

A Study on the Influence of Product and Price Factors on Consumer Home-Buying Decisions: A Case Study of the Greater Tainan Area

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Abstract— How construction companies can attract consumers through precise product design and pricing strategies amidst fierce market competition is a critical factor determining their operational success or failure. This study focuses on the product and price dimensions of the 4P marketing theory to explore their influence on consumers' willingness to purchase homes from construction company projects. Taking 122 consumers in the Greater Tainan area as the research subjects, empirical analysis was conducted through questionnaire surveys and the Linear Probability Model (LPM). The research findings indicate that within the product dimension, house design style, house construction quality, and construction company brand all have a significant positive impact on consumer purchase intention. Within the price dimension, the living functions of the location are a significant influencing factor, whereas the current housing market climate and future appreciation potential are not significant. This result reflects market characteristics dominated by owner-occupier demand and confirms the core value of living-oriented fundamentals in the real estate market. This study provides specific practical recommendations for construction companies in product development and pricing, aiding them in enhancing their competitiveness in the regional market.

Keywords— Greater Tainan Area, Home-Buying Decision, Linear Probability Model (LPM), Marketing 4P, Price Strategy, Product Strategy.

I. INTRODUCTION

1.1 Research Background and Motivation

The long-term development of the domestic real estate industry has played a leading role in industrial development. Given the substantial investment amounts and broad scope involved in real estate ventures, it can stimulate the vigorous growth of related industries. The entire industry value chain is extensive, contributing significantly to economic revitalization. However, the rise and fall of the real estate industry frequently impact the development of related sectors and affect the national economy and people's livelihood. In a fluctuating real estate market environment, erroneous sales strategies adopted by construction companies often lead to supply-

demand imbalances, impacting real estate prices with significant consequences.

In view of this, developing correct and feasible real estate marketing strategies for construction company projects, grounded in foundational marketing theories, has become a crucial issue of shared concern for academia and the practical industry. Particularly in the recent volatile economic climate, construction companies and investors are often caught off guard, and missteps in marketing strategy can lead to severe financial losses. Therefore, conducting in-depth research on the marketing strategies of construction companies and exploring the decisive factors influencing consumers' willingness to purchase homes in construction company projects holds dual

urgency for both academic research and practical application.

The Greater Tainan area, a significant metropolitan region in southern Taiwan, has exhibited a unique developmental trajectory in its real estate market in recent years, influenced by factors such as urban development, improved transportation infrastructure, and the establishment of science parks. Consumer home-buying behavior in this region differs markedly from that in northern metropolitan areas, characterized by a strong orientation towards owner-occupier demand, high regard for living amenities, and sensitivity to housing prices. Therefore, using the Greater Tainan area as the research setting to investigate the key factors influencing consumer home-buying decisions not only fills a gap in regional research but also provides construction companies with empirically grounded strategic references.

This study takes general consumers as its research subjects. By collecting data related to the real estate industry and employing relevant marketing theories as the research framework, it aims to analyze the challenges faced by construction companies in their project marketing strategies and propose recommendations to enhance the competitiveness of construction companies within the real estate sector.

1.2 Research Objectives

Based on the aforementioned research background and motivation, this study focuses on the two core dimensions of Product and Price within the 4P marketing theory, seeking to clarify their specific influence on the consumer home-buying decision-making process. The specific research objectives are as follows:

1. Analyze the influence of product strategy (house design style, house construction quality, construction company brand) on consumer home-buying intention, and clarify the relative importance ranking of each factor.

2. Analyze the influence of price strategy (current housing market climate, location living functions, future appreciation potential) on consumer home-buying intention, exploring the differences in price considerations between owner-occupier consumers and investor consumers.

3. Based on the empirical research findings, propose specific strategic recommendations for construction companies regarding product development and pricing to enhance their market competitiveness in the Greater Tainan area.

1.3 Research Scope

This study is based on the 4P marketing theory and adopts a cross-sectional quantitative research design. The research

topic is a study on the decisive factors influencing consumers' purchase of homes in construction company projects. The research type is a statistical quantitative questionnaire survey. The theoretical foundation encompasses the 4P marketing theory and the Smiling Curve theory. The time dimension involves cross-sectional data. Research tools include survey questionnaires and SPSS, E-Views statistical software. The research subjects are general consumers in the Greater Tainan area with home-buying experience or potential home-buying demand, without restrictions on the respondents' industry category, education level, age, or gender.

Table 1-1 Compiled for this study

Item	Description
Research Topic	A Study on the Influence of Product and Price Factors on Consumer Home-Buying Decisions
Research Type	Statistical Quantitative Questionnaire Survey
Theoretical Basis	Marketing 4P Theory, Smiling Curve Theory
Time Dimension	Cross-sectional Data
Research Tools	Survey Questionnaire and SPSS, E-VIEWS Statistical Software

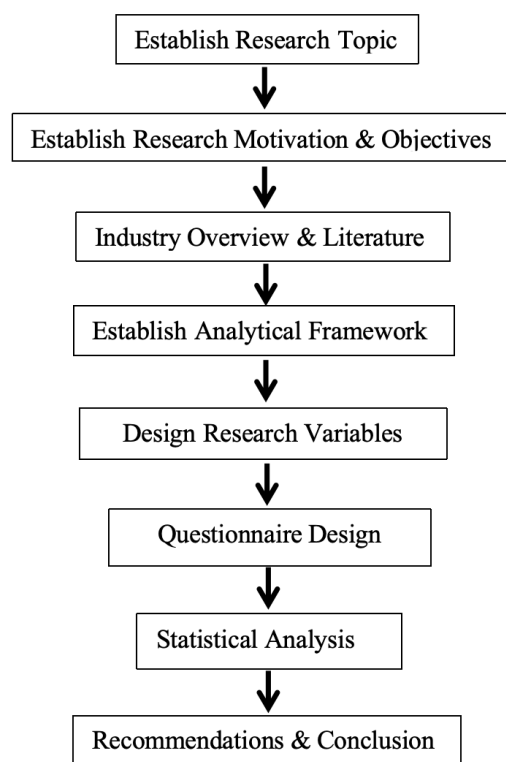


Fig. 1-1 Research Process

1.4 Research Process

This study first established the research topic and confirmed the research motivation and objectives. Simultaneously, industry overview data was collected, and a review of relevant literature was conducted to facilitate the establishment of the analytical framework. Subsequently, a research questionnaire was designed based on the analytical framework derived from the literature review. After questionnaire collection, the reliability and validity of the questionnaire were confirmed. Statistical analysis was then performed using the Linear Probability Model (LPM) and multiple regression analysis. Finally, conclusions and recommendations were proposed based on the statistical results.

II. LITERATURE REVIEW

2.1 Overview of the Construction Company Industry

The domestic construction development and real estate industry has long been regarded as a bellwether of the domestic economy. According to the standard industrial classification defined by the Directorate-General of Budget, Accounting and Statistics, Executive Yuan, industries related to construction development and real estate development are classified under the real estate sector. This study introduces the industry overview based on four aspects aligned with the characteristics of the real estate industry: Industry Characteristics, Market Characteristics, Business Characteristics, and Operating Environment Characteristics.

2.1.1 Industry Characteristics

The construction industry possesses the following six core characteristics: (1) It directly influences construction-related industries, with its output fluctuations affecting the development of dozens of upstream and downstream sectors; (2) It is significantly impacted by government policies and major public infrastructure projects, including land policies, tax reforms, and urban planning, all of which directly affect industry development; (3) It exhibits strong regionality, with significant differences in market supply and demand, price levels, and consumer preferences across different regions; (4) It combines characteristics of both service and manufacturing industries, requiring production management capabilities as well as service and marketing capabilities; (5) Products possess uniqueness and immobility—each house is a unique product and cannot be circulated across regions like typical goods; (6) It is predominantly characterized by small and medium-sized enterprises or family-run businesses, leading to lower industry concentration and a complex competitive landscape.

2.1.2 Market Characteristics

The market characteristics of the construction industry are manifested in three aspects: (1) It is a high-risk industry due to long product development cycles, substantial capital requirements, and numerous market variables; (2) It is susceptible to political, economic, and price fluctuations—rising raw material costs, interest rate changes, and policy adjustments directly affect costs and demand; (3) Instability in the sources of construction personnel and materials, with issues such as an aging workforce, shortage of skilled labor, and disruptions in the material supply chain frequently reported.

2.1.3 Business Characteristics

At the business level, the construction industry exhibits: (1) Capital and labor-intensive characteristics, requiring significant capital investment and human resource allocation; (2) Lack of business continuity, resulting in difficulties in accumulating and passing on experience, as each project often requires a newly organized team; (3) Frequent formation of temporary organizations for single projects, with teams disbanding upon project completion; (4) Difficulty in controlling the production process and relatively high risk, with uncertainties present in every stage from land acquisition, planning and design, construction, to sales and handover.

2.1.4 Operating Environment Characteristics

Regarding the operating environment: (1) It is easily influenced by external environmental factors, including economic cycles, financial policies, and social changes; (2) It relies primarily on accumulated experience and technology, positioning it as a knowledge-intensive industry; (3) It requires a highly resource-integrated production process involving collaboration among multiple parties, including landowners, architects, construction firms, sales agencies, and financial institutions.

2.2 Development and Connotation of the 4P Marketing Theory

The 4P theory originated in the United States in the 1960s, coinciding with the emergence of the marketing mix concept [1]. E. Jerome McCarthy, in his 1960 book "Basic Marketing," generally categorized these elements into four groups: Product, Price, Place, and Promotion—the renowned 4Ps.

2.2.1 Product Strategy

A primary consideration in product strategy involves product line extension—whether to extend towards high-quality, high-price segments or towards high-volume, low-margin products is a crucial issue. In considering product strategy, establishing a strong brand name and brand

image to forge a unique competitive advantage among numerous competing brands becomes a core task of corporate marketing. For construction companies, product strategy pertains not only to the design and quality of the house itself but also involves the accumulation and communication of brand value.

2.2.2 Price Strategy

Among the 4Ps of marketing, price strategy is the only factor that does not involve direct expenditure, yet pricing involves considerable complexity. Consumers hold a reasonable price range for a product; a low-price policy might lead to high volume but thin margins, while a high-price policy might appeal to a limited audience. Pricing decisions should carefully consider numerous factors, including cost structure, competitive dynamics, perceived consumer value, and brand positioning, to establish a reasonable price that is both competitive and acceptable to customers. In the real estate sector, pricing strategy is even more complex due to high product heterogeneity, low transaction frequency, and significant information asymmetry.

2.2.3 Place Strategy

The marketing channel consists of marketing intermediary units situated between the manufacturer and the customer. The task of channel operation is to deliver the right product to the right place at the right time, presenting the product to the customer in an appropriate display format that ensures customer satisfaction. For construction companies, place strategy involves various combinations of forms, including the location of sales centers, outsourcing to sales agencies, and online marketing.

2.2.4 Promotion Strategy

When competition among firms intensifies, product promotion work becomes particularly crucial. How to utilize promotional techniques to appeal to consumers and make them feel genuinely benefited is the most critical issue in marketing activities. Promotion strategies for real estate include diverse forms such as advertising campaigns, event hosting, and incentive programs.

2.3 Related Research on Product Strategy and Home-Buying Decisions

2.3.1 House Design Style

The influence of house design style on consumer home-buying intention has been explored in numerous studies [2]. In recent years, consumer awareness regarding living standards has increased, leading to a heightened appreciation for residential style and taste. Housing style positively impacts the consumer's perceived lifestyle, the overall character of the community, and even the enhancement of the urban landscape, creating a positive

visual and sensory influence. The evolution from traditional military dependents' villages and standard residences to contemporary styles—such as Japanese, Baroque, European, and Country styles—has seen the emergence of numerous projects showcasing diverse architectural tastes [3]. Related research indicates that consumer preference for residential exterior appearance significantly influences their home-buying decisions, particularly in the mid-to-high-end market, where uniqueness and differentiation in design style become crucial competitive factors.

2.3.2 House Construction Quality

The construction quality of a dwelling directly relates to the consumer's perceived safety in daily living. Situated within an earthquake zone, Taiwan has experienced events like the 921 Earthquake, and specifically in the Tainan area, events like the Baihe Earthquake and, more recently, the collapse of the Weiguan Jinlong building have heightened consumer awareness regarding the importance of structural safety. In recent years, construction companies have addressed structural safety by employing suitable foundation techniques and methods—such as isolated footings, combined footings, and raft foundations—tailored to the project's location and consumer needs, aiming to satisfy the consumer's desire for safety and protect their lives and property. Empirical research generally confirms that construction quality is one of the most valued factors in consumer home-buying decisions, its influence sometimes even outweighing that of price [4].

2.3.3 Construction Company Brand

Consumers perceive that a reputable construction company brand enhances their confidence in purchasing a home [5]. Given the varying quality among construction companies in Taiwan, consumers often prioritize selecting builders with proven track records to mitigate risks such as bankruptcy before project completion or recourse issues regarding post-handover construction quality and warranty claims. A brand represents not only a guarantee of product quality but also symbolizes a certain social status and identity. The accumulation of brand equity requires long-term investment, yet once established, it serves as a crucial safeguard for the enterprise's sustainable operation.

2.4 Related Research on Price Strategy and Home-Buying Decisions

2.4.1 Current Housing Market Climate

Academic perspectives vary regarding the influence of the real estate market cycle on consumer home-buying decisions [6]. Some studies suggest consumers exhibit herd mentality, being more willing to enter the market

during upswings; others indicate that for owner-occupiers, decisions are driven more by personal needs and affordability than by the overall market climate. In practice, since the primary need for owner-occupier consumers is shelter, their decisions are generally less influenced by market cycles, with housing remaining the primary consideration for purchase.

2.4.2 Location Living Functions

The living functions of a location exert an absolute influence on the convenience of consumers' lives [7]. Common demands and questions raised by consumers in the industry revolve around the proximity of their residence to amenities such as MRT stations, commercial districts, parks, schools, waterfront areas, green spaces, and convenient transportation arteries [8]. These lifestyle considerations have become key factors guiding construction companies in land acquisition and are crucial determinants of a project's future sales success. Hong Kong magnate Li Ka-shing famously stated that the three essentials for buying a good property are Location, Location, Location. Choosing the right location has become a golden rule for both consumers and construction companies.

2.4.3 Future Appreciation Potential

For investor-type consumers, future appreciation potential is a core consideration in home-buying decisions [8]; however, for owner-occupier consumers, its importance is relatively lower. In real estate transactions, regardless of market conditions or appreciation prospects, no tangible profit is realized without a sale [9]. Therefore, for consumers whose primary need is owner-occupancy, future appreciation potential is not the foremost consideration.

2.5 Establishment of Research Hypotheses

Based on the synthesis of the above literature review, this study establishes the following six research hypotheses:

H1a: The house design style offered by the construction company has a significant positive impact on consumer home-buying intention.

H1b: The house construction quality offered by the construction company has a significant positive impact on consumer home-buying intention.

H1c: The construction company's brand has a significant positive impact on consumer home-buying intention.

H2a: The current housing market climate has a significant positive impact on consumer home-buying intention.

H2b: The location living functions of the project offered by the construction company have a significant positive impact on consumer home-buying intention.

H2c: The future appreciation potential of the property offered by the construction company has a significant positive impact on consumer home-buying intention.

III. RESEARCH DESIGN AND METHODOLOGY

3.1 Research Framework

This study aims to explore the influence of the Product and Price dimensions from the 4P marketing theory on consumer home-buying intention. Based on the literature review and discussion in Chapter 2, the research framework established for this study is illustrated in Fig. 3-1: The independent variables comprise the Product dimension (House Design Style, House Construction Quality, Construction Company Brand) and the Price dimension (Current Housing Market Climate, Location Living Functions, Future Appreciation Potential). Consumer Home-Buying Intention serves as the dependent variable, with Consumer Demographic Information included as control variables.

Based on the findings from the literature review and discussion in Chapter 2, the hypothetical framework for this study is shown in Fig. 3-1:



Fig. 3-1 Research Framework

3.2 Research Subjects and Sampling Design

The scope and subjects of this study are consumers within the Tainan area of this country, without restrictions on the respondents' industry category, education level, age, or gender. A convenience sampling method was employed, collecting data through both online and paper-based questionnaires. A total of 130 research questionnaires were distributed, with 122 valid responses received, yielding an effective response rate of 93.8%.

3.3 Operational Definition and Measurement of Variables

The research questionnaire comprises four parts: Respondent Demographics, Product Dimension Items, Price Dimension Items, and Home-Buying Intention Items.

The operational definitions and measurement methods for each variable are as follows:

3.3.1 Dependent Variable

Home-Buying Intention (Y) is defined as the consumer's willingness to enter into a purchase transaction with a construction company. It is measured as a dummy variable, where 1 indicates willingness to purchase, and 0 indicates unwillingness to purchase.

3.3.2 Independent Variables

Product Dimension Independent Variables include:

X1 House Design Style: Refers to the visual and functional elements of the project, such as exterior design, interior layout, and spatial planning. Measured on a five-point Likert scale (1=Not Important At All, 5=Very Important).

X2 House Construction Quality: Refers to quality elements of the project, including structural safety, material selection, and construction methods. Measured on a five-point Likert scale.

X3 Construction Company Brand: Refers to the construction company's brand image, market reputation, and past performance. Measured on a five-point Likert scale.

Price Dimension Independent Variables include:

X4 Current Housing Market Climate: Refers to the consumer's perception of the overall current real estate market conditions. Measured on a five-point Likert scale.

X5 Location Living Functions: Refers to the living amenities associated with the project's location, such as transportation convenience, commercial facilities, schools, and parks. Measured on a five-point Likert scale.

X6 Future Appreciation Potential: Refers to the consumer's expectation regarding the property's potential for future price increase. Measured on a five-point Likert scale.

3.3.3 Control Variables

To control for the influence of consumer heterogeneity on home-buying intention, this study incorporates the following control variables:

D1 Average Annual Income: Dummy variable, 1 indicates NTD 1 million or above, 0 indicates less than NTD 1 million.

D2 Home Purchase Down Payment: Dummy variable, 1 indicates down payment of NTD 2 million or above, 0 indicates less than NTD 2 million.

D3 Home Purchase Demand: Dummy variable, 1 indicates Owner-Occupier, 0 indicates Investor.

D4 Distance Between Home and Workplace: Dummy variable, with D4-1 (Within 3-5 km) and D4-2 (Over 5 km) as two reference groups.

3.4 Statistical Analysis Methods

3.4.1 Descriptive Statistics Analysis

Frequency distribution and percentages will be used to illustrate the sample structure and basic characteristics of consumers engaging in purchase transactions with construction companies, aiming to understand the distribution of the sample. Quantitative calculations of the mean, standard deviation, and ranking for each questionnaire item will be compared. A higher mean indicates greater importance placed on that attribute by respondents, while the standard deviation illustrates the consistency or dispersion of respondent views [10].

3.4.2 Reliability Analysis

After confirming the factor structure for each dimension, reliability analysis will be conducted to ensure the internal consistency of the research questionnaire. This study employs Cronbach's α coefficient for evaluation. Generally, a Cronbach's α coefficient greater than 0.7 indicates satisfactory internal consistency for the data within that dimension.

3.4.3 Validity Analysis

Validity analysis is used to assess the effectiveness of the research questionnaire, specifically the extent to which it truly measures the intended variable properties. Higher questionnaire validity implies that the results more accurately reflect the actual situation. This study utilizes the KMO (Kaiser-Meyer-Olkin) measure and Bartlett's Test of Sphericity within factor analysis for validity assessment. A KMO value greater than 0.5 and a significant Bartlett's Test ($p < 0.05$) indicate that the data is suitable for factor analysis.

3.4.4 Linear Probability Model (LPM)

The Linear Probability Model (LPM) is used to explain the relationship between explanatory variables and the dependent variable, specifically analyzing the probability of change when the dependent variable is dichotomous (0 or 1). In this study, a dependent variable value of 1 represents the consumer's willingness to purchase a home from a construction company project, while 0 represents unwillingness to purchase. The product and price dimensions of the 4P marketing theory serve as the basis for the explanatory variables in this study, while the dependent variable represents the consumer's purchase decision regarding a construction company's project.

The preliminary regression model of this study is shown as Equation 1:

$$Y = \alpha + \gamma_1 D_1 + \gamma_2 D_2 + \gamma_3 D_3 + \gamma_{4-1} D_{4-1} + \gamma_{4-2} D_{4-2} + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon \quad (1)$$

IV. EMPIRICAL RESULTS ANALYSIS

4.1 Sample Structure Analysis

The demographic data collected in the research questionnaire includes: Average Annual Income, Home Purchase Down Payment, Home Purchase Demand, and Distance Between Home and Workplace. Each is explained as follows:

4.1.1 Average Annual Income

A total of 122 valid samples were collected. Regarding average annual income, 76 respondents (62%) reported an annual income of NTD 1 million or above, while 46 respondents (38%) reported an income below NTD 1 million. This indicates that the group with an average income of NTD 1 million or above constitutes the absolute majority (over 50%).

Table 4-1 Distribution of Average Annual Income

Variable	Option	Count	Percentage	Cumulative Percentage
Average Annual Income	NTD 1M or above	76	62%	62%
	Below NTD 1M	46	38%	100%
Total	NA	122	100.0%	NA

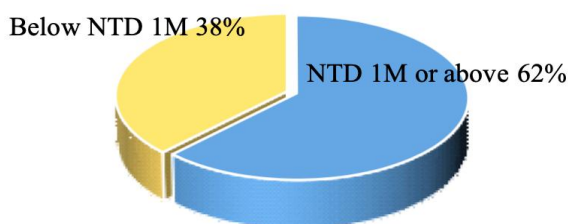


Fig. 4-1 Analysis Chart for Average Annual Income

4.1.2 Down Payment

Regarding down payment, 58 respondents (48%) reported having a down payment of NTD 2 million or above, while 64 respondents (52%) reported a down payment below NTD 2 million. This shows that the proportions for down payments below and above NTD 2 million are relatively

close, each accounting for roughly half, with the group below NTD 2 million being slightly larger.

Table 4-2 Comparison Table for Down Payment

Variable	Option	Count	Percentage	Cumulative Percentage
Down Payment	NTD 2M or above	58	48%	48%
	Below NTD 2M	64	52%	100%
Total	NA	122	100.0%	NA

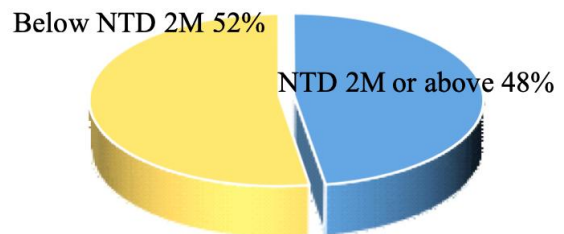


Fig. 4-2 Comparison Chart for Down Payment

4.1.3 Home Purchase Demand

Regarding home purchase demand, 104 respondents (85%) indicated owner-occupier demand, while 18 respondents (15%) indicated investor demand. This indicates that, in this study on the decisive factors influencing consumer purchases of homes from construction company projects, owner-occupier consumers constitute the primary market segment.

Table 4-3 Comparison Table for Home Purchase Demand

Variable	Option	Count	Percentage	Cumulative Percentage
Home Purchase Demand	Owner-Occupier	104	85%	85%
	Investor	18	15%	100%
Total	NA	122	100.0%	NA

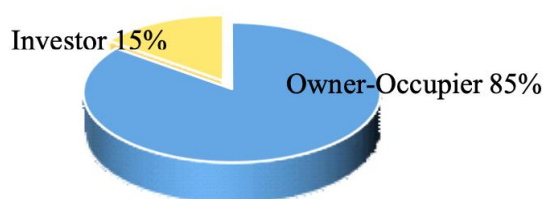


Fig. 4-3 Comparison Chart for Home Purchase Demand

4.1.4 Distance Between Home and Workplace

Regarding the distance between home and workplace, 58 respondents (48%) reported a distance of under 3 km, 47 respondents (39%) reported a distance within 3-5 km (inclusive), and 17 respondents (14%) reported a distance over 5 km. This shows that a distance under 3 km is the most common preference, followed by a distance within 3-5 km, while distances over 5 km account for a very small portion. It is evident that consumers generally prioritize proximity to their workplace when considering home location.

Table 4-4 Comparison Table for Distance Between Home and Workplace

Variable	Option	Count	Percentage	Cumulative Percentage
Distance Between Home	Under 3 km	58	48%	48%
	Within 3-5 km (incl.)	47	39%	86%
	Over 5 km	17	14%	100%

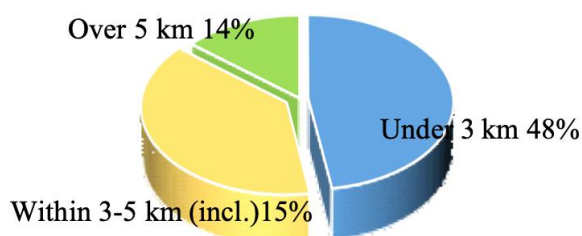


Fig. 4-4 Comparison Chart for Distance Between Home and Workplace

4.2 Descriptive Statistics Analysis

4.2.1 Product Dimension

From the analysis of the product dimension, the mean score for Construction Company Brand is 3.15 (SD = 1.68); for House Design Style, the mean is 3.08 (SD = 1.756); and for House Construction Quality, the mean is 3.07 (SD = 1.647). This reveals that within the product dimension, Construction Company Brand is the top priority for consumers, followed by Design Style, and then Construction Quality. However, it is notable that the means for all three indicators in this dimension are quite close, suggesting that all three factors are important considerations for consumers.

Table 4-5 Descriptive Statistics for Product Dimension

Product Dimension	N	Mean	Std. Deviation	Ranking
Construction Co. Brand	122	3.15	1.680	1
House Design Style	122	3.08	1.756	2
House Construction Quality	122	3.07	1.647	3
Valid N (listwise)	122	NA	NA	NA

4.2.2 Price Dimension

Analysis of the price dimension reveals that the mean score for Location Living Functions is 3.17 (SD = 1.785); for Future Appreciation Potential, the mean is 3.00 (SD = 1.701); and for Current Housing Market Climate, the mean is 2.87 (SD = 1.696). This indicates that within the price dimension, Location Living Functions is the foremost consideration for consumers, followed by Future Appreciation Potential, with Current Housing Market Climate being the least considered factor. Particularly noteworthy is the relatively large difference in means between Location Living Functions and Future Appreciation Potential, as well as a noticeable gap between Current Housing Market Climate and Future Appreciation Potential. Thus, even within the same dimension, Location Living Functions stands out as a key factor in consumer home-buying decisions.

Table 4-6 Descriptive Statistics for Price Dimension

Price Dimension	N	Mean	Std. Deviation	Ranking
Location Living Functions	122	3.17	1.785	1
Future	122	3.00	1.701	2

Appreciation Potential				
Current Housing Climate	122	2.87	1.696	3
Valid N (listwise)	122	NA	NA	NA

4.3 Reliability Analysis

4.3.1 Product Dimension Reliability

The Cronbach's Alpha value for the Product dimension is 0.959, which is greater than 0.7, indicating good reliability.

The corrected item-total correlation coefficients for all items are greater than 0.5 (House Design Style: 0.929; House Construction Quality: 0.890; Construction Company Brand: 0.925), indicating that each item possesses good reliability.

Table 4-7 Reliability Analysis for Product Dimension

Cronbach's Alpha Value	Number of Items
0.959	3

Table 4-8 Item-Total Statistics for Product Dimension

Product Dimension	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
House Design Style	6.22	10.339	0.929	0.929
House Construction Quality	6.23	11.335	0.890	0.958
Construction Co. Brand	6.16	10.860	0.925	0.932

4.3.2 Price Dimension Reliability

The Cronbach's Alpha value for the Price dimension is 0.949, which is greater than 0.7, indicating good reliability. The corrected item-total correlation coefficients for all items are greater than 0.5 (Current Housing Market Climate: 0.898; Location Living Functions: 0.870; Future Appreciation Potential: 0.912), indicating that each item possesses good reliability.

Table 4-9 Reliability Analysis for Price Dimension

Cronbach's Alpha Value	Number of Items
0.949	3

Table 4-10 Item-Total Statistics for Price Dimension

Price Dimension	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Current Housing Climate	6.17	11.268	0.898	0.921
Location Living Functions	5.87	10.925	0.870	0.944
Future Appreciation Potential	6.04	11.131	0.912	0.911

4.4 Validity Analysis

4.4.1 Product Dimension Validity

The KMO value for the Product dimension is 0.769, which is greater than 0.7. Bartlett's Test of Sphericity yields an approximate Chi-Square of 410.711 with 3 degrees of freedom and a significance level of 0.000 ($p < 0.05$), indicating that the Product dimension data is suitable for factor analysis. The communalities for all variables exceed 0.5 (House Design Style: 0.939; House Construction Quality: 0.902; Construction Company Brand: 0.934). The total variance explained is 92.533%, which is greater than 0.6. Therefore, all variables within this dimension can be retained.

Table 4-11 KMO and Bartlett's Test for Product Dimension

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.769
Bartlett's Test of Sphericity	Approx. Chi-Square	410.711
	df	3
	Sig.	0.000

Table 4-12 Communalities for Product Dimension

Product Dimension	Initial	Extraction
House Design Style	1.000	0.939

House Construction Quality	1.000	0.902
Construction Company Brand	1.000	0.934

Table 4-13 Total Variance Explained for Product Dimension

Price Dimension	Initial	Extraction
Current Housing Climate	1.000	0.914
Location Living Functions	1.000	0.886
Future Appreciation Potential	1.000	0.925

The KMO value for the Price dimension is 0.766, which is greater than 0.7. Bartlett's Test of Sphericity yields an approximate Chi-Square of 360.417 with 3 degrees of freedom and a significance level of 0.000 ($p < 0.05$), indicating that the Price dimension data is suitable for factor analysis. The communalities for all variables exceed 0.5 (Current Housing Market Climate: 0.914; Location Living Functions: 0.886; Future Appreciation Potential: 0.925). The total variance explained is 90.826%, which is greater than 0.6. Therefore, all variables within this dimension can be retained.

Table 4-14 KMO and Bartlett's Test for Price Dimension

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.766
Bartlett's Test of Sphericity	Approx. Chi-Square	360.417
	df	3
	Sig.	0.000

4.4.2 Price Dimension Validity

Table 4-15 Communalities for Price Dimension

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.776	92.533	92.533	2.776	92.533	92.533
2	0.145	4.824	97.357			
3	0.079	2.643	100.000			

Table 4-16 Total Variance Explained for Price Dimension

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.725	90.826	90.826	2.725	90.826	90.826
2	0.171	5.697	96.522			
3	0.104	3.478	100.000			

4.5 Regression Analysis (LPM - Linear Probability Model)

4.5.1 LPM Analysis Excluding Control Variables

This study first conducted regression analysis excluding dummy variables, where $Y=1$ represents the consumer's decision to purchase a home, and $Y=0$ represents the decision not to purchase. The analysis focused on the six questionnaire items: X1 House Design Style, X2 House Construction Quality, X3 Construction Company Brand, X4 Current Housing Market Climate, X5 Location Living Functions, and X6 Future Appreciation Potential.

Observing the research results, four variables showed significant positive effects: X1 House Design Style (coefficient 0.030, $t=2.66$, $p<0.01$), X2 House Construction Quality (coefficient 0.041, $t=4.17$, $p<0.001$), X3 Construction Company Brand (coefficient 0.026, $t=2.49$, $p<0.05$), and X5 Location Living Functions (coefficient 0.027, $t=2.51$, $p<0.05$). Conversely, X4 Current Housing Market Climate (coefficient 0.003, $t=0.32$, $p>0.1$) and X6 Future Appreciation Potential (coefficient 0.005, $t=0.48$, $p>0.1$) were not significant.

The adjusted R-Square is notably high at 0.986, indicating that these explanatory variables possess 98.6% explanatory power for the dependent variable $Y=1$.

(purchase) and $Y=0$ (non-purchase) [11]. The Durbin-Watson statistic is 2.286, falling within the range of 1.5-2.5, suggesting no autocorrelation issues.

4.5.2 LPM Analysis Including Control Variables

Upon incorporating all control variables into the regression equation, the research findings remained largely consistent with the model excluding control variables. X1 House Design Style ($p<0.05$), X2 House Construction Quality ($p<0.001$), X3 Construction Company Brand ($p<0.05$), and X5 Location Living Functions ($p<0.05$) continued to exhibit significant positive effects. X4 Current Housing Market Climate and X6 Future Appreciation Potential remained non-significant.

Regarding the control variables, D1 Average Annual Income, D2 Home Purchase Down Payment, D3 Home Purchase Demand, and D4 Distance Between Home and Workplace all failed to reach statistical significance ($p>0.1$), suggesting that these demographic variables did not exert a significant influence on home-buying intention within the scope of this study. The adjusted R-Square remained high at 0.986, with a Durbin-Watson statistic of 2.224, indicating excellent explanatory power of the model.

V. DISCUSSION AND CONCLUSION

5.1 Research Findings and Discussion

5.1.1 Empirical Findings on the Product Dimension

This study confirms that within product strategy, House Design Style, House Construction Quality, and Construction Company Brand all have a significant positive impact on consumer home-buying intention, supporting research hypotheses H1a, H1b, and H1c. This finding aligns with conclusions drawn from existing literature, reaffirming the core value of the product itself.

Based on the coefficient magnitudes, House Construction Quality exerts the strongest influence ($\beta=0.041$). This reflects the unique geographical context of Taiwan, situated in an earthquake zone, and the heightened importance consumers place on residential safety following several major earthquake disasters. This finding holds crucial implications for construction companies: under resource constraints, prioritizing and effectively communicating the advantages of construction quality may represent the strategy with the highest return on investment.

The influence of Construction Company Brand is also substantial ($\beta=0.026$), underscoring the value of brand equity in the real estate market. Given the uneven quality among Taiwanese construction firms, consumers tend to favor builders with a positive brand image and strong market reputation to mitigate risks associated with

purchase disputes and after-sales service issues. This implies that brand management for construction companies should extend beyond advertising to encompass rigorous quality control and attentive customer service across every project.

House Design Style also exerts a significant influence ($\beta=0.030$), reflecting the modern consumer's pursuit of lifestyle aesthetics and experiential value. The evolution from traditional housing to projects featuring diverse architectural styles illustrates that design has become a crucial source of product differentiation.

5.1.2 Empirical Findings on the Price Dimension

Within price strategy, this study found that Location Living Functions has a significant positive impact on home-buying intention, supporting H2b. However, Current Housing Market Climate and Future Appreciation Potential were found to be non-significant, failing to support H2a and H2c.

The significant impact of Location Living Functions corroborates Li Ka-shing's golden rule of "Location, Location, Location." For consumers, purchasing a home involves not just acquiring a living space but also buying into a lifestyle and a network of conveniences. Amenities such as transportation arteries, commercial facilities, schools, parks, and medical institutions directly affect the quality and convenience of daily life. This finding serves as a reminder for construction companies to prioritize location conditions as a core consideration during land acquisition and product positioning.

The non-significance of Current Housing Market Climate is closely tied to the characteristics of the study sample, which was predominantly composed of owner-occupier consumers (85%). For owner-occupiers, home-buying decisions are primarily driven by personal needs, affordability, and life-cycle planning rather than assessments of overall market trends. This finding holds significant theoretical implications: research on consumer home-buying decisions must differentiate between the distinct decision-making logic of owner-occupiers and investors; failure to do so may lead to biased conclusions.

Similarly, the non-significance of Future Appreciation Potential relates to the sample's composition. For owner-occupier consumers, the primary objective of purchasing a home is to derive utility from occupancy rather than capital gains. As long as the property meets their residential needs, future price appreciation potential is not a primary concern. This finding offers important insights for the marketing communication strategies of construction companies: when targeting owner-occupiers, marketing appeals should focus on present-day value

propositions such as quality of life and living comfort, rather than future investment returns.

5.2 Theoretical Contributions

The contributions of this study to marketing theory and real estate research are primarily reflected in three aspects:

First, this study applies the 4P marketing theory to the real estate domain, validating the applicability of the Product and Price dimensions within the context of consumer home-buying decisions and thereby extending the application boundaries of the 4P framework. The results demonstrate that despite the high heterogeneity and complexity inherent in real estate products, Product and Price remain core factors influencing consumer decisions.

Second, this study distinguishes between the distinct decision-making logic of owner-occupier and investor consumers, revealing that for owner-occupiers, the influence of Location Living Functions far outweighs that of market climate and appreciation potential. This finding supplements consumer behavior theory by highlighting the systematic differences in decision-making criteria based on purchase motivation.

Third, by focusing on the Greater Tainan area as the research context, this study addresses a gap in regional real estate research. Compared to findings from the Taipei metropolitan area, consumers in Greater Tainan exhibit higher price sensitivity and a stronger reliance on location-specific living amenities. These regional differences hold significant reference value for the localized management strategies of construction companies.

5.3 Practical Recommendations

Based on the research findings, the following practical recommendations are proposed for construction companies:

5.3.1 Product Strategy Recommendations

First, construction companies should regard construction quality as a core competitive strength. Given Taiwan's location in an earthquake zone, consumers place high importance on structural safety and build quality. Construction companies should rigorously oversee aspects such as foundation methods, material selection, and construction supervision. Furthermore, quality information should be transparently communicated to consumers through third-party certifications and documentation of the construction process, enabling consumers to perceive and trust the company's quality commitment [12].

Second, construction companies should actively cultivate brand equity. A brand serves not merely as a marketing tool but as a vessel of consumer trust. Companies should gradually build brand credibility through consistently stable quality performance,

comprehensive after-sales service, and a responsible corporate ethos. For small and medium-sized enterprises, establishing a specialized brand image focused on a particular region or product type can serve as a differentiation strategy to stand out.

Finally, construction companies should emphasize differentiation through design style. In an increasingly homogenized market, a unique design style can constitute a significant competitive advantage. Collaborating with talented architects to develop projects with a distinctive aesthetic identity, while also remaining attuned to evolving consumer tastes, allows product design to stay relevant and contemporary.

5.3.2 Price Strategy Recommendations

Regarding price strategy, construction companies should anchor their pricing primarily on the living functions associated with the location. The price of a project should reflect the convenience of the location and the level of public amenities available, rather than relying excessively on forecasts of future market conditions. Marketing communications should vividly depict the lifestyle and daily conveniences that the location affords potential residents.

When addressing owner-occupier consumers, construction companies should avoid overemphasizing investment returns and appreciation potential. Marketing appeals should focus on the intrinsic residential value of the product, including spatial comfort, community environment, and lifestyle convenience. Overemphasis on investment attributes may inadvertently diminish the product's appeal to owner-occupier buyers.

5.3.3 Recommendations for Localized Operations

The real estate market in the Greater Tainan area possesses unique characteristics, warranting localized operational strategies from construction companies. On one hand, companies should cultivate a deep understanding of the lifestyle patterns and residential preferences of local consumers. On the other hand, they should actively participate in local community development and urban planning initiatives, enabling their projects to integrate seamlessly into the local context and garner acceptance from the local consumer base [13].

5.4 Research Limitations and Future Research Directions

This study is subject to certain limitations, which can serve as avenues for future research:

First, the research sample is confined to the Greater Tainan area, which inherently limits the generalizability of the findings. Future research could expand the survey scope to encompass other regions of Taiwan and conduct

cross-regional comparative analyses to elucidate variations in consumer home-buying decisions across different locales.

Second, the sample predominantly comprises owner-occupier consumers (85%), thus failing to fully capture the decision-making logic characteristic of investor-type consumers. Future studies could specifically target investor consumers to compare and contrast their considerations regarding product and price factors with those of owner-occupiers.

Third, the cross-sectional design employed in this study cannot capture the dynamic evolution of consumer home-buying decisions over time. Future research could adopt a longitudinal design to track changes in consumer decision-making across different phases of the market cycle.

Fourth, this study only investigates the Product and Price dimensions, omitting the potential influence of Place and Promotion strategies. Future research could incorporate all four dimensions of the marketing mix to develop a more comprehensive model of real estate marketing decision-making.

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