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Utilizing Family Business Chatime Data to Study the Global Differences in Milk Tea Price Elasticity

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Abstract: This study examines the global variations in milk tea price elasticity, with a particular focus on Chatime's performance across diverse international markets. By systematically analyzing cultural, economic, and market structural factors, the research elucidates how these elements shape consumer responsiveness to price changes. In markets characterized by high price elasticity, such as the United States and Malaysia, consumers exhibit heightened sensitivity to price fluctuations, prompting brands to adopt strategies such as bundling, membership programs, and promotional offers to stabilize demand. Conversely, in markets with low price elasticity, including Taiwan and Saudi Arabia, consumer responsiveness is comparatively muted, requiring companies to maintain and enhance market share through brand value cultivation, premium product offerings, and tailored marketing initiatives. Cultural influences emerge as a critical determinant of elasticity, with milk tea functioning as a cultural symbol in certain regions while serving primarily as a social or lifestyle commodity in others. Economic factors, including income distribution, purchasing power, and the intensity of market competition, further contribute to these variations, affecting both consumer behavior and corporate pricing decisions. Chatime's adaptive pricing strategies, which are informed by local elasticity patterns, demonstrate the brand's capacity to navigate complex market dynamics and optimize performance across heterogeneous global environments. The findings provide practical insights for multinational companies seeking to develop market-sensitive pricing strategies, enhance brand positioning, and effectively engage consumers in diverse cultural and economic contexts.

Keywords: milk tea; price elasticity; cultural factors; economic factors; global markets

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1. Introduction

In recent years, the global ready-to-drink tea market has experienced rapid growth, with milk tea emerging as a prominent category that has gradually expanded from Asian markets to regions such as Europe and the Americas, establishing itself as a widely consumed global product [1]. Milk tea not only fulfills consumers' basic drinking needs but also functions as a symbol of cultural identity and social interaction. The expansion of international brands has significantly transformed the milk tea market landscape [2]. Among these brands, Chatime, a successful family business, operates over 3,500 stores across more than 60 countries worldwide, making its market performance and operational model highly influential within the ready-to-drink tea industry.

Chatime's global performance demonstrates notable regional differences. According to 2024 data, substantial variations exist in the average annual revenue per store across countries and regions. These differences are not merely a reflection of market scale but are also shaped by deeper factors, including cultural, economic, and consumer behavior variations across countries [3]. For instance, in Taiwan, where milk tea is considered a

daily commodity, market demand remains stable and price elasticity is relatively low. In contrast, in Western markets such as the United States and Europe, milk tea is increasingly perceived as a social commodity, exhibiting higher price elasticity with consumers showing greater sensitivity to price changes [4]. This pattern reflects differences in market positioning and consumption behavior across cultural contexts, providing a compelling case for how global brands adjust strategies in response to diverse market demands [5].

Economic environments and variations in consumer income levels across countries and regions further influence milk tea's price elasticity [6]. In higher-income markets, consumers tend to exhibit greater tolerance for price increases, whereas in lower-income markets, price fluctuations can significantly impact sales. Understanding these variations in price elasticity is therefore critical for devising differentiated pricing strategies and optimizing market deployment.

This study aims to investigate differences in milk tea price elasticity across global markets, with a specific focus on Chatime's performance in different regions and the factors driving these differences. The research addresses several core questions. First, it examines cross-country variations in price elasticity by analyzing the effects of price changes on sales, revealing how cultural backgrounds, consumer preferences, and economic factors collectively shape elasticity. Second, it explores the influence of cultural factors, particularly in regions with strong tea traditions, assessing whether milk tea is perceived as a "necessity" rather than a "luxury," which has significant implications for price sensitivity [7]. Third, the study evaluates the role of economic factors, including consumer income, market competition, and the availability of substitutes, in shaping price elasticity [8]. Finally, it investigates Chatime's strategic adjustments based on elasticity differences, comparing approaches in high-elasticity markets, such as Western countries, with those in low-elasticity markets, such as Saudi Arabia. In high-elasticity markets, strategies such as bundling, membership systems, and promotions are used to mitigate consumer price sensitivity, while in low-elasticity markets, premium strategies and brand value enhancement are emphasized.

By providing empirical evidence on price elasticity variations, this study offers both academic insights and practical guidance for businesses navigating globalization. Analyzing price elasticity across markets enables companies to better understand consumer sensitivity, optimize pricing and marketing strategies, and enhance global competitiveness. Ultimately, the study aims to uncover the differences in milk tea price elasticity across cultural and economic contexts, explore the factors influencing these differences, and provide actionable strategic recommendations for Chatime and similar multinational brands. This research contributes to theoretical development while offering practical guidance for developing adaptive and market-sensitive strategies in the global beverage industry.

2. Literature Review

2.1. Price Elasticity Theoretical Framework

Price elasticity of demand (PED) refers to the degree to which consumers respond to changes in price, typically measured by the effect of price changes on the quantity demanded [9]. In multinational markets, variations in price elasticity across countries and regions reflect the combined influence of cultural, economic, and market structural factors. A higher price elasticity indicates that consumers are more responsive to price changes, leading to a more pronounced variation in demand [10]. Conversely, a lower price elasticity suggests that consumer purchasing decisions are less affected by price fluctuations.

According to fundamental economic theory, price elasticity is generally negative, as price and quantity demanded are inversely related. The magnitude of elasticity varies due to multiple factors, particularly cultural backgrounds, economic conditions, and the level of market competition [11]. For instance, differences in milk tea price elasticity across

markets reflect the varying sensitivity of consumers in different countries, a consideration that is crucial for multinational brands when developing market-specific pricing strategies.

2.2. Theoretical Model of Cross-National Price Elasticity Differences

In cross-national comparisons, differences in price elasticity are primarily influenced by economic and cultural dimensions. Economic factors include per capita income, income distribution, the availability and pricing of substitutes, and market competition density, all of which directly affect consumers' purchasing power and choices [12]. In high-income markets, consumers typically have greater purchasing power and are less sensitive to price changes, resulting in lower price elasticity. Conversely, consumers in lower-income markets exhibit higher price sensitivity, leading to higher price elasticity.

Cultural factors encompass elements such as brand loyalty, the degree of tea culture penetration, and social or health consciousness. In markets with strong cultural foundations, such as Taiwan and Malaysia, milk tea is often considered a daily necessity, and consumers exhibit lower price elasticity. In contrast, in Western markets, milk tea is frequently perceived as a social or lifestyle commodity, resulting in higher price elasticity.

Additionally, the density of market competition is a critical determinant of price elasticity [13]. In highly competitive markets with a wide array of brands and products, price elasticity tends to be higher, as consumers can easily switch between options. In markets with limited competition, consumer choices are constrained, and price elasticity is typically lower. For example, in Taiwan, where milk tea shops are densely distributed and offer diverse brand options, price elasticity is relatively high. In contrast, suburban areas in Canada, where fewer milk tea brands operate, exhibit lower price elasticity.

2.3. Interaction Between Cultural and Economic Factors

Market-level differences in price elasticity often arise from the interplay between cultural and economic factors. In regions with strong cultural penetration, such as Taiwan and Malaysia, milk tea is not only a beverage but also a component of cultural identity. Consumers in these markets are generally more tolerant of price changes, resulting in lower price elasticity [14]. Conversely, in emerging markets such as those in Europe and the United States, milk tea is frequently regarded as a fashionable or social commodity, and consumers demonstrate higher sensitivity to price changes, displaying greater price elasticity.

Economic factors simultaneously play a decisive role in shaping price elasticity. In high-income markets, such as the United States and Saudi Arabia, consumers possess stronger purchasing power, and price increases have less impact on sales, leading to relatively lower price elasticity [15]. In contrast, consumers in lower-income markets, such as Malaysia, exhibit greater sensitivity to price fluctuations, resulting in higher price elasticity. Moreover, the intensity of market competition further influences price elasticity. In highly competitive markets, the ease of switching between brands increases price sensitivity, while in markets with limited competition and fewer options, price elasticity tends to be lower.

3. Methodology

3.1. Data Sources

This study primarily utilizes Chatime sales data from global markets to examine differences in milk tea price elasticity across various countries and regions. The data sources include the following components:

1) **Chatime Internal Sales Data**: This dataset contains sales information from six representative markets, including the United States, Canada, Australia, Malaysia, Saudi Arabia, and Taiwan. It covers store revenue, daily sales volume, average transaction value, and spans the year 2024. Analysis of this data enables the study to reveal actual milk tea price elasticity in different markets.

2) **Six Corner International Financial Report**: This report provides detailed data on Chatime's overall revenue, market share, investment status, and other economic indicators, supporting analysis of market performance and pricing strategies in different regions.
3) **Milk Tea Competitor Price Monitoring (Euromonitor Passport)**: Data from Euromonitor records the pricing information and market share of major milk tea brands worldwide, helping to identify market drivers behind price elasticity.
4) **Cultural Dimension Scores (Hofstede Insights)**: To examine the influence of cultural factors on price elasticity, Hofstede's cultural dimensions index is integrated with price elasticity data, allowing for analysis of how cultural differences shape consumer behavior.

3.2. Data Processing and Analysis Methods

To understand the distribution of milk tea prices in the global market, the study first conducts descriptive statistical analyses. By examining milk tea prices, average transaction values, daily sales volumes, and other metrics across countries and regions, the study provides an overview of price levels and market characteristics in each location. Comparisons of prices across countries, such as the United States, Canada, Australia, Taiwan, and Malaysia, highlight market-specific pricing differences. Additionally, the study reports the number of stores and annual revenue per store in each country, offering insight into the relationship between market scale and price elasticity.

To quantify price elasticity, the study applies the classical price elasticity formula:

$$PED = \frac{\%\Delta Q}{\%\Delta P}$$

By comparing price changes with corresponding sales volume changes in each market, the price elasticity for each market is calculated. For example, in the U.S. market, if the price of milk tea increases from $6.50 to $7.00 and daily sales decline from 300 cups to 250 cups, the price elasticity is computed as follows:

$$PED = \frac{-50/300}{0.5/6.5}$$

This quantitative approach provides a data-driven basis for assessing milk tea price elasticity across markets and informs subsequent management strategies.

Further, the study employs a panel data regression model to analyze the influence of cultural, economic, and market competition factors on milk tea price elasticity. The model is specified as:

$$PED_i = \beta_0 + \beta_1(Economic\ Level_i) + \beta_2(Cultural\ Factor_i) + \beta_3(Market\ Competition_i) + \epsilon_i$$

where PED_i represents the price elasticity in the i-th country, $Economic\ Level_i$ denotes the country's economic level, $Cultural\ Factor_i$ measures cultural differences, $Market\ Competition_i$ indicates market competition intensity, and ϵ_i is the error term. Regression analysis reveals how cultural and economic factors jointly influence price elasticity. For instance, results may indicate that a 10-point increase in the individualism index corresponds to a 0.12 increase in the absolute value of price elasticity ($p<0.01$), suggesting that consumers in individualistic cultures, such as the U.S., are more sensitive to price changes.

3.3. Price Elasticity Analysis Framework

For analysis, markets are categorized into high elasticity, medium elasticity, and low elasticity groups based on price sensitivity, competition density, and consumer income levels. Western markets, such as the U.S. and Canada, typically fall into the high elasticity category due to higher milk tea prices and intense competition, whereas markets such as Taiwan and Malaysia are classified as low elasticity, reflecting lower prices and the daily necessity of milk tea.

As shown in Table 1, a comparison of milk tea prices and price elasticity across markets illustrates these differences clearly.

Table 1. Comparison of Milk Tea Prices and Price Elasticity Across Markets.

Country/Region	Price Range (USD)	Price Elasticity (PED)
United States	$6.50 - $8.50	-1.0
Canada	$5.55 - $7.04	-1.2
Australia	$5.27 - $6.60	-0.9
Taiwan	$2.17 - $2.83	-0.6
Malaysia	$1.89 - $2.74	-1.3

Figure 1 visually depicts price elasticity differences for Chatime's milk tea in six major markets (United States, Canada, Australia, Taiwan, Malaysia, Saudi Arabia). The color gradient ranges from red (high elasticity, e.g., Malaysia PED=-1.3) to green (low elasticity, e.g., Saudi Arabia PED=-0.4), reflecting consumer sensitivity to price changes. The chart also indicates price ranges in various countries, demonstrating that higher price ranges, typically observed in Western markets, are often associated with higher elasticity, while lower price ranges, as in Taiwan and Malaysia, correspond to lower elasticity due to strong cultural penetration. This visualization confirms that cultural factors, such as the daily attributes of milk tea in Asia, and economic factors, such as per capita GDP, jointly affect price elasticity.

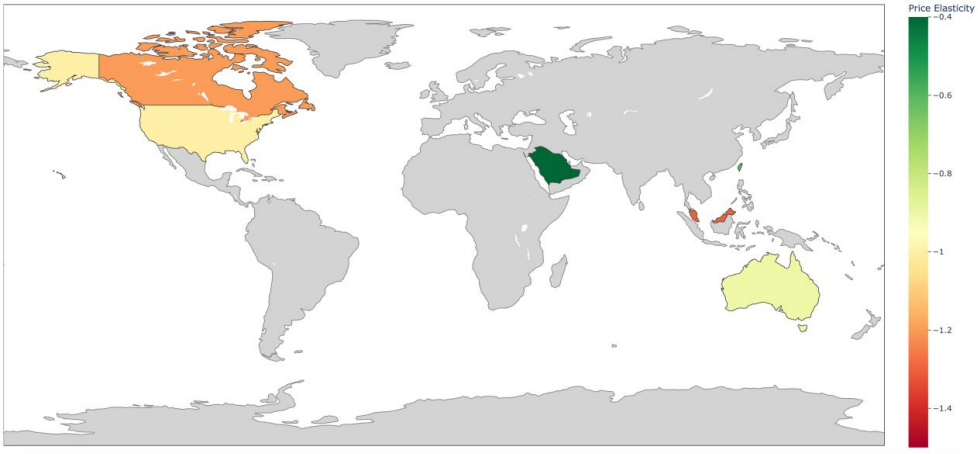

Figure 1. Globel Price Elasticity of Milk Tea.

Finally, the study analyzes interactions between cultural dimensions, such as Hofstede's indices, and economic factors, including GDP per capita, to examine how consumers' reactions to milk tea prices differ across cultural and economic contexts. Regression analysis indicates that both the individualism index and GDP per capita significantly impact price elasticity. Specifically, markets with higher individualism, such as the U.S., exhibit greater price sensitivity, whereas markets with higher GDP per capita, such as Saudi Arabia, display lower price elasticity.

4. Managerial Implications

4.1. Market Segmentation Strategy

Based on the analysis of milk tea price elasticity, cultural and economic differences, and market competition, Chatime should implement targeted market segmentation strategies tailored to the characteristics of each market. In high price elasticity markets, such as the United States and Malaysia, where consumers are highly responsive to price changes, the company can mitigate the negative effects of price fluctuations through strategies such as bundling, membership systems, and limited-time promotions. For

instance, in the U.S. market, Chatime could introduce a "Daily Cup Subscription" model to secure long-term consumer demand while addressing social consumption needs with innovative products like coffee-milk tea fusion.

In low price elasticity markets, such as Taiwan and Saudi Arabia, where milk tea consumption is perceived either as a daily necessity or as a luxury product, price changes have a smaller impact on sales. Chatime should focus on maintaining market share by enhancing brand value and offering differentiated products. In Taiwan, loyalty can be strengthened through a membership point system and regular promotions, while in Saudi Arabia, luxury products such as "Golden Pearl Milk Tea" can cater to consumers' demand for premium experiences.

As shown in Table 2, Chatime's market segmentation strategies across six key markets are summarized by positioning, core tactics, and main strategic approaches.

Table 2. Market Segmentation Strategies for Six Key Markets.

Country/Region	Positioning	Core Tactics	Main Strategies
United States	High elasticity market	Breaking boundaries	Coffee-milk tea fusion + subscription model
Canada	High elasticity market	Actively cater to seasonal demand	Maple flavor + winter hot drink set
Australia	Medium elasticity + health-oriented	Health premium	Cold brew tea + fitness influencer collaborations
Malaysia	High elasticity + extreme cost-effectiveness	Low-price strategy	RM5.9 promotion + 24-hour operation
Saudi Arabia	Low elasticity + luxury-oriented	Luxury + social attribute	Golden pearl edition + women-only tea break area
Taiwan	Low elasticity + membership economy	Enhance brand loyalty	Buy five, get one free + cross-border e-commerce bottled tea

Figure 2 further illustrates Chatime's strategy choices in different markets, mapping price elasticity (horizontal axis), per capita GDP (vertical axis), and market size (bubble size).

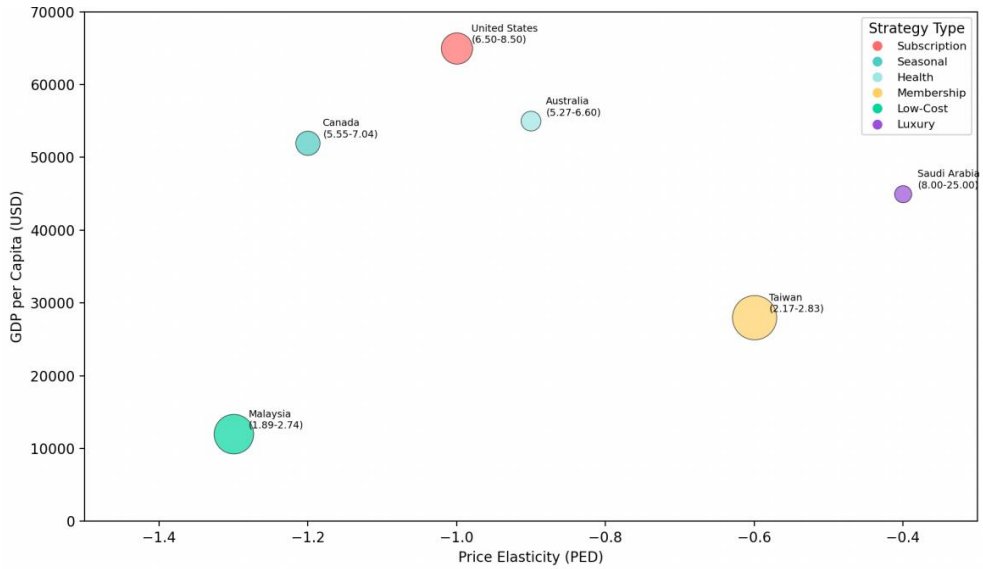

Figure 2. Milk Tea Market Strategies (Chatime Data).

4.2. Refined Operational Strategy

For refined operations, Chatime should implement customized product and channel strategies according to market elasticity differences. In the U.S., where price elasticity is high and there is a notable concentration of Asian consumers, Chatime could launch an "Espresso Bubble Tea" series to meet morning beverage demand and increase consumer loyalty through monthly subscription services. Collaborations with major retailers, such as Walmart and Target, can expand availability through convenience store channels, increasing brand visibility.

In Canada, Chatime could attract seasonal consumers by introducing winter-exclusive maple bubble tea while leveraging social marketing campaigns, such as "Aurora-themed cups," to boost brand awareness. In Australia, which emphasizes health and wellness, Chatime could launch protein milk tea targeting fitness enthusiasts and highlight environmental benefits through carbon footprint labeling.

In Malaysia, Chatime can appeal to price-sensitive consumers with low-price strategies and regular promotions while collaborating with local suppliers to reduce production costs. In Saudi Arabia, luxury series products, such as 24K gold milk tea, could satisfy demand for high-end offerings, complemented by women-only lounges to enhance the brand's premium image.

4.3. Resource Allocation Priorities

Table 3 presents recommended resource allocation priorities for each market based on expected return on investment (ROI). In Malaysia, the focus should be on expanding the East Malaysia region, with an expected ROI of 1:2.5. In Saudi Arabia, developing luxury product lines is prioritized, with an expected ROI of 1:4, reflecting the high-end market potential. In the United States, investing in coffee-milk tea automation equipment is suggested, with an expected ROI of 1:1.8. For Taiwan, upgrading the membership system is recommended, with an expected ROI of 1:3. These allocations aim to maximize returns while addressing the unique characteristics of each market.

Table 3. Resource Allocation Priorities and Expected ROI.

Market	2024 Investment Focus	Expected ROI
Malaysia	East Malaysia Expansion (50 new stores)	1:2.5
Saudi Arabia	Luxury Product Line Development	1:4
United States	Coffee-milk Tea Automation Equipment	1:1.8
Taiwan	Membership System Upgrade	1:3

4.4. Strategy Validation Case

For example, the Saudi Arabian Golden Pearl edition demonstrates the effectiveness of culturally informed product strategies. By understanding the local preference for premium and ostentatious consumption, Chatime priced the product at $25, despite a production cost of only $3.5, achieving a markup of 614%. To maintain the product's luxury positioning, supply was limited and sales were restricted to high-end malls. This strategy proved successful, with single-store profits in Saudi Arabia matching the daily sales volume in Malaysia, highlighting the value of refined operational and market-specific strategies.

Through these managerial implications, Chatime can flexibly respond to challenges across diverse global markets, enhance brand competitiveness, and achieve sustainable long-term growth.

5. Conclusion

This study provides a comprehensive analysis of the differences in milk tea price elasticity across global markets for Chatime, highlighting the significant influence of cultural, economic, and market structure factors on consumer price sensitivity. As the milk tea market continues to globalize, brands must respond flexibly to varying consumer reactions in different regions, developing pricing and marketing strategies that align with the unique characteristics of local markets.

First, the study demonstrates substantial variation in milk tea price elasticity across markets. In high-elasticity markets, such as the United States and Malaysia, consumers are highly sensitive to price changes, necessitating strategies to mitigate the impact of fluctuations through innovative pricing, bundling, and membership systems. Conversely, in low-elasticity markets, such as Taiwan and Saudi Arabia, where milk tea is considered either a daily necessity or a luxury product, consumer responsiveness to price changes is lower. In these contexts, maintaining market share requires enhancing brand value and offering premium products.

Second, cultural factors exert a profound effect on price elasticity. In markets with strong cultural penetration, such as Taiwan and Malaysia, where milk tea functions as a cultural symbol, price elasticity is relatively low. In contrast, in Western markets, where milk tea is primarily viewed as a social commodity, price elasticity tends to be higher. This underscores the decisive role of cultural background in shaping consumer demand and highlights the need for brands to tailor market strategies to different cultural contexts.

Economic factors also play a critical role in shaping price elasticity. The findings indicate that consumers in high-income markets are less sensitive to price changes, resulting in lower elasticity, whereas low-income markets exhibit higher elasticity due to greater price sensitivity. Economic conditions influence both consumers' purchasing power and the intensity of market competition, which collectively affect price elasticity. Therefore, brands must develop pricing and promotional strategies that reflect the economic characteristics of each market.

Finally, Chatime has successfully adapted its pricing strategies based on observed differences in price elasticity, facilitating global market expansion. By implementing refined operational strategies and leveraging cultural insights, Chatime has responded effectively to market-specific challenges, utilizing promotions and bundling in high-elasticity markets while maintaining competitiveness in low-elasticity markets through brand premiums and differentiated product offerings.

In conclusion, this study offers a practical and theoretical framework for multinational brands to better understand variations in price elasticity across global markets. The findings provide actionable guidance for developing adaptive marketing strategies in the context of globalization. As market competition intensifies, companies should continue to optimize pricing strategies, monitor market dynamics, and adjust resource allocation flexibly to meet the evolving demands of diverse consumer markets.

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