

Lifestyle Segmentation for Online Fashion Shopping in Bangkok, Thailand

การแบ่งกลุ่มไลฟ์สไตล์สำหรับการซื้อปั๊งแฟชั่นออนไลน์ในกรุงเทพมหานคร ประเทศไทย

Dr. Jirayu Poomontree Kasemsant

Assistant Professor in Marketing

Martin de Tours School of Management and Economics,

Assumption University

ดร. จิรายุ พุฒนตรี เกษมสันต์

ผู้ช่วยศาสตราจารย์ สาขาวิชาการตลาด

คณะบริหารธุรกิจและเศรษฐศาสตร์ มหาวิทยาลัยอัสสัมชัญ

E-mail: jirayutpmn@au.edu ; Ph: +092-001-5555

วันที่ได้รับบทความ : 17 กันยายน 2567

วันที่แก้ไขปรับปรุงบทความ

ครั้งที่ 1 : 13 ตุลาคม 2567

ครั้งที่ 2 : 7 พฤศจิกายน 2567

วันที่ตอบรับตีพิมพ์บทความ : 12 พฤศจิกายน 2567

Dr. Songsak Vanichviroon

Full time Lecturer in Digital Business Management

Martin de Tours School of Management and Economics,

Assumption University

ดร. ทรงศักดิ์ วานิชย์วิรุฬห์

อาจารย์ประจำ สาขาวิชาการจัดการธุรกิจดิจิทัล

คณะบริหารธุรกิจและเศรษฐศาสตร์ มหาวิทยาลัยอัสสัมชัญ

E-mail: songsakvnc@au.edu ; Ph: +081-801-2221

Mr. Tanakom Tantontrakul

Full time Lecturer in Digital Business Management

Martin de Tours School of Management and Economics,

Assumption University

ธยานคม ตันตันตระกูล

อาจารย์ประจำ สาขาวิชาการจัดการธุรกิจดิจิทัล

คณะบริหารธุรกิจและเศรษฐศาสตร์ มหาวิทยาลัยอัสสัมชัญ

E-mail: thayatnt@au.edu ; Ph: +081-649-6110

Abstract

The purpose of this study was to explore the segmentation of young customers in Thailand who had an interest in purchasing fashion products online, based on their fashion lifestyles with clustering technique. The aims of the study were to: 1) discover categorization among the various fashion lifestyle segments, 2) examine how to precisely figure out an appropriate number of segments before clustering, and 3) utilize clustering techniques to categorize these fashion lifestyles into segments and report the findings. A survey of 494 Thai young shoppers who purchased online, were collected. The results of the study indicated that there were five segments that were particularly well-suited, namely fashionistas (30.4%), trendy buyers (20.0%), value for money shoppers (19.4%), economical love shoppers (17.4%), and emotional shoppers (12.8%). This research can be used as a guideline for analyzing the behavior of teenage consumers, which is changing more and more every year, especially the change in media channels to online. The acceptance of technology as a part of life has caused the marketing approach of the store to change to keep up, including the management of the work system after closing the sale, which must be accurate, fast, and ready to always impress customers. Entrepreneurs who plan to expand their business must have a back-office management system to help manage purchase orders and warehouses and connect transportation systematically for business expansion to grow comprehensively.

Keywords: Fashion Lifestyle, Segmentation, Discriminant Analysis, Online Shopping

บทคัดย่อ

การศึกษาครั้งนี้มีจุดประสงค์เพื่อการสำรวจกลุ่มลูกค้าวัยรุ่นในประเทศไทย ที่สนใจซื้อสินค้าแฟชั่นออนไลน์ โดยพิจารณาจากไลฟ์สไตล์แฟชั่นของวัยรุ่นด้วยเทคนิคการจัดกลุ่ม โดยมีเป้าหมายของการศึกษาครั้งนี้คือ 1) การแบ่งกลุ่มเฉพาะในกลุ่มไลฟ์สไตล์แฟชั่นต่าง ๆ 2) การคำนวณจำนวนกลุ่มที่เหมาะสมอย่างแม่นยำก่อนจัดกลุ่ม และ 3) จัดกลุ่มไลฟ์สไตล์แฟชั่นและรายงานผลการค้นพบ จากการสำรวจนักช้อปวัยรุ่นชาวไทย 494 คน ที่ซื้อสินค้าออนไลน์ ผลการศึกษาพบว่า สามารถจัดกลุ่มลูกค้าวัยรุ่นชาวไทยได้ 5 กลุ่ม ได้แก่ สาวแฟชั่น (ร้อยละ 30.4) ผู้ชื่อตามเทรนด์ (ร้อยละ 20) นักช้อปที่เน้นความคุ้มค่า (ร้อยละ 19.4) นักช้อปที่รักความประยัศ (ร้อยละ 17.4) และ นักช้อปที่เน้นอารมณ์ (ร้อยละ 12.8) งานวิจัยนี้สามารถใช้เป็นแนวทางในการวิเคราะห์พฤติกรรมผู้บริโภควัยรุ่นที่นับว่าเปลี่ยนไปเพิ่มมากขึ้นทุกปี โดยเฉพาะการเปลี่ยนของทางรับสื่อมาสู่ออนไลน์ การเปิดรับเทคโนโลยีเข้ามายังเป็นส่วนหนึ่งของการใช้ชีวิต ทำให้แนวทางทำการตลาดของร้านค้าต้องเปลี่ยนตามให้ทัน รวมถึงการให้บริหารระบบการทำงานหลังบ้านที่ต้องมีความแม่นยำรวดเร็วและพร้อมสร้างความประทับใจให้ลูกค้า ได้ตลอดเวลา ผู้ประกอบการที่วางแผนขยายกิจการต้องมีระบบจัดการหลังบ้าน ช่วยบริหารการจัดการคำสั่งซื้อและคลังสินค้า และเข้มต่อขั้นส่งอย่างเป็นระบบ เพื่อการขยายธุรกิจให้เติบโตอย่างครอบคลุมครบวงจร

คำสำคัญ: ไลฟ์สไตล์แฟชั่น การแบ่งกลุ่ม การวิเคราะห์เชิงแยกแยะ การช้อปปิ้งออนไลน์

Introduction

The emergence of digital technology had drastically transformed how consumers acquired goods. With technological advancements, young consumers had shifted from traditional retail stores to online retail outlets to obtain their products. Due to dynamic consumer behavior within the highly improved digital infrastructure and the promotion of Thailand 4.0, the information and communication technology industry had become integral to the country's social and economic growth (Akroush & Mahadin, 2019; Export.gov, 2019). In 2024, Thailand had a total of 63.21 million internet users, with an internet penetration rate of 88.0% (Kemp, 2024). Thailand's e-commerce was worth 102.13 US million dollars at a 14.0% growth rate and accounted for a 31.0% increase in mobile broadband penetration, making it the second highest-growth e-commerce market in Southeast Asia (Ciba, 2023; Export.gov, 2019). Ciba (2023) mentioned that the most popular products among Thai consumers for online buying were fashion products. Consumer Report Thailand (2023)

also showed that fashion products, including clothing and footwear, accounted for 60.12% of the total market in Thailand. The COVID-19 epidemic led to a rise in online shopping due to the need for social distancing regulations and avoiding crowded environments. They considered staying at home and purchasing goods through online shopping sites. Agrawal (2023) also noted a significant increase in consumer digital engagement during the COVID-19 epidemic.

Online retail stores and marketers must gather updated information and understand customer segmentation which was an essential determinant in discovering how consumers acquire their products in the context of online retail success. Hall et al. (2017) argued that merchants and marketers of fashion products should focus on satisfying customers' demands by identifying and targeting certain consumer segments. One of the market segments for online merchants was Generation Y consumers, also known as millennials, who were a crucial market segment for online retailers. The International Trade Administration (2024) mentioned that of the 43.5 million consumers in Thailand's e-commerce market, 62% were young consumers aged 17 to 36 years old, 33% were Thais aged 37 to 50 years old and 5% were 51 to 71 years old. Generation Y consumers had significant economic power and impacted fashion market trends through their consumer habits and lifestyle preferences. Valentine and Powers (2013) stated that Generation Y was a distinctive and influential consumer segment whose behavior was significantly influenced by technology and the Internet. They were younger generations who were almost always connected to the Internet and were ready to make online purchases. Online businesses must comprehend the profile of Generation Y and their online shopping characteristics.

Several researchers focused on Generation Y consumers because they were compelling influence groups (Bento et al., 2018; Bilgihan, 2016; Rahulan et al., 2015; Valentine & Powers, 2013) and had significant consuming potential and enormous spending power (Noble et al., 2009). Generation Y customers were characterized as the initial cohort inclined to allocate their time to engage with the Internet and social media (Ordun, 2015). Ladhari et al. (2019) also noted that the advent of the Web and digital devices, such as mobile applications, had altered customers' purchasing experience. Online retailers and marketers should consider the factors that affected Generation Y consumers before they purchased products (Hung et al., 2011). This study investigated how young online shoppers' lifestyles were segmented concerning fashion products. The second section was the literature review of lifestyle segmentation, generation cohorts, Generation Y characteristics and purchasing habits, shopping typology, and Generation Y would be discussed. The next section was the methodology section, data collection method, and measurement will be described. The fourth section presented the results, particularly the fashion lifestyle segments, and profiles, and the findings would be discussed. Then, the conclusion would be discussed. Lastly, the limitations of the study would be addressed.

Research Objectives

- 1) Understand to determine the specific categories within the varied fashion lifestyle segments.
- 2) Explore the methods for accurately determining the suitable amount of segments before clustering.
- 3) Employ clustering techniques to classify these fashion lifestyles into segments and present our findings.

Literature Review

Lifestyle segmentation

Lifestyles could be described as how individuals allocated their time and finances, influenced by their activities, interests, opinions, and demographic factors (Blackwell et al., 2001). Demographic data referred to the visible physical characteristics of consumers that could be used to identify similar groups. On the other hand, psychological variables, including lifestyle, offered a more comprehensive insight into consumer behavior. Gonzalez and Bello (2002) argued that conventional consumer variables, such as demographics or geography, were insufficient for effectively navigating the complex structure of market segmentation. Park and Sullivan (2009) highlighted the importance of market segmentation in forecasting customers' buying behavior. This study investigated the different lifestyle categories of online buyers, particularly Generation Y, in relation to their purchasing of fashion products.

In their study, Ladhari et al. (2019) identified six distinct lifestyle segments among Generation Y consumers when it concerned online fashion purchasing. These segments included Economical shoppers, Fashion/brand shoppers, Emotional shoppers, Discovery shoppers, Shopping fans shoppers, and Strategic shoppers. They employed four lifestyle dimensions, namely Fashion trends, Shopping delight, Economical orientation, and Brand value, which were derived from 19 fashion lifestyle statements. Several studies also utilized lifestyle market segmentation to anticipate consumer buying behavior (Huang et al., 2020; Michon et al., 2015; Du Preez et al., 2007). Moreover, Kim and Johnson (2016) described that the lifestyle preferences of Generation Y were significantly shaped by influences, like peer recommendations, social media personalities, and online communities impacting their purchasing decisions significantly. This study employed 19 fashion lifestyle statements from Ladhari et al. (2019) to identify lifestyle dimensions and determine the lifestyle segments of Generation Y online shoppers in Bangkok, Thailand.

Generational cohorts

Each generation had their own characteristics. Individuals from different generations should not be subjected to the same treatment. A study by Himmel (2008) emphasized the need to recognize that individuals from distinct generations possessed unique traits and behaviors. This recognition helped in forming connections, building trust, and successfully conducting business transactions. Dimock (2019) pointed out that understanding how various life-shaping experiences like events and advancements, in technology, economy, and society could impact the perspectives and decision-making approaches of people from generations.

The theory of generational cohort was a strategy by marketers and researchers to categorize markets into segments based on their attitudes, ideas, values, and convictions of segments (Bakewell & Mitchell, 2003). This theory suggested that the shared experiences of individuals who came of age during a period and social context shape the characteristics of each generational segment (Bolton et al., 2013). The Generation Y cohort, also known as the Builders, comprised those who were born between 1981 and 2000 (Dimock, 2019; Bolton et al., 2013). Identifying generational cohorts was essential for companies and marketers to know what drives a particular segment to interact with online shopping, especially for fashion products. This study specifically examined Generation Y, a demographic that had grown up influenced by technology and might be motivated to make online purchases, particularly for fashion-related products.

Generation Y characteristics and purchasing habits

Generation Y was actively involved in using media platforms for creating, sharing, searching, and consuming content both during work and leisure activities (Bolton et al., 2013). Generation Y consumers referred to those in their teenage years and early adulthood (Williams & Page, 2011) who possessed certain characteristics, lifestyles, and opinions (Dietz, 2003). To enhance consumer engagement, online retailers and marketers should prioritize the creation of experiences that had a beneficial influence on the pleasure and well-being of their target audience.

In addition, Ladhari et al. (2019) mentioned that the shopping behaviors of Generation Y individuals varied greatly often influenced by their different fashion lifestyles. Bolton et al. (2013) observed that Generation Y, known as digital natives, grew up alongside technology and were adept at using devices. Recognizing the shopping lifestyles of Generation Y was essential, for marketers and businesses aiming to grasp how these young consumers navigated their purchasing decisions online.

Shopping typology and Generation Y

Shopper typologies aimed to categorize consumers into categories based on their shopping orientation and patronage. A previous study by Sung and Jeon (2009) categorized internet shopping consumers into five distinct fashion lifestyle characteristics. The characteristics influencing shopping behavior included shopping happiness, fashionable perception, branding perception, individuality pursuit, and cost perspective. Shopping happiness represented the tendency to derive pleasure from the act of shopping, regardless of the desire to make a purchase. The cost perspective was related to the propensity to make purchasing decisions primarily based on price and whether it was worth the money (Sung & Jeon, 2009). Fashionable perception pertained to individuals who were looking for new trends and could be demonstrated by a keen interest in one's physical appearance (Talaat, 2022). Branding perception represented the level of trust and preference for reputable brands. Individuality pursuit was the propensity to prioritize one's personal tastes using internet channels, such as social media, to allow people to exchange their experiences of using items or services.

This research was inspired by three reasons. Firstly, the current literature did not offer proof to back up the idea that shoppers had motivations and perspectives that necessitated advancements in online technology. Moreover, Generation Y could have developed shopping motivations compared to other generational cohorts. Additionally, while previous studies had delved into aspects of Generation Y's habits there was still a lack of research specifically focusing on their shopping preferences, online buying experiences, and the segmentation of fashion lifestyles. Thus, our study played a role in addressing this gap.

Research Methodology

Data collection method

SABUNCU et al. (2020) adopted the recency, frequency, and monetary (RFM) analysis for the purpose of consumer segmentation and profiling. This analysis was conducted after the process of customer segmentation, to collect data. Their research additionally gathered demographic and personal data of customers. In our study, we applied a method to determine the highest and lowest percentages depending on recency (how long they made a purchase), frequency (how often they made purchases), and monetary (how much money they spend) of participation by young Thai buyers.

For the purpose of addressing the research objectives, qualitative research had been conducted during June 2022 and July 2022 and quantitative research had been conducted during August 2022 and September 2022. Population under the study were young Thai buyers, aged among 18 and 29 years old who had recurrent experiences of online fashion shopping in Bangkok, Thailand. In the first phase, under qualitative research, the study aimed to understand young consumers' motivations, attitudes, and behavior. Five online-focused group discussions and thirty in-depth interviews of online fashion buyers were conducted. This study examined whether 19 variables in the lifestyle classification regarding Ladhari et al. (2019) were appropriate for a sample of young Thai people. Moreover, this study also studied each factor related to pain points, five stages of the customer journey, etc., but these variables were not mentioned in this study. In the second phase, under quantitative research, the study aimed to identify the key influential factors affecting customer satisfaction and loyalty for the young buyers. A total of 494 respondents were interviewed personally with voice-recordings by both online and offline channels. According to the total number of respondents, this study utilized convenience sampling method is selected sampling, especially for the new generation of middle-class and above, aged among 18 and 29 years, in the Bangkok metropolitan area by Israel (1992). This study utilized a sample size based on a confidence interval of 95% and an error of 5% which provided the sample size of 400 respondents. Finally, the study indicated that 494 respondents were suitable to utilize.

This study was divided into the characteristics of consumers on fashion products in Thailand. It focused on overall individuals aged among 18 and 29. It separated this demographic into two groups; those aged among 18 and 21 who were the students and those among 22 and 29 who were the first jobbers. The data represented the younger group, encompassing individuals from 18 to 21 years old accounted for 29.1% of the participants while the older segment, comprising individuals from 22 to 29 years old made up the remaining 70.9%.

The researcher collected the data to examine the frequency of often online fashion purchasing in four months period. The frequency was categorized into three groups, including the group of individuals who spent 1-2 times (32.4%), the group of those who spent 3-4 times (34.4%), and the group of those who spent 5 or more times (33.2%). The results represented that the major frequency of purchasing fashion goods were between 3-4 times, which was accounted for 34.4% of the young shoppers.

The study looked into how young buyers spent money on fashion focusing on their monthly expenses. The researcher gathered data to figure out the amount of Thai baht young shoppers were spending, and then divided them into three spending categories. The findings represented that the largest group of young shoppers (42.3%) spent between 1,000-2,000 baht each month on fashion purchases revealing a commitment to and interest in shopping online. Moreover, a notable percentage of young shoppers (31.6%) were observed to be spending over 2,000 baht per month and young shoppers and 26.1% of young shoppers were observed to be spending between 500-999 baht underscoring the role of fashion shopping, in their buying habits.

The study looked into when young buyers purchased fashion products through online the last time. The researcher gathered data to figure out the period of purchase. The findings represented that the largest group of young shoppers (45.7%) purchased between 1-4 weeks, the group of those who purchased less than 1 week (33.4%), and the group of those who purchased between 1-3 months (20.9%).

Moreover, a majority of individuals (57.5%) reported having over three years of experience in purchasing fashion items while 42.3% had three years or less of experience in this area. These results offered insights into the characteristics of consumers in relation to their behavior when purchasing fashion items online.

Measurement

The survey conducted in the study comprised of two distinct components. The first part was used to verify that the respondents belong to the younger generation and had made online purchases or recently bought fashion products online during the past four months, as stated in the previous section. A structured questionnaire with initial questions related to demographics such as age, gender, respondents' most recent online purchase of fashion products, their average monthly spending, and their last time of purchasing on these types of products was used to collect data. The second part of the study was on examining lifestyle factors. This involved evaluating 19 lifestyle statements utilizing a Likert scale with seven points, whereby a score of 1 indicated significant disagreement and a score of 7 indicated significant agreement. These statements were drawn from the study conducted by Ladhari et al. (2019). The statements under discussion transformed into a number of components of the purchasing process. Furthermore, this research also assessed the test section inspection results consistency of the scale with Cronbach's alpha was the level of 0.878, which was consistent with the recommended level of 0.70 by Hair et al. (2010) in the Table 1. The following items were included in the questionnaire after having been verified by the Institutional Review Board, the Assumption University of the Research Institute before its distribution.

Table 1 Reliability Test Inspection Results

Cronbach's Alpha	Conbach's Alpha Based on Standardized Items	Number of Items
0.878	0.878	19

Cluster analysis process

In this study, the cluster analysis was divided into four steps on how to find the lifestyle segmentations. Step 1 utilized the exploratory factor analysis (EFA) to reduce the data from the number 19 lifestyle variables into 4 major lifestyle character variables for simplification in analysis. All outcomes have a normal distribution (z-score) at a mean value equaled to 0 and a variance value equaled to 1. The new lifestyle character variables will be used in step 2 and step 3.

Step 2 utilized the number of suitable lifestyle segments by step 2.1 provided k-mean cluster analysis to create the number of lifestyle segments from six lifestyle segments or less, according to Ladhari et al. (2019). Afterward, step 2.2 was to consider the appropriate number of lifestyle segments. Step 2.2.1 would be considered based on the sample size of the subgroups, with a minimum number of not less than 50 samples which came from 10% of the total sample size (494) in this survey refer to van Breukelen and Candel (2012), and step 2.2.2 was to define the interclass correlation among clusters. In both examinations, discriminant analysis was utilized as a tool to examine the appropriate number of samples and the distance degree of interclass correlation among clusters. In this examination, the position of the territory map would be determined from a chart showing the relationship of the territory map of each cluster. The chart would be created from Function 1 and Function 2 in the canonical discriminant function table. Discriminant analysis was a method of statistics that enabled the study of differences among many segments

of objects concerning multiple variables concurrently (Klecka, 1980; Lawson, 1980). Stella (2019) could differentiate several uncorrelated canonical variables and categorize canonical discriminant functions as eigenvalues, percentage of variance, canonical correlation, Wilks' lambda, and chi-square. The output could be employed as a linear classifier before further classification.

Step 3 utilized the naming of each lifestyle segment after finding that the number of lifestyle segments was appropriate using descriptive analysis to compare the average values of each 4 major lifestyle character variables from step 1.

Step 4 utilized the method of summarizing each lifestyle segment to find out who they were, by combining it with demographics using the crosstab technique.

Results and Discussion

Step 1: Data reduction to define fashion lifestyle major characters

Initially, our study utilized the categorization of fashion lifestyle major character individuals to identify the appropriate factors prior to investigating the major characteristics of lifestyles and profiles. The goals were to simplify and streamline data collecting in order to facilitate the exploration of segmentation and profiling. We utilized the Kaiser-Guttman criterion (Kaiser, 1960) as a straightforward technique to determine the number of lifestyle major characters. This principle implied the amount of lifestyle major characters was equated to the amount of eigenvalues that exceed 1.0. The result valued from those factors was preserved, provided that their variances exceeded 1.

Kucukemiroglu (1999) indicated that only factors with an eigenvalue exceeding 1.00 were retained in his study. His research concentrated on the existing market segments of Turkish consumers. We indicated the overall variations in providing the components according to these criteria. It was worth mentioning that 4 components surpass the value of 1, resulting in equivalent to a total variance of 1.265 regarding Table 2.

Table 2 Total Variance Explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	6.072	31.955	31.955
2	2.250	11.841	43.797
3	1.543	8.121	51.918
4	1.265	6.658	58.576
5	0.924	4.863	63.438

Step 1 employed the exploratory factor analysis to examine the data reduction. The objective was to make it easier to analyze. **Figure 1** illustrated the conceptual framework of how data could be reduced from 19 lifestyle variables into four lifestyle major characters using exploratory factor analysis. The analysis revealed four distinct lifestyle major characters.

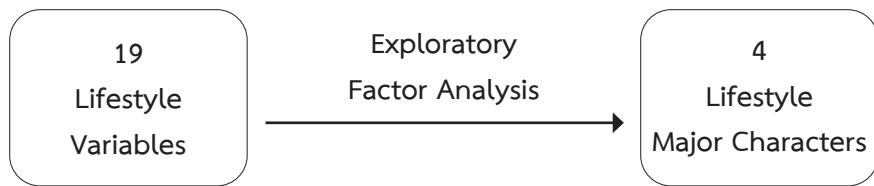


Figure 1 Conceptual framework of data reduction using exploratory factor analysis

The first lifestyle major character underscored price-conscious shopping behaviors indicative of an item's value, termed economical orientation. The second lifestyle major character encompassed a keen interest in and attraction to new trends, reflecting a strong awareness of fashion trends, termed fashion trends consciousness. The third lifestyle major character encapsulated the pleasure derived from shopping experiences, irrespective of purchase intent, termed shopping enjoyment. Lastly, the fourth lifestyle major character delineated brand-focused shopping behaviors, highlighting consumers' perceptions of brand value and their brand loyalty tendencies, termed brand value orientation.

Table 3 represented the 19 variables that constructed the similarity of the questionnaire into four lifestyle major characters. These also included coefficient factor loading values for each dimension, including economical orientation (consisted of 5 items), fashion trends consciousness (consisted of 6 items), shopping enjoyment (consisted of 5 items), and brand value orientation (consisted of 3 items).

Table 3 Dimensional structure of fashion lifestyle major characters by factor analysis

Dimension	Items	Loading
Economical Orientation	14. I consider value for money (price/quality ratio)	0.794
	13. I buy fashion products when they are on sale	0.741
	15. I buy fashion products by comparing prices in different stores	0.703
	12. It is important to be well-dressed	0.609
	16. I buy fashion products I like, regardless of current fashion	0.555
Fashion Trends Consciousness	2. Many people regard me as being a fashion leader	0.834
	3. I am confident in my ability to recognize fashion trends	0.774
	1. I am the first to try new fashion	0.740
	4. I try to choose fashion products that are new and unique	0.697
	6. Fashion products are one of the most important ways to express my individuality	0.497
	5. I consume time to coordinate color or style of my fashion products	0.354
Shopping Enjoyment	9. I often go shopping even though I do not need anything	0.843
	10. I like to shop for fashion products even though I have no intention of buying	0.807
	8. It is my pleasure to buy fashion products	0.616
	7. I am pleased to shop	0.560
	11. I buy styles which I see on TV or the internet	0.335

Table 3 Dimensional structure of fashion lifestyle major characters by factor analysis

Dimension	Items	Loading
Brand Value Orientation	19. I can trust in well-known brands	0.830
	17. A well-known brand means good quality	0.800
	18. I purchase well-known brand products although they are expensive	0.737

Step 2: Finding fashion lifestyle with suitable number of segments

In step 2 on fashion lifestyle major characters, particularly employing classification and canonical discriminant functions to explain the output through the territory map. The objective was to find a suitable number of segments.

Consideration of six lifestyle segments

Based on our findings, this analysis produced the k-mean cluster analysis to create the six lifestyle segments or less based on Ladhari et al. (2019) had previously established to confirm the overall lifestyle segments. **Table 4** provided the classification to consider the difference of lifestyle segment, and then **Table 5** explored the process of canonical function with X-axis as Function 1 and Y-axis as Function 2 to plot the territory map in **Figure 2**.

Table 4 Classification of six lifestyle segments

LS_6G			Predicted Group Membership						Total
			Lifestyle Segment 1	Lifestyle Segment 2	Lifestyle Segment 3	Lifestyle Segment 4	Lifestyle Segment 5	Lifestyle Segment 6	
Original	Count	Lifestyle Segment 1	68	0	0	0	5	0	73
		Lifestyle Segment 2	3	81	0	0	1	0	85
		Lifestyle Segment 3	0	0	82	0	3	0	85
		Lifestyle Segment 4	0	1	0	33	0	0	34
		Lifestyle Segment 5	6	3	3	0	71	6	89
		Lifestyle Segment 6	0	0	1	0	6	121	128

Table 5 Canonical function of six lifestyle segments

LS_6G	Canonical Function	
	Function 1	Function 2
Lifestyle Segment 1	0.717	1.252
Lifestyle Segment 2	(-2.523)	1.500
Lifestyle Segment 3	(-0.634)	(-1.812)
Lifestyle Segment 4	(-4.412)	(-1.937)
Lifestyle Segment 5	0.519	0.763
Lifestyle Segment 6	2.499	-0.523

Unstandardized canonical discriminant functions evaluated at group means

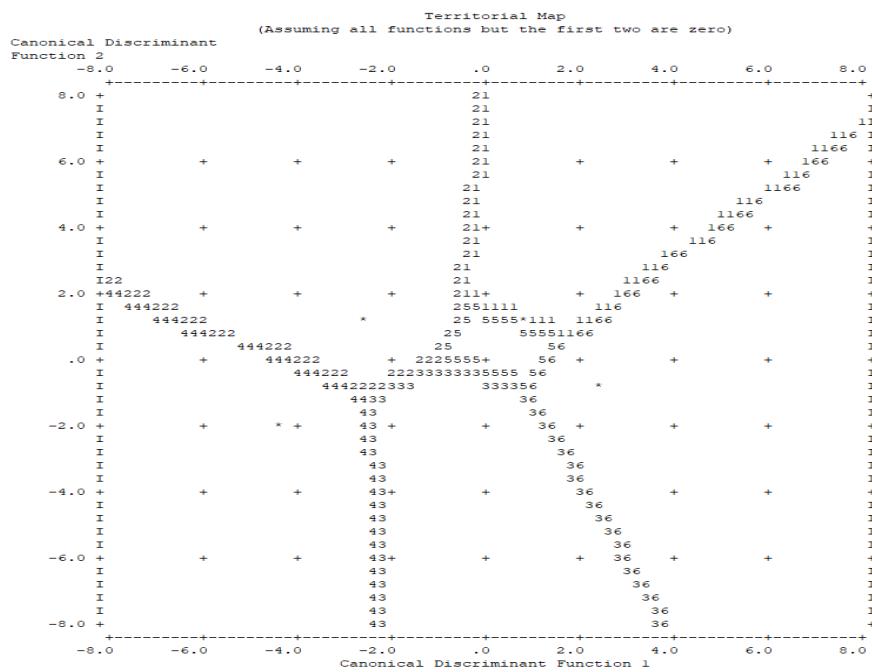


Figure 2 Territory Map of six lifestyle segments from canonical function in Table 5

This analysis examined whether six lifestyle segments were suitable or not. The outcomes found that the sizeable of classification in lifestyle segment 4 was less than 50 samples and the lifestyle segment 1 and 5 overlapped in the territory map. So, this could be concluded that the six lifestyle segments were not suitable for our study.

Consideration of five lifestyle segments

The study reduced the number of lifestyle segments from six to five lifestyle segments to find a suitable number of segments. Table 6 provided the classification to consider the difference of lifestyle segment, and then Table 7 explored the process of canonical function with X-axis as Function 1 and Y-axis as Function 2 to plot the territory map in Figure 3.

Table 6 Classification of five lifestyle segments

LS_5G		Predicted Group Membership					Total	
		Lifestyle Segment 1	Lifestyle Segment 2	Lifestyle Segment 3	Lifestyle Segment 4	Lifestyle Segment 5		
Original	Count	Lifestyle Segment 1	78	5	1	0	2	86
		Lifestyle Segment 2	7	88	0	1	0	96
		Lifestyle Segment 3	3	6	86	0	4	99
		Lifestyle Segment 4	0	3	0	60	0	63
		Lifestyle Segment 5	5	0	0	0	145	150

Table 7 Canonical function of five lifestyle segments

LS_5G	Canonical Function	
	Function 1	Function 2
Lifestyle Segment 1	0.483	(-1.461)
Lifestyle Segment 2	(-1.305)	(-0.794)
Lifestyle Segment 3	(-0.295)	1.439
Lifestyle Segment 4	(-3.984)	0.349
Lifestyle Segment 5	2.426	0.250

Unstandardized canonical discriminant functions evaluated at group means

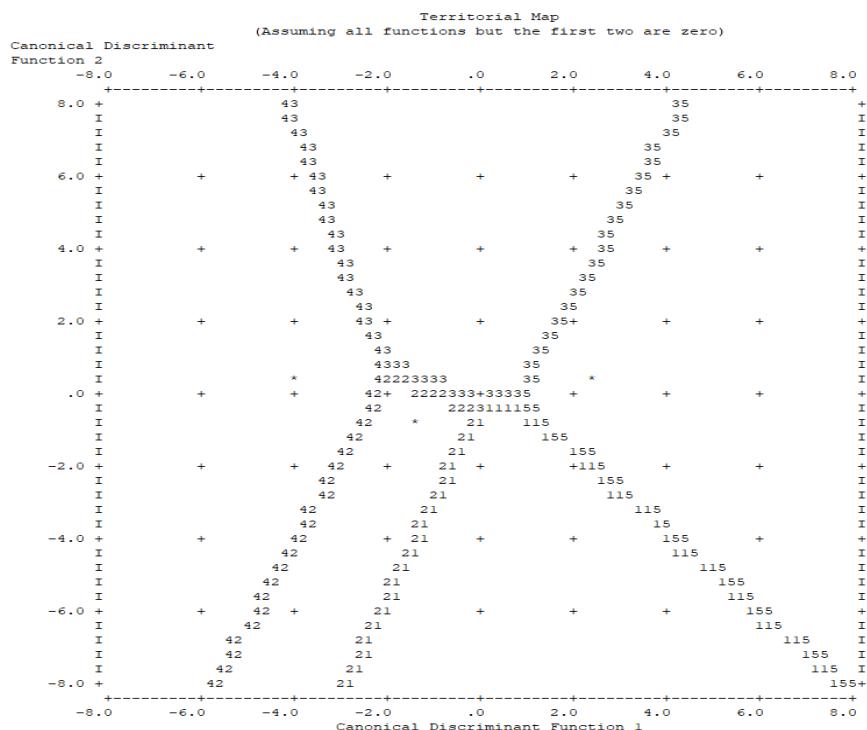


Figure 3 Territory map of five lifestyle segments from canonical functions in Table 7

The outcomes found that the overall sizeable of classification was more than 50 samples and overall lifestyle segments were not overlapped in the territory map. So, this could be concluded that the five lifestyle segments were suitable for our study.

Step 3: Naming each lifestyle segment

Regarding the overall processes of a suitable number of segments, we could indicate that five segments were suitable to provide the lifestyle segments. Then five lifestyle segments were defined as how much differentiation. Within lifestyle segments, we also categorized the most similarities and differences along with their respective using descriptive analysis to compare each mean value of major character from step 1 as mentioned in **Table 8**. This also verified how sizable was appropriate regarding the percentages and frequencies, and four lifestyle major characters among five lifestyle segments, whether they were different enough to be named.

Table 8 Fashion lifestyle segments before naming each segment by factor mean values based on four lifestyle major characters

Lifestyle Segments	n	%	Economical Orientation	Fashion Trends Consciousness	Shopping Enjoyment	Brand Value Orientation
Lifestyle Segment 1 (Economical Love Shoppers)	86	17.4	0.766	(-0.194)	0.430	(-0.976)
Lifestyle Segment 2 (Value for Money Shoppers)	96	19.4	0.476	(-0.588)	(-0.828)	0.310
Lifestyle Segment 3 (Trendy Buyers)	99	20	(-1.005)	0.332	0.116	0.132
Lifestyle Segment 4 (Emotional Shoppers)	63	12.8	(-1.033)	(-0.902)	(-0.964)	(-0.606)
Lifestyle Segment 5 (Fashionista)	150	30.4	0.353	0.647	0.612	0.529

The first lifestyle segment of our study focused the strengths on the dual considerations of economical orientation and shopping enjoyment among consumers, moderately focused on fashion trends consciousness, and the weaknesses focused on brand value orientation. This segment sought to optimize their shopping experience by balancing expenditure and pleasure. It constituted 86 persons (17.4%) of our sample, prioritized both the affordability of products and their enjoyment of the shopping experience. So, this lifestyle segment was named as economical love shoppers.

The second lifestyle segment of consumers in this study was characterized by the strengths focus on economical orientation and brand value orientation, and the weaknesses focused on fashion trends consciousness and shopping enjoyment. It constituted 96 persons (19.4%) of the sample who prioritized affordable prices and value-added brands. This segment seeks to optimize the affordability of products, and brand equity. So, this lifestyle segment was named as value for money shoppers.

The third lifestyle segment of consumers exhibited a contrasting profile within the studied cohort. This segment demonstrated the weakness for economical orientation heightened strengths of interest in fashion trend consciousness, then followed by brand value orientation and shopping enjoyment. Constituted 99 persons (20.0%) of the sample, these individuals were motivated by the excitement of finding new products, keeping up with current trends, seeking new brands, receiving satisfaction from the shopping process, and were named as trendy buyers.

The fourth lifestyle segment consisted of 63 persons (12.8%) of the sample and was characterized by the weaknesses of interest in economical orientation, shopping enjoyment, fashion trends consciousness, and brand value orientation. These individuals prioritized emotional connections with products over economic considerations. While not particularly trend-focused, this lifestyle segment exhibited a strong desire to acquire products they emotionally connect with, irrespective of price. So, this lifestyle segment was named as emotional shoppers.

The last lifestyle segment of the study focused strengths of fashion trends consciousness, shopping enjoyment, and brand value orientation while also considering the weakness in economical orientation. It consisted of 150 persons (30.4%) of the sample, this lifestyle segment emerged as most passionately interested in current fashion trends, and was named as fashionista.

Step 4: Fashion lifestyle segmentation with demographics

When the researcher completed providing the lifestyle segments and factor mean values, it was time to combine all lifestyle segments into the demographics to look for the most focused percentages of each demographic in each lifestyle segment using a crosstab with eight demographics. The demographics included last time purchasing fashion, frequently purchasing fashion in the quarter, average money spent per month, personal income in baht per month, years of purchase fashion experience, age, gender, and career. These demographics also examined the Pearson Chi-square test with a significant level of 0.05 in **Table 9**. The outcome was found that overall demographics were significantly accepted except career with the significant level at 0478.

Table 9 Pearson Chi-square test for demographics

		5 Lifestyle Segments
Last Time Purchasing Fashion	Chi-square	33.061
	df	8
	Sig.	0.000*
Frequency Purchasing Fashion (in Quarter)	Chi-square	43.926
	df	8
	Sig.	0.000*
Average Money Spent (per Month)	Chi-square	27.357
	df	8
	Sig.	0.001*
Personal Income (Baht/Month)	Chi-square	16.525
	df	8
	Sig.	0.035*
Years of Purchase Fashion Experience	Chi-square	21.685
	df	4
	Sig.	0.000*
Age (years)	Chi-square	17.009
	df	4
	Sig.	0.002*

Table 9 Pearson Chi-square test for demographics (Cont)

								5 Lifestyle Segments			
Gender								Chi-square		29.248	
								df		8	
								Sig.		0.000*	
Career								Chi-square		3.498	
								df		4	
								Sig.		0.478	

The research conducted cross-frequency tests to analyze the demographics and behavioral characteristics of potential customers, aiming to discover the same and differences among five distinct lifestyle segments according to **Table 10**. The name was determined by considering all factors including the potential of lifestyle segments with the frequency of demographics.

Table 10 Fashion lifestyle segments and demographics

		5 Lifestyle Segments											
		Total		Economical Love Shoppers		Value for Money Shoppers		Trendy Buyers		Emotional Shopper		Fashionista	
		n	%	n	%	n	%	n	%	n	%	n	%
Last Time Purchasing Fashion	Total	494	100.0%	86	100.0%	96	100.0%	99	100.0%	63	100.0%	150	100.0%
< 1 weeks	165	33.4%	35	40.7%	30	31.3%	23	23.2%	11	17.5%	66	44.0%	
1-4 weeks	226	45.7%	29	33.7%	41	42.7%	58	58.6%	32	50.8%	66	44.0%	
1-3 months	103	20.9%	22	25.6%	25	26.0%	18	18.2%	20	31.7%	18	12.0%	
Frequency Purchasing	1-2 Times	160	32.4%	20	23.3%	35	36.5%	32	32.3%	38	60.3%	35	23.3%
Fashion (in Quarter)	3-4 Times	170	34.4%	31	36.0%	40	41.7%	32	32.3%	18	28.6%	49	32.7%
5 or more Times	164	33.2%	35	40.7%	21	21.9%	35	35.4%	7	11.1%	66	44.0%	
Average Money Spent (per Month)	500-999B	129	26.1%	25	29.1%	34	35.4%	22	22.2%	22	34.9%	26	17.3%
	1,000-2,000B	209	42.3%	41	47.7%	42	43.8%	39	39.4%	28	44.4%	59	39.3%
	>2,000B	156	31.6%	20	23.3%	20	20.8%	38	38.4%	13	20.6%	65	43.3%
Personal Income (Baht/Month)	<13,000	195	39.5%	40	46.5%	49	51.0%	30	30.3%	26	41.3%	50	33.3%
	13,000-25,000	223	45.1%	33	38.4%	37	38.5%	56	56.6%	26	41.3%	71	47.3%
	>25,000	76	15.4%	13	15.1%	10	10.4%	13	13.1%	11	17.5%	29	19.3%
Years of Purchase	<=3 Years	209	42.3%	32	37.2%	40	41.7%	51	51.5%	39	61.9%	47	31.3%
Fashion Experience	>3 Years	285	57.7%	54	62.8%	56	58.3%	48	48.5%	24	38.1%	103	68.7%
Age (years)	18-21	144	29.1%	39	45.3%	26	27.1%	24	24.2%	22	34.9%	33	22.0%
	22-29	350	70.9%	47	54.7%	70	72.9%	75	75.8%	41	65.1%	117	78.0%
Gender	Male	137	27.7%	13	15.1%	37	38.5%	32	32.3%	26	41.3%	29	19.3%
	Female	193	39.1%	45	52.3%	30	31.3%	35	35.4%	15	23.8%	68	45.3%
	LGBTQ+	164	33.2%	28	32.6%	29	30.2%	32	32.3%	22	34.9%	53	35.3%
Career	University Students	353	71.5%	65	75.6%	67	69.8%	76	76.8%	42	66.7%	103	68.7%
	Workers	141	28.5%	21	24.4%	29	30.2%	23	23.2%	21	33.3%	47	31.3%

For the first potential target customers, we provided the name of the lifestyle segment "fashionista" which consisted of 150 individuals of this segment. Many of these customers had engaged in last time purchasing with 44.0% for both less than one week and between one and four weeks, coming up with 12.0% between one and three months, frequently purchasing fashion with 44.0% making five or more times, coming up with 32.7% buying three or four times, and 23.3% purchasing once or twice. On average they spent fashion, over 2,000 baht monthly on shopping (43.3%) while 39.3% with spending between 1,000 and 2,000 baht, and 17.3% with spending between 500 and 999 baht per month. Regarding personal income, 47.3% earned between 13,000 and 25,000 baht annually while 33.3% earned less than 13,000 baht, and 19.3% earned above 25,000 baht. Most fashionista customers had more than three years of shopping experience (68.7%) with 31.3% having three years or less experience. The age range was outstandingly from 22 to 29 years 78.0% and 18 to 21 years old (22.0%), and gender with female customers being the gender group at 45.3%, followed by those identifying, as LGBTQ+ at 35.3% then male customers at 19.3%. In terms of their career, they mainly were university students (68.7%) and workers (31.3%).

For the second target potential customers, we found a unique lifestyle segment and named the trendy buyers, which made up 99 individuals of this segment. This lifestyle segment was recognized for their passion for shopping, exhibited habits in purchasing, and trends in spending. Many of these customers had engaged in last time purchasing with 58.6% between one and four weeks, coming up with 23.2% in less than one week, and 18.2% between one to three months. Almost 35.4% of this lifestyle segment made five or more purchases, whereas around 32.3% both made one to two purchases and made three to four purchases in frequently purchasing fashion. Their average monthly spent purchasing fashion spanned from between 1,000 and 2,000 baht (39.4%), coming with more than 2,000 baht (38.4%), and between 500 and 999 baht (22.2%). A considerable of personal income ranging from 13,000 to 25,000 baht, making up 56.6% of this segment, making up of less than 13,000 baht (30.3%), and then followed by more than 25,000 baht (13.1%). The segment included a year of experience in purchasing fashion products with less than or equal to three years (51.5%) and more than three years (48.5%). With age, individuals aged between 22 and 29 years old primarily made up 75.8%, followed by those between 18 and 21 years old (24.2%). The segment had a mixed gender composition, with primarily female customers (35.4%), followed by persons identifying as females and LGBTQ+ (32.3%). This lifestyle segment comprised university students (76.8%) and workers (23.2%), highlighting the worth of targeted marketing strategies that effectively reach this target.

For the third target potential customer, we found the lifestyle segment in the realm of online shopping with a specific focused on a subgroup, named value for money shoppers. The lifestyle segment consisted of 96 individuals of the segment exhibited buying patterns. Many of these customers had engaged in last time purchasing with 42.7% between one and four weeks, coming up with 31.3% in less than one week, and 26.0% between one to three months. These shoppers frequently purchased fashion between three to four times a month (41.7%), between one and two times (36.5%), and followed by five or more times (21.9%). The average money spent purchasing fashion primarily made up between 1,000 to 2,000 baht (43.8%), between 500 and 999 baht (35.4%), and followed by more than 2,000 baht (20.8%). While their personal income varied 51.0% earned up to 13,000 baht, between 13,000 and 25,000 baht (38.5%), followed by more than 25,000 baht (10.4%). Notably, a substantial portion of this subgroup boasted years of experience in purchasing fashion, with more than three years (58.3%) followed by less than or equal to three years (41.7%). Furthermore, an analysis revealed the age primarily between 22 to 29 years (72.9%) followed by between 18 and 21 years (27.1%). The gender had primarily male customers (38.5%) alongside a notable presence of females (31.3%) and followed by LGBTQ+ (30.2%). These discoveries also comprised

the university students (69.8%) and workers (30.2%), highlighted the unique attributes of value online shoppers, and offered valuable insights for crafting targeted marketing strategies, in the e-commerce landscape.

For the fourth target potential customer, we examined the purchasing patterns of this lifestyle segment and named economical love shoppers. The lifestyle segment consisted of 86 individuals of the segment. Many of these customers had engaged in last time purchasing with 40.7% in less than one week, coming up with 33.7% between one and four weeks, and 25.6% between one to three months. This lifestyle segment indicated several frequently purchasing fashion, with an outstanding having made five or more purchases (40.7%), between three and four purchases (36.0%), and followed by one and two purchases (23.3%). The average money spent purchasing fashion, revealed the variation within several intervals, notably between 1,000 and 2,000 baht (47.7%), between 500 and 999 baht (29.1%), and over 2,000 baht (23.3%). This lifestyle segment provided personal incomes ranging from 13,000 baht or less (46.5%) to a range of 13,000 to 25,000 baht (38.4%). The essential number of individuals fell within the income of more than 25,000 baht (15.1%). It also presented years of experience in purchasing fashion, with 62.8% indicating more than three years of experience, and 37.2% indicating less than three years of experience. Moreover, the age distribution tended towards certain age brackets, with 54.7% of individuals between 22 and 29, and between 18 and 21 (45.3%). Regarding the gender distribution, females made up 52.3% of the total, followed by those identifying as LGBTQ+ at 32.6%, and males at 15.1%. The distribution of careers among this lifestyle segment indicated that 75.6% were university students followed by workers (24.4%).

For the last target potential customer, we provided the name of the lifestyle segment emotional shoppers. The lifestyle segment consisted of 63 individuals of the segment when these customers demonstrated buying patterns. Many of these customers had engaged in last time purchasing with 50.8% between one and four weeks, coming up with 31.7% between one and three months, and 17.5% less than one week. While most of those frequently purchasing fashion products online had made between one and two purchases (60.3%), a notable percentage had completed between three and four purchases (28.6%). A smaller fraction had made five or more purchases (11.1%). On the average money spent purchasing fashion, they primarily spent between 1,000 and 2,000 baht (44.4%), between 500 and 999 baht (34.9%), and followed by over 2,000 baht (20.6%) on shopping. In personal income distribution, 41.3% earned both less than 13,000 baht and between 13,000 and 25,000 baht above 25,000 baht while 17.5% earned more than 25,000 baht. Additionally, their years of experience in purchasing fashion varied; about 61.9% had less than or equal to three years of experience while 38.1% had over three years. Regarding the age distribution, they mostly were between 22 and 29 years (65.1%) followed by between 18 and 21 years (34.9%). The gender was males who made up the majority (41.3%) followed by individuals identifying as LGBTQ+ (34.9%) and females (23.8%). The last were careers with university students (66.7%) and workers (33.3%).

Discussion

With the discussion, the researcher delved into the findings derived from studying how potential target customers for fashion products made purchases and their lifestyle segments. The research sought to pinpoint customer targets according to how they last time shopped, frequently shopped, spent money, personal income, background, age, gender, and career. By recognizing and understanding these characteristics of lifestyle segments, marketers could create tailored plans to connect efficiently and involve each segment.

Figure 4 represented a complete discussion of the five segments and characteristics of fashion lifestyles previously mentioned. These indicated various characteristic details regarding fashion lifestyle segments. According to the various fashion individuals, online retailers were able to figure out and comprehend various customer behavior patterns.

Fashion lifestyle segments and characteristics	Trendy Buyers (20.0%)	Economical Love Shoppers (17.4%)
	<ul style="list-style-type: none"> Focused on current trends, sought new brands, and received satisfaction from the shopping process University Students (18-21 years old) Female, Male, and LGBTQ+ Personal income 13,000-25,000 baht per month Last time purchasing 1-4 weeks Both frequently of purchasing and not often purchasing Spent 1,000-2,000 baht per month Online purchasing experiences less than 3 years 	<ul style="list-style-type: none"> Focused on affordability of products and enjoyed shopping University students (18-21 years old) Female Personal income less or equal to 13,000 baht Last time purchasing less than 1 week Frequently of purchasing Spent 1,000-2,000 baht per month Online purchasing experiences more than 3 years
	<ul style="list-style-type: none"> Fashionista (30.4%) 	<ul style="list-style-type: none"> Emotional Shoppers (12.8%)
	<ul style="list-style-type: none"> Focused mainly on the intersection of fashion trends and shopping preferences, while also considering elements like brand identification and price points University students (18-21 years old) Female Personal Income 13,000-25,000 per month Last time purchasing both less than 1 week and 1-4 weeks Frequently of purchasing Spent more than 2,000 baht per month Online purchasing experiences more than 3 years 	<ul style="list-style-type: none"> Strong desire to acquire products they emotionally connected with irrespective of price University students and workers (18-21 years old) Male Personal income both less than 13,000 baht and 13,000-25,000 baht per month Last time purchasing 1-4 weeks Not often purchasing Spent 1,000-2,000 baht per month Online purchasing experience less than 3 years
		<ul style="list-style-type: none"> Value for Money Shoppers (19.4%)
		<ul style="list-style-type: none"> Focused on affordability of products and brand equity University students and workers (18-21 years old) Male Personal Income less than 13,000 baht per month Last time purchasing 1-4 weeks Frequently of purchasing 3-4 times Spent 1,000-2,000 baht per month Online purchasing experiences more than 3 years

Figure 4 Fashion lifestyle segments and characteristics

In the discussion of the five lifestyle segments, the study findings highlighted trends in how consumers behaved and what they preferred as individuals leading distinct lifestyles reflected varying shopping habits and choices. The lifestyle segment identified as fashionistas, known for making purchases and spending generously on items of interest leaned heavily towards online shopping for convenience and variety. Similarly, the lifestyle segment known as trendy buyers, also showed a preference for shopping with a tendency for purchases and higher expenditure levels. On the other hand, value for money shoppers were active online and demonstrated a more cautious approach before spending, and focusing on value and deals.

However, the lifestyle segment known as economical love shoppers focused on economical purchases without fashion brands. They were averse to spending more on items they valued. Meanwhile, the emotional shoppers did not often purchase online fashion products but demonstrated a willingness to spend on products that evoked emotional connections.

The outcomes indicated that even though the lifestyle segmentation in online shopping had gained influence in the fashion industry. There were still consumer preferences and behaviors to consider. It was crucial to develop customized marketing approaches to connect with and captivate these customers through lifestyle segmentations effectively. Further studies should delve into the elements that shape the development of these lifestyle segments over time and also investigate how lifestyle segments could affect consumer actions.

Conclusion

In conclusion, our study examined the online behaviors of Generation Y consumers, with a specific emphasis on young individuals. Our approach involved various approaches to accomplish several goals. Firstly, we aimed to identify particular characteristics among various fashion lifestyle segments. Secondly, we sought to clarify by applying discriminant analysis how to determine the desired amount of segments before clustering. Lastly, we applied clustering techniques to separate these fashion lifestyles into segments and presented our findings. Our study represented an invaluable contribution to the field by addressing an important gap in the existing literature and providing valuable insights into a relevant managerial subject matter. This technique discovered four factors: economical orientation, fashion trends consciousness, shopping enjoyment, and brand value orientation. Subsequently, we employed a technique known as clustering to survey individuals and determine the most suitable number of lifestyle segments. The five segments were fashionista (30.4%), trendy buyers (20.0%), value for money shoppers (19.4%), economical love shoppers (17.4%), and emotional shoppers (12.8%).

Limitation of study

Our study described shopping online segments for fashion products. The demographic profile consisted of Generation Y, specifically young Thai buyers aged 18 to 29 years. This group involved students aged 18 to 21 years and first jobbers aged 22 to 29 years who engaged in online fashion purchasing in Bangkok, Thailand. The approach employed to distinguish the factors into lifestyle dimensions was referred to as the identifying group's particular characteristics technique. This research had set the foundation to discuss the characteristics of lifestyle segments to categorize fashion shoppers. Further studies should delve into understanding the needs and desires of target customers to develop marketing strategies that enhanced customer engagement and loyalty.

References

Agrawal, D. K. (2023). Increasing digital dissemination and online apparel shopping behaviour of Generation Y. *Journal of Fashion Marketing and Management: An International Journal*, 28(1), 28-44. <https://doi.org/10.1108/JFMM-03-2022-0072>

Akroush, M. N., & Mahadin, B. K. (2019). An intervariable approach to customer satisfaction and loyalty in the internet service market. *Internet Research*, 29(4), 772-798. <https://doi.org/10.1108/IntR-12-2017-0514>

Bakewell, C., & Mitchell, V. W. (2003). Generation Y female consumer decision-making styles. *International journal of retail & distribution management*, 31(2), 95-106. <https://doi.org/10.1108/09590550310461994>

Bento, M., Martinez, L. M., & Martinez, L. F. (2018). Brand engagement and search for brands on social media: Comparing Generations X and Y in Portugal. *Journal of Retailing and Consumer Services*, 43, 234-241. <https://doi.org/10.1016/j.jretconser.2018.04.003>

Bilgihan, A. (2016). Gen Y customer loyalty in online shopping: An integrated model of trust, user experience and branding. *Computers in human behavior*, 61, 103-113. <https://doi.org/10.1016/j.chb.2016.03.014>

Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2001). *Consumer behavior* (9th ed.). South-Western Thomas Learning.

Bolton, R. N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., ... & Solnet, D. (2013). Understanding Generation Y and their use of social media: a review and research agenda. *Journal of service management, 24*(3), 245-267.

Ciba, K. (2023, November 19). *E-commerce in Thailand – statistics & facts*. Statista. <https://www.statista.com/topics/6939/e-commerce-in-thailand/>

Consumer Report Thailand. (2023). *Standard Insights*. <https://standard-insights.com/consumer-reports/thailand-2023/>

Dietz, J. (2003). Defining markets, defining moments: America's 7 generational cohorts, their shared experiences, and why businesses should care. *Journal of Consumer Marketing, 20*(2), 172-173. <https://doi.org/10.1108/07363760310464622>

Dimock, M. (2019). *Defining generations: Where Millennials end and Generation Z begins*. Pew Research Center. <https://www.pewresearch.org/short-reads/2019/01/17/where-millennials-end-and-generation-z-begins/>

Du Preez, R., Visser, E. M., & Zietsman, L. (2007). Profiling male apparel consumers: lifestyle, shopping orientation, patronage behaviour and shopping mall behaviour. *Management Dynamics: Journal of the Southern African Institute for Management Scientists, 16*(1), 2-19. <https://hdl.handle.net/10520/EJC69721>

Export.gov. (2019). *Thailand – eCommerce*. legacy. <https://legacy.export.gov/article?id=Thailand-eCommerce>

Gonzalez, A. M., & Bello, L. (2002). The construct “lifestyle” in market segmentation: The behaviour of tourist consumers. *European journal of marketing, 36*(1/2), 51-85. <https://doi.org/10.1108/03090560210412700>

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis*. Pearson Education.

Hall, A., Towers, N., & Shaw, D. R. (2017). Understanding how millennial shoppers decide what to buy: Digitally connected unseen journeys. *International Journal of Retail & Distribution Management, 45*(5), 498-517. <https://doi.org/10.1108/IJRDM-11-2016-0206>

Himmel, B. (2008). *Different strokes for different generations*. Forconstructionpros. <https://www.forconstructionpros.com/business/business-services/article/10295181/signature-world-wide-different-strokes-for-different-generations>

Huang, Y., Liu, H., Li, W., Wang, Z., Hu, X., & Wang, W. (2020). Lifestyles in Amazon: Evidence from online reviews enhanced recommender system. *International Journal of Market Research, 62*(6), 689-706. <https://doi.org/10.1177/1470785319844146>

Hung, K. P., Huiling Chen, A., Peng, N., Hackley, C., Amy Tiwsakul, R., & Chou, C. L. (2011). Antecedents of luxury brand purchase intention. *Journal of Product & Brand Management, 20*(6), 457-467. <https://doi.org/10.1108/10610421111166603>

International Trade Administration. (2024). *Thailand – Country Commercial Guide: eCommerce*. Trade. <https://www.trade.gov/country-commercial-guides/thailand-e-commerce>

Israel, G. D. (1992). *Determining sample size*. University of Florida. <https://www.tarleton.edu/academicassessment/wp-content/uploads/sites/119/2022/05/Samplesize.pdf>

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and psychological measurement, 20*(1), 141-151. <https://doi.org/10.1177/001316446002000116>

Kemp, S. (2024). *Digital 2024: Thailand*. DataReportal. <https://datareportal.com/reports/digital-2024-thailand>

Kim, A. J., & Johnson, K. K. (2016). Power of consumers using social media: Examining the influences of brand-related user-generated content on Facebook. *Computers in human behavior, 58*, 98-108. <https://doi.org/10.1016/j.chb.2015.12.047>

Klecka, W. R. (1980). *Discriminant analysis* (Vol. 19). Sage.

Kucukemiroglu, O. (1999). Market segmentation by using consumer lifestyle dimensions and ethnocentrism: An empirical study. *European Journal of Marketing*, 33(5/6), 470-487. <https://doi.org/10.1108/03090569910262053>

Ladzhari, R., Gonthier, J., & Lajante, M. (2019). Generation Y and online fashion shopping: Orientations and profiles. *Journal of retailing and Consumer Services*, 48, 113-121. <https://doi.org/10.1016/j.jretconser.2019.02.003>

Lawson, R. A. (1980). Discriminant analysis—an aid to market segment description. *European Journal of Marketing*, 14(7), 387-396. <https://doi.org/10.1108/EUM0000000004914>

Michon, R., Chebat, J. C., Yu, H., & Lemarié, L. (2015). Fashion orientation, shopping mall environment, and patronage intentions: A study of female fashion shoppers. *Journal of Fashion Marketing and Management*, 19(1), 3-21. <https://doi.org/10.1108/JFMM-09-2012-0055>

Noble, S. M., Haytko, D. L., & Phillips, J. (2009). What drives college-age Generation Y consumers? *Journal of business research*, 62(6), 617-628.

Ordun, G. (2015). Millennial (Gen Y) consumer behavior their shopping preferences and perceptual maps associated with brand loyalty. *Canadian social science*, 11(4), 40-55. <https://doi.org/10.3968/6697>

Park, H. H., & Sullivan, P. (2009). Market segmentation with respect to university students' clothing benefits sought: Shopping orientation, clothing attribute evaluation, and brand repatronage. *International Journal of Retail & Distribution Management*, 37(2), 182-201. <https://doi.org/10.1108/09590550910934308>

Rahulan, M., Troynikov, O., Watson, C., Janta, M., & Senner, V. (2015). Consumer behavior of generational cohorts for compression sportswear. *Journal of Fashion Marketing and Management*, 19(1), 87-104. <https://doi.org/10.1108/JFMM-05-2013-0072>

SABUNCU, İ., TÜRKAN, E., & POLAT, H. (2020). Customer segmentation and profiling with RFM analysis. *Turkish Journal of Marketing*, 5(1), 22. <http://dx.doi.org/10.30685/tujom.v5i1.84>

Stella, O. (2019). Discriminant analysis: An analysis of its predictship function. *Journal of Education and Practice*, 10(5), 50-57. <https://doi.org/10.7176/JEP/10-5-04>

Sung, H., & Jeon, Y. (2009). A profile of Koreans: who purchases fashion goods online?. *Journal of Fashion Marketing and Management: An International Journal*, 13(1), 79-97. <https://doi.org/10.1108/13612020910939897>

Talaat, R. M. (2022). Fashion consciousness, materialism and fashion clothing purchase involvement of young fashion consumers in Egypt: the mediation role of materialism. *Journal of Humanities and Applied Social Sciences*, 4(2), 132-154. <https://doi.org/10.1108/JHASS-02-2020-0027>

Valentine, D. B., & Powers, T.L. (2013). Generation Y values and lifestyle segments. *Journal of consumer marketing*, 30(7), 597-606. <https://doi.org/10.1108/JCM-07-2013-0650>

van Breukelen, G. J., & Candel, M. J. (2012). Calculating sample sizes for cluster randomized trials: we can keep it simple and efficient!. *Journal of clinical epidemiology*, 65(11), 1212-1218. <https://doi.org/10.1016/j.jclinepi.2012.06.002>

Williams, K. C., & Page, R. A. (2011). Marketing to the generations. *Journal of Behavioral Studies in Business*, 3(1), 37-53.