The Influence of Perceived Differentiation of Used Car Dealers in San Pa Tong District, Chiang Mai Province: A Comparative Analysis across Occupation, Salary, and Car Price

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Abstract

This study aims to explore the role of customer perceived differentiation in influencing consumers' intention to purchase used cars from dealerships in San Pa Tong District, Chiang Mai Province, Thailand. This study employs a quantitative, cross-sectional research design, and data were collected from 354 respondents through structured surveys. Using exploratory factor analysis, three key factors were identified as critical to consumers' decision-making: attractiveness, accessibility, and assurance. The findings indicate that consumers' occupation significantly affects all three factors, while consumers' salary only shows a significant effect on assurance. The study also utilizes ANOVA and t-test analyses to examine differences across demographic segments. Furthermore, ANOVA and t-test analyses were conducted to examine significant differences across demographic segments, revealing that car price generally impacts these factors, with accessibility being particularly sensitive to price variations. These insights provide practical guidance for used car dealers to tailor marketing strategies in an increasingly digital and competitive marketplace. For academics, this study contributes to the literature by proposing an alternative perspective on customer perceived differentiation in the used car market, especially in a developing country context, and suggests avenues for further empirical validation and theoretical development.

Keywords: Customer perceived differentiation, Exploratory factor analysis, Used car dealers

Introduction

The Thai used car market represents a significant economic segment with a projected valuation of approximately USD 5.46 billion by 2025. This market is structurally characterized by a considerably larger dealer base, encompassing over 6,500 used car dealerships a number 2.4 times exceeding that of new car dealers (Paykanon 2023; Mordor Intelligence 2024).

Within this competitive landscape, perceived differentiation plays a critical role in attracting and retaining customers by enabling businesses to emphasize distinct attributes such as product appeal, service quality, pricing transparency, and brand credibility. From a theoretical

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standpoint, differentiation is conceptualized as the process through which firms distinguish their offerings to create superior customer value (Porter, 1985; Kotler & Keller, 2016). This strategic imperative is particularly salient for used car dealers operating in highly competitive areas such as San Pa Tong District, Chiang Mai Province, where businesses confront challenges related to price sensitivity, consumer trust, and intensified competition. As global automotive markets evolve, the importance of differentiation strategies continues to grow, driven by increasing consumer sophistication and heightened competition in the digital marketplace (Kumar, Dixit, Javalgi, & Dass, 2020).

San Pa Tong District was strategically selected as the focal site of this study due to its emerging role as a key secondary market within Chiang Mai's used car ecosystem. Its favorable geographic location and steady demographic growth home to approximately 74,200 residents and ranking as the province's twelfth-largest administrative unit constitute a sizable and demographically relevant consumer base (Chiang Mai Provincial Statistical Office, 2022). The district's economy, rooted in agriculture and increasingly shaped by residential expansion, sustains consistent demand for cost-effective, utilitarian pre-owned vehicles aligned with local income levels and usage needs (Dealer.com, n.d.).

Functioning as a complementary counterpart to Chiang Mai's primary urban automotive sector, San Pa Tong hosts five established used car dealerships that primarily serve price-sensitive consumers who prioritize utility, affordability, and durability over luxury or advanced features (Cassy, 2024; Dealer.com, n.d.). This intermediary role not only enhances regional market segmentation and consumer reach but also contributes meaningfully to the continued expansion of Thailand's secondary automobile sector amid shifting macroeconomic conditions and evolving buyer behavior. Further substantiating its relevance, online platforms such as One2car routinely list 32–35 used vehicles from local dealers, reflecting steady commercial activity in the district (One2car, n.d.). While minor fluctuations in dealership count may occur, authoritative business registries confirm five used car dealers as the current operational total (Dun & Bradstreet, n.d.).

Although widely studied in general marketing contexts, differentiation has received limited attention in localized, developing market settings such as Thailand's used car industry. San Pa Tong District in Chiang Mai Province serves as a compelling case study for exploring differentiation strategies in Thailand's used car market. The region's unique market dynamics, characterized by a mix of urban and rural consumer behaviors (San Pa Tong District Agricultural Extension Office, n.d.), underscores the importance of addressing specific challenges through strategic initiatives. For instance, dealerships must navigate issues such as maintaining affordability while ensuring quality and trustworthiness in transactions. Differentiation, therefore, plays a vital role in addressing these challenges by enhancing customer perceptions of value, reliability, and after sales service (Nguyen & Simkin, 2022).

This study contributes academically by filling a research gap in the understanding of customer perceived differentiation within the secondary used car market in a developing country context. It proposes a novel framework identifying three key differentiation factors attractiveness,

accessibility, and assurance tailored to regional consumer segments. By integrating demographic segmentation with differentiation analysis, this research advances theoretical knowledge and provides a basis for future empirical studies on consumer behavior in emerging markets.

This paper employs ANOVA analysis to examine whether consumer groups segmented by occupation, salary, and car price differ in their perceptions of these differentiation factors. This approach is justified by prior research indicating that consumer demographics and socioeconomic factors significantly influence buying behavior and perceptions, which is crucial for tailoring marketing strategies effectively (Kumar, 2013a; Kotler & Keller, 2016).

Moreover, the criteria used for grouping customers occupation, salary, and car price are selected based on their significant influence on consumer purchasing behavior as evidenced in previous studies (Kumar, 2013b; Kotler & Keller, 2016). These variables provide meaningful segmentation to better understand how different consumer groups perceive differentiation factors in the used car market. Clarifying this rationale helps strengthen the coherence between the study's theoretical framework and practical implications.

The main objective of this study is to examine the key factors of perceived differentiation in shaping consumer buying behavior within the used car market of San Pa Tong District. Specifically, it explores the effects of consumer's occupation, salary, and car price on consumer's intention to purchase a used car. By focusing on this regional market, the research sheds light on the implications of differentiation strategies for the broader Thai used car industry, contributing valuable insights for both academic and practical applications.

This paper is organized into five sections. The first section presents a literature review, outlining the theoretical foundation and existing research on differentiation strategies and consumer behavior in the used car industry. The second section describes the methodology, including research design, data collection, and analysis techniques. The results section presents the key findings, followed by a discussion of their implications for dealers. Finally, the conclusion and suggestion section summarize the study's contributions, highlights its limitations, and offers directions for future research. Suggestions for both the academics and the business practitioners are then presented.

Purpose

This study aims to identify three core dimensions of customer perceived differentiation attractiveness, accessibility, and assurance derived through exploratory factor analysis (EFA) from consumers' evaluations of used car dealerships. It further investigates how these differentiation factors are perceived differently across consumer segments categorized by occupation, monthly salary, and car price using ANOVA and t-test methods. The ultimate goal is to provide empirical insights into how these segmentation variables influence consumer decision-making, thereby supporting the development of more targeted and effective marketing strategies of car dealers within the Thai used car market.

Literature Review

Conceptual Foundations of Differentiation in Marketing

Differentiation has been studied by researchers. Porter (1980, 1985) suggested that differentiation is a fundamental marketing strategy that enables firms to create competitive advantages in fragmented and price-sensitive markets such as the used car industry. McGee (2014) defines differentiation as the extent to which a product or service is perceived as unique in a given market, while Levitt (1980) emphasizes both tangible aspects, such as product quality and service offerings, and intangible factors, such as brand reputation and trust. Differentiation can be achieved through creating uniqueness drivers in five possible ways: product differentiation, pricing differentiation, distribution differentiation, promotional differentiation, and brand differentiation (Hooley et al. 2017, 245-253).

In the car market, the prominence of a brand and the presence of online reviews play a crucial role in shaping consumer decision-making process, which may be related to the customer perceived distinction among comparable vehicles (Zhang, 2025).

In the context of used car markets, particularly in emerging economies, differentiation also serves as a means to build consumer confidence by addressing uncertainties related to quality, pricing, and post-sale services (Chatterjee et al., 2023). This conceptual basis establishes the theoretical relevance of differentiation to consumer purchasing behavior in secondary markets.

For the used car or pre-owned market context, Singh & Singh, 2024, examines the impact of salary categories on consumer purchasing behavior, particularly in the context of pre-owned automobiles. It categorizes individuals based on their income levels, demonstrating that elevated salaries are associated with a predilection for more costly, dependable vehicles, whereas lower salaries tend to result in selections that prioritize cost-effectiveness and practicality. Similarly, Yurko, A. (2008) posits that an increase in income inequality is Associate with a predominance of older vehicle inventories, implying that consumers with lower income levels are more inclined to acquire older pre-owned automobiles. In contrast, elevated average income levels are linked to a higher prevalence of younger vehicle inventories, thereby affecting the categorization of used automobiles in relation to income tiers. Likewise, Johnson (1978) asserts that income substantially affects automobile ownership and acquisitions, with increased income correlating to a preference for newer, higher-value vehicles. Nevertheless, it lacks a detailed examination of the connection between salary tiers and occupation-driven used car selections.

In Thailand, consumers study factors such as recommendations from friends, the fame of car dealers, customer service quality, and marketing mix components and staff interactions as significant influences in their decision-making process for purchasing used cars (Aujirapongpan et al., 2014). While these studies provide useful insights into consumer behavior, few have examined how Thai consumers interpret differentiation strategies holistically across various service and product attributes in the dealership context.

In imperfect markets where information asymmetry exists, such as the used car sector, differentiation reduces consumer uncertainty and enhances perceived value. Firms that emphasize non-price factors, such as service quality, transparent pricing, and branding, can foster customer loyalty and reduce their reliance on price competition (Porter, 1980). This is particularly important in the Thai used car market, where consumer decisions are influenced by dealership credibility and financing options.

Marketing Mix Frameworks

As figure 1 shows, marketing Mix (4Ps) model product, price, place, and promotion has historically been a cornerstone of marketing strategy (Perreault, Cannon, & McCarthy (2015, 39; Armstrong, Kotler, & Opresnik (2020, 79). Major marketers' strategic decision dimensions are usually classified by the marketing mix (four Ps).
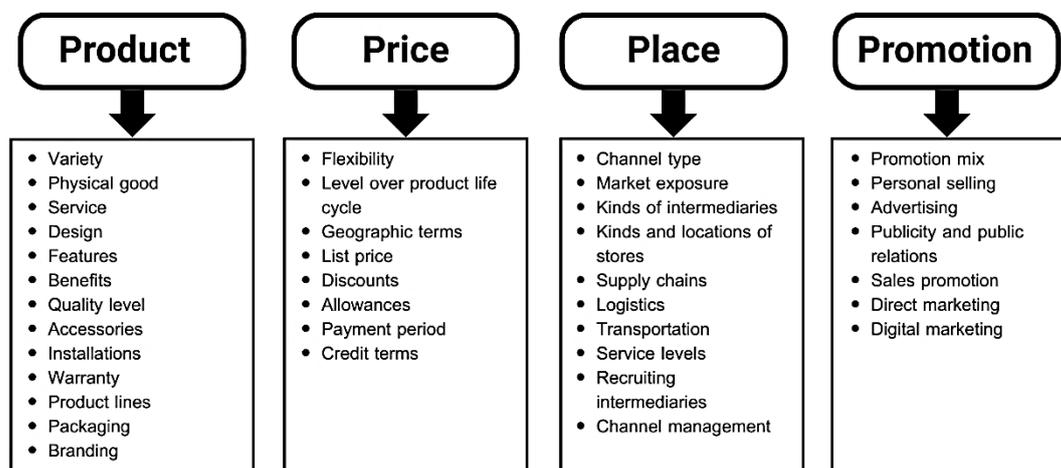
Product	**Price**	**Place**	**Promotion**
• Variety • Physical good • Service • Design • Features • Benefits • Quality level • Accessories • Installations • Warranty • Product lines • Packaging • Branding	• Flexibility • Level over product life cycle • Geographic terms • List price • Discounts • Allowances • Payment period • Credit terms	• Channel type • Market exposure • Kinds of intermediaries • Kinds and locations of stores • Supply chains • Logistics • Transportation • Service levels • Recruiting intermediaries • Channel management	• Promotion mix • Personal selling • Advertising • Publicity and public relations • Sales promotion • Direct marketing • Digital marketing

Figure 1 Marketing Mix Elements (the Four Ps- product, price, place, and promotion)

Source: Adapted from Perreault, W. D., Cannon, J. P., & McCarthy, E. J. (2015). Essentials of marketing: a marketing strategy planning approach (14th ed.). McGraw-Hill, 39; Armstrong, G., Kotler, P., & Opresnik, M.O. (2020). Marketing: an introduction. (14th ed.) Pearson, 79.

Traditionally, career success of professional marketers largely relies on managing these marketing mix elements in the chosen target market(s). Since 1960s, researchers have commonly used the marketing mix model in their studies, both in the global studies and in Thailand. For example, marketing mix together with behavioral science can be applied to drive desirable customer responses (Harhut, 2022). Moreover, in the Southeast Asian construction industry, researchers had studied the perceived brand equity and marketing mix factors affecting the purchase intention of Insee, Thailand's major cement brand, ready-mixed concrete for the construction contractor operators in Chaiyaphum, northeastern province of Thailand (Thaiprom, et al. 2021).

Consumer Behavior and Market Dynamics of the used car market in Thailand

The Thai used car market is primarily driven by consumer behaviors that emphasize affordability, dealership reputation, and flexible financing, rather than advanced vehicle features or digital convenience. Price sensitivity remains a dominant factor, with many buyers opting for direct negotiations over algorithm-based pricing models (Thailand Automotive Institute, 2024). Trust in dealership credibility is also paramount, as concerns about vehicle quality lead consumers to rely heavily on personal recommendations and long-standing local dealers rather than digital certification systems (Pattarakultanased, 2024). Moreover, installment-based financing, often arranged by dealers, is significantly more prevalent than digital leasing or direct bank loans models that are more common in Western markets (Thonsiripunnarote, 2021).

These national trends are particularly evident in San Pa Tong District, Chiang Mai Province, where the used car dealership landscape is composed predominantly of small-scale, often family-run enterprises. The district's rural, agriculture-centric economy creates sustained demand for budget-friendly, durable vehicles tailored to farming and small business needs. As a result, local consumers demonstrate heightened price sensitivity and place strong emphasis on utility, affordability, and reliability (Lotlinx, 2024). These preferences are closely aligned with the socio-economic profile of San Pa Tong's moderate-income, agriculturally based population, reinforcing the district's strategic importance within Thailand's secondary automotive market.

Technological Disruptions: Adoption vs. Hesitation

Although digital transformation has reshaped the global used car market, adoption in Thailand remains gradual. Platforms like Carsome and Kaidee Auto have introduced AI-driven vehicle inspections, real-time bidding systems, and certified dealer programs, but traditional face-to-face negotiations still play a central role in consumer decision-making (Carsome Thailand, 2022). Moreover, the growing popularity of electric vehicles (EVs) introduces new challenges, as Thailand lacks standardized battery lifespan assessments and comprehensive EV warranty policies, limiting consumer confidence in purchasing second-hand EVs (Than Settakij, 2023).

Strategic Implications for Thai Used Car Dealers

To remain competitive, Thai used car dealers must adapt global best practices while catering to local preferences. Investing in hybrid sales models combining digital tools with in-person negotiations can bridge the gap between global innovations and Thai consumer expectations. Enhancing dealership credibility through stronger warranty policies, transparent financing options, and customer service will further build trust. As the market evolves, understanding these differences is key to creating a sustainable and consumer-focused business strategy in Thailand's unique used car landscape.

Research Gaps and Justification

Despite the growing body of research on used car markets, significant gaps remain regarding differentiation strategies in regional Thai markets. Existing studies primarily focus on two aspects, Firstly, macroeconomic trends and dealership financial performance, with limited insights into consumer trust and brand differentiation. Secondly, pricing trends, while neglecting the role

of service quality and dealership reputation in consumer decision-making. the impact of digital marketing and online platforms on Thai consumer behavior in the Thai used car market remains understudied.

Moreover, the impact of digital marketing and online platforms on Thai consumer behavior in the used car market remains understudied, especially how these developments intersect with consumer perceptions of differentiation. Focusing on San Pa Tong District, this study provides a localized perspective to address these gaps and captures market-specific variables often overlooked in nationwide or urban-centric studies.

This study aims to bridge these gaps by investigating how consumer perceived differentiation affects consumer intention to purchase in secondary car markets. This study contributes both to academic literature and industry applications, offering strategic recommendations for used car dealerships to strengthen their competitive positioning in an increasingly digitalized market.

Methodology

Research Design

This study employs a quantitative, cross-sectional research design to examine consumer behavior in purchasing used cars from second-hand dealerships in San Pa Tong District, Chiang Mai Province. The data collection method consists of structured surveys administered to consumers who have either purchased or considered purchasing a used vehicle from local dealerships. The research questionnaire comprises four sections. The first part is composed of general information of respondents (demographics such as age, occupation, income). The second one involves questions about consumer behavior and preferences in used car purchases. The following section examines marketing mix factors influencing purchasing decisions: product, price, place, and promotion, based on Armstrong and Kotler (2020), and Perreault et al. (2015). Product factors comprise questions regarding variety of car brands, car models, vehicle age, low mileage, engine sizes, colors, fuel systems, transmission systems, internal and external conditions, full functionality of internal equipment, car dealers' services, warranty and after-sales service, and dealer reputation. Price factors involve questions concerning perceived appropriateness of car pricing, interest rates for installment payments, payment-related considerations, service fees, and future resale value. Place factors include questions about accessibility of car dealerships, such as suitability of operating hours, convenient location, contact channels, signage visibility, adequacy of parking facilities, and comfort and appearance of customer reception areas. Promotion factors encompass used car dealers' advertising and media coverage, staff trustworthiness, appearance, politeness, and knowledge, as well as pre-sale and after-sale services and sales promotions. The final section solicits additional comments and feedback.

Sample Size Determination and Sampling Method

The target population consists of residents of San Pa Tong District who have experience purchasing a used car. Using Cochran's sample size formula, the required sample size was determined as 390 and then 354 usable respondents are collected, ensuring adequate statistical power and generalizability of results (McShane et al., 2024). The questionnaire was distributed both in person at dealerships and online through social media platforms frequented by used car buyers in the region.

Results

Demographic information of 354 participants in this study is as follows. Most of them are male (roughly 79 percent). Almost half of the participants' age is between 40-44 years or less. Regarding their occupations, around 43 percent of them are farmers, and about one-third of them are business owners/merchants, general contractors and freelancers, and around 21 percent of them are government officers/ state enterprise employee/civil servant, and private company employee. For participants' education background, most of them (68 percent) receive their junior/senior high school diplomas, and 32 percent hold bachelor's degrees or higher. Approximately, three quarters of them are married, and most of them live with family members of five people and more. Most participants (more than 57 percent) have a monthly income of 30,000 Baht or less.

Regarding the overall 49 variables in the original marketing mix (four Ps) elements in this study, thirty-two crucial variables are selected, and three factors are extracted based on statistical importance.

As table 1 indicates, the result of Kaiser-Meyer-Olkin (KMO) measure of sampling is .761, and statistically significant at .000 level. Theoretically, KMO level, which is less than .05, is considered statistically significant (Malhotra 2020).

Although the Marketing Mix is a well-established and extensively studied framework, our research adapts it to a specific context used car dealers in San Pa Tong District, Chiang Mai Province. Given the contextual specificity and potential cultural or market-specific variations, it was essential to verify whether the traditional dimensions of the Marketing Mix (product, price, place, promotion, people, process, and physical evidence) align with the perceptions of respondents in this local market.

The Exploratory Factor Analysis (EFA) was conducted to explore the underlying factor structure and to assess whether new dimensions emerged or existing ones behaved differently in this context. This approach is justified in studies that aim to refine or adapt theoretical models for application in unique settings, particularly where consumer expectations, business practices, and competitive dynamics may diverge from the original assumptions underpinning the framework.

The use of EFA therefore ensures the validity and reliability of the constructs in this localized setting, supports theory refinement, and enhances the practical applicability of the findings. The explanation has been added to the methodology section to reflect this reasoning.

Our findings suggest three main extracted factors from exploratory factor analysis (EFA) method. These factors are attractiveness, accessibility, and assurance, respectively. The first factor, attractiveness, refers to the variety, presentation, and perceived value that make the product desirable to customers. The second one, accessibility, involves optimizing accessibility and financial convenience. The last factor, assurance, reflects facilitating ownership and after-sales support from a used car dealer. Overall, these three extracted factors comprise 32 important items of which seem crucial to a consumer perception of differences in each used car dealer when making a purchase decision (as shown in Table 2).

Table 1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.761
Bartlett's Test of Sphericity Test	Approx. Chi-Square	17261.451
	Degree of Freedom	1176
	Significance	.000

Table 2 Exploratory Factor Analysis (EFA) Output

Items	Dimension		
	Attractiveness (14 items)	Accessibility (8 items)	Assurance (10 items)
Q1. Variety of car models	0.798		
Q2. Variety of car brands	0.776		
Q3. Mileage of available cars	0.750		
Q4. Advertising through media	0.744		
Q5. Clean and organized showroom	0.742		
Q6. Availability of additional car images	0.739		
Q7. Full set of accessories	0.719		
Q8. Salesperson's credibility	0.710		
Q9. Interior condition of the car	0.680		
Q10. Suitable opening and closing hours	0.652		
Q11. Exterior condition of the car	0.641		
Q12. Range of manufacturing years	0.631		
Q13. Variety of car colors	0.625		
Q14. Cash discounts	0.605		
Q15. Convenient and easy-to-find location		0.873	
Q16. Clearly visible signage		0.861	
Q17. Sufficient and spacious parking		0.825	
Q18. Interest rate		0.790	
Q19. Installment period		0.778	

Table 2 Exploratory Factor Analysis (EFA) Output (Count.)

	Dimension		
Items	Attractiveness (14 items)	Accessibility (8 items)	Assurance (10 items)
Q20. Pre-sales and post-sales consultation		0.758	
Q21. Trade-in service for customer's car		0.691	
Q22. Variety of engine sizes		0.626	
Q23. Warranty			0.743
Q24. Reputable business location			0.734
Q25. Free ownership transfer			0.728
Q26. Ownership transfer service			0.722
Q27. Processing fee			0.713
Q28. Knowledgeable and skilled staff			0.698
Q29. Off-site sales service			0.694
Q30. Loan assistance service			0.662
Q31. Test drive before purchase			0.656
Q32. Location near residential area			0.601

ANOVA was then used to examine whether consumers in different occupational groups may exhibit attractiveness, accessibility, and assurance differently. This study re-groups into three groups which are (1) Farmer, (2) Business Owner/Merchant, General Contractor and Freelancer, and (3) Government Officer/State Enterprise Employee/Civil Servant, and Private Company Employee.

Table 3 ANOVA of three extracted factors in relation to Occupation

		Sum of Squares	Mean	F	Sig.
Attractiveness	Between Groups	22.999	11.500	133.051	.000*
	Within Groups	29.818	.086		
	Total	52.818			
Accessibility	Between Groups	20.970	10.485	100.476	.000*
	Within Groups	36.002	.104		
	Total	56.972			
Assurance	Between Groups	2.821	1.411	40.603	.000*
	Within Groups	11.986	.035		
	Total	14.807			

Note: * Statistically significant at the 0.05 level.

From table 3, we can conclude that a consumer's occupation may influence all three extracted factors, attractiveness, accessibility, and assurance at .000 level of significance. This

means that a consumer in different occupations perceives attractiveness, accessibility, and assurance factors differently at .000 level of significance.

Table 4 Post Hoc test of three extracted factors in relation to Occupation

Dependent Variable	(I) occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.
Attractiveness	1	2	-.36076*	.03566	.000**
	1	3	-.65665*	.04186	.000**
	2	3	-.29589*	.04344	.000**
Accessibility	1	2	.54381*	.03918	.000**
	1	3	.12080*	.04600	.009**
	2	3	-.42301*	.04773	.000**
Assurance	1	2	.07639*	.02261	.001**
	1	3	.23918*	.02654	.000**
	2	3	.16279*	.02754	.000**

Note: * 1 refers to Farmer

2 refers to Business Owner/Merchant, General Contractor and Freelancer

3 refers to Government Officer/State Enterprise Employee/Civil Servant, and Private Company Employee

**. The mean difference is significant at the 0.05 level.

As Table 4 shows, our further analysis using Post Hoc test confirms that a consumer's occupation significantly influences all three extracted factors at a significance level less than 0.05.

Specifically, for attractiveness, farmers (Group 1) perceive this factor significantly lower than business owners/merchants (Group 2) and government/private company employees (Group 3), with mean differences of -0.36 and -0.66 respectively. This indicates that farmers view the attractiveness of used cars less strongly compared to the other groups.

Regarding accessibility, business owners/merchants (Group 2) rate this factor higher than both farmers (Group 1) and government/private employees (Group 3), with mean differences of 0.54 and -0.42 respectively. This suggests accessibility considerations vary notably by occupation.

For assurance, government/private employees (Group 3) perceive assurance as more important than farmers (Group 1) and business owners/merchants (Group 2), with mean differences of 0.24 and 0.16 respectively, highlighting a stronger emphasis on assurance in this group.

These results provide valuable insight into how perceived differentiation varies across occupational groups, supporting the need for occupation-specific marketing strategies.

T-test was then applied to assess the mean differences of attractiveness, accessibility, and assurance among two groups of salary, namely (1) salary of 30,000 Baht or less per month, and (2) salary of 30,001 Baht or more per month.

These results provide valuable insight into how perceived differentiation varies across occupational groups, supporting the need for occupation-specific marketing strategies.

Table 5 t-test of three extracted factors in relation to Salary

		t-test for Equality of Means		
		Sig. (2-tailed)	Mean	Std. Error Difference
Attractiveness	Equal	variances .177	-.05671	.04196
	Unequal	variances .175	-.05671	.04167
Accessibility	Equal	variances .115	-.06839	.04328
	Unequal	variances .115	-.06839	.04331
Assurance	Equal	variances .045*	-.04524	.02253
	Unequal	variances .036*	-.04524	.02151

Note: Salary is divided into two groups:

Group 1 refers to a salary of 30,000 Baht or less per month.

Group 2 refers to a salary of 30,001 Baht or more per month.

* Refers to statistical differences of Mean at .05 level.

From the T test in Table 5, we can conclude that a consumer's salary only affects only assurance. Specifically, only assurance can be influenced by a consumer's salary with p less than .005, whereas others extracted factors (attractiveness and accessibility) may not be influenced by a consumer salary.

ANOVA was then used to examine whether consumers in different ranges of car prices may exhibit attractiveness, accessibility, and assurance differently. This study re-groups car prices into three groups, namely (1) car price range less than 300,000 Baht, (2) car price range between 300,00 – 400,000 Baht, and (3) car price range between 400,001 Baht and over.

Table 6 ANOVA of three extracted factors in relation to Car price

		df	Mean Square	F	Sig.
Attractiveness	Between Groups	2	2.260	16.017	.000*
	Within Groups	351	.141		
	Total	353			
Accessibility	Between Groups	2	3.098	21.149	.000*
	Within Groups	351	.146		
	Total	353			
Assurance	Between Groups	2	.290	6.749	.001*
	Within Groups	351	.043		
	Total	353			

Note: Car prices are divided into three groups as follows:

Group 1 is car price range less than 300,000 Baht.

Group 2 is car price range between 300,00 – 400,000 Baht.

Group 3 is car price range between 400,001 Baht and over.

* Refers to statistical differences of Mean at .05 level.

Regarding a car price, a consumer generally perceives most car price range differently (as shown in Table 7), excepting attractiveness in car price ranges of less than 300,000 Baht and that of 400,001 Baht and over. For the assurance factor, consumers view it differently between cars priced under 300,000 Baht and those priced between 300,000 and 400,000 Baht, while no significant difference is observed for the remaining price ranges (as depicted in Table 6). Further analysis was shown in Table 7 below:

Table 7 Post Hoc Tests of three factors in relation to Car price

Dependent Variable	(I) Car price	(J) car price	Mean Difference (I-J)	Std. Error	Sig.
Attractiveness	1	2	.23116*	.04488	.000*
	1	3	.00599	.05471	.913
	2	3	-.22517*	.05372	.000*
Accessibility	1	2	-.16239*	.04573	.000*
	1	3	-.35945*	.05575	.000*
	2	3	-.19706*	.05474	.000*
Assurance	1	2	-.09067*	.02477	.000*
	1	3	-.05650	.03020	.062
	2	3	-.03416	.02966	.250

Note: * 1 refers to Farmer

      2 refers to Business Owner/Merchant, General Contractor and Freelancer

      3 refers to Government Officer/State Enterprise Employee/Civil Servant, and Private Company Employee

      ** The mean difference is significant at the 0.05 level.

As Table 7 indicates, our further analysis using Post Hoc tests confirms that car price significantly influences accessibility and attractiveness factors, while assurance is less affected, at a significance level of 0.05.

For attractiveness, consumers considering cars priced less than 300,000 Baht (Group 1) perceive this factor significantly higher than those looking at cars priced between 300,000 and 400,000 Baht (Group 2), with a mean difference of 0.23 (p < .001). However, there is no significant difference between Group 1 and Group 3 (cars priced over 400,000 Baht), indicating that attractiveness perceptions do not differ much between the lowest and highest price groups.

Regarding accessibility, there are significant differences across all price groups. Group 1 (less than 300,000 Baht) rates accessibility higher than Group 2 and Group 3, with mean differences of -0.16 and -0.36 respectively (p < .001). Similarly, Group 3 rates accessibility higher than Group 2 by 0.20 (p < .001). This suggests that perceived ease of access and financial convenience varies significantly depending on car price.

For assurance, only the difference between Group 1 and Group 2 is statistically significant (mean difference -0.09, p < .001), while differences involving Group 3 are not significant. This implies that assurance factors are relatively stable except for the lowest and mid-price ranges. These findings highlight that accessibility is the most sensitive factor influenced by car prices, followed by attractiveness, with assurance showing limited variation across price groups. This insight is valuable for used car dealers to tailor marketing and service approaches based on price segment.

Discussion

This study proposes an in-depth analysis of perceived differentiation among used car dealerships in San Pa Tong District, Chiang Mai Province, identifying three key latent constructs Attractiveness, Accessibility, and Assurance derived through Exploratory Factor Analysis (EFA). These dimensions are empirically grounded in 32 significant variables across the marketing mix and validated by a strong KMO value (.761, p < .001). By refining traditional marketing theory within a specific, under-studied regional context, this study not only adapts but advances the theoretical understanding of perceived differentiation in used car markets. Attractiveness encompasses 14 items related to variety, presentation, and customer-perceived value, such as car model range, cleanliness, and accessories. Accessibility, covering 8 items, involves locational convenience, signage visibility, and financing options including interest rates and trade-in services.

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Assurance, composed of 10 items, captures post-sale trust-building factors like warranty, ownership transfer, and knowledgeable staff. To deepen both the practical relevance and academic rigor of these findings, this study examined how demographic factors influence perceptions across these three dimensions using ANOVA and t-tests. Results indicate that all three factors significantly vary by occupation at the .001 level. Farmers perceive attractiveness less strongly than business owners and government or private employees, while business owners prioritize accessibility more than the other groups. Government and private employees place greater emphasis on assurance, underscoring the relevance of trust and post-purchase reliability in formal employment contexts. In terms of income segmentation, only assurance shows a statistically significant difference between low- and high-income groups (p < .05), suggesting that higher earners value dealership credibility and after-sales services more when buying used vehicles. Regarding car price segmentation, accessibility shows the strongest variation across all tiers, followed by attractiveness. Notably, attractiveness remains consistent between the lowest and highest price segments, while assurance only differs significantly between low and mid-price groups, implying that its perceived value stabilizes once a certain threshold is met. These findings reinforce the importance of tailoring marketing strategies to emphasize different aspects of differentiation based on target demographics and pricing segments. The adaptation of traditional marketing constructs to a localized Thai used car market context enhances external validity, and the demographic segmentation deepens our understanding of consumer behavior in emerging markets. Additionally, this research bridges theory and practice by offering empirical insights for tailoring marketing strategies in the used car industry, thereby refining both scholarly frameworks and real-world applications.

Conclusion and Suggestion

This study proposes three exploratory factors namely: attractiveness, accessibility, and assurance, respectively. Among these, attractiveness emerged as a particularly notable consideration, reflecting consumers' sensitivity to factors such as vehicle variety, dealership appearance, and overall appeal. However, the current analysis does not definitively establish the relative importance or ranking of these factors in comparison to one another. Given the complex nature of consumer decision-making, it is likely that these factors interact differently depending on individual preferences and contextual variables. Therefore, further research employing comparative and advanced analytical methods is necessary to clarify the hierarchy and interplay of these factors across diverse consumer segments. Such investigation will deepen understanding of how these dimensions jointly shape purchasing intentions and behavior, thereby providing more precise guidance for both academics and practitioners aiming to optimize marketing strategies in the used car market.

Suggestion for the academics

For academic researchers, this study contributes to the literature on high-involvement purchasing behavior in emerging markets by offering an empirically grounded framework of perceived differentiation. Specifically, it identifies three key dimensions attractiveness, accessibility, and assurance that influence consumer decisions in the used car market, based on a rigorous exploratory factor analysis (EFA). These dimensions not only enrich the understanding of consumer evaluations but also serve as alternative constructs to the traditional 4Ps marketing mix framework. While the 4Ps remain foundational, several scholars have argued that it may inadequately reflect the complexities of contemporary consumer decision-making, especially in digitally influenced, trust-sensitive markets (Van Waterschoot & Van den Bulte, 1992; Yudelson, 1999; Sheth & Sisodia, 2012). In response to this critique, our findings partly align with alternative models such as the 4As acceptability, affordability, accessibility, and awareness (Sheth & Sisodia, 2012; Maity & Singh, 2021) and the SAVE framework solution, access, value, and education (Ettenson, Conrado, & Knowles, 2013). These models shift attention from internal product attributes to customer-centric value creation and are particularly relevant in Thailand's used car sector, where customers prioritize transparency, financing flexibility, and dealer credibility. Thus, this study not only fills a theoretical gap by contextualizing differentiation in secondary markets within developing economies but also offers practical tools for operationalizing consumer-centric frameworks in future empirical research.

Suggestion for the business practitioners

For business practitioners, particularly used car dealers, the findings of this study provide actionable insights for tailoring marketing strategies based on consumer-perceived differentiation. The three dimensions attractiveness, accessibility, and assurance represent distinct avenues through which dealers can enhance consumer trust and purchase intention. For instance, to appeal to customer groups such as business owners and government/private sector employees, dealers should emphasize the availability and variety of car models, extend operating hours for convenience, and reinforce the credibility and knowledge of their sales staff. Assurance-related features such as transparent ownership transfers, reliable warranties, and trustworthy dealership environments are especially valued by higher-income consumers. Moreover, dealers targeting lower car price segments (under 300,000 Baht) should note that these consumers rate accessibility including location convenience and financing options more highly than other segments. These findings suggest that price-sensitive buyers place greater weight on physical and financial ease of transaction, while higher-price consumers prioritize post-purchase assurance. By aligning product offerings and services with these differentiated expectations, used car dealers can better segment their markets and compete more effectively in Thailand's evolving used car ecosystem.

References

Armstrong, G., Kotler, P., & Opresnik, M.O. (2020). Marketing: an introduction. (14th ed.) Pearson.

Arnould, J. E., & Thompson, C. J. (2018). Consumer culture theory. Sage.

Aujirapongpan, S., Ritkaew, S., & Jutidharabongse, J. (2014). Factors affecting the customers' choice of purchasing used cars, car dealers, car loans and leasing: case study of consumers in Surat Thani province and Songkhla province. WMS Journal of Management, 3(3), 32–47. https://www.tci-thaijo.org/index.php/wms/article/download/52789/43835

Baker, M. J., & Saren, M. (2016). Marketing theory: a student text (3rd ed.). SAGE.

Belk, R. (2022). Consumer culture theory in Asia: history and contemporary issues. Routledge.

Cassy, S. (2024, March 1). Customer behavior analysis for car dealerships: strategies for data-driven marketing. Turbo Marketing. https://www.turbomarketingsolutions.com/single-post/customer-behavior-analysis-for-car-dealerships-strategies-for-data-driven-marketing

Chiang Mai Provincial Statistical Office (2022). Chiang Mai provincial statistical report. Chiang Mai Provincial Statistical Office, National Statistical Office, Ministry of Digital Economy and Society. (in Thai).

Dealer.com (n.d.). What shoppers want: convenience, choice and flexibility. https://www.dealer.com/resources/shoppers-want-convenience-choice-and-flexibility/#:~:text=income%2C%20credit%20score%2C%20and%20vehicle%20usage%20data

Dun & Bradstreet, Inc. (n.d.) Automobile dealers companies in Chiang Mai, Thailand https://www.dnb.com/business-directory/company-information.automobile_dealers.th.chiang_mai.html

Harhut, N. (2022). Using behavioral science in marketing: drive customer action and loyalty by prompting instinctive responses. Kogan Page.

Hooley, G., Piercy, N.F., Nicoulaud, B., & Rudd, J.M. (2017). Marketing strategy & competitive positioning. (6th ed.) Pearson.

Kotler, P & Armstrong, G. (2021). Principles of marketing (18th ed.) Pearson.

Kotler, P., Kartajaya, H., & Setiawan, I. (2021). Marketing 5.0: technology for humanity. Wiley.

Kotler, P., Keller, K. L., & Chernev, A. (2022). Marketing management. (16th ed.) Pearson.

Kotler, P., & Keller, K. L. (2016). Marketing management. (15th ed.) Pearson.

Kumar, P. (2013a). Prediction of consumer purchase decision using demographic variables: A study with reference to premium car. IOSR Journal of Business and Management, 12(5), 117–120. https://doi.org/10.9790/487X-125117120

Kumar, P. (2013b). Consumer behavior and marketing strategy. ABC Publishers.

Kumar, V., Dixit, A., Javalgi, R. G., & Dass, M. (2020). Understanding the evolving consumer decision journey in emerging markets. International Journal of Research in Marketing, 37(3), 417–432. https://doi.org/10.1016/j.ijresmar.2019.12.001

Kotler, P., & Keller, K. L. (2016). Marketing management (15th ed.). Pearson.

Llopis-Albert, C., Rubio F. & Valero, F. (2021). Impact of digital transformation on the automotive industry. Technological Forecasting and Social Change. 162, 1-9. https://doi.org/10.1016/j.techfore.2020.120343

Lopez-Vega, H. & Moodysson, J. (2023) Digital transformation of the automotive industry: An integrating framework to analyse technological novelty and breadth, Industry and Innovation, 30(1), 67-102, https://doi.org/10.1080/13662716.2022.2151873

Lotlinx.com (2024, October 1) Who's shopping for your vehicles? knowing your dealership's customer demographics and psychographics. https://lotlinx.com/dealership-customer-demographics-psychographics/#:~:text=Budget%2Dconscious%20consumers%20actively%20participate

Maclaran, P., Saren, M., & Tadajewski, M. (2008). Marketing theory. SAGE.

Maity, M. & Singh, R. (2021). Market development and value creation for low socioeconomic segments in emerging markets: an integrated perspective using the 4A framework. Journal of Macromarketing 41(2) 373-390.

Malhotra, N.K. (2020). Marketing research: an applied orientation. (7th ed.) Pearson.

Perreault, W. D., Cannon, J. P., & McCarthy, E. J. (2015). Essentials of marketing: a marketing strategy planning approach (14th ed.). McGraw-Hill.

McShane B. B., Bradlow, E. T., Lynch Jr., J. G., & Meyer, R. J. (2024). Statistical significance and statistical reporting: moving beyond binary. Journal of Marketing 88(3) 1-19.

Mordor Intelligence Research & Advisory. (2024, June). Thailand used car market size & share analysis - growth trends & forecasts (2025 - 2030). Mordor Intelligence. Retrieved June 4, 2025, https://www.mordorintelligence.com/industry-reports/thailand-used-car-market

Mothersbaugh, D. L., Kleiser, S. B., Hawkins, D. I., Polk, M. K., & Watson, C. F. (2024). Consumer behavior: building marketing strategy (15th ed.). McGraw-Hill.

Narumon, K, Navaratana Na Ayudhya, T., Boonnak, P., Phakkong, N., and Fongwanna, N. (2019). Perceived multidimensional value towards beauty product consumption experience. Journal of Management Sciences, 36(2), 1-30.

Nguyen, B., & Simkin, L. (2022). The dark side of digital personalization: Exploring the influence on customer trust and loyalty in automotive retailing. Journal of Retailing and Consumer Services, 64, 102804. https://doi.org/10.1016/j.jretconser.2021.102804

one2car.com (n.d.) Used cars San Pa Tong Chiang Mai, northern region dealer for sale https://www.one2car.com/en/used-cars-for-sale/thailand_northern_region_chiang-mai_san-pa-tong?profile_type=Dealer&page_size=26

Paykanon, T. (2023, March 16). Used car market makeover. SCB Economic Intelligence Center Brief. https://www.scbeic.com/th/detail/product/used-car-160323

Peters, W. H. (1970). Relative occupational class income: a significant variable in the marketing of automobiles. Journal of Marketing, 34(2), 74–77. https://doi.org/10.1177/002224297003400215

Porter, M. E. (1980). Competitive strategy: techniques for analyzing industries and competitors. Free Press.

Porter, M. E. (1985). Competitive advantage: creating and sustaining superior performance. Free Press.

San Pa Tong District Agricultural Extension Office (n.d.). Retrieved February 6, 2025, from https://chiangmai.doae.go.th/sanpatong/ (in Thai).

Singh, R., & Singh, M. (2024). Analyzing the relationship between product buying behavior and individual salary: a classification and regression analysis. ShodhKosh Journal of Visual and Performing Arts, 5(6). https://doi.org/10.29121/shodhkosh.v5.i6.2024.2110

Tadajewski, M., Jones, D. G. B., & Donald G. B. (2010). The history of marketing thought. SAGE.

Thaipom, W., Ponchaitiwat, K. & Senachai, P. (2021). The perceived brand equity and marketing mix factors affecting the purchase intention of Insee Cement brand ready - mixed concrete for the construction contractor operators in Chaiyaphum Province. Journal of Management and Marketing, Rajamangala University of Technology Thanyaburi, 8(2), 75-87. (In Thai)

Tongsuar, W. (2023, March 20). Thailand's vehicle part manufacturing industry outlook 2023 - 2024 research note, Krungthai Compass. (in Thai).

Van Waterschoot, W. & Van den Bulte C. (1992). The 4p classification of the marketing mix revisited. Journal of Marketing, 56(4), 83-93.

Vithessonthi, C. (2023). Key pitfalls in conducting research in a business discipline: five actionable suggestions. KKBS Journal of Business Administration and Accountancy, 7(3), 1-8.

Yudelson, J. (1999). Adapting McCarthy's four p's for the twenty-first century. Journal of Marketing Education, 21(1), 60-67. https://doi.org/10.1177/0273475399211008

Yurko, A. (2008). Can increases in real consumer incomes explain the aging of motor vehicles in the US. Research Papers in Economics. https://econpapers.repec.org/RePEc:pra:mprapa:8850

Zhang, M. (2025). Decoding consumer behavior in the used car market: A machine learning approach to key decision factors. ITM Web of Conferences. https://doi.org/10.1051/itmconf/20257004033