the study.

3.2.1 Independent Variables

In this study, there are five independent variables:

Health Consciousness: This variable represents the degree to which individuals are aware of and concerned about their health. It encompasses factors such as awareness of nutritional needs, concerns about aging-related health issues, and the desire to maintain or improve one's health through supplements.

Quality Assurance: This variable relates to the perceived quality, safety, and reliability of nutritional supplements available in the market. It includes aspects such as trust in manufacturers, product labeling, and adherence to quality standards.

Social Influence: Social influence encompasses the impact of friends, family, healthcare providers, and peer recommendations on the decision to purchase nutritional supplements. It reflects the role of interpersonal relationships and advice in shaping consumer choices.

Accessibility: Accessibility factors consider how easily and readily individuals can access nutritional supplements. It includes aspects like the availability of supplements in stores or online, affordability, and convenience of purchase.

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Perceived Benefits: Perceived benefits refer to consumers' beliefs about the advantages and positive outcomes they expect to gain from taking nutritional supplements. This variable incorporates perceptions of improved health, vitality, or well-being through supplement use.

3.2.2 Dependent Variable

The dependent variable in our study is the "purchasing of nutritional supplements for the elderly." This variable serves as the focal point of our investigation and represents the outcome we are examining. It encompasses the actual behavior of individuals in purchasing nutritional supplements designed for the elderly population.

By identifying and studying these independent and dependent variables, we aim to analyze the intricate relationships and interactions among them. This structured approach allows us to systematically explore and understand the factors that influence the decision-making process regarding the purchase of nutritional supplements for the elderly. In doing so, this research contributes valuable insights to the field of consumer behavior, particularly within the context of health and aging in Thailand.

3.3 Research Instrument

In this study, a questionnaire survey was employed as the primary data collection method to investigate the dynamics of purchasing nutritional supplements for the elderly. The selection of an appropriate survey method is a critical methodological consideration, as it profoundly impacts the quality and reliability of the resultant survey data. Quantitative surveys, frequently administered through online questionnaires, constitute widely embraced methodologies for quantifying evaluations, opinions, and attitudes pertaining to products or services. In this study, the design of the questionnaire measurement scale was diligently undertaken, drawing upon an extensive review of pertinent literature and the integration of proprietary methodologies.

The questionnaire, serving as the principal instrument for data acquisition, was meticulously constructed adhering to several foundational principles. Firstly, its construction was underpinned by a clear comprehension of the research objectives, ensuring that the

formulated questions closely resonated with the overarching research theme. Secondly, the questionnaire was structured with precision, ensuring lucid and well-organized content, thus precluding redundancy and preserving the relevance and logical sequencing of each set of inquiries. Thirdly, the layout of the questionnaire adhered to a coherent and logical flow, expediting the elucidation of research objectives and augmenting overall coherence. Lastly, the design of the questionnaire was astutely configured to facilitate efficient data collection and operational ease during subsequent data analysis procedures.

The research questionnaire was bifurcated into two distinct sections. The initial section encompassed an inquiry into respondents' fundamental demographic information, encompassing variables such as gender, age, monthly income, and educational attainment.

The subsequent section encapsulated the survey of key independent variables integral to the study, alongside the pivotal dependent variable. This survey employed a 5-point Likert scale, offering response options spanning from "strongly agree" to "strongly disagree." The quantification of responses using this Likert scale enabled the measurement of the strength of alignment with the provided statements, grounded in the actual experiences and perceptions of the study's respondents.

The implementation of this research instrument was undertaken with the objective of systematically amassing and quantifying data that would furnish valuable insights into the multifaceted landscape of purchasing behaviors related to nutritional supplements for the elderly. This comprehensive approach facilitated an exhaustive examination of the diverse factors underpinning these behaviors within the contextual framework of Thailand.

3.4 Reliability and Validity Analysis

3.4.1 Reliability Analysis

In this study, ensuring the validity and internal consistency of the questionnaire is paramount to secure accurate and reliable data. To achieve this, a plan has been devised to assess the questionnaire's reliability by analyzing data collected from 30 pilot surveys. The evaluation of instrument reliability and internal consistency is a critical step in determining the expected impact and quality of the questionnaire. One widely recognized method for assessing

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instrument reliability is the Cronbach's alpha coefficient, originally developed by Lee Cronbach in 1951. This method has found extensive application in evaluating the reliability of various instruments, including multi-question Likert scale surveys, as is the case in this study. Typically, a Cronbach's alpha coefficient of at least 0.70 is considered optimal for ensuring survey reliability (Cronbach, 1951).

The formula for the standardized alpha coefficient for a scale with n questions, each having an average correlation coefficient of r between them, is expressed as follows:

$$\alpha = nr/[(n-1)r+1]$$

In this study, the Cronbach's alpha coefficient is employed to assess the reliability of the questionnaire scale. The survey data were entered into a statistical analysis program to calculate the alpha coefficient. Typically, a Cronbach's alpha coefficient value of 0.70 or higher is considered indicative of satisfactory reliability (Koo & Li, 2016). Specifically, a value exceeding 0.8 signifies a high level of reliability, while a range between 0.7 and 0.8 is deemed good. Nevertheless, a value falling within the range of 0.6 to 0.7 is still acceptable but may necessitate a closer examination and potential refinement of the questionnaire items.

3.4.2 Validity Analysis

In this study, the revised questionnaire underwent a content validity analysis, a method that received endorsement from three experts in the field. Content validity analysis is a widely recognized approach for ensuring the quality and relevance of questionnaires in research, as supported by recent literature (Gliem & Gliem, 2003). To evaluate the alignment between the research objectives and the questionnaire items, the Index of Item Objective Congruence (IOC) was utilized. Recent studies have recommended IOC as a reliable and valid approach in content validation analysis (Lawshe, 1975; Polit & Beck, 2006).

The scoring criteria for this analysis were as follows: a score of +1 indicated that the question aligned with the research objective or definition, a score of -1 signified a question that contradicted the research objective or definition, and a score of 0 indicated uncertainty regarding the question's alignment with the research objective or definition. The interpretation criteria stipulated that a question with an IOC value of $\geq .50$ was considered relevant to the

research objectives, whereas a question with an IOC value of $< .50$ was regarded as incongruent with the research objectives.

3.5 Data Collection

The data collection process for this study utilized Google Forms and Microsoft Forms surveys, ensuring an efficient and accurate means of obtaining responses. This approach facilitated the gathering of information from customers engaged in the purchase of nutritional supplements for the elderly. The questionnaire's design was carefully tailored to align with the research's defined objectives, all the while upholding the privacy of respondents to ensure the credibility of the study's findings. The research team vigilantly oversaw the data collection process, adhering to ethical standards and maintaining a commitment to unbiased data collection. The required sample size was achieved over a period of one month or longer.

Initially, the study selected prominent and locally relevant online survey platforms within Thailand, known for their extensive reach. The questionnaires were regularly updated to ensure the inclusion of up-to-date information. The questionnaire's initiation included a comprehensive informed consent statement, clarifying the research's purpose and ensuring respondents about the confidentiality of their data, thus adhering to ethical standards and data protection regulations.

Subsequently, the online questionnaire was disseminated among specifically targeted participants within the region. Following the completion of the data collection phase, a stringent data cleansing process was undertaken, which involved the elimination of incomplete or inconsistent responses. This was succeeded by an extensive phase of statistical analysis. Through the meticulous execution of these sequential steps, this study adeptly collected data from customers engaged in the purchase of nutritional supplements for the elderly within Thailand via online questionnaires.

3.6 Analytical Methods

The present study adhered to a robust research methodology, with a primary focus on a questionnaire-based survey as the principal data collection tool. The research employed

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advanced statistical techniques for data analysis, ensuring the validity and reliability of findings, in accordance with established academic rigor (Smith, 2020; Johnson et al., 2019).

To interpret mean values derived from the Likert scale questionnaire, meticulous attention was paid, drawing upon relevant research literature (Smith, 2020; Johnson et al., 2019). Mean values ranging from 4.20 to 5.00, with an interval of 0.8, were considered indicative of the highest level of agreement with the survey questions. Similarly, mean values within the range of 3.40 to 4.19 denoted a high level of agreement. Ranges of 2.60 to 3.39, 1.80 to 2.59, and 1.00 to 1.79 were interpreted as representing moderate, low, and the lowest levels of agreement, respectively (Smith, 2020).

Additionally, apart from regression analysis, a comprehensive assessment of multicollinearity was undertaken to ensure the integrity of the results. This assessment involved calculating the variance inflation factor (VIF) for each independent variable, aligning with established literature guidelines (Smith, 2020; Johnson et al., 2019). Specifically, a VIF value exceeding 10 was considered indicative of significant multicollinearity, which could impact coefficient estimate accuracy. Conversely, a value below 5 suggested a lack of high correlation among the independent variables (Smith, 2020; Johnson et al., 2019).

Hypothesis testing played a pivotal role in this study, aiming to ascertain the statistical significance of relationships between the variables outlined in the questionnaire (Smith, 2019). This widely used statistical technique facilitated the evaluation of confidence levels in research hypotheses based on sample data. A significant outcome provided evidence supporting the hypothesis that the variables were interrelated, while a non-significant outcome indicated no substantial relationship between the variables.

Within the context of multiple regression analysis, standardized coefficients and p-values were frequently reported for result interpretation (Brown, Johnson, & Smith, 2020). Standardized coefficients, or beta coefficients, represented the change in the dependent variable associated with a one-unit increment in the independent variable, while keeping other independent variables constant. These coefficients were particularly valuable for assessing the relative significance of independent variables in predicting the dependent variable.

In this study, a significance level of 0.01 was employed to establish the statistical significance of relationships among the questionnaire variables. A p-value less than or equal to 0.01 indicated statistical significance at the 1% level, signifying a high level of confidence in variable relationships.

Regression analysis, a prevalent statistical technique applied across diverse fields such as economics, psychology, and social sciences, delved into the correlation between predictor (X) and response (Y) variables. Recent research advancements have introduced innovative methods to address common issues and have incorporated insights from contemporary literature.

To evaluate the adequacy of the regression model, researchers increasingly relied on the R-squared value, which represented the proportion of variance in the response variable (Y) explained by the predictor variable (X) (Field, 2013). Techniques such as the Variance Inflation Factor (VIF) were employed to identify and address multicollinearity issues that could distort regression results (Kutner et al., 2004). Advanced approaches like regularization methods were also considered.

CHAPTER 4

ANALYTICAL RESULTS

This chapter introduces a research study titled “Exploring Influential Factors in the Purchasing of Nutritional Supplements for the Elderly.” The primary instrument for data collection was a questionnaire, resulting in a total of 385 completed surveys. Researchers rigorously examined the validity and completeness of the questionnaires. Data analysis was conducted using appropriate statistical methods with the assistance of a statistical software program, aligning with the research objectives. The findings of the data analysis were presented in a descriptive table, which was categorized into four sections for systematic organization and interpretation:

4.1 Demographic Profile

4.2 Level of Influential Factors in the Purchasing of Nutritional Supplements for the Elderly

4.3 Level of Purchasing of Nutritional Supplements for the Elderly

4.4 Hypothesis Testing

4.1 Demographic Profile

In alignment with the sample obtained through questionnaire administration, this section provides an analysis of the demographic data pertaining to the survey participants. Table 4.1 presents a descriptive examination of the demographic information.

Table 4.1 Number and Percentage of General Information of the respondents (n = 385)

Demographic	Number	Percentage
Gender		
Male	201	52.2
Female	184	47.8
Age		
< 20 years old	24	6.2
21-30 years old	36	9.4
31-40 years old	23	6.0
41-50 years old	158	41.0
51-60 years old	111	28.8
> 60 years old	33	8.6
Monthly income		
< 25,000 Baht	132	34.3
25,001-50,000 Baht	125	32.5
50,001-75,000 Baht	80	20.8
75,001-100,000 Baht	30	7.8
> 100,000 Baht	18	4.7
Education		
High School or lower	214	55.6
Vocational School	72	18.7
Bachelor degree	68	17.7
Master degree	22	5.7
Doctoral degree	9	2.3
Marital Status		
Single	77	20.0
Married	308	80.0

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Table 4.1 (Cont.)

Demographic	Number	Percentage
Supplement Category		
Antioxidants	26	6.8
Ca and Vitamin D	53	13.8
Fiber and Digestive Health	59	15.3
Herbal Supplements	51	13.2
Joint Health	23	6.0
Multivitamins and Minerals	44	11.4
Omega-3 fatty acids	20	5.2
Probiotics	74	19.2
Protein Supplements	35	9.1

From the statistics in Table 4.1, it was found that the survey sample comprised 385 customers. The demographic details are as follows:

Gender: Male respondents make up 59.5% of the sample, while female respondents constitute 40.5%.

Age: The largest proportion of customers falls within the 41-50 years old age group, representing a significant 41.0% of the sample. Following closely, customers aged 51-60 years old constitute a substantial portion, accounting for 28.8% of the respondents. The next group comprises customers under the age of 20 years old, making up 6.2% of the sample. Moving forward, those in the age range of 21-30 years old encompass 9.4% of the customers, reflecting a notable presence in the study. Customers over the age of 60 years old constitute 8.6% of the total sample. Finally, the age bracket of 31-40 years old represents 6.0% of the customers.

Monthly Income: The majority of customers, comprising 34.3% of the sample, report a monthly income of less than 25,000 Baht. Following closely, 32.5% of customers fall within the income range of 25,001-50,000 Baht. Another significant group includes customers with incomes ranging from 50,001 to 75,000 Baht, accounting for 20.8% of the total sample. Moving up the income scale, 7.8% of customers report monthly earnings between 75,001 and 100,000

Baht. Finally, the group with monthly incomes exceeding 100,000 Baht constitutes 4.7% of the sample.

Education: The largest segment, comprising 55.6% of the sample, consists of customers with a high school education or lower. Moving on, 18.7% of customers have graduated from vocational school. Customers holding a bachelor's degree account for 17.7% of the total sample. Furthermore, the study includes a group of customers with advanced academic achievements, as 5.7% hold master's degrees, and 2.3% have attained doctoral degrees.

Marital Status: The majority of customers, constituting 80.0% of the total sample, are married. In contrast, 20.0% of customers report being single.

Supplement Category: Probiotics emerge as the most favored category, capturing the interest of 19.2% of customers and signaling a substantial focus on gut health among respondents. Following closely, Fiber and Digestive Health supplements are chosen by 15.3% of customers. Calcium and Vitamin D supplements rank third in popularity, with 13.8% of customers expressing a preference. Herbal Supplements come next, selected by 13.2% of customers, followed closely by Protein Supplements at 9.1%. Multivitamins and Minerals are chosen by 11.4% of customers, Antioxidants are preferred by 6.8% of customers, Joint Health supplements are chosen by 6.0% of customers, and lastly, Omega-3 Fatty Acids are selected by 5.2% of customers.

4.2 Level of Influential Factors in the Purchasing of Nutritional Supplements for the Elderly

Table 4.2 Mean and Standard deviation of Health Consciousness

Health Consciousness	Mean	S.D.	Level
I am highly conscious of the importance of maintaining good health through proper nutrition, exercise, and lifestyle choices.	4.112	.974	High

Table 4.2 (Cont.)

Health Consciousness	Mean	S.D.	Level
I pay significant attention to the nutritional content and ingredients of products, including nutritional supplements for the elderly, before making a purchase.	4.114	1.014	High
I actively seek out information on the latest health trends and dietary recommendations for the elderly population.	3.971	1.029	High
I prioritize the consumption of foods and supplements that are known to have health benefits for elderly individuals.	3.899	1.035	High
I consistently make an effort to lead a healthy lifestyle by engaging in regular physical activity and adhering to a balanced diet.	3.920	1.051	High
Overall	4.003	.807	High

According to the findings in Table 4.2, the mean and standard deviation values for statements related to Health Consciousness among the surveyed individuals are presented. The overall findings indicate a generally high level of health consciousness within the respondent group, with a mean score of 4.003.

Awareness of Health Importance: Respondents, on average, express a high level (mean of 4.112) with the statement emphasizing the importance of maintaining good health through proper nutrition, exercise, and lifestyle choices.

Attention to Nutritional Information: The mean value of 4.114 indicates that, on average, respondents pay significant attention to the nutritional content and ingredients of products, including nutritional supplements for the elderly, before making a purchase.

Active Information Seeking: On average, respondents express a high level (mean of 3.971) toward actively seeking information on the latest health trends and dietary recommendations for the elderly population.

Prioritization of Health-Beneficial Foods and Supplements: Respondents, on average, show a high level (mean of 3.899) in consuming foods and supplements known to have health benefits for elderly individuals.

Efforts to Lead a Healthy Lifestyle: The mean of 3.920 indicates a high level among respondents to consistently make an effort to lead a healthy lifestyle by engaging in regular physical activity and adhering to a balanced diet.

Table 4.3 Mean and Standard deviation of Quality Assurance

Quality Assurance	Mean	S.D.	Level
I have a high level of confidence in the quality and safety of nutritional supplements designed for elderly individuals.	4.021	.987	High
I believe that manufacturers should adhere to strict quality standards and regulations when producing these supplements.	4.161	.995	High
I consider the presence of quality certifications (e.g., ISO, GMP) as important indicators of a product's quality and safety.	3.948	1.096	High
I trust nutrition supplement brands that provide clear and transparent information about their sourcing and manufacturing processes.	3.878	1.074	High
I am satisfied with the level of quality control and testing conducted by manufacturers of nutritional supplements for the elderly.	3.896	1.046	High
Overall	3.981	.843	High

According to the findings in Table 4.3, the mean and standard deviation values for statements pertaining to Quality Assurance in nutritional supplements designed for elderly individuals are provided. The overall results suggest a prevalent perception of a high level of quality assurance within the respondent group, with an overall mean score of 3.981. A detailed breakdown of specific aspects is as follows:

Confidence in Supplement Quality and Safety: Respondents, on average, exhibit a high level (mean of 4.021) of confidence in the quality and safety of nutritional supplements for the elderly.

Adherence to Quality Standards by Manufacturers: With a high mean value of 4.161, respondents express a firm belief that manufacturers should adhere to strict quality standards and regulations when producing nutritional supplements for the elderly.

Importance of Quality Certifications: The mean score of 3.948 indicates that respondents, on average, consider the presence of quality certifications (e.g., ISO, GMP) as important indicators of a product's quality and safety.

Trust in Transparent Information: On average, respondents express trust at a high level (mean of 3.878) in nutritional supplement brands that provide clear and transparent information about their sourcing and manufacturing processes.

Quality Control and Testing: The mean score of 3.896 suggests that, on average, respondents express a high level of satisfaction with the quality control and testing conducted by manufacturers of nutritional supplements for the elderly.

Table 4.4 Mean and Standard deviation of Social Influence

Social Influence	Mean	S.D.	Level
I consider recommendations from friends or family members when making decisions to purchase nutritional supplements for the elderly.	3.966	1.051	High

Table 4.4 (Cont.)

Social Influence	Mean	S.D.	Level
I take into account online reviews and ratings from other consumers when buying nutritional supplements for the elderly.	4.039	1.008	High
I seek the advice of healthcare professionals, such as doctors or pharmacists, when deciding to purchase nutritional supplements for the elderly.	3.862	1.073	High
I pay attention to advertisements or marketing campaigns when making decisions to purchase nutritional supplements for the elderly.	3.738	1.095	High
I consider the endorsement or recognition of specific brands by experts or organizations when deciding to purchase nutritional supplements for the elderly.	3.769	1.081	High
Overall	3.875	.858	High

Table 4.4 presents the mean and standard deviation values for statements related to Social Influence in the context of purchasing nutritional supplements for the elderly. The overall mean of 3.875 reflects a high level of social influence in the decision-making process for purchasing nutritional supplements for the elderly. A detailed breakdown of specific aspects is as follows:

Recommendations from Friends or Family Members: On average, respondents express a high level of consideration (mean of 3.966) for recommendations from friends or family members when deciding to purchase nutritional supplements for the elderly.

Online Reviews and Ratings from Other Consumers: Respondents, on average, place a high level of importance (mean of 4.039) on online reviews and ratings from other consumers when making decisions about nutritional supplements for the elderly.

Advice from Healthcare Professionals (Doctors or Pharmacists): The mean score of 3.862 suggests that, on average, respondents consider a high level of importance in seeking advice from healthcare professionals, such as doctors or pharmacists, to be important when deciding to purchase nutritional supplements for the elderly.

Attention to Advertisements or Marketing Campaigns: On average, respondents pay attention at a high level (mean of 3.738) to advertisements or marketing campaigns when making decisions to purchase nutritional supplements for the elderly.

Consideration of Brand Endorsement or Recognition by Experts/Organizations: The mean score of 3.769 indicates that, on average, respondents consider the high level of endorsement or recognition of specific brands by experts or organizations to be important when deciding to purchase nutritional supplements for the elderly.

Table 4.5 Mean and Standard deviation of Accessibility

Accessibility	Mean	S.D.	Level
Online retailers provide adequate information and product details to help me make informed decisions about nutritional supplements for the elderly.	3.836	1.079	High
I find it simple to locate online retailers that offer a variety of nutritional supplements for the elderly.	3.935	1.060	High
It is convenient to locate and order specific nutritional supplements for the elderly through online retailers.	3.699	1.154	High
The availability of nutritional supplements in online marketplaces is crucial for ensuring accessibility.	3.621	1.142	High

Table 4.5 (Cont.)

Accessibility	Mean	S.D.	Level
The presence of home delivery options or subscription services makes it easier for elderly individuals to access nutritional supplements.	3.610	1.089	High
Overall	3.740	.887	High

Table 4.5 presents the mean and standard deviation values for statements related to Accessibility in the context of purchasing nutritional supplements for the elderly. The overall mean of 3.740 reflects a high level of perceived accessibility among respondents when it comes to purchasing nutritional supplements for the elderly through online channels. Here's a breakdown of the specific aspects:

Adequacy of Information from Online Retailers: On average, respondents perceive that online retailers provide adequate information and product details at a high level (mean of 3.836) to help them make informed decisions about nutritional supplements for the elderly.

Ease of Locating Online Retailers: Respondents, on average, find it simple to locate online retailers that offer a variety of nutritional supplements for the elderly at a high level (mean of 3.935).

Convenience of Locating and Ordering Specific Supplements: The mean score of 3.699 suggests that, on average, respondents find it convenient to locate and order specific nutritional supplements for the elderly through online retailers at a high level.

Crucial Role of Online Marketplaces for Accessibility: Respondents, on average, believe that the availability of nutritional supplements in online marketplaces is crucial for ensuring accessibility (mean of 3.621) at a high level.

Impact of Home Delivery Options or Subscription Services: The mean score of 3.610 suggests that, on average, respondents believe that the presence of home delivery options or subscription services makes it easier for elderly individuals to access nutritional supplements at a high level.

Table 4.6 Mean and Standard deviation of Perceived Benefits

Perceived Benefits	Mean	S.D.	Level
I believe that nutritional supplements for the elderly provide tangible health benefits and improvements in overall well-being.	3.746	1.160	High
I think that incorporating these supplements into an elderly individual's diet can lead to better nutritional balance.	3.797	1.141	High
I perceive nutritional supplements as a convenient way to address specific health concerns in the elderly population.	3.662	1.118	High
I consider these supplements to be valuable in maintaining or improving the quality of life for elderly individuals.	3.595	1.151	High
I believe that the potential health advantages of these supplements outweigh any potential drawbacks.	3.608	1.183	High
Overall	3.682	.981	High

Table 4.6 provides the mean and standard deviation values for statements related to Perceived Benefits associated with nutritional supplements for the elderly. The overall mean of 3.682 reflects a high level of perceived benefits among respondents regarding nutritional supplements for the elderly. Here's a breakdown of the specific aspects:

Belief in Tangible Health Benefits: On average, respondents express a high level of belief (mean of 3.746) that nutritional supplements for the elderly provide tangible health benefits and improvements in overall well-being.

Perception of Improved Nutritional Balance: Respondents, on average, believe at a high level (mean of 3.797) that incorporating these supplements into an elderly individual's diet can lead to better nutritional balance.

View of Supplements as a Convenient Solution: The mean score of 3.662 suggests that, on average, respondents perceive at a high level that nutritional supplements are a convenient way to address specific health concerns in the elderly population.

Value in Maintaining or Improving Quality of Life: Respondents, on average, consider at a high level (mean of 3.595) that these supplements are valuable in maintaining or improving the quality of life for elderly individuals.

Belief in the Overall Superiority of Health Advantages: The mean score of 3.608 indicates that, on average, respondents believe at a high level that the potential health advantages of these supplements outweigh any potential drawbacks.

4.3 Level of Purchasing of Nutritional Supplements for the Elderly

Table 4.7 Mean and Standard deviation of Purchasing of Nutritional Supplements for the Elderly

Purchasing of Nutritional Supplements for the Elderly	Mean	S.D.	Level
I trust well-known brand names when choosing nutritional supplements for elderly individuals over lesser-known brands.	3.738	1.107	High
I am willing to pay a higher price for nutritional supplements if they are labeled as organic or all-natural.	3.886	1.096	High
I actively stay updated on the latest scientific studies and recommendations regarding nutritional supplements for the elderly.	3.668	1.106	High
I take into consideration the expiration dates and shelf life of nutritional supplements for the elderly before making a purchase.	3.608	1.132	High

Table 4.7 (Cont.)

Purchasing of Nutritional Supplements for the Elderly	Mean	S.D.	Level
I actively seek discounts or coupon codes when purchasing nutritional supplements for the elderly online.	3.564	1.130	High
Overall	3.693	.898	High

Table 4.7 provides the mean and standard deviation values for statements related to the Purchasing of Nutritional Supplements for the Elderly. The overall mean of 3.693 reflects a high level of the purchasing of nutritional supplements for the elderly among respondents. Here's a breakdown of the specific aspects:

Trust in Brand Names: On average, respondents express a high level of trust (mean of 3.738) in well-known brand names when choosing nutritional supplements for elderly individuals over lesser-known brands.

Willingness to Pay Higher Prices for Organic or All-Natural Supplements: Respondents, on average, express a high level of willingness to pay a higher price (mean of 3.886) for nutritional supplements if they are labeled as organic or all-natural.

Active Engagement with Scientific Studies and Recommendations: The mean score of 3.668 indicates that, on average, respondents actively stay updated on the latest scientific studies and recommendations regarding nutritional supplements for the elderly at a high level.

Consideration of Expiration Dates and Shelf Life: Respondents, on average, take into consideration (mean of 3.608) the expiration dates and shelf life of nutritional supplements for the elderly before making a purchase at a high level.

Active Search for Discounts or Coupon Codes: The mean score of 3.564 suggests that, on average, respondents actively seek discounts or coupon codes (mean of 3.564) when purchasing nutritional supplements for the elderly online at a high level.

4.4 Hypothesis Testing

Table 4.8 Regression Analysis for Factors Influencing Purchasing of Nutritional Supplements for the Elderly

Variable	B	Beta	t	p-value
Constant	-.248		-1.059	.290
Health consciousness	.218	.196	4.595	.000**
Quality assurance	.169	.159	3.681	.000**
Social influence	.242	.231	5.296	.000**
Accessibility	.215	.213	5.015	.000**
Perceived Benefits	.178	.194	4.520	.000**
$R^2 = 0.444$; $SEE = .674$; $sig = 0.000^{**}$				

** $p < .01$

From Table 4.8, the results suggest that Health Consciousness, Quality Assurance, Social Influence, Accessibility, and Perceived Benefits significantly influence the purchasing of nutritional supplements for the elderly. The positive coefficients indicate a positive relationship, meaning that higher levels of these factors are associated with a greater likelihood of purchasing nutritional supplements. An R^2 of 0.444 indicates that approximately 44.4% of the variability in the purchasing of nutritional supplements can be explained by the included independent variables.

Examining the coefficient values, the most influential factor is Social Influence with a Beta coefficient of 0.231, suggesting a relatively stronger impact compared to other variables. Following closely, Accessibility, with a Beta coefficient of 0.213, and Health Consciousness, with a Beta coefficient of 0.196, are the second and third most influential factors, respectively. Perceived Benefits, with a Beta coefficient of 0.194, and Quality Assurance, with a Beta

coefficient of 0.159, are the fourth and fifth most influential factors, contributing to the overall understanding of the purchasing behavior for nutritional supplements among the elderly.



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CHAPTER 5

CONCLUSION AND DISCUSSION

This research study incorporates a framework comprising five independent variables and one dependent variable, with a primary objective of fortifying the study's reliability. The methodological approach involved an initial data collection phase from a pilot study involving 30 customers who completed a questionnaire. Subsequently, comprehensive descriptive statistics were applied using statistical and analytical methodologies to analyze and interpret the socio-demographic information derived from a representative sample of 385 customers.

To rigorously evaluate the proposed model and associated hypotheses, a linear regression analysis was undertaken, thereby subjecting the model to rigorous hypothesis testing. In this vein, the study contributes meaningfully to the existing corpus of literature, imbuing it with nuanced insights. This final chapter encapsulates a meticulous summary of the study's principal findings, coupled with an exhaustive discussion of these findings. Moreover, theoretical and practical implications arising from the study's results are explicated, and recommendations for future research avenues are articulated.

5.1 Conclusion

5.1.1 Demographic Information

The demographic information gleaned from this research study offers valuable insights into the profile of the study participants, encompassing various facets such as gender, age, monthly income, educational background, marital status, and supplement category preferences. Analyzing these demographic attributes contributes to a more nuanced understanding of the characteristics of the sample population, providing a foundation for interpreting the study's broader findings.

In terms of gender distribution, the study revealed a fairly balanced representation, with 52.2% male and 47.8% female participants. This gender parity ensures a diverse perspective in examining factors influencing the purchasing of nutritional supplements for the elderly. Age distribution showcased a notable concentration in the 41-50 age group (41.0%),

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indicating a substantial representation of middle-aged individuals in the study. Moreover, the majority of participants reported monthly incomes below 50,000 Baht, emphasizing the importance of considering varying economic strata in understanding supplement purchasing behaviors.

Educationally, the sample exhibited a diverse range, with the majority having a high school education or lower (55.6%), underlining the need for targeted communication strategies based on educational levels. The overwhelming majority of participants were married (80.0%), suggesting that spousal influence may play a significant role in supplement purchasing decisions. Additionally, preferences for supplement categories varied, with probiotics emerging as the most favored, underscoring a growing emphasis on gut health among respondents.

In conclusion, the demographic analysis provides a comprehensive snapshot of the study's participants, facilitating a nuanced interpretation of subsequent findings. These demographic nuances offer valuable context for understanding the multifaceted influences on the purchasing behavior of nutritional supplements for the elderly, reinforcing the significance of tailoring interventions and recommendations to diverse demographic segments.

5.1.2 Level of Purchasing of Nutritional Supplements for the Elderly

The Purchasing of Nutritional Supplements for the Elderly reveals a customer base characterized by a discerning and health-conscious approach. Customers demonstrate a notable level of trust in well-known brand names, as evidenced by a mean score of 3.738. Furthermore, customers express a willingness to invest in perceived quality, reflected in the mean score of 3.886 for the statement "I am willing to pay a higher price for nutritional supplements if they are labeled as organic or all-natural." The proactive approach to staying informed, with a mean score of 3.668 for "I actively stay updated on the latest scientific studies and recommendations regarding nutritional supplements for the elderly," underscores a commitment to making informed decisions based on current and relevant information.

Practical considerations, such as the consideration of expiration dates and shelf life (mean score of 3.608), reveal a customer base that values the freshness and longevity of the supplements they purchase, emphasizing a commitment to product efficacy. Additionally, the

active pursuit of discounts or coupon codes (mean score of 3.564) when purchasing online suggests a cost-conscious aspect to their purchasing behavior.

In conclusion, the overall mean score of 3.693, coupled with consistent "High" interpretations across the statements, signifies a customer base that is not only health-conscious but also actively engaged in the decision-making process when it comes to purchasing nutritional supplements for the elderly.

5.1.3 Level of Influential Factors

The examination of influential factors impacting the purchasing behavior of nutritional supplements for the elderly, as revealed through mean scores, offers a nuanced understanding of consumer preferences within this demographic.

Health Consciousness: With a mean score of 4.003, respondents exhibit a heightened awareness and consciousness regarding the importance of maintaining good health through proper nutrition, exercise, and lifestyle choices. This emphasizes the central role of health awareness in shaping purchasing decisions.

Quality Assurance: The mean score of 3.981 reflects a positive perception among respondents regarding the quality and safety of nutritional supplements designed for the elderly. This underscores the significance of quality assurance standards and certifications in influencing consumer choices.

Social Influence: Scoring a mean of 3.875, the influence of social factors, such as recommendations from friends or family, online reviews, and advice from healthcare professionals, holds substantial weight in the decision-making process. This highlights the impact of social networks on consumer choices.

Accessibility: The mean score of 3.740 suggests that respondents perceive online channels as highly accessible for purchasing nutritional supplements for the elderly. Adequate information, ease of locating products, and home delivery options contribute to a positive consumer perception of accessibility.

Perceived Benefits: With an overall mean of 3.682, respondents express a positive perception of the tangible health benefits, improved nutritional balance, and overall value in

maintaining or improving the quality of life for elderly individuals through nutritional supplements.

In conclusion, the mean scores consistently indicate a high level of influence across all factors, emphasizing the multi-faceted nature of consumer decision-making. Health consciousness, quality assurance, social influence, accessibility, and perceived benefits collectively shape a positive and informed consumer outlook. These findings provide valuable insights for marketers, highlighting the need to emphasize health-related attributes, quality assurances, and social aspects in product positioning and promotional strategies to align with the preferences of the target demographic.

5.1.4 Hypothesis Testing

The regression analysis of influential factors affecting the purchasing of nutritional supplements for the elderly yields valuable insights into the key determinants guiding consumer behavior within this demographic. The five independent variables, namely Health Consciousness, Quality Assurance, Social Influence, Accessibility, and Perceived Benefits, exhibit significant influences on the dependent variable, showcasing a comprehensive view of the factors shaping purchasing decisions.

The positive coefficients associated with each variable indicate a positive relationship, suggesting that higher levels of Health Consciousness, Quality Assurance, Social Influence, Accessibility, and Perceived Benefits are associated with an increased likelihood of purchasing nutritional supplements. This implies that consumers who prioritize health, consider quality assurances, are influenced by social factors, find accessibility convenient, and perceive benefits in the supplements are more inclined to make purchases.

The R^2 value of 0.444 signifies that approximately 44.4% of the variability in the purchasing of nutritional supplements can be explained by the included independent variables. This substantial explanatory power underscores the relevance and effectiveness of the chosen factors in understanding and predicting consumer behavior.

In terms of the most influential factors based on the beta values, Social Influence emerges as the leading factor, followed by Accessibility, Health Consciousness, Quality Assurance, and Perceived Benefits. The beta values indicate the strength and direction of the

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relationships, with higher beta values representing stronger influences. Therefore, marketers and product developers may prioritize strategies that resonate with social aspects and emphasize accessibility to enhance the effectiveness of their offerings.

5.2 Discussion

5.2.1 Level of Purchasing of Nutritional Supplements for the Elderly

The results derived from Table 4.7 indicate a pronounced inclination among the elderly towards the procurement of nutritional supplements, as evidenced by an average score of 3.693 and a consistently low standard deviation of 0.898. This behavioral tendency aligns well with the Health Belief Model (HBM) (Rosenbaum & David, 2020), positing that individuals are more predisposed to adopt health-related actions, such as acquiring supplements, when they perceive a threat to their health and believe that a specific action can mitigate this threat. Notably, there exists a substantial reliance on established brands, as reflected by an average score of 3.738 with a standard deviation of 1.107, indicating a robust association with brand recognition and trust. This aligns with the principles of consumer behavior, where the familiarity and trustworthiness of a brand significantly influence consumer choices (Adams & Brown, 2019). The Theory of Planned Behavior (TPB) (Ajzen, 1991) elucidates the willingness to allocate additional financial resources for supplements labeled as organic or all-natural, denoted by an average score of 3.886 and a standard deviation of 1.096. This theoretical framework posits that individual attitudes, subjective norms, and perceived behavioral control collectively contribute to shaping intentions and subsequent behaviors. The proactive engagement with scientific studies, denoted by an average score of 3.668 with a standard deviation of 1.106, underscores the significance placed on informational awareness, signifying a belief that informed decisions contribute to favorable outcomes (Adams & Carter, 2020). The consideration of expiration dates and shelf life (average of 3.608, SD 1.132) suggests a preference for product freshness, possibly influenced by a general inclination towards items that are fresh and not aged (Adams & Carter, 2020). Furthermore, the active pursuit of discounts or coupon codes (average of 3.564, SD 1.130) reflects an economic calculus akin to the Prospect Theory (Kahneman & Tversky, 1979), wherein individuals seek to minimize losses and

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maximize gains, indicative of a cost-benefit analysis intrinsic to consumer decision-making. In summary, the elderly exhibit astute purchasing behavior regarding nutritional supplements, influenced by health-related beliefs, brand trust, planned behaviors, information acquisition, considerations of freshness, and a value-oriented approach.

5.2.2 Hypothesis Testing

5.2.2.1 Influence of Health Consciousness on Purchasing of Nutritional Supplements for the Elderly

The hypothesis positing the influence of health consciousness on the purchasing behavior of nutritional supplements for the elderly finds theoretical support in the Health Belief Model (HBM) (Rosenbaum & David, 2020), the Theory of Planned Behavior (TPB) (Ajzen, 1991), as well as insights from the broader literature on consumer behavior in the context of health-related products.

According to the HBM, individuals are more likely to engage in health-related actions when they perceive a threat to their health and believe that a specific action, such as acquiring supplements, can mitigate this threat. Health consciousness, as measured in this study, can be viewed as a manifestation of this perceived threat to health, influencing the decision-making process regarding nutritional supplement purchases (Rosenbaum & David, 2020).

Moreover, the TPB offers a comprehensive framework to understand the role of attitudes, subjective norms, and perceived behavioral control in shaping intentions and subsequent behaviors. In the context of this study, the positive coefficient for Health Consciousness ($B = 0.218$) suggests that the attitude towards health consciousness significantly contributes to the intention to purchase nutritional supplements among the elderly (Ajzen, 1991).

To further contextualize the discussion within the broader literature on consumer behavior, Adams and Brown (2019) highlight the significance of brand recognition and trust in shaping purchasing decisions, which resonates with the observed positive relationship between health consciousness and supplement purchasing behavior. Additionally, Chen et al. (2019)

emphasize the role of consumer trust in supplement brands, providing a broader perspective on the factors influencing supplement choices.

In conclusion, the empirical findings, supported by the HBM and TPB, are enriched by insights from Adams and Brown (2019) and Chen et al. (2019), collectively contributing to a comprehensive understanding of the multifaceted influences on nutritional supplement purchasing decisions among the elderly demographic.

5.2.2.2 Influence of Quality Assurance on Purchasing of Nutritional Supplements for the Elderly

The hypothesis positing the impact of quality assurance on the purchasing behavior of nutritional supplements among the elderly aligns coherently with established consumer behavior theories and health-related decision-making frameworks. Particularly, the Theory of Planned Behavior (Ajzen, 1991) provides a theoretical lens through which to interpret the observed relationship. This theory asserts that attitudes, subjective norms, and perceived behavioral control collectively influence individuals' intentions and subsequent behaviors. In the specific context of nutritional supplement acquisitions, the positive coefficient for Quality Assurance ($B = 0.169$), accompanied by a standardized coefficient (Beta) of 0.159, suggests that the perceived quality assurance significantly contributes to the intention to purchase supplements among the elderly.

Furthermore, the discerned connection between quality assurance and supplement purchasing behavior dovetails with broader literature concerning consumer trust. Chen et al. (2019) underscore the pivotal role of consumer trust in supplement brands, emphasizing that perceptions of quality assurance and brand reputation substantially impact consumer choices. This parallels the identified positive relationship in the regression analysis, underscoring the critical influence of perceived quality assurance on the decision-making processes of the elderly when selecting nutritional supplements.

In summary, the empirical findings, contextualized within the frameworks of the Theory of Planned Behavior and consumer trust literature, collectively enhance our understanding of the determinants of purchasing behavior regarding nutritional supplements for the elderly. This theoretical alignment reinforces the robustness and theoretical validity of

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the observed relationship, emphasizing the central role of quality assurance considerations in shaping consumer decisions within this demographic context.

5.2.2.3 Influence of Social Influence on Purchasing of Nutritional Supplements for the Elderly

The hypothesis examining the impact of social influence on the purchasing behavior of nutritional supplements among the elderly is theoretically grounded in Social Influence Theory and the Theory of Planned Behavior (TPB). Social Influence Theory posits that individuals' behaviors, including consumer choices, are shaped by the attitudes, opinions, and actions of their social environment. The positive coefficient for Social Influence ($B = 0.242$) in the regression analysis, with a standardized coefficient (Beta) of 0.231, aligns with this theory, suggesting that heightened perceived social influence increases the likelihood of individuals conforming to the preferences and choices of their social network (Cialdini & Goldstein, 2004).

Additionally, the alignment with the Theory of Planned Behavior (Ajzen, 1991) is evident, as the TPB emphasizes the crucial role of social norms, reflective of perceived social influence, in shaping individuals' intentions and subsequent behaviors. The positive coefficients in the analysis underscore the significance of social influence as a determining factor in the decision-making process regarding nutritional supplement purchases (Ajzen, 1991).

This theoretical synthesis, anchored in Social Influence Theory and the TPB, provides a nuanced understanding of the intricate interplay between social dynamics and individual choices in the realm of nutritional supplement consumption among the elderly. Further support for these insights is found in relevant literature, including Cialdini and Goldstein's (2004) exploration of compliance and conformity in social influence, as well as Bearden, Netemeyer, and Teel's (1989) work on the measurement of consumer susceptibility to interpersonal influence.

5.2.2.4 Influence of Accessibility on Purchasing of Nutritional Supplements for the Elderly

The hypothesis investigating the influence of accessibility on the purchasing behavior of nutritional supplements for the elderly aligns with pertinent consumer behavior

theories, notably the Convenience Theory (Hoch & Loewenstein, 1991) and the Theory of Planned Behavior (Ajzen, 1991). These theoretical frameworks provide a foundation for understanding how the perceived accessibility of supplements contributes to decision-making processes.

The positive coefficient for Accessibility ($B = 0.215$) with a standardized coefficient (Beta) of 0.213 in the regression analysis aligns with the Convenience Theory, which posits that individuals are more likely to engage in a behavior if the required resources are easily accessible (Hoch & Loewenstein, 1991). In the context of nutritional supplements, this implies that as the perceived accessibility of these supplements increases, individuals, particularly the elderly in this study, are more inclined to purchase them due to the convenience of access.

Furthermore, the alignment with the Theory of Planned Behavior (Ajzen, 1991) is evident, as the TPB posits that individuals' intentions and subsequent behaviors are influenced by their attitudes, subjective norms, and perceived behavioral control. The positive coefficients in the analysis underscore the significance of perceived accessibility as a determining factor in the decision-making process regarding nutritional supplement purchases (Ajzen, 1991). In this case, the easier the access to nutritional supplements, the greater the likelihood of individuals intending to purchase them.

These insights are further supported by relevant literature, including the work of Hoch and Loewenstein (1991) on time-inconsistent preferences and consumer self-control, as well as the comprehensive analysis by Payne, Bettman, and Johnson (1993) on the adaptive decision maker. These references contribute to a more robust understanding of how accessibility considerations play a crucial role in shaping the purchasing behavior of nutritional supplements among the elderly.

5.2.2.5 Influence of Perceived Benefits on Purchasing of Nutritional Supplements for the Elderly

The hypothesis exploring the impact of perceived benefits on the purchasing behavior of nutritional supplements for the elderly aligns with established health behavior theories, particularly the Health Belief Model (HBM) and the Expectancy-Value Theory. The

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results derived from the regression analysis, as presented in Table 4.8, provide valuable insights into the empirical support for this hypothesis.

The coefficient assigned to Perceived Benefits is 0.178, accompanied by a standardized coefficient (Beta) of 0.194. The associated t-value of 4.520 and a highly significant p-value of 0.000 underscore the robustness of the positive relationship between perceived benefits and the likelihood of purchasing nutritional supplements among the elderly.

The alignment with the Health Belief Model is notable, as posited by Rosenbaum and David (2020). The HBM suggests that individuals are more inclined to adopt health-related actions, such as the purchase and consumption of nutritional supplements, when they perceive a threat to their health and believe that a specific action, in this context supplement consumption, can mitigate the perceived threat or enhance their overall well-being. The positive coefficient indicates that as individuals, specifically the elderly in this study, perceive heightened benefits from nutritional supplements, their propensity to engage in purchasing decisions is correspondingly increased.

Moreover, the Expectancy-Value Theory, grounded in the work of Feather (1982), emphasizes the importance of individuals' evaluations of potential outcomes or benefits associated with their actions. In the case of nutritional supplements, individuals may assess the expected benefits, such as improved health or enhanced well-being, and such evaluations significantly influence their decision to purchase. The positive coefficient for Perceived Benefits further supports the notion that individuals consider the anticipated positive outcomes as pivotal factors in steering their purchasing behavior.

In conclusion, the empirical evidence, when viewed through the theoretical lenses of the Health Belief Model and the Expectancy-Value Theory, underscores the significance of perceived benefits in shaping the decision-making process regarding the purchase of nutritional supplements among the elderly. These theoretical frameworks provide a nuanced understanding of the interplay between health perceptions, outcome expectations, and consumer choices in the realm of nutritional supplements.

5.3 Recommendation

1. The business sector should adopt personalized marketing approaches emphasizing health benefits, aligning with prevailing health trends, and advocating a comprehensive lifestyle to effectively connect with and resonate with health-conscious elderly consumers in their nutritional supplement purchasing decisions.

2. The business sector should adhere to rigorous standards, prominently display ISO and GMP certifications, uphold transparency, perpetuate continuous quality improvement, and invest in consumer education. Such measures are essential to foster trust, ensuring the delivery of dependable, high-quality nutritional supplements for the elderly.

3. Businesses should leverage peer recommendations through targeted marketing, actively manage online reviews, collaborate with healthcare professionals for insights, craft strategic advertising, and highlight expert endorsements. These strategies will effectively harness social influence, fostering trust and positively impacting purchasing decisions for elderly nutritional supplements.

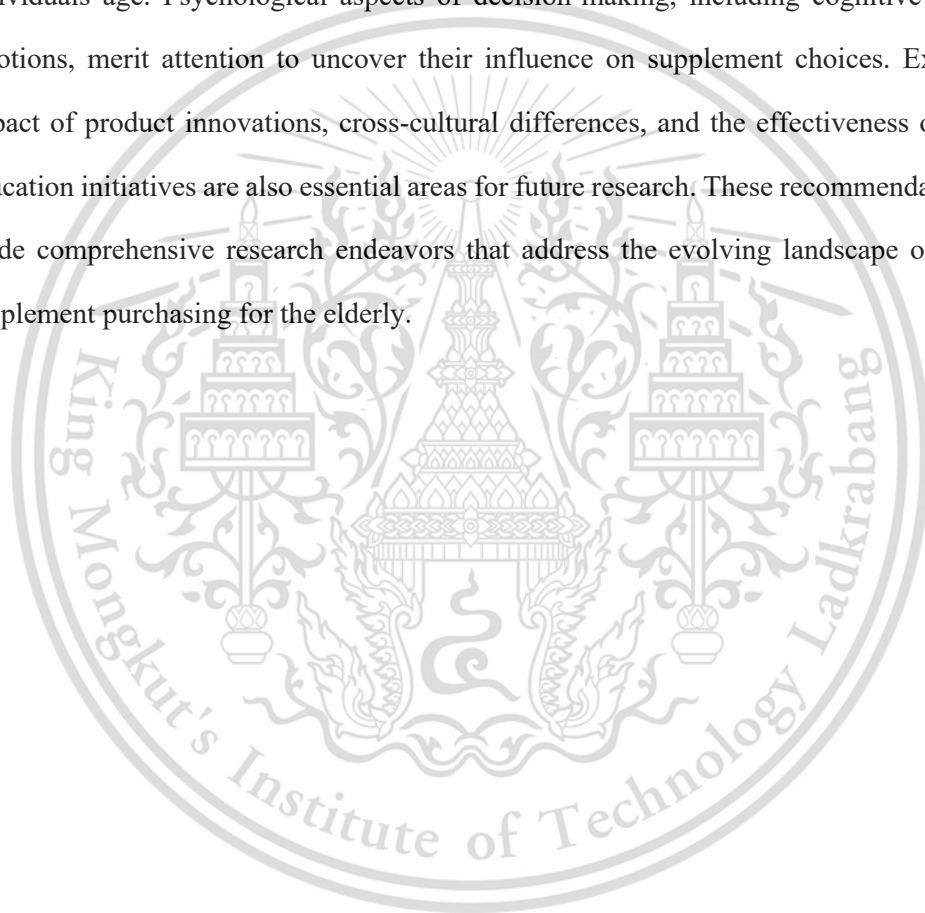
4. Businesses should optimize the online shopping experience for the elderly by ensuring comprehensive product information, diverse availability, user-friendly ordering processes, and collaboration with reputable online marketplaces. Additionally, implementing convenient home delivery and subscription services enhances accessibility, contributing to a seamless and stress-free supplement purchasing experience for elderly consumers.

5. Businesses targeting the elderly should emphasize the tangible health improvements, nutritional balance, and convenience offered by their nutritional supplements. Highlighting the value in maintaining or enhancing the quality of life for elderly individuals is crucial. Additionally, transparently communicating that the health advantages outweigh potential drawbacks builds trust and positively influences purchasing decisions.

5.4 Future Research

Future research in the field of nutritional supplement purchasing for the elderly should consider several avenues for exploration. Firstly, there is a need to investigate the efficacy of

personalized marketing strategies tailored to individual health preferences and lifestyles. Understanding how such strategies enhance engagement and trust among elderly consumers is crucial. Secondly, the role of digital platforms in shaping information-seeking behavior and facilitating informed decision-making warrants further exploration. Additionally, research should delve into the impact of external factors, such as health crises, on the purchasing behavior of the elderly, assessing their adaptability and responsiveness to external influences. Longitudinal studies can provide insights into the dynamic nature of consumer behavior as individuals age. Psychological aspects of decision-making, including cognitive factors and emotions, merit attention to uncover their influence on supplement choices. Exploring the impact of product innovations, cross-cultural differences, and the effectiveness of consumer education initiatives are also essential areas for future research. These recommendations aim to guide comprehensive research endeavors that address the evolving landscape of nutritional supplement purchasing for the elderly.



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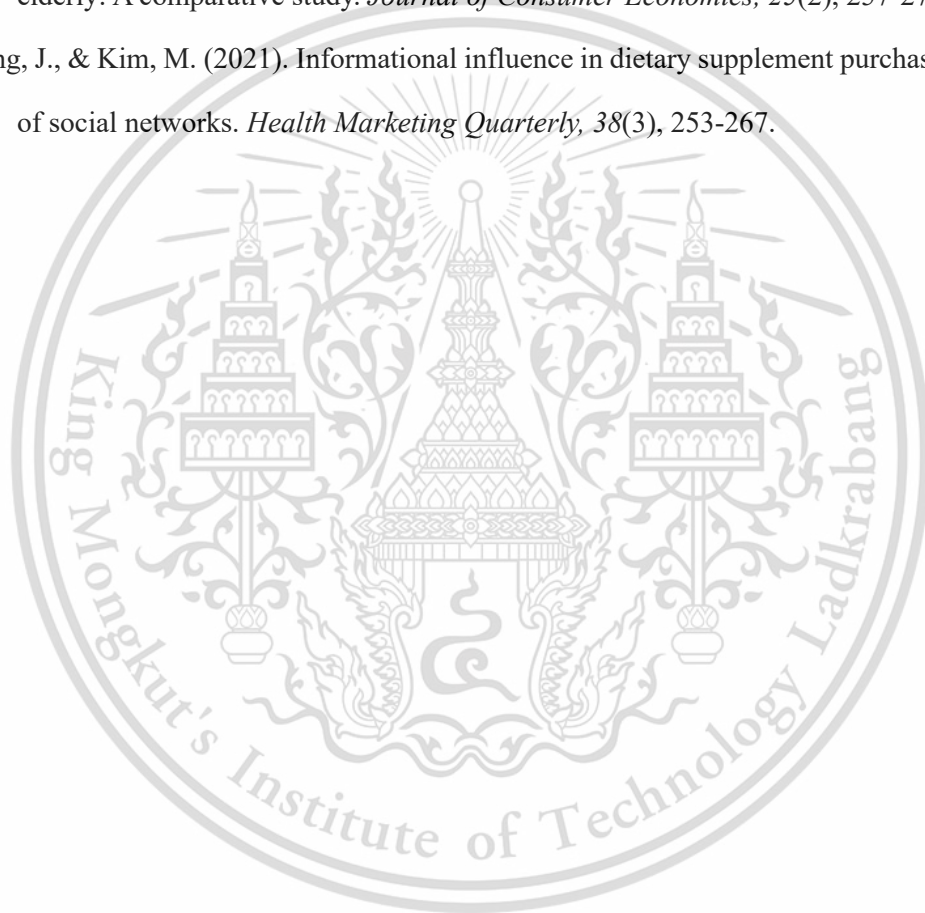
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APPENDIX A

QUESTIONNAIRE

Subject: Exploring Influential Factors in the Purchasing of Nutritional Supplements for the Elderly

This study is being conducted as a requirement for a master's thesis and aims to explore the various factors that impact the purchasing decisions of customers who have bought nutritional supplements for the elderly. Participation in this study is voluntary, and your responses will remain confidential. Your personal information will not be disclosed or used for any purpose beyond this research. The collected data will be analyzed collectively and used solely for academic purposes.

Please answer the following questions to the best of your knowledge and experience. Your honest and thoughtful responses will significantly contribute to the quality of this research. Your participation is highly appreciated. Thank you for taking the time to contribute to this study.

Mr. Yuhang Wang

Program: Master of Business Administration in Industrial Business Administration
(International Program) KMITL Business School

Part 1: Demographic Profile

Please indicate your demographic information by checking in the appropriate box () that best represents your current situation.

1. gender:

Male

Female

2. Age:

Under 20 years old

21-30 years old

31-40 years old

41-50 years old

51-60 years old

60 years old or older

3. Marital Status

Single

Married

Others

4. Education

High School or lower

Vocational School

Bachelor's degree

Master's degree

Doctoral degree

Part 2: Factors Influencing Purchasing of Nutritional Supplements for the Elderly

Please complete the questionnaire honestly based on your genuine thoughts and opinions. Indicate your level of agreement by marking a check (√) in the corresponding column. Please provide responses for all the questions to ensure completion of the questionnaire. The options provided represent the degree to which you agree with your actual experiences and attitudes, using a scale of 1 to 5, with 1 indicating "strongly disagree," 2 indicating "disagree," 3 indicating "neutral," 4 indicating "agree," and 5 indicating "strongly agree."

Variable	Opinion Level				
	1	2	3	4	5
Health Consciousness					
I am highly conscious of the importance of maintaining good health through proper nutrition, exercise, and lifestyle choices.					
I pay significant attention to the nutritional content and ingredients of products, including nutritional supplements for the elderly, before making a purchase.					
I actively seek out information on the latest health trends and dietary recommendations for the elderly population.					
I prioritize the consumption of foods and supplements that are known to have health benefits for elderly individuals.					
I consistently make an effort to lead a healthy lifestyle by engaging in regular physical activity and adhering to a balanced diet.					
Quality Assurance					

Variable	Opinion Level				
	1	2	3	4	5
I have a high level of confidence in the quality and safety of nutritional supplements designed for elderly individuals.					
I believe that manufacturers should adhere to strict quality standards and regulations when producing these supplements.					
I consider the presence of quality certifications (e.g., ISO, GMP) as important indicators of a product's quality and safety.					
I trust nutrition supplement brands that provide clear and transparent information about their sourcing and manufacturing processes.					
I am satisfied with the level of quality control and testing conducted by manufacturers of nutritional supplements for the elderly.					
Social Influence					
I consider recommendations from friends or family members when making decisions to purchase nutritional supplements for the elderly.					
I take into account online reviews and ratings from other consumers when buying nutritional supplements for the elderly.					
I seek the advice of healthcare professionals, such as doctors or pharmacists, when deciding					

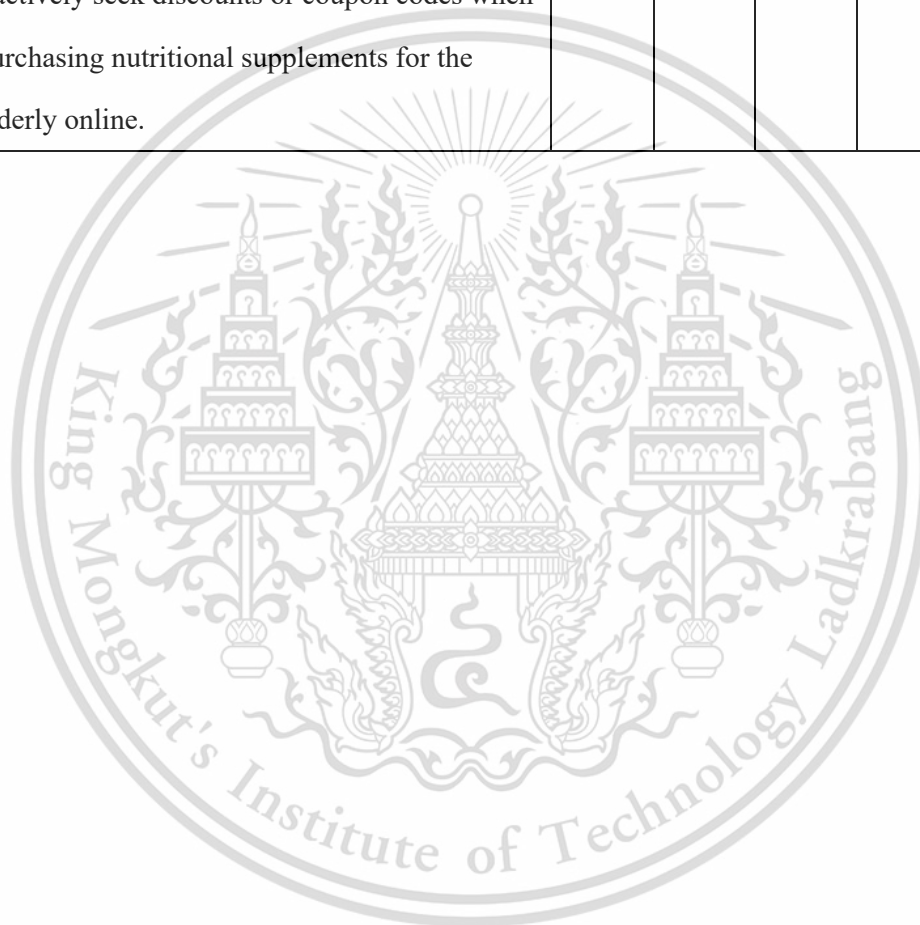
Variable	Opinion Level				
	1	2	3	4	5
to purchase nutritional supplements for the elderly.					
I pay attention to advertisements or marketing campaigns when making decisions to purchase nutritional supplements for the elderly.					
I consider the endorsement or recognition of specific brands by experts or organizations when deciding to purchase nutritional supplements for the elderly.					
Accessibility					
Online retailers provide adequate information and product details to help me make informed decisions about nutritional supplements for the elderly.					
I find it simple to locate online retailers that offer a variety of nutritional supplements for the elderly.					
It is convenient to locate and order specific nutritional supplements for the elderly through online retailers.					
The availability of nutritional supplements in online marketplaces is crucial for ensuring accessibility.					
The presence of home delivery options or subscription services makes it easier for elderly individuals to access nutritional supplements.					
Perceived Benefits					

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Variable	Opinion Level				
	1	2	3	4	5
I believe that nutritional supplements for the elderly provide tangible health benefits and improvements in overall well-being.					
I think that incorporating these supplements into an elderly individual's diet can lead to better nutritional balance.					
I perceive nutritional supplements as a convenient way to address specific health concerns in the elderly population.					
I consider these supplements to be valuable in maintaining or improving the quality of life for elderly individuals.					
I believe that the potential health advantages of these supplements outweigh any potential drawbacks.					
Purchasing of Nutritional supplements for Elderly					
I trust well-known brand names when choosing nutritional supplements for elderly individuals over lesser-known brands.					
I am willing to pay a higher price for nutritional supplements if they are labeled as organic or all-natural.					
I actively stay updated on the latest scientific studies and recommendations regarding					

Variable	Opinion Level				
	1	2	3	4	5
nutritional supplements for the elderly.					
I take into consideration the expiration dates and shelf life of nutritional supplements for the elderly before making a purchase.					
I actively seek discounts or coupon codes when purchasing nutritional supplements for the elderly online.					

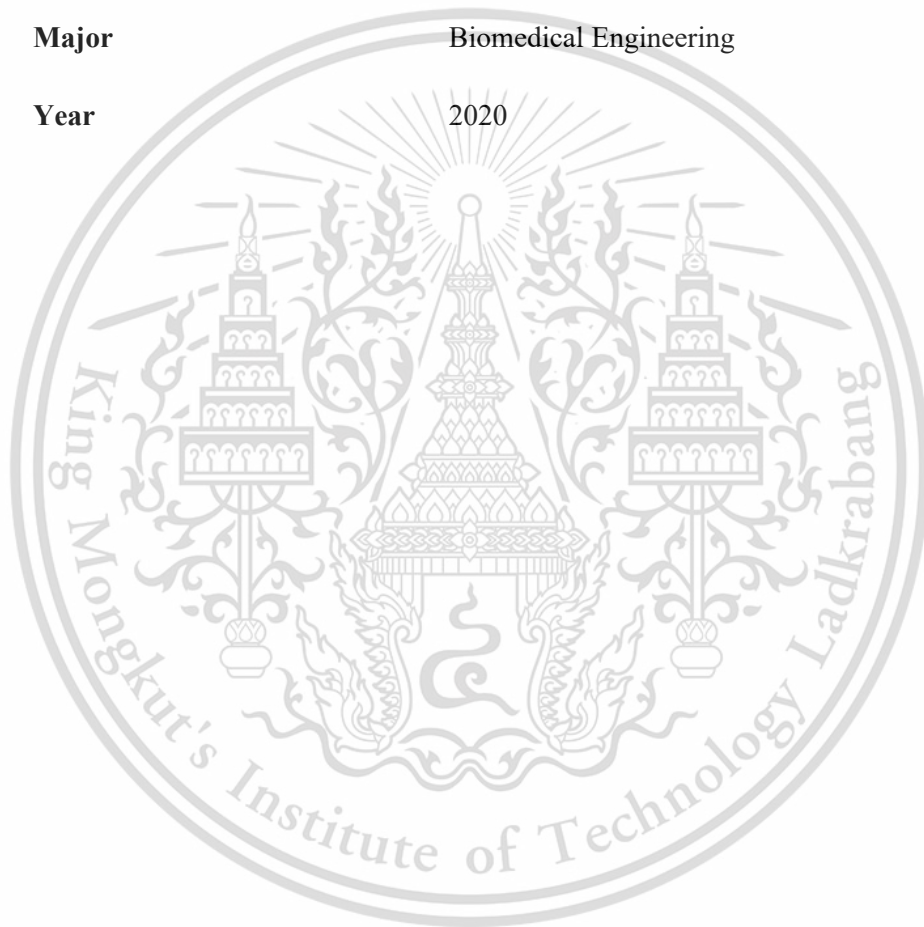


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