# BUDGET SEGMENTS IMPACTING CONSIDERATION OF FACTORS FOR SINGLE HOUSE PURCHASE AMONG CONSUMERS IN BANGKOK

By
RAPIPUN WANGSATTABONGKOT

A Thesis submitted in partial fulfillment
of the requirements for the degree of

Master of Business Administration

Graduate School of Business
Assumption University
Bangkok, Thailand

May 2005

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# ABSTRACT

The purpose of this research was to study the difference in purchasing single houses when segmented by budget. The research focused on studying the importance of factors which are used to purchase a single house which consist of flood, security, environment, material and construction, convenience of entrance and exit way, post sales services, trust of company, community charge, house usable area, nearness to facilities, house pattern, company's name, surrounding community, government support, central area and building, nearness to working area, previous project, project pattern, project size, nearness to children's school, being able to do other activities, nearness to the existing residential area and having friends in the project.

This study was limited to study group evaluating alternatives or specific potential consumers of single house priced between 3 to 9 million baht in the Bangkok area. Sample survey was used in this research. The data were collected from 400 respondents in Bangkok between 1st November until 31st December, 2004. Questionnaires and interviewing was used as the research instruments to obtain the data.

In order to interpret the data gathered, descriptive analysis was used and One Way Analysis of Variance (ANOVA) was applied for analyzing the difference of independent variables associated with a dependent variable.

The results from hypotheses testing show that there are differences in some factors when segmented by budget to purchase a single house. High price single house

buyers who are business owners and have high incomes tend to buy larger, high quality houses and live close to their relatives and community more than others. Factors such as lower price single house buyers who belong to the smart new generation groups are more flexible in living and have more time and opportunities to consider and select the best single house to satisfy their need.

This study recommends that housing developers and marketers implement the strategies to develop and improve their products or services to satisfy customer's need effectively. With high competition in market, it is essential that marketers should try to research and analyze customer needs and identify buying factors to understand who their customers are and what influences them when they are buying. This knowledge will contribute to more accurate valuations, more efficient transactions and more satisfied consumers. Marketers should propose product and services which are above-average and enhance the brand and company image. This will help to differentiate them from competitors and get high acceptance from customers on a long-term basis. Finally, marketers should have constant improvement and search for the new and better products and quality.

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# Chapter I

# Generalities of the study

## 1.1 INTRODUCTION OF THE STUDY

Pongstat (2003) stated that real estate is an important business for a country that is developing, such as Thailand, because it is a business which responds to four factors of living and supports the expansion of the economy. Economists indicate that real estate is a necessity of life, and it is both a consumer product as well as an investment at the same time. Real estate is separated into residential and non residential for commercial, industrial and recreation purposes.

**Table 1.1 Thai Real Estate Proportion**

| Type | | Proportion (%) |
|---|---|---|
| Residential | | 66% |
| Non-residential | Commercial | 16% |
| | Industrial | 8% |
| | Recreational | 10% |

Source: Pongsatat, M. (2003), "Real Estate in the Next Decade," Pamphlet of Property Perfect Public Company Limited's Seminar 11th September 2003. Bangkok, Thailand.

The table 1.1 on page 1 reports that the largest segment of real estate is residential which covers about 66 percent of all Thai real estate. Residential includes single houses, town houses, double houses and condominiums which are segmented by income of residence buyers into high price, medium price and low price. One branch of economics that is related to real estate is the construction business which builds infrastructure such as road, water supply, electricity, drain water supply and waste treatment plants. The Thai government supports mostly public utilities which are built for society and quality of living such as schools, hospitals, train stations, air ports and parks. In the economy, real estate has a proportion of between 20 to 25 % of gross domestic product (GDP) and this industry can motivate domestic economy by increasing multiplier effects such as construction material and electric appliances. A unit of real estate also creates 2.5 times of job employment which is higher than other industries. Hence, real estate is a very important business to develop the country.

Real estate is a combination of many sciences and the multiple approach of real estate consists of production and technology, marketing, finance, law and management. Today, Thailand has 67 million people and is becoming an open society. Many Thai farmers migrate to the city to work in industries and services and to a greater degree than in the past. The proportion of city people is 40 % and will increase to 50 % in a period of ten years. There are 31 million people who have migrated to the city and also want more houses, work places, recreation places, facilities and infrastructures and this is called urbanization. Bangkok is a "megacity" that has 10 million people with 1.2% growth rate. There is at least 0.4 % in-migration to Bangkok and vicinity areas. In production, Bangkok has about 70 % of Thai real estate (even during the 1997 crisis period, it still had 80% to 85 % of all real estate in Thailand.) Consequently, Bangkok was a large market in 2002 and 2003. Growth of real estate

depends on demand of people and their behavior. Most Bangkokians have high incomes and want better quality of living. Knowledge of real estate comes from understanding one's social position. Marketing is a leader before production to satisfy each consumer group in each location and period of time. The new generation people in a large city such as Bangkok are of great interest to researchers because they are pioneers in demanding a better quality of life.

From the study, sociologists quoted that most people should spend their time in doing activities in three parts equally. These are living 8 hours, working 8 hours and recreation 8 hours. Thus, real estate should produce products to support these activities. In the future, people in the large cities in Thailand will want residences with recreation. Consumers will have greater knowledge and become more globalized. There will be more urbanites and these consumers will want more condominiums. At the same time, families still want single houses which have good environment, wide space, good schools nearby and recreational centers. The "hot" products in the next decade will relate to recreation which includes entertainment, fashion and sports. Some projects envelop entertainment complex or shopping complex in the projects. The future of real estate is still in its infancy. Academics and marketing researchers will call for products that take the share away from competitors and upgrade real estate products to have medium-high technology and more sophistication. Obstruction and income level of buyers will point to developing quality of product. Conclusively, real estate will still be an interesting business and support consumer's needs in the future both in consumption and quality of living. There are changes all the time both domestic and worldwide. Strengths and weaknesses of real estate products should be analyzed regularly to develop products, marketing, sales, construction, and finance in the future. From the report of Pongstat (2003), single houses are necessary and there is

continuous demand in single house market especially in Bangkok. Income level of buyers is the main point to developing quality of product so the researcher is interested to study about the impact of budget upon single house purchase to know customer's need and as a guide in developing the single house market.

## 1.2 OVERVIEW OF REAL ESTATE BUSINESS IN THAILAND

Krungthep Thurakij (13th September, 2004) presented the trend graphs of saleable residences between 1994 to 2004 both in value and units by Figure 1.1 and Figure 1.2 shown on page 5. Graphs from Figure 1.1 and Figure 1.2 show that there was a boom in residence selling in 1994 and a lull in 1998. After that, residence sales increased every year and it shows a tendency to rise in 2005.

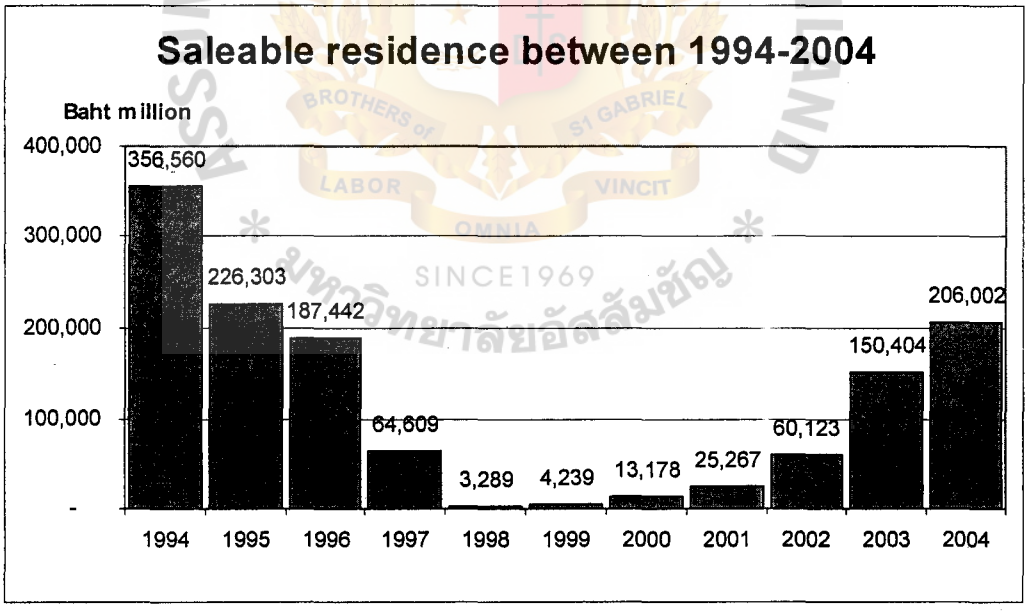



**Figure 1.1 Value of Saleable Residence between 1994-2004**

Source: *Krungthep Thurakij* (2004), "Real Estate Oversupply Protection," (Original in Thai Language), *Krungthep Thurakij*, (13th September, 2004), Bangkok, Thailand.

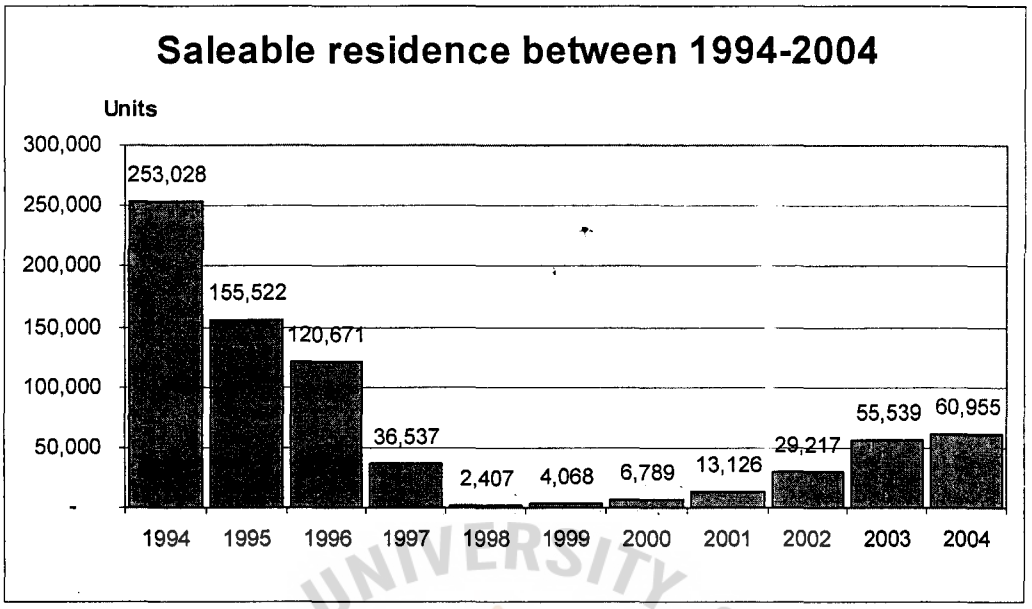
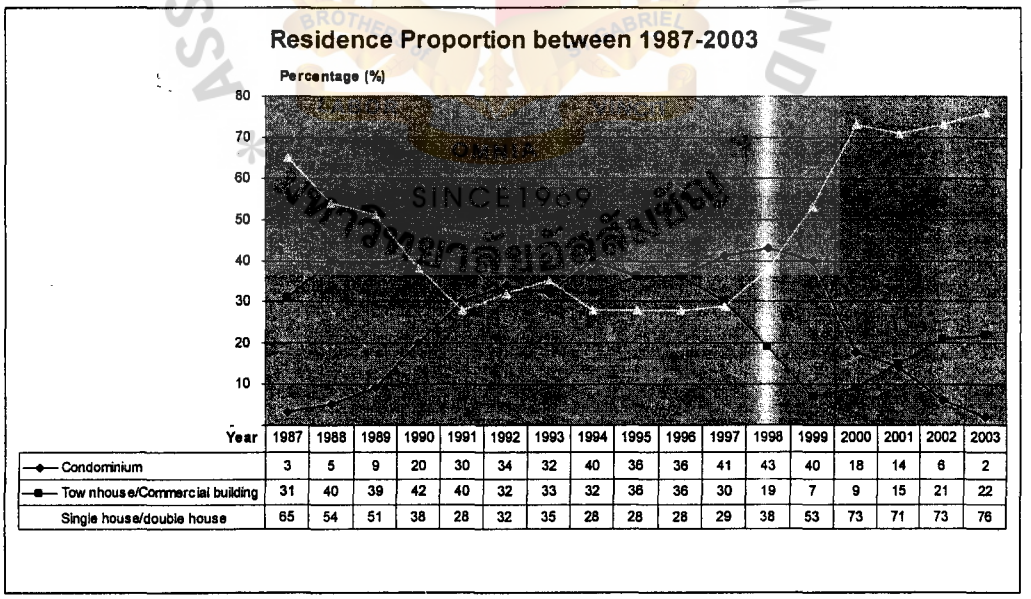



**Figure 1.2 Units of Saleable Residence between 1994-2004**

Source: *Krungthep Thurakij* (2004), "Real Estate Oversupply Protection," (Original in Thai Language), *Krungthep Thurakij,* (13th September, 2004), Bangkok, Thailand.




| Year | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Condominium | 3 | 5 | 9 | 20 | 30 | 34 | 32 | 40 | 36 | 36 | 41 | 43 | 40 | 18 | 14 | 6 | 2 |
| Tow nhouse/Commercial building | 31 | 40 | 39 | 42 | 40 | 32 | 33 | 32 | 36 | 36 | 30 | 19 | 7 | 9 | 15 | 21 | 22 |
| Single house/double house | 65 | 54 | 51 | 38 | 28 | 32 | 35 | 28 | 28 | 28 | 29 | 38 | 53 | 73 | 71 | 73 | 76 |

**Figure 1.3 Residence Proportion between Year 1987-2003**

Source: Real estate data and information center of Government Housing Bank (2003), Bangkok, Thailand: Government Housing Bank.

The Government Housing Bank (2003) gathered information about real estate proportions in Bangkok and vicinity areas which is categorized by condominiums, townhouses and commercial buildings, and single houses and semi detached houses in Figure 1.3. Single house and semi detached house segment was the largest segment for real estate market and the graph shows that this segment had the increasing trend so single house segment still holds interest as a topic of investigation.

According to a research conducted by the Department of Housing Development, and the Faculty of Architecture, Chulalongkorn University, the majority of homebuyers in Bangkok, Samut Prakarn, Nontaburi and Pathum Thani would still prefer to buy houses and live in northern Bangkok. The research was conducted in six major locations between July and September to analyze residential demand in Bangkok and its vicinity in 2004. The six areas are north, northeast, east, south, west and central business districts. The survey respondents were divided into four groups: those with residential problems, people who were interested in buying houses within a year, people who wanted to buy houses within three months, and people who had bought houses in the past year. From the survey, people wishing to buy a house within a year intended to buy another one as a second home.

At the same time, Katharangsiporn (Nov, 2003) reported that people having residential problems wanted to buy a new home because the main problem they faced was size and insufficient space. People who had no residential problems were still looking to buy a new home because they thought it was a good alternative investment. The survey also showed that the respondents would rather buy a new house than a used one. This report supports that there is a demand for new single housing projects.

Property lines (2003) indicated that there are 191 projects in Bangkok and vicinity (which launch printed matter advertising between 6th to 28th February, 2003 total about 43,395,498 baht ($1,118,441)[1].) Each zone consists of some districts in Bangkok and vicinity.

North : Bangkok (Chatujak, Ladpraw, Bangken, Donmueng)

Nontaburee (Pakkred)

Pathumtanee (Nongsua, Ladloomkaew, Rangsit, Thanyaburee, Samkok)

Northeast : Bangkok (Bangkapi, Buengkoom, Meenburee, Nongjok)

East : Bangkok (Prakanong, Suanluang, Prawes)

Samutprakarm (Pangplee, Paknam, Bangbor)

South : Bangkok (Ratburana, Jomtong, Bangkoontien)

Samutsakorn (Prapadang, Prasamutjedee)

West : Bangkok (Talingchan, Paseecharoen, Nongkaem)

Nakornpathom

Northwest : Nontaburee (Bangkruay, Bangbuatong, Bangyai, Sainoi)

Central business districts : Bangkok (Pathumwan, Sathorn, Yannawa, Huaykwang, Klongteoy, Bangkorleam, Wattana, Klongsan)

Inner Bangkok : Bangkok (Dusit, Bangkoknoi, Bangkokyai, Bangplad )

[1] 1 dollar is equal to 38.80 baht on 7th December 2004

**Table 1.2 Printed Matter Advertising Real Estate Projects**

| Zone | Single house | Town house | Allocated land | Semi detached house | Condominium | Office / Commercial building |
|---|---|---|---|---|---|---|
| North | 51 | 26 | 1 | 5 | 14 | 5 |
| Northeast | 21 | 9 | 0 | 0 | 13 | 1 |
| East | 2 | 8 | 2 | 1 | 2 | 3 |
| South | 5 | 2 | 0 | 0 | 1 | 0 |
| West | 8 | 7 | 0 | 0 | 4 | 1 |
| Northwest | 6 | 9 | 0 | 0 | 0 | 1 |
| Central Business Districts | 1 | 2 | 0 | 0 | 3 | 0 |
| Inner Bangkok | 0 | 0 | 0 | 0 | 1 | 0 |

Source: Property lines (2003), Real Estate and Economy News. Year 12th, March, No. 283, ISSN 0858-611X. Bangkok, Thailand: Property lines Co.,Ltd.

The data and graph presented by Table 1.2 on page 9 mentioned that there were several print ads for single house, town house, allocated land, semi detached house, condominium and commercial building in each zone. However, the information shows that the most printed ads are for the single house which is the largest market. It implied that single house sales are active and interesting in Bangkok and vicinity areas and there are a lot of competitors in this market.

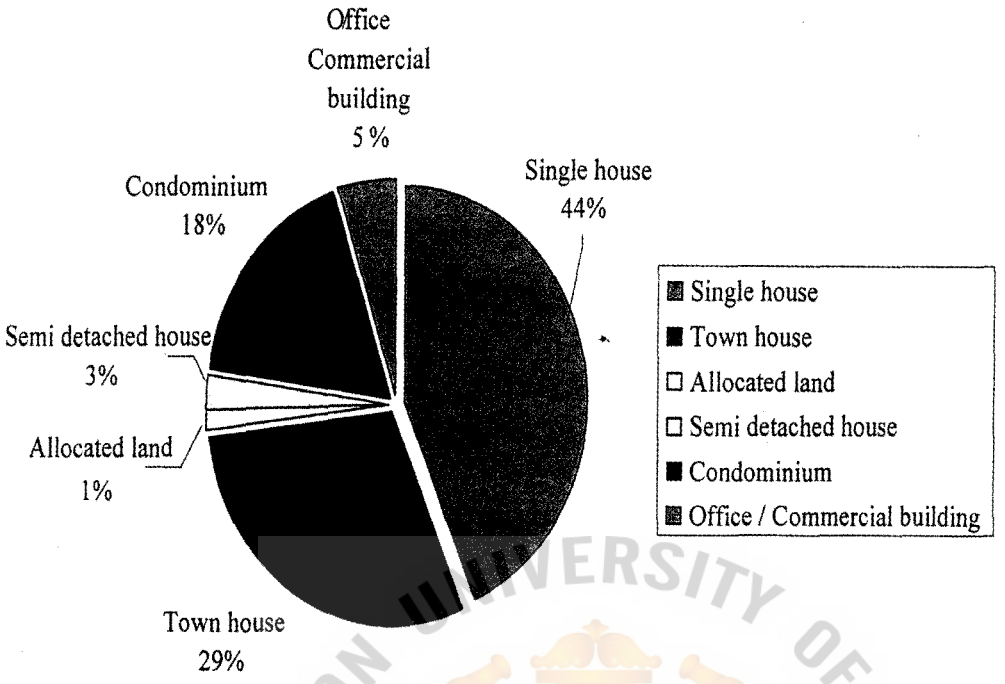



**Figure 1.4 Printed Matter of Advertising on Real Estate Projects**

Source: Property lines (2003), Real Estate and Economy News. Year 12, March, No. 283, ISSN 0858-611X. Bangkok, Thailand: Property lines Co.,Ltd.

Figure 1.4 shows the proportion of printed ads for real estate projects in Bangkok and vicinity between 6th to 28th February, 2003, according to types of residence. The graph shows that the single house has the maximum proportion 44%, followed by town house 29%, condominium 18%, commercial building 5%, semi detached house 3%, and allocated land 1%. It points out that single houses occupy the largest part of such ads and supports that single house market is interesting.

Datchanee (16th October, 2004), also indicated that in September 2004, there were about 4,138 units of new residence launched in the market which has total value 15,899 million baht ($410 million)[1]. Single house segment has the maximum value

[1] 1 dollar is equal to 38.80 baht on 7th December 2004

which amounts to 9,229 million baht ($238 million)[1] which means that new residence market is still growing with high volume.

Kasikorn Research Center (2003) stated that there is government support to help homebuyers and real estate companies, such as free of charge for transfer fee, fee of writing mortgages, and specific business taxes in 2003. There were increasing demand and supply in 2003. Projects which can not create confidence in consumers will lose their customers. Therefore, support of government impacts on purchasing single house.

Katharangsiporn (January, 2004) mentioned that there is a new trend among migrants to Bangkok. It is to buy a house in Bangkok and then persuade their parents to live there instead of sending money back to their home provinces to build a house for their parents so there is a lot of residential demand in Bangkok.

Katharangsiporn (July, 2004) quoted that there were 235 new projects with a total of 30,478 units launched in the first half, an amount equal to 58 percent of the total launched in 2003. Almost half of the units were detached houses and the average unit price is 3.38 million baht ($87,113.4)[1]. It showed that most developments focused on expensive houses. The agency found out that 91 new residential projects would be launched in the market in the second half of the year. Mr Pornchokchai, president of Agency for Real Estate Affairs, estimated that new residential supply would total 60,956 units worth 206 billion baht ($5.31 billion)[1] for all of 2004. Overall housing prices are currently up by 0.67 percent when compared to the levels at the end of 2003. The highest increases have been seen in single detached houses priced between one and two million baht, with a 2.07 percent increase over the first six months of the year.

Pornchokchai (2004) mentioned that the price of new single houses price changed in the last ten years or 1994 to 2004. An average price of a single house

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increased from 1.4 million baht ($36,082)[1] to 3.4 million baht ($87,629)[1] today, and will be increasing in the future. The average house price is about 4 million baht and most developments focused on expensive houses, the researcher design to study single house priced between 3 to 9 million baht to know customers in varied market segments.

Kritayanavaj (2003) stated that there are three concepts for housing development which is presented by Figure 1.5. Housing conception especially for project housing development consists of product, purpose, process which has many elements mentioned in Table 1.3 on page 13. Product mean houses which are created for customers. House product has present price and it also has future price which depends on product's quality, location and value from the customer's opinion. It has physical structure and a house pattern located at a unique location.

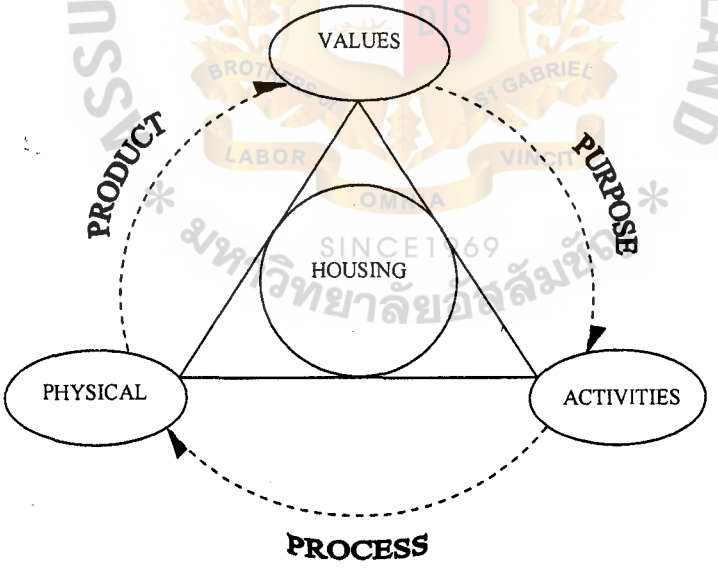


**Figure 1.5 Three Dimensions of Housing Conception**

Source: Kritayanavaj B. (2003), Three Dimensions of Housing Conception.

Bangkok, Thailand: Government Housing Bank.

For business, house is developed in a project which has infrastructures and facilities for living and should be located in pleasant environment. In addition, planned urban development also is considered in housing project development planning to create good product. Purposes to develop housing project are profit, prosperity and pleasure for developer, employees and people who have demand to purchase house. To understand prospective home buyers and right product positioning, developers should analyze profile of customers about their purchasing behavior. Moreover, there are personal reasons which are sense of belonging, profit making, pleasure and pride about social status and social linkage when developing and purchasing houses. Process to develop housing relates to location analysis and land acquisition, project design about house, infrastructure, facilities and layout, project feasibility about marketing, construction and finance. Next, construction management about speed, cost and quality is processed. Finally, marketing should set pricing for competitiveness in the market including public relations and promotion. Prepare model house, house model, sale officer also is necessary for presenting product. After customers book a house, there are processes about property transfer, post sales selling, post sales services, personal management and property information management in order to know competitors. At last, feed back from customers could help to develop products for the next project.

**Table 1.3 Three Dimensions of Housing Conception**

| Dimensions | Description |
|---|---|
| PRODUCT | Physical structure |
| | Place (location + area) |
| | Project (house + infrastructures + facilities) |
| | Price (present + future) |
| | Pleasant environment |
| | Planned urban development |
| PURPOSE | Profit + Prosperity + Pleasure(developer + employees) |
| | People (population)<br>- Need + Want + Demand(ability to pay or affordability) |
| | Prospective home buyers<br>- Profile of customers<br>- Who + Where + When +Why + How |
| | Purposes<br>- Personal (owner) occupation (sense of belonging)<br>- Profit making (investment + speculation→wealth)<br>- Pleasure (satisfaction + delight + self esteem)<br>- Pride social status + social linkage) |

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**Table 1.3 Three Dimensions of Housing Conception (continues)**

| Dimensions | Description |
|---|---|
| PROCESS | Place<br>- Location analysis (accessibility)<br>- Land acquisition (land bank) |
| | Planning<br>- Project design (house + infrastructures + facilities + layout)<br>- Project feasibility (marketing + construction + finance) |
| | Production<br>- Construction management (speed + cost + quality) |
| | Pricing (competitive) |
| | Public relations (publicity) |
| | Promotions<br>- Advertisement<br>- Merchandising tools<br>- Communication (mass media, call, letter etc.) |
| | Packaging<br>- Model house<br>- House model |
| | Personal selling (sale officer) |
| | Property transfer |
| | Property management (post sale selling) |
| | Personal management |
| | Property information management (know competitors) |

Source: Kritayanavaj B. (2003), Three Dimensions of Housing Conception.

Bangkok, Thailand: Government Housing Bank.

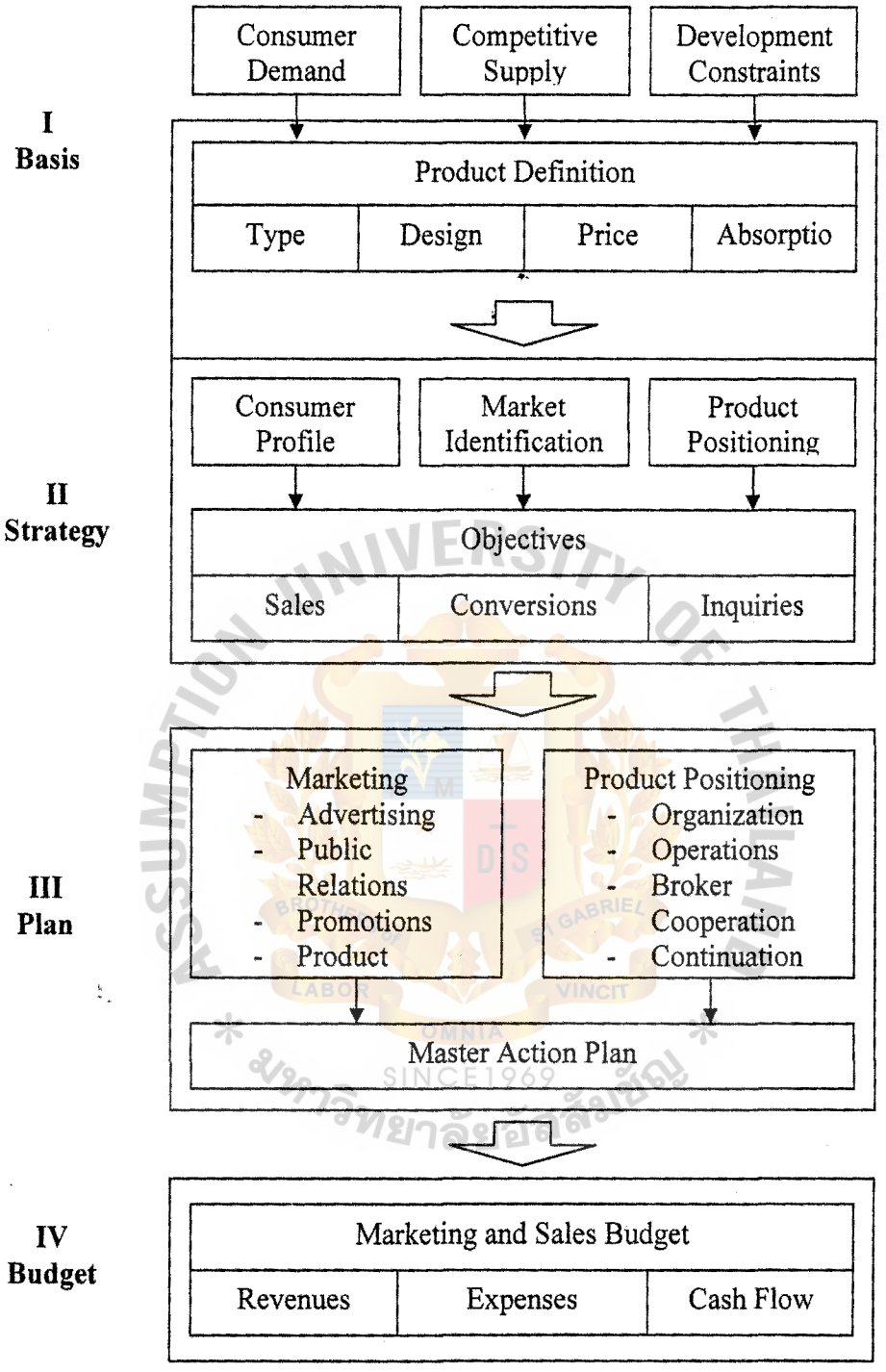


**Figure 1.6 Marketing and Sales Planning and Budgeting Chart**

Source: Kritayanavaj B. (2003), Marketing and Sales Planning and Budget. Pamphlet of Property Perfect Public Company Limited' s seminar, 11th September, 2003, Bangkok, Thailand.

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Kritayanavaj (2003), Senior Vice President of Academic and Real Estate Data Center, Government Housing Bank, referred to marketing and sales planning and budgeting chart of Clark Parker Associates, which is shown in Figure 1.6 on page 15. This chart illustrates the basis of product definition: type, design, price and absorption. The product definition comes from consumer demand, competitive supply and development constraints. The strategy to sales, conversions and inquiries gathered the consumer profile for market identification and product positioning. This strategy helps to set the marketing plan and product positioning in order to create the master action plan for real estate development. The last stage is about setting marketing and sales budget. Therefore, knowing consumer profile helps to create marketing identification and product positioning for selling. Kritayanavaj also proposed that, charm of real estate has many outcomes. It is a necessary product for every person, it is a consumer product and is investment product at the same time, and also has infinity value- added.

However, from the important role of real estate as already discussed, there is ever increasing competition in real estate business. Moreover, there are numerous products and brands in the market. Especially in 2004, there are many new projects of single house which account for 326 projects (Katharangsiporn, July, 2004) presenting their strengths and advantages to the homebuyers. These projects have different advantages and weaknesses in their existing and new products.

Jangjenjit (2003) proposed IMC Strategy for housing projects that before selecting tools and activities to contact customers, the first concept to separate market segment is location. However, businesses also separate market segment by customer behavior, personality, and lifestyle in order to differentiate their projects from competitors in the same location. Businesses may reach many target groups and design market differentiation for each group. Today, homebuyers have high education and are

open to receiving a variety of media and want to get information in detail. Apart from advertising to give product knowledge, personal selling should be consultative selling by searching implied needs of customers.

The only hope of business immortality lies in constant improvement and a constant search for the new and better product. Hence, it is essential that marketers should try to research and analyze customer needs and identify buying factors to understand who our customers are, and what influences them when they are buying as recommended by Smith (1994).

Purchasing real estate requires extensive problem solving by consumers who trade infrequently in the market for an expensive and highly visible durable good. Consumer behavior models can be used to understand the influence of internal and external factors on individual and business consumers' decisions and the process consumers use to make a decision regarding real estate (Black *et al.*, 2003).

The research of Gibler and Nelson (2003) mentioned that there is also a need to study individual differences and how they influence real estate decision-making. Research has been conducted on information search in buying houses. People value certain properties for reasons other than physical features. Thus, research incorporating consumer behavior theories can help us better understand why individuals and organizations prefer certain properties, how they assign values to properties, the process they use to make property decisions and important influences on their decision making. This knowledge will contribute to more accurate valuations, more efficient transactions, and more satisfied consumers.

Moreover, Chulasai (2004) also mentioned that major factors for purchasing a single house of the potential customers are the evaluation of alternative groups

consisting of security, convenience of entrance and exit way, environment, facilities near project, post sales services, community charge, house area, trust of company, house pattern, surrounding community, material and construction, company's name, proximity to existing residential area, flood, proximity to working area, project pattern, project size, central area and building, proximity to children's school, being able to do other activities, having friend in the project, previous project, and government support, respectively. This study supports that, potential customers have to evaluate many factors before making a decision to purchase a single house. There is much evidence that these factors can have significant effect on decision making to purchase a single house.

Furthermore, demographic factors of potential customers and their budget for purchasing single house are also important to segment markets and their needs.

This research focuses on the large market segment of real estate that is single house segment. The research is designed to examine the differences of each factor which the group evaluating alternatives use to evaluate while considering to purchasing a single house. The group is segmented by budget in the purchase of a single house.

The researcher expects that this research will provide beneficial information for project planners, marketers, residence consumers, architects and other persons who are interested in real estate business especially for single house segment which is focused in this research. This particular research can also be used to support research in other points of views or at wider scope in the future.

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## 1.3 STATEMENT OF PROBLEM

For the real estate industry which has expensive and highly visible durable goods, it requires extensive consideration by consumers when they evaluate alternatives to purchase a single house. There are a lot of single house projects which propose different products by different factors in the market. Single house market is segmented by budget of buyer, or house price level, into high price, medium price and low price. To understand the need of each potential homebuyer group, this research applied consumer behavior theories in the part of budget to purchase a single house which may relate to differences of purchasing single house factors. The research questions that were answered from this research are shown as follows: -

1. Is there a difference in consideration of factors when segmented by budget to purchase a single house (pre-purchase)?

The result of this research will help persons who are interested in single house business have a better understanding of this business, and they can apply this as a guideline to their business and other studies.

## 1.4 RESEARCH OBJECTIVES

The main objectives to study the impact of budget upon single purchase in Bangkok are shown as follows: -

1. To examine the difference in consideration of factors when segmented by budget to purchase a single house.

## 1.5 SCOPE OF THE RESEARCH

This research is designed to explore the single house markets especially in housing project types. The research uses budget to purchase a single house as independent variable and purchasing single house factors as dependent variable. Demographic factors which are focused to study potential customers' characteristics in this particular research are age, marital status, education level, occupation, and income level only.

The researcher focused on the target respondents who are the present and potential customers of single houses in Bangkok in November and December 2004.

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## 1.6 LIMITATIONS OF THE RESEARCH

For this study, there are some limitations in collecting data from the distributed questionnaires.

1. This study is limited to define the specific potential consumers of single house segment, target population is limited to only consumers in the Bangkok area. The result of this study cannot be generalized for Thai consumers in purchase of single house as a whole because the target respondents are in Bangkok area only.
2. This study is focused on single houses priced between 3 to 9 million baht ($77,320 to $231,959) [1] only.
3. The research focused on studying and collecting data from the group evaluating alternatives who are potential customers only.
4. The group evaluating alternatives is not specified to first or second buyers.
5. The period of the study is only from 1st November until 31st December, 2004 only. It cannot be used to describe other periods.

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[1] dollar is equal to 38.80 baht on 7th December 2004

## 1.7 SIGNIFICANCE OF THE STUDY

The result of this study can be used to interpret the importance level of purchasing factors. Because the data was collected from the group evaluating alternatives who are potential customers, the analysis of the demographic factors and budget level presented the characteristics and status of potential customers and their needs. The study on factors which potential customers consider when they plan to purchase a single house will discover and contribute to more accurate valuations, more efficient transactions and more satisfied consumers in real estate business. Marketers can use this result to develop the existing products and planning of the new products which will satisfy customer's need better. The result can help marketers to set the right product to the right market segment by appropriate price. Architects can also use the conclusion of the study as a backup to create suitable projects and single houses. Homebuyers are also more concerned by about those factors and they will have a guide to compare different products and make consideration before purchasing single house. Furthermore, this research will be a guide for other researchers who want to study in related fields in other scope.

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## 1.8 DEFINITON OF TERMS

For better clarification and understanding of some general words that are presented in this research, the particular meaning are defined to expand the contents in order to have the same understanding when meet these words in this paper.

**Age:** length of time that person has lived or a thing has existed (Hornby, 1994).

**Budget:** estimate of probable future income and payments (Hornby, 1994). In this study budget means budget to purchase a single house or the price of a single house.

**Buyer group:** people who makes the actual purchase (Kotler, 1997). In this study, buyer group means single house buyers.

**Education level:** intellectual and moral training (Hornby, 1994). In this study education level is separated into four groups: high school graduate or lower, certificate or diploma, Bachelor's degree, and Master's degree or higher.

**Group evaluating alternatives:** people trying to satisfy a need, looking for certain benefits from the product solution and see each product as a bundle of attributes with varying abilities of delivering the benefits sought to satisfy this need sources (Kotler, 1997). In this study, group evaluating alternatives means potential customers who are evaluating alternatives of each single house attributes before making a decision to purchase a single house.

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**Household income:** the money received over a certain period (Hornby, 1994). In this study, household income means household's purchasing power (Gunter and Furnham, 1992) or household income per month.

**Information search group:** people may enter active information search (Kotler, 1997). In this study, information search group means people who are active in searching for information about single houses.

**Marital status:** status between husband and wife (Hornby, 1994). In this study, marital status means the status of household which include marital status and household patterns: single, married and not have a child, married and have a child or two children, and married and have more than two children.

**Occupation:** job or employment (Hornby, 1994).

**Potential customer:** person that can come into existence or action to be customer (Hornby, 1994). In this study potential customer means the group evaluating alternatives to purchase single house.

**Price:** money for which something is sold or bought (Hornby, 1994). In this study, price means price of a single house which a group of evaluating alternatives, plans to purchase.

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**Problem recognition group:** people who recognize a problem or need and the need can be triggered by internal stimuli which are the person's normal needs (Kotler, 1997). In this study, problem recognition group means people who recognize the need to buy single houses.

**Product:** possesses intrinsic attributes such as size, color and quality as well as extrinsic attributes such as price (Jean, 1996). In this study product mean a single house.

**Project:** scheme or undertaking (Hornby, 1994). In this study project means housing project which developer company allocates and develops land and builds single houses on that land for sale.

**Purchasing single house factors:** the major factors which potential customer or group evaluating alternatives consider when they plan to purchase a single house. These factors consist of security, convenience of entrance and exit way, environment, facilities near project, post sales services, community charge, house usable area, trust of company, house pattern, surrounding community, material and construction, company's name, proximity to the existing residential area, flood, proximity to working area, project pattern, project size, central area and building, proximity to children's school, being able to do other activities, having friend in the project, previous project and government support (Chulasai, 2004).

**Single House:** A multistoried house with the narrow end facing the street and a center staircase with a single room on each side; typically the entrance, located on one long side of the house, is sheltered by a piazza that faces a garden (Ward, 1996), In this study single house mean; a free standing building which have some space around building or does not has wall joined with others and priced between 3 to 9 million baht ($77,320 to $231,959)[1].

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[1] 1 dollar is equal to 38.80 baht on 7th December 2004

# Chapter II

# Review of Related Literature and Studies

In order to develop the conceptual framework to propose the study of the impact of budget upon single house purchase, this chapter presents the related theories, models and research which contribute to this research framework and can be useful for further studies.

## 2.1 RELEVANT THEORY

Black *et al.*, (2003) stated that, purchasing real estate requires extensive problem solving by consumers who trade infrequently in the market for an expensive and highly visible durable good. Consumer behavior models can be used to understand the influence of internal and external factors on individual and business consumers' decisions and the process the consumers use to make a decision regarding real estate purchase. This reference supports to use consumer behavior model in conceptual framework developing.

Gibler and Nelson (2003) proposed to use consumer behavior theories in real estate research, especially in the area of home search and selection much remains unexplored. Motivational research opportunities in real estate abound to assist understanding why people value certain properties for reasons other than physical features. Marketers have long understood that it is the perception, not the reality that is the relevant measure of a product from the consumer's point of view. Due to people value properties by their perception, different customers may have different point of

view about important of purchasing factors so researcher design to study about different purchasing single house factors when segmented by potential customer group.

Kritayanavaj (2003) mentioned about marketing process of housing business that, marketing begins from customer and ends with customer so one of marketing processes is marketing research. To know what house to produce, which location and what price level in order to facilitate sale efficiency, marketing research should do first to check the purchasing power (demand) of customers (not is drift want or desire). The main objective for marketing research is finding customer profile and customer need in order to plan housing project or product choice which satisfies customer need and makes a good profit. In order to produce the proper houses for customers, purchasing power or budget of potential customer is important to study because potential customers who have different purchasing power may have different purchasing behavior. They may have different need and different consideration about factors to purchase house so this research will aimed to reveal about importance and difference of purchasing single house factors of potential customers.

Dieleman (2001) presented a fresh view of the residential mobility process. At the micro level, new research sheds light on the joint decision-making by members of a household regarding a residential move, and clarifies the link between place of residence and place of work. There are also many new studies on finding an alternative dwelling if the most preferred house is unavailable. Household relocation is strongly embedded in housing market conditions at the local and national level. Recent studies analyze variations in the mobility process over space and time. The household's decision to move that, the mobility process divided into two stages. In the first stage,

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people become dissatisfied with their present housing situation, as changes occur in the household environment or its composition. Stress arises in the present housing situation and eventually leads the household to stage two: the search for a vacancy in the housing stock and the decision either to relocate or to stay in the present dwelling. The strong emphasis on the household level, the residential mobility concerns how households are matched to houses. There is extensive information on the household attributes, the household life course, and the educational add job career which determine the propensity to move and the choice of dwelling. The size, type, price, and tenure of the dwelling and its location with respect to workplaces and services are found to be critical to the decision process at the micro level. There is a strong correlation between the rate of mobility and the stage in the life cycle of a person. In all developed societies, young adult between the ages of 20 and 30 are the most mobile segments of the population. There is a strong correlation between the rate of residential mobility and the size and tenure of the present dwelling. Households in relatively large units are less mobile-probably because there is no "room stress" - than households in smaller dwellings, and owner-occupiers have a much lower mobility rate than renters. There are clear interrelationships between the housing career of a person or household and events in their domains of the life course, such as family formation and dissolution, and the education and job career. Dieleman also identified the circumstances which seem the most important for molding the mobility process at the scale. At metropolitan level, these are the tenure composition, the price level, and the turnover rate of the housing stock. Studies at the national level have documented the importance of the rates of inflation and mortgage interest, demographic change, and economic fluctuations for the process of mobility and tenure choice. And differences in residential relocation at the international level can be mainly related, as said, to

difference in housing policies, wealth levels and tenure structure. Household decision-making consist of three elements of the mobility process which is the relationship between changing jobs and changing houses. The second is the decision-making frequently involves more than one individual. In multi-person households, two or more persons take part in the decision-making. The third element is the households cannot find or afford the dwelling of their first choice and have to find an acceptable alternative. Move to another dwelling is often caused by and timed in accordance with events, such as marriage, birth of children, divorce, death of a partner, entering or finishing stage in one's education, and income changes. There is also a link between the location of the home and that of the workplace. Changing jobs over a long distance naturally necessitates a residential move. The residential location can be chosen without reference to the location of the job, but commuting distance is not too large. Local residential moves are therefore categorized as "partial" displacement moves; they involve a change in the place of residence, not the work place. A job change often acts as a trigger for a residential move and a many-earner house hold is more closely bound to the place of residence than a single-income household, which react more readily to a job change. Long commutes reduce both the expected duration (in years) of working at the present job and living at the present residence. When households consisting of two or more persons are asked to determine jointly between the partners and/or the children what kind of housing situation they prefer, households will combine attributes into two groups. One construct refers to dwelling with all its attributes, while the other refers to the location, the neighborhood characteristics, and the accessibility to workplaces, schools, and other services. When children participate in the group task of formulating a residential preference, families tend to attach more importance to the number of bedrooms, the size of the children's bedrooms, the

monthly cost, and - in the case of the locational construct to the mother's and children's travel times. Many aspects of the dwelling and its location are considered, and the various member of the family assign difference weight to these aspects. The key elements of the dwelling construct are the type of dwelling, the number of rooms, monthly cost, and tenure. And the type of neighborhood, the frequency of public transport, and the travel time to activity places other than the residential itself are important in the locational construct. This is part of a wider research program on human preferences and choices with respect to geographical entities. In the field of psychology, choices, preferences, and satisfaction of persons and households with respect to their residence are interesting. The basis of psychological decision theory is about the decision to move, search for and choose an alternative dwelling should be considered integral parts of a single process rather than separate stages. For the psychological side of the way households evaluate and choose among different housing alternatives, when weighing alternative dwellings, people may be expected to simplify the task by disregarding housing attributes which are less important. In housing markets, relocation at the household level is closely tied to conditions in the local housing market because most moves are made over very short distances. Persons and households also react to economic, demographic, and political circumstances, as these vary over time at the national level. Numerous factors - variations in the level of new construction, mortgage interest rates, taxes and tax relief on housing investments and costs, changes in demographic structure. Turnover rates and prices vary over space and time. Moreover turnover rates and prices may be expected to have a strong influence on mobility and housing choice. When housing prices are rising, households will expect prices to rise similarly in the future. For international variation in the residential relocation process, difference in mobility rates of households are mainly

due to the level of government intervention in housing markets. The structure of mortgage provision may explain the differences in tenure preferences.

From Dieleman identified that the circumstances of the price level seem the most important for molding the mobility process. Moreover there are other factors on age, household attributes, the household life course, and the educational and job career relate to the choice of dwelling. In addition, there are many factors relate to dwelling purchasing such as place of residence, place of work, location services, schools, other services or facilities, public transport, tenure of the dwelling, neighborhood, the house size or house usable area, government intervention in housing markets about mortgage interest rates, taxes and tax relief on housing investments and costs. However, in decision-making to select proper dwelling, some households construct refers to dwelling with all its attributes, while the other refers to some factors and find an acceptable alternative under their condition. Therefore, this research is designed to test the different of these purchasing single house factors under price condition.

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## Concept of Price and Budget

Kritayanavaj (2003) stated that land and house price setting for sale is a very important factor to produce house pattern and house size and effectuate success and fail in sale too. Conceptually, house price determination for sale should consider target segment by their income level to set the suitable proportion in the market situation. Price setting comes from construction cost of each developer company and compare selling price with competitors who have the same location, pattern and quality closely to make a decision. Price setting should make profit to the company but high or less profit may come from production capacity, sale ability and customer need or the market mechanism which is the most important. Houses which have high demand and less supply will make higher profit but some companies may have policy to sell low price with high speed or make company reputation and credit in the long term or have other social or business reasons to set their price.

Hoyer and MacInnis (1997) stated that the price of a product or service is one of the most important variables influencing consumer decision making. Although simple economic theory would suggest that a decrease in price will lead to higher likelihood of purchase. However, if the price of the item becomes too low, consumers can become suspicious of the product's quality (higher price means higher quality). For fashion or prestige goods in particular, a high price symbolizes status. Consumer may infer that a high-priced product is also high in quality when consumers are not knowledgeable about brands or have no other basis for discriminating among brands and hence are simply using price as a heuristic (shortcut) to infer quality.

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Black *et al.*(2003) proposed that the original basis of consumer behavioral theories comes from demand analysis in microeconomics with its explanations in terms of diminishing marginal utility and indifference curves. Such analysis does help explain how people will act in the marketplace in terms of product choices under ideal conditions and demonstrates the importance of income and prices in determining purchasing levels. It does not, however, explain why people act the way they do within these general confines.

Block and Roering (1976) indicated that some consumer also use price as a guide to quality, they believe that you essentially get what you pay for in a purchase.

Bolen (1988) studied that prices influence the target market in many ways. For one, customers tend to equate quality with price. Low price may result in scaring away customers rather than attracting more prospective buyers.

Chezy (2004) proposed that price-quality relation represents the degree to which consumers believe that price is a positive indication of quality. For a price conscious consumer, price constitutes an important factor in judgment and choice. A shopper who is relatively less price conscious may be willing to pay more for a product in a fashionable store or for product whose features are appealing.

Cox and Brittain (1996) mentioned that price is often considered a surrogate indicator of quality and the consumer often makes judgement on products as a result of his or her response to the prices of merchandise, marketers could adopt a strategy of offering goods at relatively high prices in order to be consistent with a general strategy of appealing to consumers who are wanting exclusivity.

## Concept of Consumer Behavior

Black *et al.*(2003) proposed that consumer or buyer behavior is the study of individuals, groups or organizations selecting, purchasing, using and disposing of products and services to satisfy needs. Consumer behavior research explores the decision-making process that precedes purchase, the purchase action and post-purchase activities and evaluation. The intent is to determine not only what people buy, but also why they buy it and the processes involved in their decision and action. Consumer behavior can be viewed as a problem solving activity in which individuals and businesses have needs and they must decide how best to satisfy those needs.

Kotler (1997) mentioned that marketers could understand consumers through the daily experience of selling to them. The buyer's characteristics and decision process lead to certain purchase decisions.

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**Major factors influencing buying behavior**

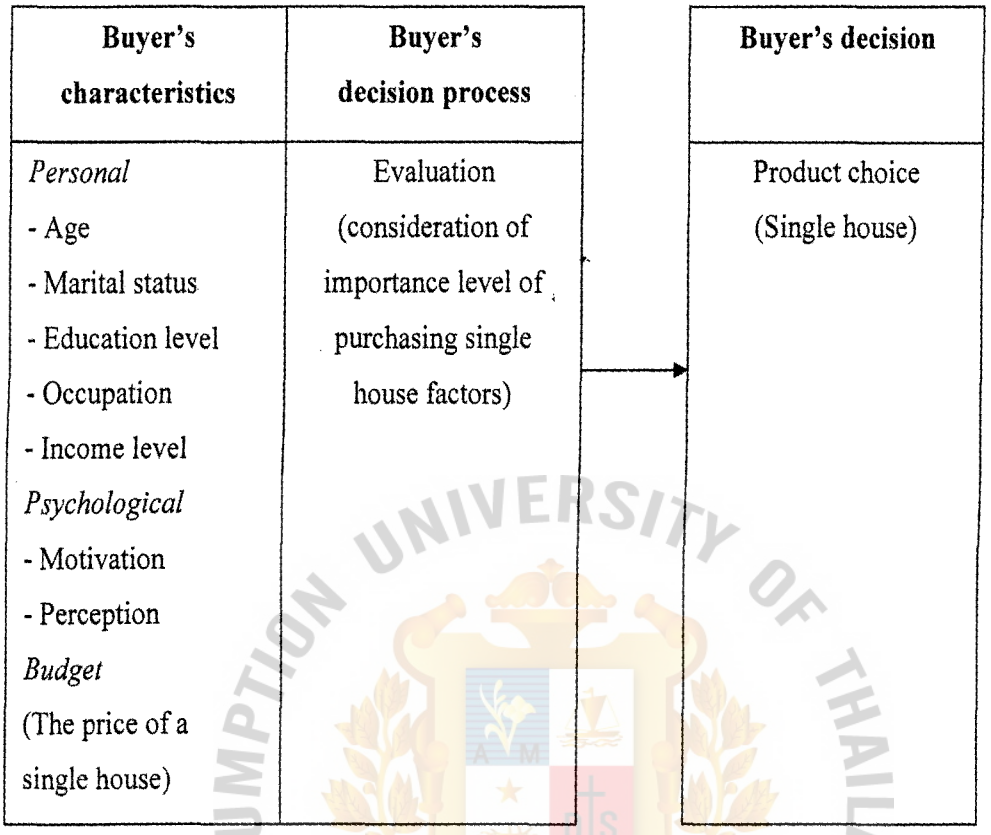


**Figure 2.1 Model of Buyer Behavior of Single House**

Source: Modified Philip Kotler (1997). Marketing Management. (9th ed.). New Jersey: Prentice-Hall. p.172.

In the model of buyer behavior as shown in Figure 2.1, Kotler (1997) mentioned that it consists of buyer's responsiveness and decision process and also buyer's decision which have many elements for each subjects. However, this research interest is to study consumer's behavior in buying a single house so the buyer's characteristics in the Figure 2.1 presented only the most significant factors which may influence different buying behavior. These include age, marital status, education level, occupation and income level which relate to budget to purchase single house. Potential target group of each price level maybe different and it may impact on evaluation to

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purchasing product (single house). The buyer's decision process for purchasing single house is focused to study consideration of group evaluating alternatives who evaluate factors before making a decision to purchase a single house. The buyer's decision in buying a single house also scope only product choice which mean characteristics of single house or purchasing single house factors only, The result of the research will be used to create marketing strategies for real estate business, especially for developing new housing project.

***Buyer's characteristics***

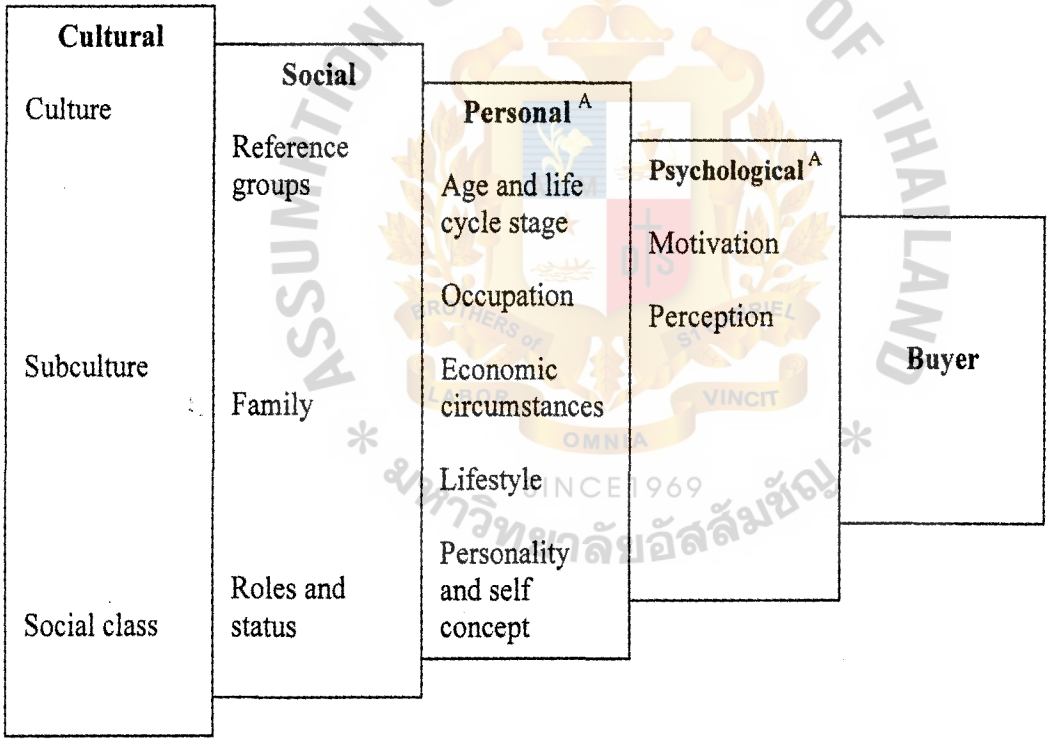


**Figure 2.2 Factors Influencing Behavior in Purchase Single House**

Source: Kotler, P. (1997). Marketing Management. (9th ed.). New Jersey: Prentice-Hall. p.173.

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Kotler (1997) mentioned many factors as buyer's characteristics but this research will focus on the basic personal factors that are the demographic factors shown in Figure 2.2 which may relate to budget of potential customer. People who have different characteristics have different condition and budget. Therefore, demographic factors used to described customers' characteristics and purchasing behavior in buying a single house.

## Sociological Concept

Sociological theories are used to explain human behavior in groups and social settings. Some sociological concepts that have enriched consumer behavior theories are social stratification and the influence of reference groups. Social stratification represents the hierarchical division of members of a society into relative levels of prestige, status and power (Rossides, 1990).

## Concept of Demographic Factors

Schiffman and Kanuk (2004) proposed that when marketers provide a range of product or service choices to meet diverse consumer interests, consumers are better satisfied and segmentation is a positive force for both consumer and marketers. Demographic characteristics, such as age, sex, marital status, income, occupation and education are most often used as the basis for market segmentation. Demographic variables reveal ongoing trends that signal business opportunities, such as age and income distribution.

Hawkins, Best, Coney (1983) stated that Demographics are used to describe a population in terms of its size, structure, and distribution. Its size is described by the number of individuals in a population while its structure describes the population in terms of age, income, education, and occupation.

**Age**

Hornby (1994) identified that age is a length of time that a person has lived or a thing has existed.

Kotler (1997) specified that a population can be subdivided into six age groups: preschool, school-age children, teens, young adults age 25 to 40 years old, middle-aged adults age 40 to 65 years old; and older adults age 65 years old and up. This age mix signals the kinds of products and services that will be in high demand.

Hoyer and McInnis (1997) proposed that Baby Boomer consists of those born between 1946 and 1964 who are presently the segment with the greatest economic impact, Generation X who were born from 1965 to 1976 who are working for better position and want to have good image in their society.

Gunter and Furnham (1992) identified that age has long been recognized by marketers as an important factor underlying many purchasing behaviors. Needs and preferences change as people get older. Age however, means more than simply how old a person is. A more subtle variable than chronological age in the marketing context is the life stage a person has reached. Age and Stage in the Life Cycle tend to present that people buy different goods and services over the lifetime. People taste is also age related. Consumption is also shaped by the family life cycle.

**Table 2.1 Segmentation by Seven Life Development Stages**

| Major phase name | Age (Years old) | Life development stage (age) | Major task |
|---|---|---|---|
| Provisional Adulthood | 18-29 | Pulling Up Roots | Detaching from family, searching for identity, choosing a career |
| First Adulthood | 30-49 | Reaching Out (30-35)<br>Questions (36-44)<br>Middle Explosion (45-49) | Selecting a mate, working on career<br>Searching for personal values, reevaluating relationships<br>Searching for meaning, reassessing marriage, relating to teenage children with depression being common in this stage |
| Second Adulthood | 50-85+ | Settle Down (50-55)<br>Mellowing (56-64)<br>Retirement (65+) | Adjusting to realities of work, adjusting to an empty nest, being active in community<br>Adjusting to health problems approaching retirement<br>Adjusting to retirement, reassessing finances, being concerned with health |

Source: Schiffman and Kanuk (2004) . Consumer Behavior. (8th ed.). Upper Saddle River, New Jersey: Pearson Education, Inc.

Schiffman and Kanuk (2004) presented a series of life development stages related to age effects in Table 2.1. It implied that difference in age level has impact on difference in tasks and consumer behavior.

**Marital Status**

Schiffman and Kanuk (2004) described that marketers are interested in the number and kinds of households who buy certain own products. They are also interested in determining the demographic and media profiles of household decision makers (the persons involved in the actual selection of the product) to develop appropriate marketing strategies.

Bolen (1988) proposed that how people live influences what they buy. Married couples are generally more interested in buying furniture. Single people may eat out more often than their married counterparts.

Gunter and Furnham (1992) indicated that young singles have relatively few financial burdens and tend to be purchasers of new fashion items; they are recreation-oriented and make purchase of basic kitchen equipment, cars and holidays. By contrast, young married tend to be heavy purchasers of baby products, homes, television sets, toys, and washers and dryers. Their liquid assets tend to be relatively low, and they are more likely to have disposable income; more time for recreation, self-education and travel.

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**Household patterns**

Kotler (1997) stated that the "traditional household" consists of a husband, wife, and children (and sometimes grandparents). Today's households also include single live-alones, adult live together of one or both sexes, single parent families, childless married couples, and empty nesters. More people are divorcing or separating, choosing not to marry, marrying later, or marrying without the intention to have children. Each group has a distinctive set of needs and buying habits. People in the SSWD group (single, separated, widowed, divorced) need smaller apartments;

inexpensive and smaller appliances, furniture, and furnishings; and food packages in smaller size.

Wilkes (1995) indicated that certain events in the family significantly alter role relationships among family members and presented study about life cycle as an indicator of spending patterns for nontraditional households. Wilkes referenced types of household pattern include young never married (under age 35), young married without children, young married with at least one child aged six (full nest I), young married with at least one child aged six or over (full nest II), middle-aged (35-64) married with at least one child aged six or over (full nest III), middle-aged with at least one child aged six (delayed full nest), middle-aged married without children (empty nest I), older married without children (empty nest II) and older retired never married. Transition from full nest II to full nest III is associated with sharp increase in spending for home improvement because the older children call for separate bedrooms and replacement durables may be required during this period.

**Family**

Kotlor (1997) mentioned that family is the most important consumer-buying organization in society. Family members constitute the most influential primary reference group. The family of orientation consists of one's parents and siblings. From parents a person acquires an orientation toward religion, politics, and economics and a sense of personal ambition, self-worth, and love. The parents' influence on the buyer's behavior can be significant. Family of procreation, one's spouse and children, has more direct influence on everyday buying behavior.

The traditional product patterns:

Husband dominant : Life insurance, automobiles, television

Wife dominant : Washing machines, carpeting, furniture, kitchenware

Equal : Vacation, housing, outside entertainment

Husband and wives are more willing to shop jointly for products traditionally through to be under the separate control of one spouse or the other. Another shift in buying patterns is the increasing amount of influence wielded by children and teens.

**Education level**

Hoyer and McInnis (1997) quoted that education is one of the key determinants of one's occupation and therefore social class. In fact, educational attainment is considered the most reliable determinant of consumers' income potential and spending patterns. A college degree is one of the most crucial factors in gaining entry into higher status occupations. In addition, more highly educated consumers have read more, traveled more, and are less averse to trying new things than the rest of the population.

Kotler (1997) mentioned that the population in any society falls into five educational groups: illiterates, high school dropouts, high school degrees, college degrees, and professional degrees.

Bolen (1988) stated that the education level of a potential market reveals much about their interest in reading, travel, cooking, and many other aspects of life.

Hawkins, Best, Coney (1983) mentioned that education may influence an individual's tastes, values, and information processing capacity, which has direct effects on marketing strategies. Educational level is correlated with both occupation and income and it influences the lifestyle and therefore consumption patterns of individuals in a direct manner. Studies of taste and intellectually oriented activities such as magazine readership or television viewing should consider education as the most relevant dimension.

**Occupation**

Hornby (1994) defined that occupation means job or employment.

Hawkins, Best, Coney (1983) proposed that occupation is the most widely used single-item index in marketing studies. The type of work one does and the types of individuals one works with directly influence one's preferred lifestyle.

Block and Roering (1976) implied that an individual's occupation is the best single clue to his or her social class membership because one's life's work has a substantial influence on the way he or she lives. Occupations may also be ranked according to the prestige, honor, and respect associated with them by members of society.

Hoyer and McInnis (1997) stated that individuals with the same occupation tend to share similar income, lifestyles, knowledge, and values.

Bolen (1988) explained that what a person does for a living affects that person as a consumer and affects his or her buying patterns as well.

Kotler (1997) described that a person's occupation also influences his or her consumption pattern. A blue-collar worker will buy work clothes, work shoes, and lunch boxes. A company president will buy expensive suits. Marketers have to identify the occupational groups that have above average interest in their products and services.

**Income / Economic Circumstances**

Hornby (1994) defined that income is the money received over a certain period, especially as payment for work or as interest on investments.

Kotler (1997) mentioned that people's economic circumstances consist of their spendable income (its level, stability, and time pattern), saving and assets (including the percentage that is liquid), debts, borrowing power, and attitude toward spending versus saving.

Gunter and Furnham (1992) stated that the percentage spent on clothing, however, increases with increased income.

Hawkins, Best, Coney (1983) indicated that changes in income can be directly linked to changes in market demand for many durable products and nonessential services. Gunter and Furnham (1992) stated that markets are generally considered in terms of people with purchasing power. A common method of segmenting the consumer market is on the basis of income.

Schiffman and Kanuk (2004) provided that income has long been an important variable for distinguishing market segments. Marketers commonly segment markets on the basis of income because they feel that it is a strong indicator of the ability (or inability) to pay for a product or a specific model of product.

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**Geographical shifts in population / Place of residence**

Kotler (1997) illustrated that population movement also occurs as people migrate from rural to urban areas, and then to suburban areas. People's location makes a difference in their goods and service preferences. Those who live in large cities account for most of the sales of expensive goods such as furs, perfumes, luggage, and works of art while those who live in suburbs lead more casual lives, do more outdoor living, and have greater neighbor interaction and younger families.

Bolen (1998) quoted that urban customers tend to be more receptive to new products and stores than their rural counterparts.

Hawkins, Best, Coney (1983) proposed that distribution of the population can be described by the location of individuals in terms of geographic region and rural, urban, or suburban location. Each of these factors influences the behavior of consumers and contributes to the overall demand for various products and services.

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## Concept of Psychological Factors

### Motivation

In an attempt to better explain actual human behavior, marketers such as Katona (1953) modified traditional economic theory to include psychological, sociological and anthropological factors to better understand consumer problem solving. Among the cognitive psychology concepts incorporated into consumer behavior theory are motivation, learning, perception, attitudes and self-concept. Psychological theories such as Maslow's (1943) hierarchy of needs help marketers to understand the drivers that motivate consumers to purchase goods.

Kotler (1997) stated that a person has many needs at any given time. Some needs are biogenic; they arise from physiological states of tension such as hunger, thirst, or discomfort. Other needs are psychogenic; they arise from psychological states of tension such as the need for recognition, esteem or belonging. Most psychogenic needs are not intense enough to motivate the person to act on them immediately. A need becomes a motive when it is aroused to a sufficient level of intensity. In Freud's theory of motivation, Freud assumes that the real psychological forces shaping people's behavior are largely unconscious. Maslow's theory of motivation defined that human needs are arranged in a hierarchy, from the most pressing to the least pressing. People will try to satisfy their most important needs first. After a person has succeeded in satisfying an important need, he or she will try to satisfy the next-most-important need. Maslow's hierarchy of needs include physiological needs (food, water, shelter) as the first priority, safety needs (security, protection) the second, social needs (sense of belonging, love) the third need, esteem needs (self-esteem, recognition, status) the

forth and self-actualization needs (self-development and realization) the last level of need as presented in Figure 2.3 below.

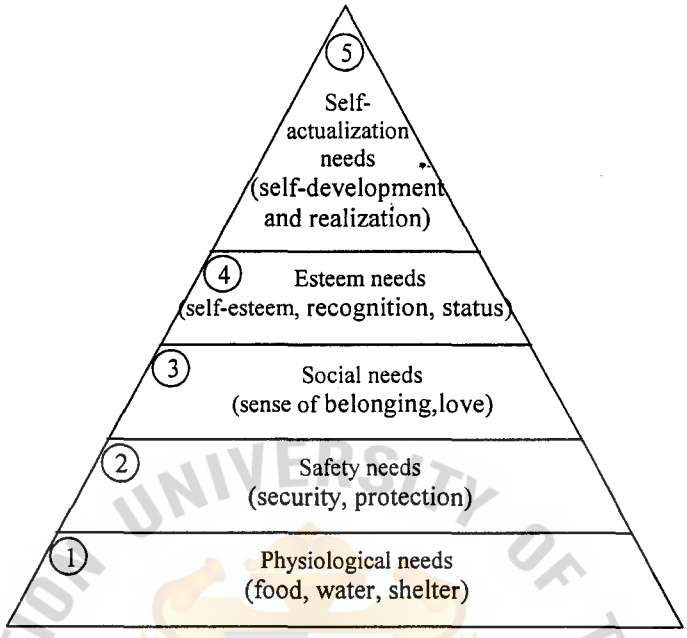


**Figure 2.3 Maslow's Hierarchy of Needs**

Source: Modified Philip Kotler (1997). Marketing Management. (9th ed.). New Jersey: Prentice-Hall. p.185.

Kritayanavaj (2003) proposed that after customers have walked in project from advertising and media, house selling mainly uses face to face selling. Good house selling is not present product only but point customer to make a decision making smartly by verifying target customer's need and propose strength of project in order to respond and satisfy customer completely. Selling and marketing concept have the same foundation, that is, trying to explore customer need and help his or her to have that thing.

## Concept of Buyer Decision Process

### *Buying Roles*

Kotler (1997) stated that there are five roles people might play in a buying decision :

*Initiator* : A person who first suggests the idea of buying the product or service;

*Influencer* : A person whose view or advice influences the decision;

*Decider* : A person who decides on any component of a buying decision – whether to buy, what to buy, how to buy, or where to buy;

*Buyer* : The person who makes the actual purchase; and

*User* : A person who consumes or uses the product or service.

### *Buyer Behavior*

Kim and Kang (2001) mentioned purchase decision making which comprises of stages: problem recognition, search, pre-purchase alternative evaluation, purchase, consumption, and outcomes.

Kotler (1997) distinguished type of consumer buying behavior based on the degree of buyer involvement and the degree of differences among brands as

*Complex buying behavior*: Consumers are highly involved in a purchase and aware of significant differences among brands. This usually happens when the product is expensive. Buyer develops beliefs about the product, developed attitudes about the product, and makes a thoughtful purchase choice.

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*The Stage of the Buying Decision Process*

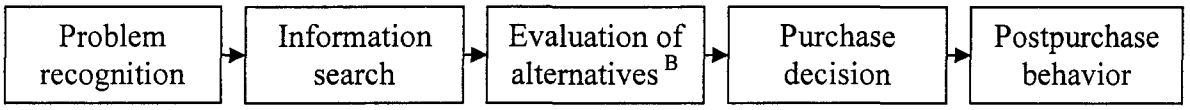


**Figure 2.4 Model of the Buyer Decision Process**

[B] Source: Philip Kotler and Gary Armstrong (2004), Principles of Marketing. (10th edition.). Upper Saddle River, New Jersey: Pearson Education International Prentice Hall. P. 198.

**Problem recognition**

Kotler and Armstrong (2004) stated that problem recognition is the first stage of the buyer decision process in which the consumer recognizes a problem or need. Kotler (1997) proposed that the buying process starts when the buyer recognizes a problem or need and the need can be triggered by internal stimuli which is the person's normal needs such as hunger, thirst, sex, or external stimuli like when a person passes a bakery and sees freshly baked bread that stimulates her hunger, or she admires a neighbor's new car.

**Information search**

Kotler and Armstrong (2004) mentioned that this stage is the stage when the buyer search for more information and the consumer may simply have heightened attention or many go into active information search.

Kotler (1997) proposed that, for the information search level, consumer may enter active information search. How much search she undertakes depends on the strength of her drive, the amount of information she initially has, the ease of obtaining

additional information, the value she places on additional information, and the satisfaction she gets from the search. There are four major groups of information sources shown as follows: -

- Personal sources: Family, friends, neighbors, acquaintances;
- Commercial sources: Advertisements, salespersons, dealers, packaging, displays;
- Public sources: Mass media, consumer-rating organizations; and
- Experiential sources: Handling, examining, using the product

Generally, the consumer receives the most information about a product from commercial sources, marketer-dominated sources, but the most effective information comes from personal sources.

**Evaluation of alternatives**

Kotler and Armstrong (2004) specified that alternative evaluation is the stage of the buyer decision process in which the consumer uses information to evaluate alternative brand in the choice set.

Kotler (1997) presented that evaluation of alternatives has processes the consumer trying to satisfy a need, first looks for certain benefits from the product solution, and then sees each product as a bundle of attributes with varying abilities of delivering the benefits sought to satisfy this need sources.

Kim and Kang (2001) mentioned that the pre purchase alternative evaluation can be considered as the evaluative criteria that consumer use when they purchase products or patronize stores.

Kritayanavaj (2003) guided the approach to make a decision to purchase a house as the first thing is to estimate the level of house price and income level which he or she can purchase. The second is to select the type of house type such as

condominium, town house or single house. The third is the location and the next step is to consider house quality like design and construction, environment and facilities in the community around the project, the trust on developing company. The buyer also compares selling price and quality offered by with other competitors to make a decision to purchase house. Consideration of location includes being near working area, no flood, near facilities such as school, hospital, department store and business point, bank and government office. Convenience entrance and exit way or many ways leading to many places also have to be considered. If the family has children, school is the important factor to think especially. Some homebuyers also purchase location which tends to grow into a community in the future for their children and future living. Consideration about house quality and construction includes checking house's design, land area, gross area, house pattern, quality of material and construction. Consideration about environment and facilities is commended that good residence means good house with good environment and good community and neighborhood. So project size, community plan, facilities and recreation things in the community such as market, park, children park, kindergarten, sport field, swimming pool, meeting-place or club house, good view, fresh air are elements for consideration. Apart from physical environment, social environment especially neighborhood (like having friends or relation who may help each other) is an important factor for living. If has friends or relations in the project may help each other easily. Further more, community services such as transportation, security, and community charge should support the real living. When planning to purchase the new house, developing company' trust should be considered to decrease the risk of for receiving uncomplete house and other proposals. To compare selling price and quality, a potential homebuyer should consider strength

and weakness of each project by comparable table and give the important score in the lists before reaching a conclusion to purchase a proper house.

**Purchase decision**

Kotler and Armstrong (2004) identified that this is the stage when the buyer decides which brand to purchase. Kotler (1997) stated that in the evaluation stage, the consumer may also form an intention to buy the most preferred brand or product. However, two factors can intervene between the purchase intention and the purchase decision. They are the attitudes of others such as the other person's negative attitude toward the consumer's preferred alternative and unanticipated situational factors such as some other purchase might become more urgent, this may erupt to change the purchase intention. A consumer's decision to modify, postpone, or avoid a purchase decision is heavily influenced by perceived risk which varies with the amount of money at stake, the amount of attribute uncertainty, and the amount of consumer self-confidence. Consumer develops routines for reducing risk, such as decision avoidance, information gathering from friends, and preference for national brand names and warranties.

**Postpurchase behavior**

Kotler and Armstrong (2004) pointed that in this stage, consumers take further action after purchase based on their satisfaction or dissatisfaction. Kotler (1997) proposed that after purchasing the product, a consumer will experience some level of satisfaction or dissatisfaction. Marketers must monitor post purchase satisfaction about buyer's product expectations and the product's perceived performance, postpurchase actions such as purchasing the product again and say good

things about the brand to others when consumer is satisfied, and post purchase product use and disposal about how the buyers use and dispose of the product.

Kritayanavaj (2003) identified that postsale selling is one important process to keep the good relationship with customers. House developers and marketers know that customers who are satisfied with satisfy product and developing company will be the suitable source of referrals to guide their relatives and friends to purchase near their home and this customer's leading is the best advertising with low cost. The after-sales services or post settlement selling is also important. Because home buyers have many social networks, the good impression of product and after-sale services will helping advertise and increase company's reputation and credit for expanding new target group.

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## Concept of Buyer's Decision and Product Choice

(Nicosa 1996; Engel, Kollat and Blackwell, 1978; and Howard and Sheth, 1996) mentioned models of consumer decision making which had been developed that traced the psychological state of individual purchasers from the point at which they become aware of the possibility of satisfying a need with a product or service to their final evaluation of the consequences of making a purchase.

Kotler (1997) proposed that in executing a purchase intention, the consumer may make up to subdecisions such as product choice, brand choice, vendor choice, purchase timing, purchase amount and payment method.

### *Product choice*

Jean (1996) indicated that a product possesses intrinsic attributes (size, color and quality) as well as extrinsic attributes (price).

Kotler (1997) defined that a product is the firm's tangible offer to the market, which includes the product quality, design, features, branding, and packaging and the product is the most basic marketing-mix tool.

Kritayanavaj (2003) stated that in housing business, location selection is the first significant factor to make the success. Generally, a good location should be located in a residential area near community or working area of target customer, near the main road, has convenient communication, near facilities and no flood. House value does not depend on construction cost only but it also depended on using area and customer's want mainly.

Kritayanavaj (2003) also presented that house design and construction are followed by marketing process after specifying target segment, in other words, price level is the main factor to design house pattern, house size, house feature, land area, and quality of material. Another factor of house product is location which is used to set price, and customer's taste which depends on income level and other factors. Architects have to design to satisfy customer's need, not design from own content.

Block and Roering (1976) mentioned that when consumers cannot judge a product's features directly, surrogate or substitute means of evaluation are frequently used.

Hoyer and Macinnis (1997) illustrated that subjective comprehension of a marketing communication can be based on the inferences consumers make from the brand name or brand symbol and also quoted that we also stereotype products based on where they are made.

Churchill and Peter (1995) presented that quality, in the mind of today's customer, means getting good service along with a tangible product. An important indicator of quality is a warranty for the product and a well-designed product is pleasing to look at and easy to use as intended, and labels can provide information helpful to resellers and consumers.

Kotler (1997) defined that price is the critical marketing-mix tool because it is the amount of money that customers pay for the product. Its price should be commensurate with the offer's perceived value. If it is not, buyers will turn to competitors' products.

Sproles (1977) found a positive correlation for 51 percent of the 135 products retained in the study; in other words a high price objectively corresponded to higher quality. However, for 35 percent of the products, he found, no had correlation and for

14 percent, a negative correlation. Similarly, Riesz (1978) found a positive rank correlation of only 26 percent between price and objective quality among 685 categories of product. Zeithaml (1988) reached the similar conclusions.

Tellis and Gaeth (1990) depicted three basic choice strategies when the consumer has a better knowledge of price than quality, information on the latter tending to be sparser and more difficult to assess:

1. Best value: people, from a rational standpoint, choose the brand with the least overall cost in terms of price and expected quality (utility maximizing),

2. Price seeking: price is used as a proxy for the unknown quality (inference); the consumer chooses the highest-price brand, and

3. Price aversion: people choose the lowest-price brand, in order to minimize immediate costs (risk aversion).

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## 2.2 PREVIOUS EMPIRICAL RESEARCH

Other previous empirical studies which provide sources regarding the research support to create the conceptual framework are as follows.

The methods consumers use to delineate then compare alternatives have also received considerable attention in consumer research. The process of narrowing choices to an evoked set and the identification of salient determinant attributes to make comparisons have been examined (Alpert, 1971).

Yavas and Riecken (2003) investigated the factors on which people rely when choosing and evaluating a community in the research "Using the factor congruency technique to assess the attributes people employ in deciding where to live". They quoted many qualities of life attributes which are interesting for the research include low incidence of violent crime, personal safety, reasonable cost of living, adequate retail shopping facilities, high quality of public education, accessibility of health care facilities (hospital, clinics), good air quality, reasonable property taxes, reasonable housing costs, close proximity to outdoor activities, reasonable commuting time to work, adequate mass transit service.

Chulasai and Siri (2004) studied "Demand for residences of population in Bangkok and near areas in 2005" with the objectives to study consumer's behavior. This study separates the residence consumers into four groups according to buying decision process of Kotler. They consist of problem recognition group which means population who recognizes a problem or wants to buy a new residence, the information search group, the group evaluating alternatives who evaluates alternatives to satisfy a

need before making a decision, and the buyer group. The differences for consideration to purchase residence when separated by each group are presented in Table 2.2.

**Table 2.2 Reason for Consideration to Purchase Residence in the First Five Ranking.**

| Problem recognition group | Information search group | Evaluation of alternative group | Buyer group |
|---|---|---|---|
| • Near facilities | • Environment | • Security | • Environment |
| • House area | • Security<br>• Convenience of entrance and exit way | • Convenience of entrance and exit way | • House pattern |
| • Environment | | • Environment | • Convenience of entrance and exit way |
| • Security | • Near facilities | • Near facilities | • Security |
| • House pattern | • Material and construction | • Post sales services | • Near facilities |

Source: Chulasai and Siri (2004). Demand of Residence of Population in Bangkok and Near Area in 2005. Thailand, Bangkok: Property lines.

Table 2.2 shows that each group has different criteria to consider and rank the importance level of factors in residence purchase. However, opinions of evaluation of alternatives group are useful for residence marketers to know real demand of potential target group. For studying the detail of evaluation of alternative groups, income level report of respondents who evaluate alternatives to buy single house is shown below.

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**Table 2.3 Household Income of Evaluation of Alternative Groups in Bangkok and Near Area**

| Household income (Baht) | % |
|---|---|
| 10,000 or lower | 7.0 |
| 10,001-20,000 | 18.1 |
| 20,001-50,000 | 40.3 |
| 50,001-100,000 | 25.0 |
| More than 100,000 | 9.1 |

Source: Chulasai and Siri (2004). Demand of Residence of Population in Bangkok and Near Area in 2005. Thailand, Bangkok: Property lines.

Table 2.3 reports household income proportion of evaluation of alternative groups in Bangkok and near area. The result from the study shows that the largest group in Bangkok and near area has a household income of 20,001 to 50,000 baht. This group considers security as the most important when they evaluate factors before making a decision to purchase a residence. This is followed by convenience of entrance and exit way, environment, near facilities, post sale services, community charge, house usable area, company's trustworthiness, house pattern, surrounding community, materials and construction, company's name, near the existing residential area, flood, near working area, project pattern, project size, central area and building, near children's school, being able to do other activities, having friend in the project, previous project and government support as shown in Table 2.4 on page 61. For different groups, factors for consideration to purchase residence and importance level of factors may differ.

**Table 2.4 Factors for Consideration to Purchase a Residence Set by Evaluation of Alternative Groups**

| Factors used while considering to purchase a new residence | Arrangement |
|---|---|
| Security | 1 |
| Convenience of entrance and exit way | 2 |
| Environment | 3 |
| Near facilities | 4 |
| Post sales services | 5 |
| Community charge | 6 |
| House usable area | 7 |
| Trust of company | 8 |
| House pattern | 9 |
| Surrounding community | 10 |
| Material and construction | 11 |
| Company's name | 12 |
| Near the existing residential area | 13 |
| Flood | 14 |
| Near working area | 15 |
| Project pattern | 16 |
| Project size | 17 |
| Central area and building | 18 |
| Near children's school | 19 |
| Being able to do other activities | 20 |
| Having friend in the project | 21 |
| Previous project | 22 |
| Government support | 23 |

Source: Chulasai and Siri (2004). Demand of Residence of Population in Bangkok and Near Area in 2005. Thailand, Bangkok: Property lines.

Jangjenjit (2003) indicated that the important factors to make a decision for purchasing a house are location and facilities. Company's name of housing project and promotion are not the first interest.

Government Housing Department Report (2003) conducted on the impact of residence development in Thailand both in customer and developer's view. It was to study the effect in economy and investment on residence in Thailand. They conducted

the research by interviewing people who decided to purchase residence and residence buyers in Bangkok and the large cities in all sections of Thailand. This research separated residence price level as shown in Table 2.5.

**Table 2.5 Residence Market**

| Level/Type | Single house | Town house | Condominium |
|---|---|---|---|
| High | > 6 million baht | > 5 million baht | > 60 thousand baht / square meter |
| Medium | 2.5-6 million baht | 1-5 million baht | 30-60 thousand baht / square meter |
| Low | < 2.5 million baht | < 1million baht | < 30 thousand baht / square meter |

Source: Government Housing Department (2003), Impact of Residence Development. Thailand: Government Housing Department

The result of the research what that the effective factors for decision making to purchase high price residence are location 56%, quality 18% and communication 12%. The effective factors for decision making to purchase medium price residence are location 61%, quality 13% and price 11%. The effective factors for decision making to purchase low price residence are location 49%, price 23% and communication 12.3%. The research identified that location is the most important effect for decision making to purchase residence and people who purchase high price residence are not interested in price but they are concerned about quality in the second place. This research also discovered that residence buyers who have higher education level purchase high price residences more than residence buyers who have lower education level. Occupation is one factor which has impact on residence level. Households who have higher income tend to purchase high price residence than who have lower income. Older age level

people also have more chance to purchase higher price residence than younger ones. The proportion of residence buyers profile for this research is shown in Table 2.6. The research presented that difference in demographic factors of residence buyers such as age, education level, occupation and household income level relate to difference in residence price level which may lead into different of purchasing single house factors.

**Table 2.6 Residence Buyers Profile in Thailand**

| Demographic factors | | Residence price level | | | |
|---|---|---|---|---|---|
| | | **High** | **Medium** | **Low** | **Very low** |
| Average age | | 40.5 | 38.4 | 36.8 | 36.7 |
| education level | High school graduate or lower | 13.7% | 12.5% | 32.1% | **90.2%** |
| | Certificate/diploma | 2.7% | 7.4% | 9.4% | 4.9% |
| | Bachelor degree | **42.5%** | **57.2%** | **50.7%** | 4.9% |
| | Higher than bachelor degree | 41.1% | 22.9% | 7.8% | 0.0% |
| Occupation | Government officer/state enterprise employee | 17.8% | 27.7% | 26.1% | 3.2% |
| | Private company employee | 27.4% | **36.4%** | **44.1%** | 18.0% |
| | Business owner | **35.6%** | 24.8% | 16.7% | 18.0% |
| | Daily employee | 1.4% | 0.8% | 3.7% | **32.8%** |
| | Others | 17.8% | 10.4% | 9.4% | 27.8% |
| Household income (baht) | 15,000-30,000 | 2.7% | 9.9% | **39.2%** | **100.0%** |
| | 30,001-50,000 | 6.8% | **23.0%** | 26.9% | 0.0% |
| | 50,001-75,000 | 6.8% | **23.5%** | 19.8% | 0.0% |
| | 75,001-100,000 | 19.2% | 21.1% | 9.9% | 0.0% |
| | 100,001-300,000 | **41.1%** | 16.5% | 4.2% | 0.0% |
| | >300,001 | 22.2% | 5.9% | | |

Source: Government Housing Department (2003), Impact of Residence Development. Thailand: Government Housing Department

Chulasai's (2003) research on some issues in real estate business that found out that factors in decision making to purchase residence of home buyers in 2001 were not different in location and project environment, house pattern and marketing because homebuyers considered location and project environment factor 26.2%, house pattern 22.9% and marketing 22.1%, but finance factor 15.7% and social factor only 13.1%. The research also indicated about concerning location and project environment that home buyer considered good project environment as the most important choice 32.6%, followed by safety 23.9%, being near facilities such as hospital, school, department store 23.6%, and being near working area 20%. For the house pattern, the suitable usable area took the maximum proportion of consideration 40.5%, beautiful pattern 30.5%, energy 15.4% and other special usable area for work 13.6%. Home buyers considered house usable area and house pattern a lot. In the marketing factor, trust on developer is the most important 38.7%. The second importance factor is suitable price 26.8% and followed by good payment condition 19.4% and good selling condition 15.1%. About finance, most home buyers purchase a house to have their own assets. In addition to social factors, home buyer purchase a house to separate from family 47.1%, purchase for the second house 19.4%, purchase for their children 18.3% and purchase for their children while studying 15.1%. The research presented that besides purchasing to separate from family, children and their study is also an important factor in making a decision to purchase a house.

A research was conducted on consumer behavior of residence buyers after economic crisis by the Department of Housing Development, the faculty of Architecture, Chulalongkorn University (2001). The researchers Chulasai and Siri stated that according to data from population in Bangkok and vicinity, the residence problem which is most specified is safety problem and followed by finance problem

and environment in the community. However, the problem about time and expense for traveling and being far away from facilities are still less serious. This formation may agree with developing status in Bangkok and vicinity which develop communication network and distribute infrastructures and facilities such as department store, hospital, school around all area which support Bangkok people to have a chance to select residence location all over and near working area than before. On the other hand, this statistics also supports to environment changing such as population density and pollution which cause no security and environment problem. The research stated that there are four main factors which respondents consider when they select residence location and environment factor, developer company factor, residence pattern and social condition, presented in Figure 2.5. People who have residence problem and would like to purchase residence in three years consider environment, suitable price, safety, more usable area and near facilities as the five most important factors, respectively.

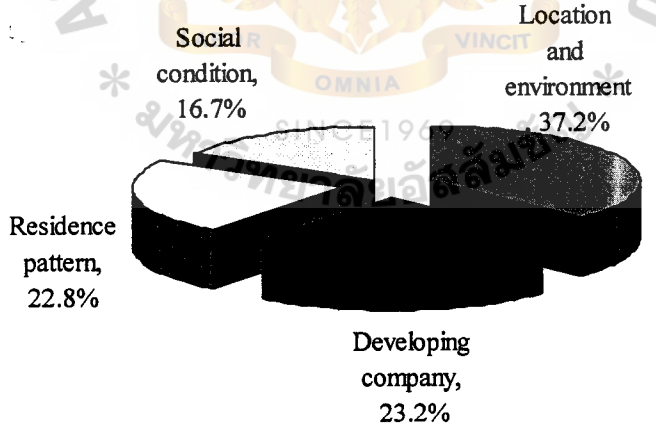


**Figure 2.5 Considered Factors in Residence Selection**

Source: Department of Housing Development, the faculty of Architecture, Chulalongkorn University (2001), Residence Consumer Behavior after Economic Crisis. Thailand: Home buyers' guide.

**Table 2.7 Considered Factors in Residence Selection**

| Considered factors to purchase residence | | Proportion |
|---|---|---|
| Location and environment | Want good environment | 30.3% |
| | Has safety living | 26.0% |
| | Near facilities such as hospital and school | 25.6% |
| | Near working area | 18.2% |
| Residence pattern | Want more usable area | 42.2% |
| | Can use to do other activities such as work and business | 29.0% |
| | Beautiful pattern | 28.8% |
| Social condition | Purchase to have own assets | 42.3% |
| | Has more stable finance status | 38.4% |
| | Want to separate from family | 19.3% |

Source: Department of Housing Development in the faculty of Architecture at Chulalongkorn University (2001), Residence Consumer Behavior after Economic Crisis. Thailand: Home buyers' guide.

The research pointed that location and environment are the most important factors in residence selection and residence buyers also consider usable area a lot. The important factor of social condition is purchase to have own assets. Furthermore, marketing strategy such as marketing activities, promotion and payment condition are not as important as trust on developer's company which comes from company profile, previous achievement and complete product before selling.

Department of Housing Development, the faculty of Architecture Chulalongkorn University (2001) conducted a research on comparison of residence demand of population in Bangkok and vicinity separated by zone. The research stated

that northern zone has the most proportion of single house and this zone also has more safety than other zones. The main residence problem which people in central business districts zone faced has is density problem and the south zone has bad environment caused by factory and warehouses which are not suitable for living. However, some people try to live near the existing area because they do not have any communication problem. This research specified that people who have residential problem will move to the new residence in three years. If they take more than three years, it is only an expectation, not the real demand. In addition, most residence buyers always select the new residence near their current location except central business districts zone and southern zone. The residence buyers plan to buy a new house in the allocated housing project than the second hand house with 88.4% and 11.6% respectively. While 78% have share partners to pay for the residence purchasing, 21.9% of residence buyers pay by themselves.

Park and Richard (1982) studied about decision plans and consumer choice dynamics and found out that a home purchasing decision is normally characterized by the decision maker's preplanning for a desired alternative in term of choice criteria. Tradeoff dimensions differ from relative preference dimensions because the absence of a satisfactory level on the former requires an offsetting improvement on another feature if the alternative is to be acceptable. Therefore, the rejection or acceptance of an alternative depends on whether there is an offsetting improvement on other features (lower price or better neighborhood, etc.). The basic dimensions of homes consist of age of home, appearance of home, insulation quality, interior design, landscaping, location (convenience), neighborhood, recreational facilities, resale value, price, tax amount, builder's reputation, size of home, central air conditioning, fenced yard, wet

bar, fireplace, humidifier, patio, basement, number of bedrooms, number of bathrooms, size of garage (0, 1 or 2), and home style (ranch, bilevel, etc.).

Smersh *et al.* (2003) who researched about factors affecting residential property development patterns suggested that factors that are important in locating a residential development include physical suitability for development, legal restrictions, government regulations (zoning and other land use controls), existing land use patterns and location of other residential development, access including proximity to interstate highways, distance to employ sources, distance to shopping, availability of amenities (water, restaurants and shopping, golf, parks) and neighborhood factors (age of surrounding housing stock, school, crime).

Kochera and Andrew (1995) reported from study about the growth of community associations that community associations are becoming increasingly common among single-family fee single housing developments. The typical community association is responsible for the physical maintenance and operations of community property, such as swimming pools, tennis courts, parks, and meeting areas. Community associations have become more popular over the years and are far more common among multifamily and single-family attached dwellings than among single-family detached homes.

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# Chapter III

# Research Framework

In order to study the impact of budget upon single house purchase, the relevant theories and the previous empirical research are applied in this study. In this chapter the conceptual model is mentioned in section two, the related research hypotheses in section three and the operationalization of the independent and dependent variables in the last section.

## 3.1 THEORETICAL FRAMEWORK

Black *et al.*, (2003) referenced that, purchasing real estate requires extensive problem solving by consumers who trade infrequently in the market for an expensive and highly visible durable good. Consumer behavior models can be used to understand the influence of internal and external factors on consumers' decisions and the process the consumers use to make a decision regarding real estate purchase. Gibler and Nelson (2003) also proposed to use consumer behavior theories in real estate research to understanding why people value certain properties for reasons other than physical features. It is the perception, not the reality that is the relevant measure of a product from the consumer's point of view. In addition, Kritayanavaj (2003) mentioned about marketing of housing business that, to know what house to produce, which location and what price level in order to facilitate sale efficiency, marketing research should first be conducted to check the purchasing power (demand) of customers and find customer profile and customer need in order to plan housing project or product choice

which satisfies customer need and makes a good profit. The theories of consumer behavior, buyer's characteristics, decision process, product, price and other previous studies are also applied in this study.

**Buyer behavior**

There are theories about buyer's decision when they want to buy something. Kotler (1997) mentioned that buyer behavior consists of many elements, buyer's characteristics and buyer's decision process results in buyer's decision directly. Because this research focused on factors and processes which relate to single house purchasing, the interesting factors which emphasized in the study are shown in Figure 2.1 on page 36 (as model of buyer behavior which is modified from Kotler (1997)).

Kotler (1997) mentioned about major factors influencing buying behavior that buyer characteristics and buyer decision process affect buyer's decision. This research is aimed to study buyers' characteristics which emphasize purchasing power of customers or budget to purchase single house in order to know customer's need under budget condition. The related topic such as personal characteristics about age, marital status, education level, occupation and income level, psychological factors like motivation and perception, are proposed to describe status and profile of potential customers and their perception in purchasing product or single house. This particular researcher is interested in buyer decision process to collect data and study the group who evaluate alternatives, who are potential customers and have the real demand to buy single house. For purchase intention, the consumer may make up the subdecisions such as product choice, brand choice, dealer choice, purchase timing, purchase amount and payment method. However, this research is only focused on product choice or single house aspect. So, model of buyer behavior of single house proposed that budget

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or price of a single house impact on buyer's decision in evaluating factors to buy suitable single house

**Price**

Price is the amount of money that customers pay for the product and should be commensurate with the offer's perceived value. Hoyer and MacInnis (1997) indicated that the price of a product or service is one of the most important variables influencing consumer decision making. Consumers may infer that high-priced product is also high in quality when consumers are not knowledgeable about brands or have no basis for discriminating among brands, and high price symbolizes status for fashion or prestige goods. The results of the research on the impact of residence development in Thailand by Government Housing Department Report (2003) also support that residence buyers in different price levels have different criteria for evaluating factors to purchase residence Therefore, in this conceptual framework, the researcher specifies price which is the main factors and interesting to study.

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**Demographic factors**

The reference literature described the concept of demographic factors in many subjects which are related to the consumer behavior in buying. Schiffman and Kanuk (2004) proposed that demographic characteristics, such as age, marital status, income, occupation and education are most often used as the basis for market segmentation. To study the impact of budget upon single house purchase, this research adds comment about demographic characteristics of customer in each single house segment to

describe customer's characteristics and their budget. Moreover, demographic factors of the potential customer also support to understand their need.

**Concept of psychological factors**

Katona (1953) and Kotler (1997) referred to psychological theories such as Maslow's (1943) hierarchy of needs help marketers to understand the drivers that motivate consumers to purchase goods. A person has many needs at any given time. People will try to satisfy their most important needs first. After a person has succeeded in satisfying an important need, he or she will try to satisfy the next-most-important need. In addition, Gibler and Nelson (2003) mentioned that people value certain properties for reasons other than physical features. It is the perception of each person. This research is designed to study the impact of budget on single house purchase and explore customer need.

**Buyer's decision process**

Kotler and Armstrong (2004) stated that there are five stages in buying decision process: problem recognition, information search, evaluation of alternatives, purchase decision and post purchase behavior. From the previous study, Chulasai and Siri (2004) concluded that each group has different criteria to consider and rank importance of factors in residence purchase. In order to get useful update data for single house development and marketing, this research focused on collecting data from the group evaluating alternatives only because this group is in the last stage of evaluating factors before making a decision to purchase the product, so this group is a potential target in the single house market.

**Product**

The product is the most basic factors related to buyer's decision. Jean (1996) indicated that a product possesses intrinsic attributes such as size, color and quality as well as extrinsic attributes (price). Kotler (1997) stated that a product means the firm's tangible offer to the market, which includes the product quality, design, features, branding and others. Product for this research is a single house. Chulasai and Siri (2004) mention related attributes or factors in considering single house consist of project pattern, project size, central area and building, environment, house pattern, house usable area, material and construction, security, convenience entrance and exit way, nearness to facilities, surrounding community, flood, nearness to the existing residential area, nearness to working area, nearness to children's school, having friend in the project, being able do other activities, previous project, trust of company, company's name, post sales services, community charge, government support. Consideration is defined as the degree of importance of factors which are pondered when the group evaluating alternatives or the potential customers are deciding to buy a single house. The importance of each factor may be resulted from product's price or budget to buy a single house which may relate to demographic factors like age, marital status, education level, occupation and income level.

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## 3.2 CONCEPTUAL FRAMEWORK

From the previous empirical research, there are many factors which most people consider when they make a decision to purchase a residence. These factors include project pattern, project size, central area and building, environment, house pattern, house area, material and construction, security, convenience entrance and exit way, nearness to facilities, surrounding community, flood, nearness to the existing residential area, nearness to working area, nearness to children's school, having friend in the project, being able to do other activities, previous project, trust of company, company's name, post sales services, community charge and government support. In different time, persons who want to purchase a single house may give importance to each factor differently.

From theory framework about buyer behavior which refers to buyer characteristics about budget, buyer's decision process and buyer's decision, it is clear that price have impact on decision making in product purchase. Most people have to evaluate factors which relate to the product before they make a decision to buy suitable product which satisfy their needs under condition at that time.

Therefore, this research aimed to investigate differences in purchasing single house factors when segmented by budget to purchase a single house or the price of single house. It is to clarify whether there is any difference in each factor when segmented by budget to purchase a single house.

To present clearly, the researcher draws on the previous empirical research and relevant theories and develops the conceptual framework which relate these factors as shown in Figure 3.1.

The conceptual framework illustrates the relationship between the dependent and independent variable. Twenty three hypotheses are proposed based on the application of this framework to examine the difference in purchasing single house factors when segmented by price or budget levels. The independent variables in this study is the budget to purchase a single house. The dependent variable is twenty three purchasing single house factors.

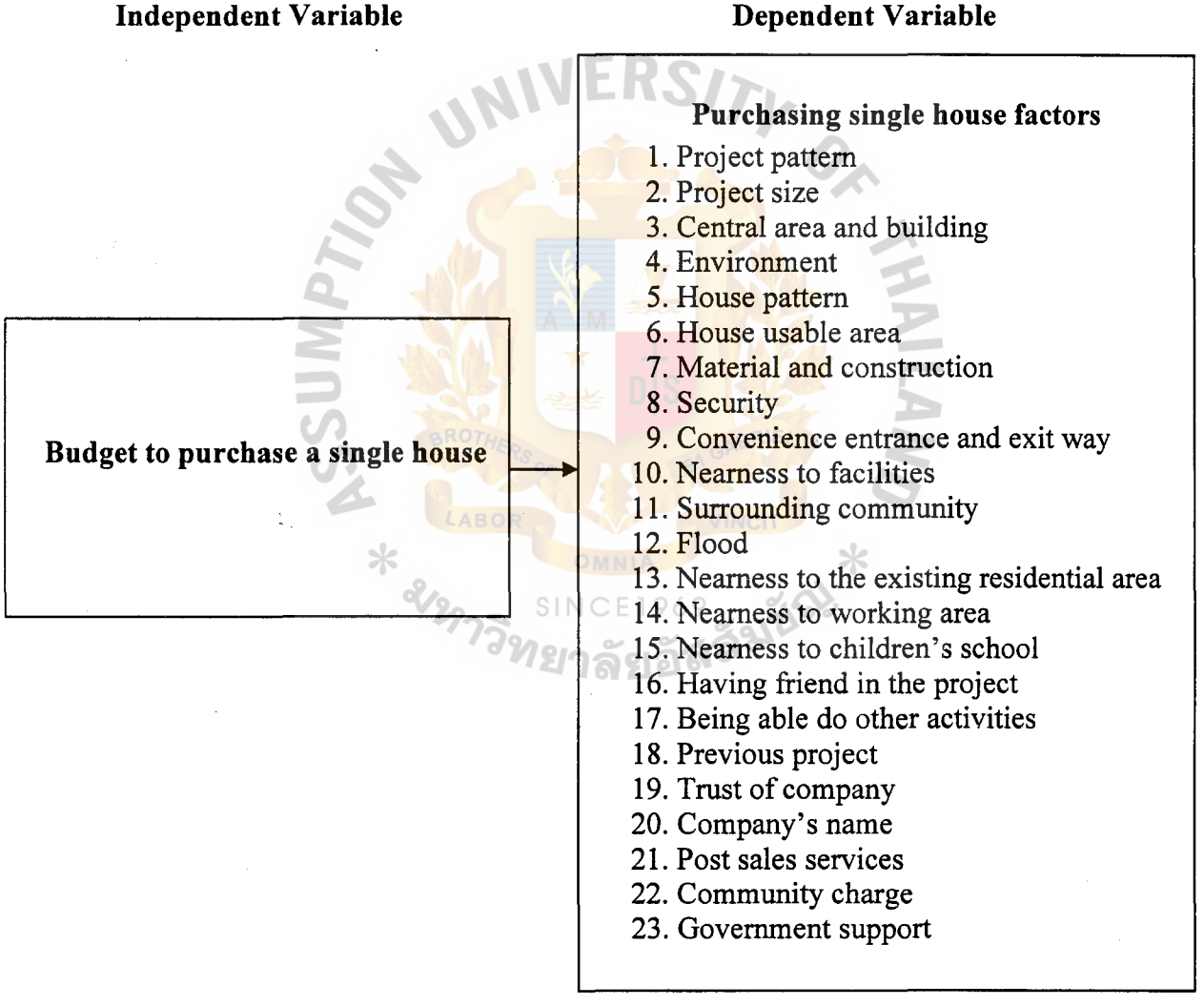


**Figure 3.1 Conceptual Framework**

## 3.3 RESEARCH HYPOTHESES

Budget to purchase a single house vs purchasing single house factors.

***Question*** Is there a difference in the consideration of single house factors when segmented by budget to purchase a single house?

$H_0 1$ : There is no difference in project pattern when segmented by budget to purchase a single house.

$H_1 1$ : There is a difference in project pattern when segmented by budget to purchase a single house.

$H_0 2$ : There is no difference in project size when segmented by budget to purchase a single house.

$H_1 2$ : There is a difference in project size when segmented by budget to purchase a single house.

$H_0 3$ : There is no difference in central area and building when segmented by budget to purchase a single house.

$H_1 3$ : There is a difference in central area and building when segmented by budget to purchase a single house.

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$H_0$4 : There is no difference in environment when segmented by budget to purchase a single house.

$H_1$4 : There is a difference in environment when segmented by budget to purchase a single house.

$H_0$5 : There is no difference in house pattern when segmented by budget to purchase a single house.

$H_1$5 : There is a difference in house pattern when segmented by budget to purchase a single house.

$H_0$6 : There is no difference in house usable area when segmented by budget to purchase a single house.

$H_1$6 : There is a difference in house usable area when segmented by budget to purchase a single house.

$H_0$7 : There is no difference in material and construction when segmented by budget to purchase a single house.

$H_1$7 : There is a difference in material and construction when segmented by budget to purchase a single house.

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$H_0$8 : There is no difference in security when segmented by budget to purchase a single house.

$H_1$8 : There is a difference in security when segmented by budget to purchase a single house.

$H_0$9 : There is no difference in convenience entrance and exit way when segmented by budget to purchase a single house.

$H_1$9 : There is a difference in convenience entrance and exit way when segmented by budget to purchase a single house.

$H_0$10 : There is no difference in nearness to facilities when segmented by budget to purchase a single house.

$H_1$10 : There is a difference in nearness to facilities when segmented by budget to purchase a single house.

$H_0$11 : There is no difference in surrounding community when segmented by budget to purchase a single house.

$H_1$11 : There is a difference in surrounding community when segmented by budget to purchase a single house.

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$H_0$12 : There is no difference in flood when segmented by budget to purchase a single house.

$H_1$12 : There is a difference in flood when segmented by budget to purchase a single house.

$H_0$13 : There is no difference in nearness to the existing residential area when segmented by budget to purchase a single house.

$H_1$13 : There is a difference in nearness to the existing residential area when segmented by budget to purchase a single house.

$H_0$14 : There is no difference in nearness to working area when segmented by budget to purchase a single house.

$H_1$14 : There is a difference in nearness to working area when segmented by budget to purchase a single house.

$H_0$15 : There is no difference in nearness to children's school when segmented by budget to purchase a single house.

$H_1$15 : There is a difference in nearness to children's school when segmented by budget to purchase a single house.

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$H_0$16 : There is no difference in having friend in the project when segmented by budget to purchase a single house.

$H_1$16 : There is a difference in having friend in the project when segmented by budget to purchase a single house.

$H_0$17 : There is no difference in being able to do other activities when segmented by budget to purchase a single house.

$H_1$17 : There is a difference in being able to do other activities when segmented by budget to purchase a single house.

$H_0$18 : There is no difference in previous project when segmented by budget to purchase a single house.

$H_1$18 : There is a difference in previous project pattern when segmented by budget to purchase a single house.

$H_0$19 : There is no difference in trust of company when segmented by budget to purchase a single house.

$H_1$19 : There is a difference in trust of company when segmented by budget to purchase a single house.

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$H_0$20 : There is no difference in company's name when segmented by budget to purchase a single house.

$H_1$20 : There is a difference in company's name when segmented by budget to purchase a single house.

$H_0$21 : There is no difference in post sales services when segmented by budget to purchase a single house.

$H_1$21 : There is a difference in post sales services when segmented by budget to purchase a single house.

$H_0$22 : There is no difference in community charge when segmented by budget to purchase a single house.

$H_1$22 : There is a difference in community charge when segmented by budget to purchase a single house.

$H_0$23 : There is no difference in government support when segmented by budget to purchase a single house.

$H_1$23 : There is a difference in government support when segmented by budget to purchase a single house.

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## 3.4 OPERATIONALIZATION OF THE INDEPENDENT AND DEPENDENT VARIABLES

To test the hypotheses of this research, the tables below shows a list of independent variables and dependent variables into operational format. A concept is a generalized idea about class of objects, attributes occurrence, or process. A concept must be made operational in order to be measurable. The variables of interest have been identified and defined conceptually, a specific type of scale must be selected. This study applies three types of scale; nominal, ordinal and interval scale. The appropriate statistical procedure must be selected to analyze each scale. The following are details of variable measurement:

**Table 3.1 Operational Definition of Influencing Variables**

| Concept | Operational Component | Meaning | Level of measurement | Part No., Question No. |
|---|---|---|---|---|
| Budget to purchase a single house | Budget | Budget levels which respondents plan to purchase a single house or the price level of a single house which respondents plan to purchase | Ordinal | A,6 |

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**Table 3.1 Operational Definition of Influencing Variables (continues)**

| Concept | Operational Component | Meaning | Level of measurement | Part No., Question No. |
|---|---|---|---|---|
| Demographic factors<br><br>Age | Age level | The period of time during which someone exists. | Ordinal | A,1 |
| Demographic factors<br><br>Marital status | Marital status | People's marriage and household pattern | Nominal | A,2 |
| Demographic factors<br><br>Education level | Education level | The education level of person | Ordinal | A,3 |
| Demographic factors<br><br>Occupation | Occupation group | Job or employment | Nominal | A,4 |
| Demographic factors<br><br>Household income | Household average income per month | The amount of money which received from working (all of buyer and partner borrower's income per month which mean real purchasing power of household per month) | Ordinal | A,5 |

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**Table 3.2 Operational Definition of Explained Variables**

| Concept | Operational Component | Meaning | Level of measurement | Part No., Question No. |
|---|---|---|---|---|
| Purchasing single house factors | 1. Project pattern | - Pattern of allocated housing project or project's concept such as modern community with sport multiplex, garden house in tropical garden atmosphere, etc. | Interval | B, 1 |
| | 2. Project size | - Size of housing project such as large project which has a lot of house units or small project which has a few houses | Interval | B, 2 |
| | 3. Central area and Building | - Area or building which allocated housing project prepare for internal public using such as park, swimming pool, tennis court, playground, meeting place, shop, etc. | Interval | B, 3 |
| | 4. Environment | - Environment in allocated housing project such as atmosphere, cleaning and beautiful scenery | Interval | B, 4 |

**Table 3.2 Operational Definition of Explained Variables (continues)**

| Concept | Operational Component | Meaning | Level of measurement | Part No., Question No. |
|---|---|---|---|---|
| Purchasing single house factors | 5. House pattern | - Pattern, style and function of a single house such as contemporary style, applied Thai house, number and design of room, etc. | Interval | B, 5 |
| | 6. House usable area | - Land area and total gross area of single house unit | Interval | B, 6 |
| | 7. Material and Construction | - Materials used to construct house and quality of construction | Interval | B, 7 |
| | 8. Security | - Security with in allocated housing project | Interval | B, 8 |
| | 9. Convenience of entrance and exit Way | - Good and convenient status of the road used to go to housing project. | Interval | B, 9 |
| | 10. Nearness to facilities | - Housing project is near facilities such as school, department store, hospital, express way, etc. | Interval | B, 10 |

**Table 3.2 Operational Definition of Explained Variables (continues)**

| Concept | Operational Component | Meaning | Level of measurement | Part No., Question No. |
|---|---|---|---|---|
| Purchasing single house factors | 11. Surrounding community | - Environment and community surround housing project | Interval | B, 11 |
| | 12. Flood | - Flood within project and surround project area | Interval | B, 12 |
| | 13. Nearness to the existing residential area | - Housing project which is considered locate near the existing residential area | Interval | B, 13 |
| | 14. Nearness to working area | - Housing project which is considered locate near working area | Interval | B, 14 |
| | 15. Nearness to children's school | - Housing project which is considered locate near children's school | Interval | B, 15 |
| | 16. Have friend in the project | - Having friends or relatives stay in housing project which is considered | Interval | B, 16 |
| | 17. Being able to do other activities | - Can apply single house in housing project do other activities other than stay such as do business | Interval | B, 17 |

**Table 3.2 Operational Definition of Explained Variables (continues)**

| Concept | Operational Component | Meaning | Level of measurement | Part No., Question No. |
|---|---|---|---|---|
| Purchasing single house factors | 18. Previous project | - Reference of previous allocated housing projects which developer had achieved | Interval | B, 18 |
| | 19. Trust of company | - Reliability of housing project developer | Interval | B, 19 |
| | 20. Company's name | -Reputation of company or developer who develops the housing project | Interval | B, 20 |
| | 21. Post sales services | - Services which are expected to receive after purchasing a single house in allocated housing project | Interval | B, 21 |
| | 22. Community charge | - Taking charge of environment, community and others within allocated housing project | Interval | B, 22 |
| | 23. Government support | - Current support from government such as low tax and good regulation which help buyers occupy a single house easily | Interval | B, 23 |

# Chapter IV

# Research Methodology

## 4.1 RESEARCH METHODS USED

This chapter discusses the research methodology used to clarify the hypotheses. This research collects the primary data from the survey by interview with questionnaires to the respondents or the sampling units to analyze and describe the difference in the consideration of single house factors when segmented by budget to purchase a single house in Bangkok area. Sample surveys used for describe the population quickly by low cost and accurate means of assessing information about a population. The researcher used interview method for getting feed back immediately within a short time. The data are gathered from questionnaires which are collected from 400 respondents or potential customers who are the sample units in Bangkok. Furthermore, the secondary data is collected and sourced from text books, journals, internet, newspapers, magazines, seminar's pamphlet and previous studies to support and analyze for the completed of conclusion.

Descriptive research is used to estimate the proportion of people in a specified population who behave in a certain way as well as to describe the characteristics of certain groups (Churchill, 1999). Hence, the study used this method to describe the characteristics of potential customers of single house and their budgets.

Moreover, the exploratory study is another method applied to formulate specific hypotheses to fulfill the research objectives. The exploratory study is particularly helpful in breaking broad, vague problem statements into smaller, more

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precise subproblem statements, hopefully in the form of specific hypotheses (Churchill, 1999).

## 4.2 RESPONDENTS AND SAMPLING PROCEDURES

### Target Population

Keeranun (1995) described that, population is a total set of every unit that can give the interested information for the research.

This research was focused on studying and collecting data from the potential customers of single house priced between 3 to 9 million baht ($77,320 to $231,959)[1] in Bangkok. The potential customers in the study was the group evaluating alternatives which mean people who will purchase single house and they are comparing alternatives in order to make a decision to purchase the best solution (both people who have ever purchased house and people who have never purchased house). The data were collected from variety respondents. The target population for this study is people who live in Bangkok area and were shopping at department stores in Bangkok Metropolis during 1st November to 31st December 2004. There is no sampling frame for this survey because there is no certain list of those persons.

[1] 1 dollar is equal to 38.80 baht on 7th December 2004

## Sampling Unit or Respondent

Malhotra (1999) stated that, sampling unit is the basic unit containing the elements of the population to be sampled. Sampling unit for this research is a person who is evaluating alternatives to purchase a single house priced between 3 million to 9 million baht ($77,320 to $231,959)[1] and lives in Bangkok area during 1st November to 31st December 2004.

## Sample Size

In order to collect data, the sample size is determined by convenience sampling and calculated by estimating a population proportion. Vanichbuncha (1995) explained the application of population proportion for quality information: p is the proportion of the population that has a given interested attribute and q is the proportion of the population not having the interested attribute (1-p), generally, p and q will be estimated from previous research or pretest. To estimate the sample size, p value, the acceptable level of sampling error (E) and the acceptance level of confidence in standard error or Z value have to be specified by the researcher. In case of unknown p value to fill in the related formula, however, pq will has a maximum value when p = 0.5 and q = (1-p) = 0.5, that is pq = 0.25 so this research will use this maximum value to estimate the sample size.

[1] 1 dollar is equal to 38.80 baht on 7th December 2004

The requirements for estimate the sample size are

$$n = \frac{Z^2_{1-\alpha/2}\, pq}{E^2},$$

$$n = \frac{(1.96)^2 * 0.5(1-0.5)}{(0.05)^2},$$

$$n = \frac{3.8416 * 0.25}{0.0025},$$

$$n = \frac{0.9629}{0.0025},$$

$$n = 385.$$

Where :

n = Sample size,

Z = Acceptable level of confidence in standard error, Z score based on researcher's desires level of confidence of 95 %, 1.96,

p = The proportion of the population that has a given attribute, the proportion of persons who are evaluating alternatives to purchase single house priced between 3 to 9 million baht and live in Bangkok and nearby area, 0.5

q = The proportion of the population not having the attribute (1-p), the proportion of the proportion of persons who are not evaluating alternatives to purchase single house priced between 3 to 9 million baht and live in Bangkok , 0.5

E = Acceptable level of sampling error (precision), 0.05.

From the above calculation, this research needs 385 samples to represent the

target population in an acceptable level of sampling error (precision) not more than 5% and with an acceptable level of confidence in standard error 95 %. However, the researcher will collect data from 400 samples approximately.

## Sampling Procedures and Sampling Method

Sampling uses a small number of units of a given population as a basis for drawing the conclusions about the whole population (Churchill, 1991). For this study, there is no current and accurate list of population or the member of population being chosen is unknown. Non-probability sampling is most appropriate technique for this research to select samples because the elements in the population do not have any probabilities of being chosen as sample subjects. Non-probability sampling is a sampling technique in which units of the sample are selected on the basis of personal factors (Zikmund, 1997) and there is no way of ensuring that the sample is representative of the population (Churchill, 1999). Furthermore, the researcher uses convenience sampling to distribute questionnaires to the respondents around Bangkok by interviewing target respondents who are shopping at department stores in Bangkok. The researcher asks and screens target groups by some questions and continues the interview with respondents who plan to buy a single house priced between 3 to 9 million baht ($77,320 to $231,959)[1] and could give more information. Convenience sampling by the reference from Sekaran (2000) proposed that the sample elements are selected because it is believed that they are representatives of the population of interest.

[1] 1 dollar is equal to 38.80 baht on 7th December 2004

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## 4.3 RESEARCH INSTRUMENTS / QUESTIONNAIRE

Questionnaire for data collection about purchasing single house factors and the characteristics of target groups who plan to purchase a single house and their budget to buy a single house is created. This questionnaire covers the information of respondents who are making a comparison purchasing single house factors in order to purchase a single house. These questionnaires consist of two parts

Part 1 Demographic profiles and budget to buy a single house.

Part 2 Purchasing single house factors.

**Part 1.** Demographic profiles and budget to buy a single house. This part will retrieve the general details from the respondents consisting of age, marital status, education level, occupation, household income level and budget to buy a single house.

**Part 2.** Purchasing single house factors. This part is to measure the importance level of each factor for consideration to purchase a single house by perception of potential customers. This analysis used five points rating scales to indicate the degree by importance level.

| | |
|---|---|
| Not at all important | 1 |
| Not important | 2 |
| Neutral | 3 |
| Important | 4 |
| Very important | 5 |

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## 4.4 PRETEST

To conduct the pilot survey or pretest, the number of trial survey should be at least 25 respondents as the reference from Vanichbuncha (2001). However, this research had run the pretest around 40 samples. Winer (1971) said that reliability analyses typically measure the internal consistency of multiple-item scales by estimating a true score and comparing the observed score to it to check whether the test or scale measure attribute in the same way regardless of who is administering it. Cronbach alpha is used to estimate the proportion of variance that is systematic or consistent in a set of test scores. It can range from 00.0 if no variance is consistent to 1.00; if all variance is consistent, with all values between 00.0 and 1.00 also being possible. If the Cronbach alpha for a set of scores turns out to be .90, it means that the test is 90% reliable, and by extension that it is 10% unreliable. Sekaran (2000) described that if the reliability value is equal to at least 0.6, it was considered reliable. As the result from SPSS, This questionnaire is sufficient and reliable to examine the hypotheses because the alpha coefficient is more than 0.6.As the result from SPSS show alpha coefficient value equals to 0.9406 in part B which has the questions about importance level of purchasing single house factors which respondents consider and evaluate before making a decision to purchase a single house. This questionnaire is sufficient and reliable to examine the hypotheses because the alpha coefficient is more than 0.6.

In order to check the design of questionnaire to set the appropriate instrument, 40 samples of questionnaires were distributed for pretest. After pretest, the researcher found that some questions are not suitable and difficult to get the real

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answers and they are also not very significant for the study. The modified questionnaire was created again as shown in appendix A.

## 4.5 STATISTICAL TREATMENT OF DATA

Statistical methods were applied to analyze the data from questionnaires of all respondents. All data were analyzed, encoded and processed by SPSS (Statistical Package for Social Sciences). The statistical tools which were used in this research are presented as follows:-

### Descriptive Analysis

Descriptive statistics provide summary measures of the data contained in all elements of a sample. In order to interpret the data gathered, descriptive analysis is applied to transform the raw data into a form that will make it easy to understand and interpret; the data are rearranged, ordered and manipulated to generate information such as frequency distribution, percentage distributions, and means (Zikmund, 2000).

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**Percentage**

The data are tabulated by frequency distribution and percentages tabulated. It is useful to analysis.

**Mean**

$$\bar{x} = \frac{\sum_{i=1}^{n} x_i}{n}$$

When $n$ = number of observations in the sample

**Standard deviation**

$$S = \frac{\sqrt{\Sigma( x_i - \bar{x} )^2}}{( n-1 )},$$

When $S$ = Standard deviation,

$n$ = Sample size.

Descriptive statistics of frequency distribution were used to describe the percentage, mean and standard deviation for describing the demographic profile and budget to purchase a single house.

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**Analysis of Variance (ANOVA)**

One way analysis of variance (ANOVA) is the appropriate tool for analysis when the means of more than two groups or populations are to be compared. This statistical technique is referred to as one-way because there is only one independent variable.

As Zikmund (2000) proposed that the analysis of variance (ANOVA) is used to investigate the effects of one treatment variable on an interval-scaled or ratio-scaled dependent variable. It is a hypothesis-testing technique to determine whether statistically significant differences on means occur between two or more groups. In the one way ANOVA, the null hypothesis is that all of the mean are equal ($\mu_1=\mu_2=\mu_3$) and this is tested by the F value. F-test is a procedure for comparing one sample variance with another sample variance. The F-distribution is the ratio of two sources of variances; that is,

$$F = \frac{MSb}{MSw}$$

$$df = cn-1$$

Where:

F = F-distribution,

MSb = Mean squares between group variances,

MSw = Mean squares within group variances,

c = Number of groups,

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n = Number of observations in each group,

df = Degree of freedom.

**Table 4.1 Summary for Analysis of Variance**

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Square | F-Ratio |
|---|---|---|---|---|
| Between Groups | SSb | c-1 | MSb = SSb/dfb | Msb / Msw |
| Within groups | SSw | cn-c | MSw = SSw/dfw | |
| Total | SSt | cn-1 | | |

Source: Zikmund (2000), Exploring Marketing Research. (7th ed.). U.S.A.: The Dryden Press Harcourt College Publishers.

A larger ratio of variance between groups to variance within groups implies a greater value of F. If F-value is large, the results are likely to be statistically significant.

In ANOVA if the observed statistic is greater than the test value for some level of significance, the hypothesis that there is no significant difference in the means of the sample group may be rejected.

**Table 4.2 Summary of Hypotheses and Statistics Used**

| Hypotheses | Statistical used |
|---|---|
| $H_0$1 : There is no difference in project pattern when segmented by budget to purchase a single house.<br>$H_1$1 : There is a difference in project pattern when segmented by budget to purchase a single house. | ANOVA |
| $H_0$2 : There is no difference in project size when segmented by budget to purchase a single house.<br>$H_1$2 : There is a difference in project size when segmented by budget to purchase a single house. | ANOVA |
| $H_0$3 : There is no difference in central area and building when segmented by budget to purchase a single house.<br>$H_1$3 : There is a difference in central area and building when segmented by budget to purchase a single house. | ANOVA |
| $H_0$4 : There is no difference in environment when segmented by budget to purchase a single house.<br>$H_1$4 : There is a difference in environment when segmented by budget to purchase a single house. | ANOVA |
| $H_0$5 : There is no difference in house pattern when segmented by budget to purchase a single house.<br>$H_1$5 : There is a difference in house pattern when segmented by budget to purchase a single house. | ANOVA |

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Table 4.2 Summary of Hypotheses and Statistics Used (continue)

| Hypotheses | Statistical used |
|---|---|
| $H_0$6 : There is no difference in house usable area when segmented by budget to purchase a single house.<br>$H_1$6 : There is a difference in house usable area when segmented by budget to purchase a single house. | ANOVA |
| $H_0$7 : There is no difference in material and construction when segmented by budget to purchase a single house.<br>$H_1$7 : There is a difference in material and construction when segmented by budget to purchase a single house. | ANOVA |
| $H_0$8 : There is no difference in security when segmented by budget to purchase a single house.<br>$H_1$8 : There is a difference in security when segmented by budget to purchase a single house. | ANOVA |
| $H_0$9 : There is no difference in convenience entrance and exit way when segmented by budget to purchase a single house.<br>$H_1$9 : There is a difference in convenience entrance and exit way when segmented by budget to purchase a single house. | ANOVA |
| $H_0$10 : There is no difference in nearness to facilities when segmented by budget to purchase a single house.<br>$H_1$10 : There is a difference in nearness to facilities when segmented by budget to purchase a single house. | ANOVA |

Table 4.2 Summary of Hypotheses and Statistics Used (continue)

| Hypotheses | Statistical used |
|---|---|
| $H_0$11 : There is no difference in surrounding community when segmented by budget to purchase a single house.<br>$H_1$11: There is a difference in surrounding community when segmented by budget to purchase a single house. | ANOVA |
| $H_0$12 : There is no difference in flood when segmented by budget to purchase a single house.<br>$H_1$12 : There is a difference in flood when segmented by budget to purchase a single house. | ANOVA |
| $H_0$13 : There is no difference in nearness to the existing residential area when segmented by budget to purchase a single house.<br>$H_1$13 : There is a difference in nearness to the existing residential area when segmented by budget to purchase a single house. | ANOVA |
| $H_0$14 : There is no difference in nearness to working area when segmented by budget to purchase a single house.<br>$H_1$14 : There is a difference in nearness to working area when segmented by budget to purchase a single house. | ANOVA |
| $H_0$15 : There is no difference in nearness to children's school when segmented by budget to purchase a single house.<br>$H_1$15 : There is a difference in nearness to children's school when segmented by budget to purchase a single house. | ANOVA |

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Table 4.2 Summary of Hypotheses and Statistics Used (continue)

| Hypotheses | Statistical used |
|---|---|
| $H_0$16 : There is no difference in having friend in the project when segmented by budget to purchase a single house.<br>$H_1$16 : There is a difference in having friend in the project when segmented by budget to purchase a single house. | ANOVA |
| $H_0$17 : There is no difference in being able to do other activities when segmented by budget to purchase a single house.<br>$H_1$17 : There is a difference in being able to do other activities when segmented by budget to purchase a single house. | ANOVA |
| $H_0$18 : There is no difference in previous project when segmented by budget to purchase a single house.<br>$H_1$18 : There is a difference in previous project pattern when segmented by budget to purchase a single house. | ANOVA |
| $H_0$19 : There is no difference in trust of company when segmented by budget to purchase a single house.<br>$H_1$19 : There is a difference in trust of company when segmented by budget to purchase a single house. | ANOVA |
| $H_0$20 : There is no difference in company's name when segmented by budget to purchase a single house.<br>$H_1$20 : There is a difference in company's name when segmented by budget to purchase a single house. | ANOVA |

Table 4.2 Summary of Hypotheses and Statistics Used (continue)

| Hypotheses | Statistical used |
|---|---|
| $H_0$21 : There is no difference in post sales services when segmented by budget to purchase a single house.<br>$H_1$21 : There is a difference in post sales services when segmented by budget to purchase a single house. | ANOVA |
| $H_0$22 : There is no difference in community charge when segmented by budget to purchase a single house.<br>$H_1$22 : There is a difference in community charge when segmented by budget to purchase a single house. | ANOVA |
| $H_0$23 : There is no difference in government support when segmented by budget to purchase a single house.<br>$H_1$23 : There is a difference in government support when segmented by budget to purchase a single house. | ANOVA |

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# *Chapter V*

# Presentation of Data and Critical Discussion of Results

The analysis of this chapter is based on the data collected from a sample size of 400 respondents. The data was interpreted data by using SPSS Program. The analysis is derived from all responses and can be separated into four sections.

The first section contains the reliability analysis. In the second section, descriptive statistics were utilized to identify frequencies and percentages. The analysis describes demographic factors and budget of potential customers who plan to purchase a single house. The third section comprises of descriptive analysis for consideration of single house purchasing factors and the final section is the analyses involving the hypothesis testing of this research. For all hypotheses, ANOVA was performed to test the difference of the purchasing single house factors when separated by budget level at which potential customer plan to purchase a single house.

## 5.1 RELIABILITY TEST

To find the value of reliability, 400 questionnaires were processed by using SPSS program. The reliability analysis report shows that the Cronbach's alpha score of questionnaires which test the importance level of purchasing single house factors is equal to 0.9033. This alpha coefficient is more than 0.6 or the minimum value recommended by Sekaran (2000). From the results, this questionnaire is reliable and sufficiently adequate to examine the hypotheses of the research.

## 5.2 SUMMARY OF DEMOGRAPHIC CHARACTERISTICS AND BUDGET OF THE RESPONDENTS

Demographic characteristics of the respondents in this research can be categorized into several variables including age, marital status, education level, occupation and household income level. The frequencies of these demographic factors and the budget of respondents who plan to purchase a single house are shown in Table 5.1 to 5.11 and in Appendix C.

**Table 5.1 Frequency Table of Respondents Classified by Age Level**

**Age**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Less than 25 years old | 32 | 8.0 | 8.0 | 8.0 |
| | 25 - 29 years old | 90 | 22.5 | 22.5 | 30.5 |
| | 30 - 34 years old | 85 | 21.3 | 21.3 | 51.8 |
| | 35 - 39 years old | 87 | 21.8 | 21.8 | 73.5 |
| | 40 - 49 years old | 76 | 19.0 | 19.0 | 92.5 |
| | 50 years old up | 30 | 7.5 | 7.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Respondents or potential customers of single house participating in this research have different characteristics. Table 5.1 shows that the majority of respondents who plan to purchase a single house are aged between 25 to 29 years old, represented by 90 respondents (22.5%). It is followed by those aged between 35 to 39 years old represented by 87 respondents (21.8%), aged between 30 to 34 years old represented by 85 respondents (21.3%), aged between 40 to 49 years old represented by 76 respondents (19%), aged less than 25 years old represented by 32 respondents (8%) and aged 50 years old up represented by 30 respondents (7.5%).

**Table 5.2 Frequency Table of Respondents Classified by Martial Status**

**Marital status**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Single | 180 | 45.0 | 45.0 | 45.0 |
| | Married / not have a child | 47 | 11.8 | 11.8 | 56.8 |
| | Married / have a child or two children | 145 | 36.3 | 36.3 | 93.0 |
| | Married / have more than two children | 28 | 7.0 | 7.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.2 presents the frequencies classified by marital status of 400 respondents who are potential customers of single house who participated in this research. The majority of respondents who plan to purchase a single house are single, represented by 180 respondents (45%). It is followed by respondents who are married and have a child or two children, represented by 145 respondents (36.3%); respondents who are married and do not have a child, represented by 47 respondents (11.8%); and respondents who are married and have more than two children represented by 28 respondents (7%), respectively.

**Table 5.3 Frequency Table of Respondents Classified by Education Level**

**Education level**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | High school graduate or lower | 24 | 6.0 | 6.0 | 6.0 |
| | Certificate / diploma | 38 | 9.5 | 9.5 | 15.5 |
| | Bachelor's degree | 279 | 69.8 | 69.8 | 85.3 |
| | Master's degree or higher | 59 | 14.8 | 14.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.3 presents the frequencies classified by education level of 400 respondents who are potential customers of single house who participated in this research. The majority of respondents who plan to purchase a single house are university graduates with a bachelor's degree, represented by 279 respondents (69.8%). It is followed by respondents who have a master's degree or higher, represented by 59 respondents (14.8%); respondents who have certificates or diplomas, represented by 38 respondents (9.5%); and respondents who have graduated from high school or less, represented by 24 respondents (6%), respectively.

**Table 5.4 Frequency Table of Respondents Classified by Occupation**

**Occupation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Government officer | 47 | 11.8 | 11.8 | 11.8 |
| | State enterprise employee | 42 | 10.5 | 10.5 | 22.3 |
| | Private company employee | 212 | 53.0 | 53.0 | 75.3 |
| | Business owner | 68 | 17.0 | 17.0 | 92.3 |
| | Others | 31 | 7.8 | 7.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.4 presents the frequencies classified by occupation of 400 respondents or potential customers of single house who participated in this research. The majority of respondents who plan to purchase a single house are private company employees, represented by 212 respondents (53%). It is followed by respondents who are business owners, represented by 68 respondents (17%); respondents who are government officers, represented by 47 respondents (11.8%); respondents who are state enterprise employees, represented by 42 respondents (10.5%); and respondents who have other occupations represented by 31 respondents (7.8%), respectively.

**Table 5.5 Frequency Table of Respondents Classified by Household Income Level**

**Household income level**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Less than 20,000 baht | 75 | 18.8 | 18.8 | 18.8 |
| | 20,000 - 39,999 baht | 133 | 33.3 | 33.3 | 52.0 |
| | 40,000 - 59,999 baht | 72 | 18.0 | 18.0 | 70.0 |
| | 60,000 - 79,999 baht | 50 | 12.5 | 12.5 | 82.5 |
| | 80,000 - 99,999 baht | 26 | 6.5 | 6.5 | 89.0 |
| | 100,000 - 149,999 baht | 20 | 5.0 | 5.0 | 94.0 |
| | 150,000 - 199,999 baht | 10 | 2.5 | 2.5 | 96.5 |
| | 200,000 baht or higher | 14 | 3.5 | 3.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.5 presents the frequencies classified by household income level of 400 respondents who are potential customers of single house who participated in this research. The majority of respondents who plan to purchase a single house have an average household income between 20,000 to 39,999 baht represented by 133 respondents (33.3%) followed by respondents who have an average household income of less than 20,000 baht represented by 75 respondents (18.8%); respondents who have an average household income of between 40,000 to 59,999 baht, represented by 72 respondents (18%); respondents who have an average household income of between baht 60,000 to 79,999 baht, represented by 50 respondents (12.5%); respondents who have an average household income of between 80,000 to 99,999 baht represented by 26 respondents (6.5%); respondents who have an average household income of between 100,000 to 149,999 baht, represented by 20 respondents (5%); respondents who have an average household income of 200,000 baht or higher, represented by 14 respondents (3.5%); and respondents who have an average household income of between 150,000 to 199,999 baht, represented by 10 respondents (2.5%).

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**Table 5.6 Frequency Table of Respondents Classified by Budget to Purchase a Single House**

**Budget to purchase a single house**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 3 - 4.9 million baht | 319 | 79.8 | 79.8 | 79.8 |
| | 5 - 6.9 million baht | 55 | 13.8 | 13.8 | 93.5 |
| | 7 - 9 million baht | 26 | 6.5 | 6.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.6 presents the frequencies of 400 respondents who are potential customers of single house who participated in this research, segmented by budgets which respondents have to purchase a single house. The majority of respondents have a budget to purchase a single house of between 3 to 4.9 million baht, represented by 319 respondents (79.8%); followed by budget to purchase a single house of between 5 to 6.9 million baht, represented by 55 respondents (13.8%); and budget to purchase a single house of between 7 to 9 million baht, represented by 26 respondents (6.5%).

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## Table 5.7 Budget to Purchase a Single House When Classified by Age

**Age * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 – 4.9 million baht | 5 – 6.9 million baht | 7 - 9 million baht | Total |
| Age | Less than 25 years old | Count | 30 | 1 | 1 | 32 |
| | | % within Age | 93.8% | 3.1% | 3.1% | 100.0% |
| | | % within Budget to purchase a single house | 9.4% | 1.8% | 3.8% | 8.0% |
| | | % of Total | 7.5% | .3% | .3% | 8.0% |
| | 25 - 29 years old | Count | 78 | 9 | 3 | 90 |
| | | % within Age | 86.7% | 10.0% | 3.3% | 100.0% |
| | | % within Budget to purchase a single house | 24.5% | 16.4% | 11.5% | 22.5% |
| | | % of Total | 19.5% | 2.3% | .8% | 22.5% |
| | 30 - 34 years old | Count | 71 | 12 | 2 | 85 |
| | | % within Age | 83.5% | 14.1% | 2.4% | 100.0% |
| | | % within Budget to purchase a single house | 22.3% | 21.8% | 7.7% | 21.3% |
| | | % of Total | 17.8% | 3.0% | .5% | 21.3% |
| | 35 - 39 years old | Count | 64 | 15 | 8 | 87 |
| | | % within Age | 73.6% | 17.2% | 9.2% | 100.0% |
| | | % within Budget to purchase a single house | 20.1% | 27.3% | 30.8% | 21.8% |
| | | % of Total | 16.0% | 3.8% | 2.0% | 21.8% |
| | 40 - 49 years old | Count | 57 | 12 | 7 | 76 |
| | | % within Age | 75.0% | 15.8% | 9.2% | 100.0% |
| | | % within Budget to purchase a single house | 17.9% | 21.8% | 26.9% | 19.0% |
| | | % of Total | 14.3% | 3.0% | 1.8% | 19.0% |
| | 50 years old up | Count | 19 | 6 | 5 | 30 |
| | | % within Age | 63.3% | 20.0% | 16.7% | 100.0% |
| | | % within Budget to purchase a single house | 6.0% | 10.9% | 19.2% | 7.5% |
| | | % of Total | 4.8% | 1.5% | 1.3% | 7.5% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Age | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

The results in Table 5.7 show that the majority of respondents who plan to purchase a single house priced between 3 to 4.9 million baht are respondents aged between 25 to 29 years old 24.5%, followed by those aged between 30 to 34 years old 22.3%, those aged between 35 to 39 years old 20.1%, those aged between 25 to 29 years old 16.9%, those aged less than 25 years old 9.4%, and those aged 50 years old up at 6%.

For the respondents who plan to purchase a single house priced between 5 to 6.9 million baht, the majority are respondents aged between 35 to 39 years old; 27.3%, followed by those aged between 30 to 34 years old and those aged between 40

to 49 years old 21.8%, aged between 25 to 29 years old 16.4%, aged 50 years old up 10.9% and aged less than 25 years old 1.8%.

For the respondents who plan to purchase a single house between 7 to 9 million baht, the majority are respondents aged between 35 to 39 years old 30.8%, followed by aged between 40 to 49 years old 26.98%, aged 50 years old up 19.2%, aged between 25 to 29 years old 11.5%, aged between 30 to 34 years old 7.7%, and aged less than 25 years old 3.8%.

**Table 5.8 Budget to Purchase a Single House When Classified by Marital Status**

**Marital status * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 – 4.9 million baht | 5 – 6.9 million baht | 7 - 9 million baht | Total |
| Marital status | Single | Count | 164 | 12 | 4 | 180 |
| | | % within Marital status | 91.1% | 6.7% | 2.2% | 100.0% |
| | | % within Budget to purchase a single house | 51.4% | 21.8% | 15.4% | 45.0% |
| | | % of Total | 41.0% | 3.0% | 1.0% | 45.0% |
| | Married / not have a child | Count | 33 | 7 | 7 | 47 |
| | | % within Marital status | 70.2% | 14.9% | 14.9% | 100.0% |
| | | % within Budget to purchase a single house | 10.3% | 12.7% | 26.9% | 11.8% |
| | | % of Total | 8.3% | 1.8% | 1.8% | 11.8% |
| | Married / have a child or two children | Count | 103 | 30 | 12 | 145 |
| | | % within Marital status | 71.0% | 20.7% | 8.3% | 100.0% |
| | | % within Budget to purchase a single house | 32.3% | 54.5% | 46.2% | 36.3% |
| | | % of Total | 25.8% | 7.5% | 3.0% | 36.3% |
| | Married / have more than two children | Count | 19 | 6 | 3 | 28 |
| | | % within Marital status | 67.9% | 21.4% | 10.7% | 100.0% |
| | | % within Budget to purchase a single house | 6.0% | 10.9% | 11.5% | 7.0% |
| | | % of Total | 4.8% | 1.5% | .8% | 7.0% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Marital status | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

The results in Table 5.8 show that the majority of respondents who plan to purchase a single house priced between 3 to 4.9 million baht are single 51.4%, followed by respondents who are married and have a child or two children 32.3%, respondents who are married and do not have a child 10.3%, and respondents who are married and have more than two children, 6%.

For the respondents who plan to purchase a single house priced between 5 to 6.9 million baht, the majority are respondents who are married and have a child or two children 54.5% followed by respondents who are single 21.8%, respondents who are married and do not have a child 12.7%, and respondents who are married and have more than two children, 10.9%.

For the respondents who plan to purchase a single house priced between 7 to 9 million baht, the majority are respondents who are married and have a child or two children 46.2% followed by respondents who are married and do not have a child 26.9%, respondents who are single 15.4%, and respondents who are married and have more than two children, 11.5%.

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**Table 5.9** Budget to Purchase a Single House When Classified by Education level

**Education level * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 – 4.9 million baht | 5 – 6.9 million baht | 7 - 9 million baht | Total |
| Education level | High school graduate or lower | Count | 22 | 2 | 0 | 24 |
| | | % within Education level | 91.7% | 8.3% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 6.9% | 3.6% | .0% | 6.0% |
| | | % of Total | 5.5% | .5% | .0% | 6.0% |
| | Certificate / diploma | Count | 31 | 4 | 3 | 38 |
| | | % within Education level | 81.6% | 10.5% | 7.9% | 100.0% |
| | | % within Budget to purchase a single house | 9.7% | 7.3% | 11.5% | 9.5% |
| | | % of Total | 7.8% | 1.0% | .8% | 9.5% |
| | Bachelor's degree | Count | 224 | 36 | 19 | 279 |
| | | % within Education level | 80.3% | 12.9% | 6.8% | 100.0% |
| | | % within Budget to purchase a single house | 70.2% | 65.5% | 73.1% | 69.8% |
| | | % of Total | 56.0% | 9.0% | 4.8% | 69.8% |
| | Master's degree or higher | Count | 42 | 13 | 4 | 59 |
| | | % within Education level | 71.2% | 22.0% | 6.8% | 100.0% |
| | | % within Budget to purchase a single house | 13.2% | 23.6% | 15.4% | 14.8% |
| | | % of Total | 10.5% | 3.3% | 1.0% | 14.8% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Education level | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

The results in Table 5.9 show that the majority of respondents who plan to purchase a single house priced between 3 to 4.9 million baht have graduated with a bachelor's degree 70.2%, followed by respondents who have graduated with a master's degree or higher 13.2%, respondents who have graduated with certificates or diplomas 9.7%, and respondents who have graduated from high school or less 6.9%.

For the respondents who plan to purchase a single house between priced 5 to 6.9 million baht, the majority are respondents who have graduated with a bachelor's degree 65.5%, followed by respondents who have graduated with master's degree or higher 23.6%, respondents who have graduated with certificate or diploma 7.3% and respondents who have graduated from high school or less 3.6%.

For the respondents who plan to purchase a single house between 7 to 9 million baht, the majority are respondents who have graduated with bachelor's degree 73.1%, followed by respondents who have graduated with master's degree or higher 15.4%, respondents who have graduated with certificate or diploma at 11.5%, and there is not respondent who has high school graduated or lower.

**Table 5.10 Budget to Purchase a Single House When Classified by Occupation**

**Occupation * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 – 4.9 million baht | 5 – 6.9 million baht | 7 - 9 million baht | Total |
| Occupation | Government officer | Count | 40 | 4 | 3 | 47 |
| | | % within Occupation | 85.1% | 8.5% | 6.4% | 100.0% |
| | | % within Budget to purchase a single house | 12.5% | 7.3% | 11.5% | 11.8% |
| | | % of Total | 10.0% | 1.0% | .8% | 11.8% |
| | State enterprise employee | Count | 35 | 7 | 0 | 42 |
| | | % within Occupation | 83.3% | 16.7% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 11.0% | 12.7% | .0% | 10.5% |
| | | % of Total | 8.8% | 1.8% | .0% | 10.5% |
| | Private company employee | Count | 174 | 27 | 11 | 212 |
| | | % within Occupation | 82.1% | 12.7% | 5.2% | 100.0% |
| | | % within Budget to purchase a single house | 54.5% | 49.1% | 42.3% | 53.0% |
| | | % of Total | 43.5% | 6.8% | 2.8% | 53.0% |
| | Business owner | Count | 41 | 15 | 12 | 68 |
| | | % within Occupation | 60.3% | 22.1% | 17.6% | 100.0% |
| | | % within Budget to purchase a single house | 12.9% | 27.3% | 46.2% | 17.0% |
| | | % of Total | 10.3% | 3.8% | 3.0% | 17.0% |
| | Others | Count | 29 | 2 | 0 | 31 |
| | | % within Occupation | 93.5% | 6.5% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 9.1% | 3.6% | .0% | 7.8% |
| | | % of Total | 7.3% | .5% | .0% | 7.8% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Occupation | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

The results in Table 5.10 show that the majority of respondents who plan to purchase a single house priced between 3 to 4.9 million baht are private company employees at 54.5%, followed by respondents who are business owner at 12.9%, respondents who are government officer at 12.5%, respondents who are state enterprise employees at 11%, and respondents who have other occupations at 7.3%.

For the respondents who plan to purchase a single house priced between 5 to 6.9 million baht, the majority are private company employees, 49.1%, followed by respondents who are business owners 27.3%, respondents who are state enterprise employees 12.7%, respondents who are government officers 7.3%, and respondents who have other occupations, 3.6%.

For the respondents who plan to purchase a single house priced between 7 to 9 million baht, the majority are business owners 46.2%, followed by respondents who are private company employees 42.3% and respondents who are government officers 11.5%.

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## Table 5.11 Budget to Purchase a Single House when classified by Household Income

**Household income level * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 – 4.9 million baht | 5 – 6.9 million baht | 7 - 9 million baht | Total |
| Household income level | Less than 20,000 baht | Count | 73 | 2 | 0 | 75 |
| | | % within Household income level | 97.3% | 2.7% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 22.9% | 3.6% | .0% | 18.8% |
| | | % of Total | 18.3% | .5% | .0% | 18.8% |
| | 20,000 - 39,999 baht | Count | 119 | 12 | 2 | 133 |
| | | % within Household income level | 89.5% | 9.0% | 1.5% | 100.0% |
| | | % within Budget to purchase a single house | 37.3% | 21.8% | 7.7% | 33.3% |
| | | % of Total | 29.8% | 3.0% | .5% | 33.3% |
| | 40,000 - 59,999 baht | Count | 61 | 11 | 0 | 72 |
| | | % within Household income level | 84.7% | 15.3% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 19.1% | 20.0% | .0% | 18.0% |
| | | % of Total | 15.3% | 2.8% | .0% | 18.0% |
| | 60,000 - 79,999 baht | Count | 36 | 7 | 7 | 50 |
| | | % within Household income level | 72.0% | 14.0% | 14.0% | 100.0% |
| | | % within Budget to purchase a single house | 11.3% | 12.7% | 26.9% | 12.5% |
| | | % of Total | 9.0% | 1.8% | 1.8% | 12.5% |
| | 80,000 - 99,999 baht | Count | 20 | 4 | 2 | 26 |
| | | % within Household income level | 76.9% | 15.4% | 7.7% | 100.0% |
| | | % within Budget to purchase a single house | 6.3% | 7.3% | 7.7% | 6.5% |
| | | % of Total | 5.0% | 1.0% | .5% | 6.5% |
| | 100,000 - 149,999 baht | Count | 7 | 7 | 6 | 20 |
| | | % within Household income level | 35.0% | 35.0% | 30.0% | 100.0% |
| | | % within Budget to purchase a single house | 2.2% | 12.7% | 23.1% | 5.0% |
| | | % of Total | 1.8% | 1.8% | 1.5% | 5.0% |
| | 150,000 - 199,999 baht | Count | 2 | 6 | 2 | 10 |
| | | % within Household income level | 20.0% | 60.0% | 20.0% | 100.0% |
| | | % within Budget to purchase a single house | .6% | 10.9% | 7.7% | 2.5% |
| | | % of Total | .5% | 1.5% | .5% | 2.5% |
| | 200,000 baht or higher | Count | 1 | 6 | 7 | 14 |
| | | % within Household income level | 7.1% | 42.9% | 50.0% | 100.0% |
| | | % within Budget to purchase a single house | .3% | 10.9% | 26.9% | 3.5% |
| | | % of Total | .3% | 1.5% | 1.8% | 3.5% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Household income level | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

The results in Table 5.11 show that the majority of respondents who plan to purchase a single house priced between 3 to 4.9 million baht have an average household income of between 20,000 to 39,999 baht 37.3%, followed by respondents who have an average household income of less than 20,000 baht, 22.9%, respondents who have the average household income of between 40,000 to 59,999 baht, 19.1%, respondents who have an average household income of between 60,000 to 79,999 baht, 11.3:%, respondents who have an average household income of between 80,000 to 99,999 baht, 6.3%, respondents who have an average household income of between 100,000 to 149,999 baht, 2.2%, respondents who have an average household income of between 150,000 to 199,999 baht .6% and respondents who have an household income of 200,000 baht or higher, .3%.

For the respondents who plan to purchase a single house priced between 5 to 6.9 million baht, the majority have the average household income of between 20,000 to 39,999 baht, 21.8% followed by respondents who have the average household income between 40,000 to 59,999 baht 20%, respondents who have the average household income of between 60,000 to 79,999 baht and respondents who have the average household income of between 100,000 to 149,999 baht 12.7% for each group, respondents who have the average household income of between 150,000 to 199,999 baht and respondents who have the average household income of 200,000 baht or higher 10.9% for each group, respondents who have the average household income of between 80,000 to 99,999 baht 7.3%, and respondents who have the average household income of less than 20,000 baht 3.6%.

For the respondents who plan to purchase a single house priced between 7 to 9 million baht, the majority have the average household income of between 60,000 to 79,999 baht and respondents who have the average household income 200,000 baht or

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higher 26.9% for each group, followed by respondents who have the average household income of between 100,000 to 149,999 baht 23.1%, respondents who have the average household income of between 20,000 to 39,999, 80,000 to 99,999 baht and 100,000 to 199,999 baht 7.7%, for each group.

## 5.3 SUMMARY OF SIGNIFICANT FACTORS FOR CONSIDERATION OF SINGLE HOUSE PURCHASE

To measure importance level, five-point scale: very important as 5, important as 4, neutral as 3, not important as 2 and not at all important as 1, were used. The findings were obtained from total scores of the respondents. The following table shows the importance level of each factor which respondents or potential customers use to consider when they make a decision to buy a single house. The frequencies and percentage of each rank are shown in Table 5.12 to Table 5.34. The remaining tables propose data in other dimensions.

**Table 5.12 Frequency Table of Respondents on Importance Level of Project Patterns for Consideration of Single House Purchase**

**Project pattern**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 11 | 2.8 | 2.8 | 2.8 |
| | Not important | 30 | 7.5 | 7.5 | 10.3 |
| | Neutral | 130 | 32.5 | 32.5 | 42.8 |
| | Important | 169 | 42.3 | 42.3 | 85.0 |
| | Very important | 60 | 15.0 | 15.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.12 presents frequencies and percentage of importance level when considering project pattern. From 400 respondents, the largest number (42.3%) of respondents give importance project pattern in decision making to purchase single house. Next, there are 32.5% who are neutral to project pattern. However, 15% of

respondents think the project pattern is very important, 7.5% not important and 2.8% not at all important, respectively.

**Table 5.13 Frequency Table of Respondents on Importance Level of Project Size for Consideration of Single House Purchase**

**Project size**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 4 | 1.0 | 1.0 | 1.0 |
| | Not important | 24 | 6.0 | 6.0 | 7.0 |
| | Neutral | 167 | 41.8 | 41.8 | 48.8 |
| | Important | 173 | 43.3 | 43.3 | 92.0 |
| | Very important | 32 | 8.0 | 8.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.13 presents frequencies and percentage of importance level when considered project size. From 400 respondents, 43.3% of respondents give importance to project size in decision making to purchase a single house. Next, there are 41.8% respondents who are neutral. Eight percent of respondents think the project size is very important, 6% not important and 1% are not at all important.

**Table 5.14 Frequency Table of Respondents on Importance Level of Central Area and Building for Consideration of Single House Purchase**

**Central area and building**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 2 | .5 | .5 | .5 |
| | Not important | 16 | 4.0 | 4.0 | 4.5 |
| | Neutral | 141 | 35.3 | 35.3 | 39.8 |
| | Important | 183 | 45.8 | 45.8 | 85.5 |
| | Very important | 58 | 14.5 | 14.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.14 presents frequencies and percentage of importance level when considered central area and building. From 400 respondents, a largest number 45.8% of respondents give importance to central area and building in decision making to purchase single house. However, 35.3% respondents are neutral to this factor, 14.5% think it is very important, 4% not important and 0.5% not at all important.

**Table 5.15 Frequency Table of Respondents on Importance Level of Environment for Consideration of Single House Purchase**

**Environment**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 2 | .5 | .5 | .5 |
| | Not important | 2 | .5 | .5 | 1.0 |
| | Neutral | 28 | 7.0 | 7.0 | 8.0 |
| | Important | 207 | 51.8 | 51.8 | 59.8 |
| | Very important | 161 | 40.3 | 40.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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Table 5.15 presents frequencies and percentage of importance level when considering environment. From 400 respondents, 51.8% of respondents give importance for environment in decision making to purchase single house. However, 40.3% think this factor is important, 7% neutral, 0.5% not important and 0.5% not at all important respectively.

**Table 5.16 Frequency Table of Respondents on Importance Level of House Pattern for Consideration of Single House Purchase**

**House pattern**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 5 | 1.3 | 1.3 | 1.5 |
| | Neutral | 78 | 19.5 | 19.5 | 21.0 |
| | Important | 216 | 54.0 | 54.0 | 75.0 |
| | Very important | 100 | 25.0 | 25.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.16 presents frequencies and percentage of importance level when considering house pattern. From 400 respondents, 54% of respondents give importance to house pattern in decision making to purchase single house. Next, there are 25% who think this factor is very important, 19.5% neutral, 1.3% not important and 0.3% not at all important.

**Table 5.17 Frequency Table of Respondents on Importance Level of House Usable Area for Consideration of Single House Purchase**

**House usable area**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not important | 5 | 1.3 | 1.3 | 1.3 |
| | Neutral | 67 | 16.8 | 16.8 | 18.0 |
| | Important | 212 | 53.0 | 53.0 | 71.0 |
| | Very important | 116 | 29.0 | 29.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.17 presents frequencies and percentage of importance level when considering house usable area. From 400 respondents, 53% of the respondents gave importance for house usable area in decision making to purchase single house. However only 29% think house usable area is very important, 16.87% neutral, and 1.3% not at all important.

**Table 5.18 Frequency Table of Respondents on Importance Level of Material and Construction for Consideration of Single House Purchase**

**Material and construction**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 10 | 2.5 | 2.5 | 2.8 |
| | Neutral | 43 | 10.8 | 10.8 | 13.5 |
| | Important | 185 | 46.3 | 46.3 | 59.8 |
| | Very important | 161 | 40.3 | 40.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.18 presents frequencies and percentage of importance level when considering about material and construction. From 400 respondents, 46.3% of respondents give importance for materials and construction in decision making to purchase single house. Next, there are 40.3% who think this factor is very important, 10.8% neutral, 2.5% not important and 0.3% not at all important.

**Table 5.19 Frequency Table of Respondents on Importance Level of Security for Consideration of Single House Purchase**

**Security**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 4 | 1.0 | 1.0 | 1.3 |
| | Neutral | 50 | 12.5 | 12.5 | 13.8 |
| | Important | 149 | 37.3 | 37.3 | 51.0 |
| | Very important | 196 | 49.0 | 49.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.19 presents frequencies and percentage of importance level when considering security. From 400 respondents, 49% of respondents give very important to security in decision making to purchase single house. Next, there are 37.3% respondents who think security is important, 12.5% neutral, 1.0% not important and 0.3% not at all important.

**Table 5.20 Frequency Table of Respondents on Importance Level of Convenience of Entrance and Exit Way for Consideration of Single House Purchase**

**Convenience of entrance and exit way**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3. | .3 | .3 |
| | Not important | 7 | 1.8 | 1.8 | 2.0 |
| | Neutral | 52 | 13.0 | 13.0 | 15.0 |
| | Important | 190 | 47.5 | 47.5 | 62.5 |
| | Very important | 150 | 37.5 | 37.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.20 presents frequencies and percentage of importance level when considering convenience of entrance and exit ways. From 400 respondents, 47.5% of respondents give importance to convenience of entrance and exit way in decision making to purchase single house. Next, there are 37.5% respondents who think this factor is very important, 13% give neutral, 1.8% not important and 0.3% not at all important.

**Table 5.21 Frequency Table of Respondents on Importance Level of Nearness to Facilities for Consideration of Single House Purchase**

**Nearness to facilities**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not important | 9 | 2.3 | 2.3 | 2.3 |
| | Neutral | 92 | 23.0 | 23.0 | 25.3 |
| | Important | 177 | 44.3 | 44.3 | 69.5 |
| | Very important | 122 | 30.5 | 30.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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Table 5.21 presents frequencies and percentage of importance level when considering nearness to facilities. From 400 respondents, 44.3% of respondents give importance to being near facilities in decision making to purchase single house. Next, there are 30.5% who think this factor is very important, 23% neutral and 2.3% not at all important.

**Table 5.22 Frequency Table of Respondents on Importance Level of Surrounding Community for Consideration of Single House Purchase**

**Surrounding community**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 24 | 6.0 | 6.0 | 6.3 |
| | Neutral | 96 | 24.0 | 24.0 | 30.3 |
| | Important | 180 | 45.0 | 45.0 | 75.3 |
| | Very important | 99 | 24.8 | 24.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.22 presents frequencies and percentage of importance level when considering surrounding community. From 400 respondents, 45% of respondents give importance to surrounding community in decision making to purchase single house. However, only 24.8% think this factor is very important, 24% neutral, 6% not important and 0.3% not at all important.

**Table 5.23 Frequency Table of Respondents on Importance Level of Flood for Consideration of Single House Purchase**

**Flood**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 5 | 1.3 | 1.3 | 1.3 |
| | Not important | 15 | 3.8 | 3.8 | 5.0 |
| | Neutral | 34 | 8.5 | 8.5 | 13.5 |
| | Important | 110 | 27.5 | 27.5 | 41.0 |
| | Very important | 236 | 59.0 | 59.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.23 presents frequencies and percentage of importance level when considering about flood. From 400 respondents, 59% of respondents give high importance to flood in decision making to purchase single house. Next, there are 27.5% who think flood is important, 8.5% neutral, 3.8% not important and 1.3% at all important.

**Table 5.24 Frequency Table of Respondents on Importance Level of Nearness to the Existing Residential Area for Consideration of Single House Purchase**

**Nearness to the existing residential area**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 33 | 8.3 | 8.3 | 8.3 |
| | Not important | 94 | 23.5 | 23.5 | 31.8 |
| | Neutral | 153 | 38.3 | 38.3 | 70.0 |
| | Important | 85 | 21.3 | 21.3 | 91.3 |
| | Very important | 35 | 8.8 | 8.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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Table 5.24 presents frequencies and percentage of importance level when considering about near the existing residential area. From 400 respondents, 38.3% of respondents give neutral to being near the existing residential area in decision making to purchase single house. Next, there are 23.5% think this factor is not important, 21.3% important, 8.8% very important and 8.3% not at all important.

**Table 5.25 Frequency Table of Respondents on Importance Level of Nearness to Working Area for Consideration of Single House Purchase**

**Nearness to working area**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 3 | .8 | .8 | .8 |
| | Not important | 38 | 9.5 | 9.5 | 10.3 |
| | Neutral | 122 | 30.5 | 30.5 | 40.8 |
| | Important | 160 | 40.0 | 40.0 | 80.8 |
| | Very important | 77 | 19.3 | 19.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.25 presents frequencies and percentage of importance level when considered proximity to working area. From 400 respondents, a largest number (40%) of respondents give importance to proximity to working area in decision making to purchase single house. However 30.5% respondents think this factor is neutral, 19.3% very important, 9.5% not important and 0.8% not at all important.

**Table 5.26 Frequency Table of Respondents on Importance Level of Nearness to Children's School for Consideration of Single House Purchase**

**Nearness to children's school**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 15 | 3.8. | 3.8 | 3.8 |
| | Not important | 40 | 10.0 | 10.0 | 13.8 |
| | Neutral | 130 | 32.5 | 32.5 | 46.3 |
| | Important | 157 | 39.3 | 39.3 | 85.5 |
| | Very important | 58 | 14.5 | 14.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.26 presents frequencies and percentage of importance level when considering about nearness to children's school. From 400 respondents, 39.3% of respondents give importance to being near children's school in decision making to purchase single house. Next, there are 32.5% who think this factor is neutral, 14.5% very important, 10% not important and 3.8% not at all important.

**Table 5.27 Frequency Table of Respondent on Importance Level of Having Friends in the Project for Consideration of Single House Purchase**

**Having friends in the project**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 39 | 9.8 | 9.8 | 9.8 |
| | Not important | 101 | 25.3 | 25.3 | 35.0 |
| | Neutral | 160 | 40.0 | 40.0 | 75.0 |
| | Important | 85 | 21.3 | 21.3 | 96.3 |
| | Very important | 15 | 3.8 | 3.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.27 presents frequencies and percentage of importance level when considering having friends in the project. From 400 respondents, 40% of respondents give importance to having friends in the project in decision making to purchase single house. Next, there are 25.3% who think this factor is not important, 21.3% important, 9.8% not at all important and 3.8% very important.

**Table 5.28 Frequency Table of Respondent on Importance Level of Can Do Other Activities for Consideration of Single House Purchase**

**Being able to do other activities**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 19 | 4.8 | 4.8 | 4.8 |
| | Not important | 62 | 15.5 | 15.5 | 20.3 |
| | Neutral | 144 | 36.0 | 36.0 | 56.3 |
| | Important | 139 | 34.8 | 34.8 | 91.0 |
| | Very important | 36 | 9.0 | 9.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.28 presents frequencies and percentage of importance level when considering being able to do other activities. From 400 respondents, 36% of respondents give neutral to ability to do other activities in decision making to purchase single house. Next, there are 34.8% who think this factor is important, 15.5% not important, 9% very important and 4.8% not at all important.

**Table 5.29 Frequency Table of Respondent on Importance Level of Previous Project for Consideration of Single House Purchase**

**Previous project**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 2 | .5 | .5 | .5 |
| | Not important | 21 | 5.3 | 5.3 | 5.8 |
| | Neutral | 137 | 34.3 | 34.3 | 40.0 |
| | Important | 188 | 47.0 | 47.0 | 87.0 |
| | Very important | 52 | 13.0 | 13.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.29 presents frequencies and percentage of importance level when considering previous project. From 400 respondents, 47% of respondents give importance to previous project in decision making to purchase single house. Next, there are 34.3% who think this factor is neutral, 13% very important, 5.3% important and 0.5% not at all important.

**Table 5.30 Frequency Table of Respondents on Importance Level of Trust of Company for Consideration of Single House Purchase**

**Trust of company**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 6 | 1.5 | 1.5 | 1.8 |
| | Neutral | 72 | 18.0 | 18.0 | 19.8 |
| | Important | 191 | 47.8 | 47.8 | 67.5 |
| | Very important | 130 | 32.5 | 32.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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Table 5.30 presents frequencies and percentage of importance level when considered about trust of company. From 400 respondents, a largest number (47.8%) of the respondents give importance for trust of company in decision making to purchase single house. Next, there are 32.5% who give very importance, 18% who give neutral, 1.5% who give not importance and 0.3% who give not at all importance.

**Table 5.31 Frequency Table of Respondents on Importance Level of Company's Name for Consideration of Single House Purchase**

**Company's name**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 9 | 2.3 | 2.3 | 2.5 |
| | Neutral | 86 | 21.5 | 21.5 | 24.0 |
| | Important | 205 | 51.3 | 51.3 | 75.3 |
| | Very important | 99 | 24.8 | 24.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.31 presents frequencies and percentage of importance level when considering company's name. From 400 respondents, 51.3 of respondents give importance to company's name in decision making to purchase single house. Next, there are 24.8% who think this factor is very important, 21.5% neutral, 2.3% not important and 0.3% not at all important.

**Table 5.32 Frequency Table of Respondents on Importance Level of Post Sales Services for Consideration of Single House Purchase**

**Post sales services**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 10 | 2.5 | 2.5 | 2.8 |
| | Neutral | 69 | 17.3 | 17.3 | 20.0 |
| | Important | 155 | 38.8 | 38.8 | 58.8 |
| | Very important | 165 | 41.3 | 41.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.32 presents frequencies and percentage of importance level when considering post sales services. From 400 respondents, 41.3% of respondents give very importance to post sales services. Next, there are 38.8% who think this factor is important, 17.3% neutral, 2.5% not important and 0.3% not at all important.

**Table 5.33 Frequency Table of Respondents on Importance Level of Community Charge for Consideration of Single House Purchase**

**Community charge**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not important | 11 | 2.8 | 2.8 | 2.8 |
| | Neutral | 71 | 17.8 | 17.8 | 20.5 |
| | Important | 181 | 45.3 | 45.3 | 65.8 |
| | Very important | 137 | 34.3 | 34.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.33 presents frequencies and percentage of importance level when considering community charge. From 400 respondents, 45.3% of respondents give importance to community charge in decision making to purchase single house. Next, there are 34.3% who think this factor is very important, 17.8% neutral and 2.8% not at all important.

**Table 5.34 Frequency Table of Respondents on Importance Level of Government Support for Consideration of Single House Purchase**

**Government support**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 6 | 1.5 | 1.5 | 1.5 |
| | Not important | 20 | 5.0 | 5.0 | 6.5 |
| | Neutral | 116 | 29.0 | 29.0 | 35.5 |
| | Important | 157 | 39.3 | 39.3 | 74.8 |
| | Very important | 101 | 25.3 | 25.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

Table 5.34 presents frequencies and percentage of importance level when considering government support. From 400 respondents, 39.3% of respondents give importance to government support in decision making to purchase single house. Next, there are 29% who think this factor is neutral, 25.3% very important, 5% not important and 1.5% not at all important.

**Table 5.35 Descriptive Table of Purchasing Single House Factors**

**Descriptive Statistics**

| | N | Minimum | Maximum | Sum | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| Project pattern | 400 | 1 | 5 | 1437 | 3.59 | .927 |
| Project size | 400 | 1 | 5 | 1405 | 3.51 | .769 |
| Central area and building | 400 | 1 | 5 | 1479 | 3.70 | .783 |
| Environment | 400 | 1 | 5 | 1723 | 4.31 | .666 |
| House pattern | 400 | 1 | 5 | 1609 | 4.02 | .720 |
| House usable area | 400 | 2 | 5 | 1639 | 4.10 | .707 |
| Material and construction | 400 | 1 | 5 | 1695 | 4.24 | .760 |
| Security | 400 | 1 | 5 | 1735 | 4.34 | .752 |
| Convenience of entrance and exit way | 400 | 1 | 5 | 1681 | 4.20 | .747 |
| Nearness to facilities | 400 | 2 | 5 | 1612 | 4.03 | .791 |
| Surrounding community | 400 | 1 | 5 | 1552 | 3.88 | .859 |
| Flood | 400 | 1 | 5 | 1757 | 4.39 | .886 |
| Nearness to the existing residential area | 400 | 1 | 5 | 1195 | 2.99 | 1.063 |
| Nearness to working area | 400 | 1 | 5 | 1470 | 3.68 | .917 |
| Nearness to children's school | 400 | 1 | 5 | 1403 | 3.51 | .984 |
| Having friends in the project | 400 | 1 | 5 | 1136 | 2.84 | .991 |
| Being able to do other activities | 400 | 1 | 5 | 1311 | 3.28 | .989 |
| Previous project | 400 | 1 | 5 | 1467 | 3.67 | .786 |
| Trust of company | 400 | 1 | 5 | 1643 | 4.11 | .760 |
| Company's name | 400 | 1 | 5 | 1592 | 3.98 | .759 |
| Post sales services | 400 | 1 | 5 | 1673 | 4.18 | .822 |
| Community charge | 400 | 2 | 5 | 1644 | 4.11 | .787 |
| Government support | 400 | 1 | 5 | 1527 | 3.82 | .920 |
| Valid N (listwise) | 400 | | | | | |

Table 5.35 demonstrates the importance level of each factor which people who plan to purchase a single house consider before making a decision to purchase their single house. From 400 respondents, flood is the most important factor which has impact on decision making with the highest mean score of 4.39 importance level. The following are security (4.34), environment (4.31), material and construction (4.24), convenience of entrance and exit way (4.20), post sales services (4.18), trust of company (4.11), community charge (4.11), house usable area (4.10), nearness to facilities (4.03), house pattern (4.02) respectively. It means that these factors are at the levels of important to very important. The other factors include company's name

(3.98), surrounding community (3.88), government support (3.82), central area and building (3.70), nearness to working area (3.68), previous project (3.67), project pattern (3.59), project size (3.51), nearness to children's school (3.51) and being able to do other activities (3.28) respectively. It means that these factors are neutral to important. For the factors of nearness to the existing residential area have the importance level equal to 2.99 and having friends in the project have the importance level equal to 2.84 which mean that these factors are not important to neutral. Additionally, the factor on nearness to the existing residential area has the highest standard deviation value at 1.063 which means that some respondents give a very different importance level to this factor.

In the overview, the majority of 400 respondents who plan to purchase a single house in this research are respondents aged 25 to 29 years old 22.5%, singles 45%, respondents who have a bachelor's degree 69.8%, respondents who are employees of private company 53.0% and respondents who have a household income 20,000 to 39,999 baht 33.3%, as presented in Table 5.36.

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## Table 5.36 Respondent's Characteristics

| Budget to purchase a single house | 3 - 4.9 million baht | | 5 - 6.9 million baht | | 7 - 9 million baht | | Total | |
|---|---|---|---|---|---|---|---|---|
| | N | % of Total N | N | % of Total N | N | % of Total N | N | % of Total N |
| **Age** | | | | | | | | |
| Less than 25 years old | 30 | 7.5 | 1 | 0.3 | 1 | 0.3 | 32 | 8.0 |
| 25 - 29 years old | 78 | 19.5 | 9 | 2.3 | 3 | 0.8 | 90 | 22.5 |
| 30 - 34 years old | 71 | 17.8 | 12 | 3.0 | 2 | 0.5 | 85 | 21.3 |
| 35 - 39 years old | 64 | 16.0 | 15 | 3.8 | 8 | 2.0 | 87 | 21.8 |
| 40 - 49 years old | 57 | 14.3 | 12 | 3.0 | 7 | 1.8 | 76 | 19.0 |
| 50 years old up | 19 | 4.8 | 6 | 1.5 | 5 | 1.3 | 30 | 7.5 |
| Total | 319 | 79.8 | 55 | 13.8 | 26 | 6.5 | 400 | 100.0 |
| **Marital status** | | | | | | | | |
| Single | 164 | 41.0 | 12 | 3.0 | 4 | 1.0 | 180 | 45.0 |
| Married / not have a child | 33 | 8.3 | 7 | 1.8 | 7 | 1.8 | 47 | 11.8 |
| Married / have a child or two children | 103 | 25.8 | 30 | 7.5 | 12 | 3.0 | 145 | 36.3 |
| Married / have more than two children | 19 | 4.8 | 6 | 1.5 | 3 | 0.8 | 28 | 7.0 |
| Total | 319 | 79.8 | 55 | 13.8 | 26 | 6.5 | 400 | 100.0 |
| **Education level** | | | | | | | | |
| High school graduate or lower | 22 | 5.5 | 2 | 0.5 | | | 24 | 6.0 |
| Certificate / diploma | 31 | 7.8 | 4 | 1.0 | 3 | 0.8 | 38 | 9.5 |
| Bachelor's degree | 224 | 56.0 | 36 | 9.0 | 19 | 4.8 | 279 | 69.8 |
| Master's degree or higher | 42 | 10.5 | 13 | 3.3 | 4 | 1.0 | 59 | 14.8 |
| Total | 319 | 79.8 | 55 | 13.8 | 26 | 6.5 | 400 | 100.0 |
| **Occupation** | | | | | | | | |
| Government officer | 40 | 10.0 | 4 | 1.0 | 3 | 0.8 | 47 | 11.8 |
| State enterprise employee | 35 | 8.8 | 7 | 1.8 | | | 42 | 10.5 |
| Private company employee | 174 | 43.5 | 27 | 6.8 | 11 | 2.8 | 212 | 53.0 |
| Business owner | 41 | 10.3 | 15 | 3.8 | 12 | 3.0 | 68 | 17.0 |
| Others | 29 | 7.3 | 2 | 0.5 | | | 31 | 7.8 |
| Total | 319 | 79.8 | 55 | 13.8 | 26 | 6.5 | 400 | 100.0 |
| **Household income level** | | | | | | | | |
| Less than 20,000 baht | 73 | 18.3 | 2 | 0.5 | | | 75 | 18.8 |
| 20,000 - 39,999 baht | 119 | 29.8 | 12 | 3.0 | 2 | 0.5 | 133 | 33.3 |
| 40,000 - 59,999 baht | 61 | 15.3 | 11 | 2.8 | | | 72 | 18.0 |
| 60,000 - 79,999 baht | 36 | 9.0 | 7 | 1.8 | 7 | 1.8 | 50 | 12.5 |
| 80,000 - 99,999 baht | 20 | 5.0 | 4 | 1.0 | 2 | 0.5 | 26 | 6.5 |
| 100,000 - 149,999 baht | 7 | 1.8 | 7 | 1.8 | 6 | 1.5 | 20 | 5.0 |
| 150,000 - 199,999 baht | 2 | 0.5 | 6 | 1.5 | 2 | 0.5 | 10 | 2.5 |
| 200,000 baht or higher | 1 | 0.3 | 6 | 1.5 | 7 | 1.8 | 14 | 3.5 |
| Total | 319 | 79.8 | 55 | 13.8 | 26 | 6.5 | 400 | 100.0 |

From 400 respondents, the Table 5.36 shows that the majority of respondents who plan to purchase a single house priced between 3 to 4.9 million baht are the group aged 25 to 29 years old 19.5%, group who are single 41%, group who have graduated with a Bachelor's degree 56%, private company employees, 43.5% and group who have household income of 20,000 to 39,999 baht 29.8%. The majority of respondents who plan to purchase a single house priced 5 to 6.9 million baht or the potential customers for this segment are those aged 35 to 39 years old 3.8%, married and have a child or two children 7.5%, who graduated with a Bachelor's degree 9%, private

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company employees group 6.8% and group who has a household income of 20,000 to 39,999 baht 3%. The majority of respondents who plan to purchase a single house 7 to 9 million baht or the potential customers for this segment are the group aged 35 to 39 years old 2%, group who are married and have a child or two children 3%, group who graduated with a Bachelor's degree 4.8%, business owner group 3% and group who has a household income 60,000 to 79,999 baht 1.8%.

A detailed study of potential target for each single house segment, Table 5.37 present opinion of respondents about importance level of purchasing single house factors when classified by single house prices. There are three segments of single house consisting of single house priced 3 to 4.9 million baht, 5 to 6.9 million baht and 7 to 9 million baht. Each group has the potential customers who have characteristics different from other groups and have opinion about purchasing single house factors different from other groups as well.

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**Table 5.37 Descriptive Table of the Importance Level of Purchasing Single House Factors Classified by Budget**

| Budget to purchase a single house | | 3 - 4.9 million baht | | 5 - 6.9 million baht | | 7 - 9 million baht | | Total | |
|---|---|---|---|---|---|---|---|---|---|
| Importance Arrangement | Factor | Mean Score of Importance Level | Standard Deviation | Mean Score of Importance Level | Standard Deviation | Mean Score of Importance Level | Standard Deviation | Mean Score of Importance Level | Standard Deviation |
| 1 | Flood | 4.41 | .878 | 4.42 | .832 | 4.15 | 1.084 | 4.39 | .886 |
| 2 | Security | 4.35 | .738 | 4.31 | .742 | 4.19 | .939 | 4.34 | .752 |
| 3 | Environment | 4.31 | .646 | 4.31 | .690 | 4.23 | .863 | 4.31 | .666 |
| 4 | Material and construction | 4.30 | .724 | 3.95 | .705 | 4.12 | 1.107 | 4.24 | .760 |
| 5 | Convenience of entrance and exit way | 4.27 | .712 | 3.95 | .705 | 3.88 | 1.033 | 4.20 | .747 |
| 6 | Post sales services | 4.22 | .818 | 4.11 | .786 | 3.88 | .909 | 4.18 | .822 |
| 7 | Trust of company | 4.15 | .746 | 3.96 | .719 | 3.88 | .952 | 4.11 | .760 |
| 8 | Community charge | 4.16 | .749 | 3.95 | .891 | 3.88 | .952 | 4.11 | .787 |
| 9 | House usable area | 4.12 | .702 | 4.00 | .694 | 4.08 | .796 | 4.10 | .707 |
| 10 | Nearness to facilities | 4.09 | .780 | 3.82 | .748 | 3.77 | .908 | 4.03 | .791 |
| 11 | House pattern | 4.05 | .718 | 3.84 | .601 | 4.04 | .916 | 4.02 | .720 |
| 12 | Company's name | 4.03 | .741 | 3.78 | .809 | 3.81 | .801 | 3.98 | .759 |
| 13 | Surrounding community | 3.89 | .865 | 3.95 | .756 | 3.65 | .977 | 3.88 | .859 |
| 14 | Government support | 3.87 | .898 | 3.58 | .917 | 3.69 | 1.123 | 3.82 | .920 |
| 15 | Central area and building | 3.71 | .753 | 3.84 | .788 | 3.31 | 1.011 | 3.70 | .783 |
| 16 | Nearness to working area | 3.74 | .926 | 3.38 | .805 | 3.46 | .905 | 3.68 | .917 |
| 17 | Previous project | 3.71 | .776 | 3.51 | .814 | 3.46 | .811 | 3.67 | .786 |
| 18 | Project pattern | 3.65 | .902 | 3.45 | .997 | 3.23 | .992 | 3.59 | .927 |
| 19 | Project size | 3.49 | .764 | 3.64 | .778 | 3.54 | .811 | 3.51 | .769 |
| 20 | Nearness to children's school | 3.54 | .986 | 3.38 | 1.009 | 3.35 | .892 | 3.51 | .984 |
| 21 | Being able to do other activities | 3.27 | .982 | 3.36 | 1.043 | 3.23 | .992 | 3.28 | .989 |
| 22 | Nearness to the existing residential area | 3.03 | 1.052 | 2.65 | .985 | 3.23 | 1.243 | 2.99 | 1.063 |
| 23 | Having friends in the project | 2.87 | .982 | 2.76 | .922 | 2.65 | 1.231 | 2.84 | .991 |

Table 5.37 summarizes descriptive statistics about the importance level of factors when classified by budget to purchase a single house. From 400 respondents, the majority respondents who plan to purchase a single house priced 3 to 4.9 million baht are those 25 to 29 years old, single, private company employees. Most of this group have Bachelor's degree and have household income of between 20,000 to 39,999 baht per month. The majority respondents who plan to purchase a single house 5 to 6.9 million baht and 7 to 9 million baht are in the same group which aged between 35 to 39 years old and married and have a child or two children. Most of this group also have Bachelor's degree. The majority respondents who plan to purchase a single house priced 5 to 6.9 million baht are private company's employees and the second large group is business owner. These groups have household income between 20,000 to 59,999 baht per month. The majority respondents who plan to purchase a single

house priced 7 to 9 million baht are business owners and the second large group is private company's employees. Most of these groups have household incomes higher than 60,000 baht per month.

The table shows that potential customers of a single house priced 3 to 4.9 million baht consider and give the highest importance to flood at mean score of 4.41, followed by security (4.35), environment (4.31), material and construction (4.30), convenience of entrance and exit way (4.27), post sales services (4.22), community charge (4.16), trust of company (4.15), house usable area (4.12), nearness to facilities (4.09), house pattern (4.05), company's name (4.03), surrounding community (3.89), government support (3.87), nearness to working area (3.74), central area and building (3.71), previous project (3.71), project pattern (3.65), project size (3.49), nearness to children's school (3.54), being able to do other activities (3.27), nearness to the existing residential area (3.03) and having friends in the project (2.87) respectively. Nearness to the existing residential area has highest standard deviation at 1.052. The majority respondents who are the potential customers of a single house 5 to 6.9 million baht consider and give importance to flood as the highest at mean score 4.42, followed by security (4.31), environment (4.31), post sales services (4.11), house usable area (4.00), trust of company (3.96), material and construction (3.95), convenience of entrance and exit way (3.95), community charge (3.95), surrounding community (3.95), house pattern (3.84), central area and building (3.84), nearness to facilities (3.82), company's name (3.78), project size (3.64), government support (3.58), previous project (3.51), project pattern (3.45), nearness to children's school (3.38), nearness to working area (3.38), being able to do other activities (3.36), having friends in the project (2.76) and nearness to the existing residential area (2.65) respectively. Being able to do other activities has highest standard deviation at 1.043 and nearness

to children's school also has high standard deviation at 1.009. The potential customers of a single house priced 7 to 9 million baht consider and give highest importance to environment at mean score 4.23, followed by security (4.19), flood (4.15), material and construction (4.12), house usable area (4.08), house pattern (4.04), convenience of entrance and exit way (3.88), community charge (3.88), trust of company (3.88), post sales services (3.88), company's name (3.81), nearness to facilities (3.77), government support (3.69), surrounding community (3.65), project size (3.54), nearness to working area (3.46), previous project (3.46), nearness to children's school (3.35), central area and building (3.31), project pattern (3.23), nearness to the existing residential area (3.23), being able to do other activities (3.23) and having friends in the project (2.65) respectively. For this group, the factor which has the highest standard deviation at 1.243 is nearness to the existing residential area. Having friends in the project has high standard deviation at 1.231and government support has high standard deviation at 1.123.

Figure 5.1 on page 147 shows the graph about the importance level of all purchasing single house factors classified by single house price level. The main line presents value of mean score of importance level of each factor which gathered information from 400 respondents who plan to purchase single house priced 3 to 9 million baht. In addition, three graph lines present means of importance level of each factor when separated by price. These graphs help to analyze opinion of target group of each single house segment more clearly. Moreover, Figure 5.1 shows that there are differences in means of importance level in material and construction, convenience of entrance and exit way, nearness to facilities, company's name, central area and building, nearness to working area, project pattern and nearness to the existing residential area, more than other factors.

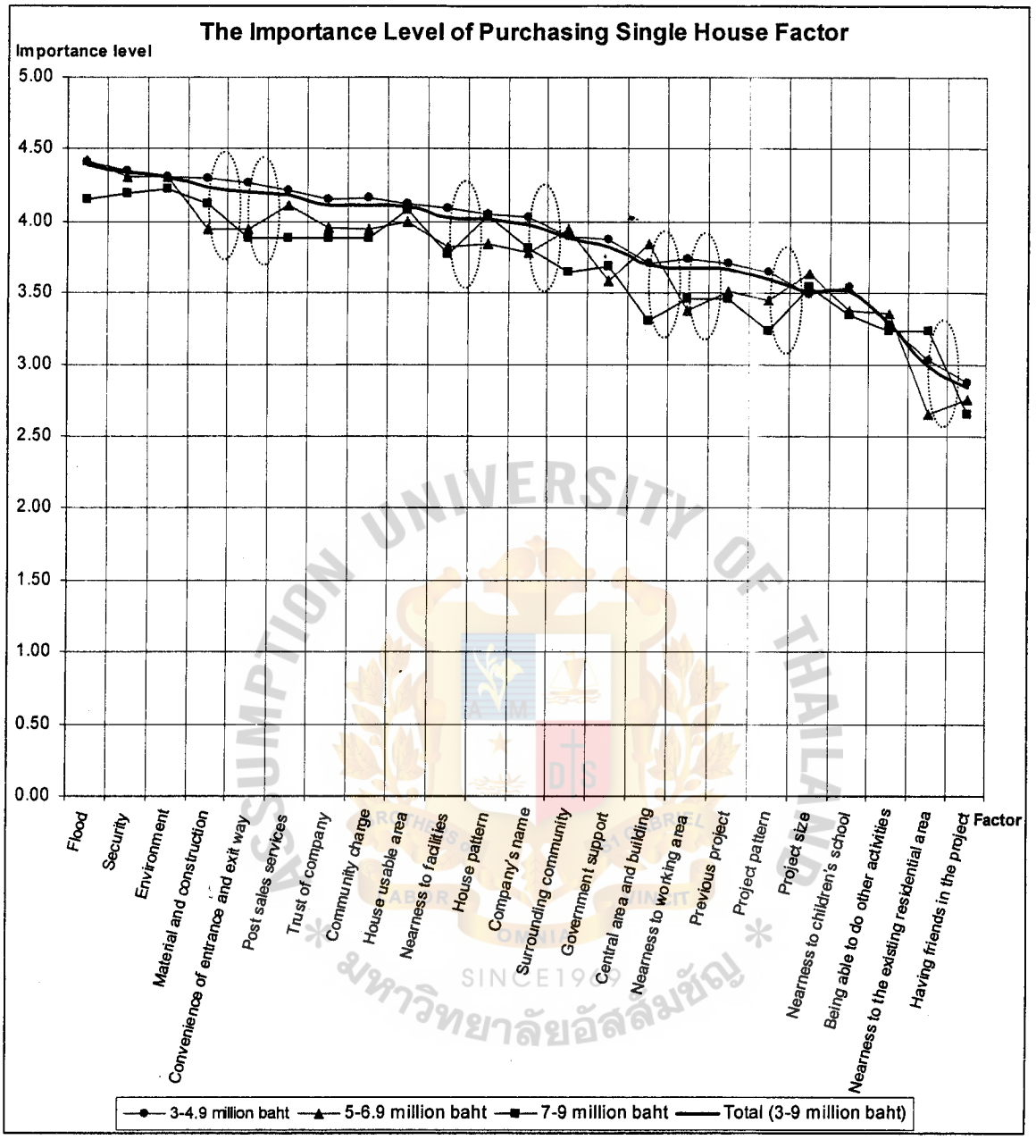


**Figure 5.1 The Importance Level of Purchasing Single House Factors Classified by Budget**

## 5.4 SUMMARY OF HYPOTHESES TESTING

There were twenty three research hypotheses which tested the differences in purchasing single house factors when segmented by budget. Analysis of variance (ANOVA) was applied to test these twenty three hypotheses. Analysis of variance was used to determine whether there were statistically significant differences on mean of purchasing single house factors between different groups of budget. The importance level of purchasing single house factors which is used for testing each main hypothesis is drawn from questionnaire part B. It measured the perception on importance level of factors before making a decision to purchase a single house.

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**Hypothesis 1**

$H_0 1$ : There is no difference in project pattern when segmented by budget to purchase a single house.

$H_1 1$ : There is a difference in project pattern when segmented by budget to purchase a single house.

**Table 5.38 Analysis of Variance for Budget to Purchase a Single House and Project Pattern**

ANOVA

Project pattern

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 5.354 | 2 | 2.677 | 3.152 | .044 |
| Within Groups | 337.224 | 397 | .849 | | |
| Total | 342.578 | 399 | | | |

To compare importance level of project pattern when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.38 shows that there is statistical significance with two-tailed significance at .044 which is less than .05 (.044 < .05). Therefore, at the .05 level of significance the null hypothesis is rejected, which means that there is a difference in project pattern when determined by budget.

**Hypothesis 2**

$H_0 2$ : There is no difference in project size when segmented by budget to purchase a single house.

$H_1 2$ : There is a difference in project size when segmented by budget to purchase a single house.

**Table 5.39 Analysis of Variance for Budget to Purchase a Single House and Project Size**

ANOVA

Project size

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.037 | 2 | .519 | .876 | .417 |
| Within Groups | 234.900 | 397 | .592 | | |
| Total | 235.937 | 399 | | | |

To compare importance level of project size when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.39 shows that there is no statistically significance with two-tailed significance at .417 which is higher than .05 (.417 > .05). Therefore, at the .05 level of significance, the null hypothesis is accepted, which means that there is no difference in project size when determined by budget.

**Hypothesis 3**

$H_0$3 : There is no difference in central area and building when segmented by budget to purchase a single house.

$H_1$3 : There is a difference in central area and building when segmented by budget to purchase a single house.

**Table 5.40 Analysis of Variance for Budget to Purchase a Single House and Central Area and Building**

ANOVA

Central area and building

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 5.031 | 2 | 2.515 | 4.172 | .016 |
| Within Groups | 239.367 | 397 | .603 | | |
| Total | 244.397 | 399 | | | |

To compare importance level of central area and building when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.40 shows that there is a statistical significance with two-tailed significance at .016 which is less than .05 (.016 < .05). Therefore, at the .05 level of significance the null hypothesis is rejected, which means that there is a difference in central area and building when determined by budget.

**Hypothesis 4**

$H_0$4 : There is no difference in environment when segmented by budget to purchase a single house.

$H_1$4 : There is a difference in environment when segmented by budget to purchase a single house.

**Table 5.41 Analysis of Variance for Budget to Purchase a Single House and Environment**

ANOVA

Environment

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .165 | 2 | .082 | .185 | .832 |
| Within Groups | 177.013 | 397 | .446 | | |
| Total | 177.178 | 399 | | | |

To compare importance level of environment when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.41 shows that there is no statistical two-tailed significance at .832 which is higher than .05 (.832 > .05). Therefore, at the .05 level of significance, the null hypothesis is accepted, which means that there is no difference in environment when determined by budget.

**Hypothesis 5**

$H_0$5 : There is no difference in house pattern when segmented by budget to purchase a single house.

$H_1$5 : There is a difference in house pattern when segmented by budget to purchase a single house.

**Table 5.42 Analysis of Variance for Budget to Purchase a Single House and House Pattern**

ANOVA

House pattern

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 2.215 | 2 | 1.107 | 2.149 | .118 |
| Within Groups | 204.583 | 397 | .515 | | |
| Total | 206.797 | 399 | | | |

To compare importance level of house pattern when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.42 shows that there is no statistical significance with two-tailed significance at .118 which is higher than .05 (.118 > .05). Therefore, at the .05 level of significance, the null hypothesis is accepted, which means that there is no difference in house pattern when determined by budget.

**Hypothesis 6**

$H_0$6 : There is no difference in house usable area when segmented by budget to purchase a single house.

$H_1$6 : There is a difference in house usable area when segmented by budget to purchase a single house.

**Table 5.43 Analysis of Variance for Budget to Purchase a Single House and House Usable Area**

ANOVA

House usable area

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .643 | 2 | .321 | .643 | .526 |
| Within Groups | 198.555 | 397 | .500 | | |
| Total | 199.198 | 399 | | | |

To compare importance level of house usable area when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.43 shows that there is no statistical significance with two-tailed significance at .526 which is higher than .05 (.526 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in house usable area.

**Hypothesis 7**

$H_0$7 : There is no difference in material and construction when segmented by budget to purchase a single house.

$H_1$7 : There is a difference in material and construction when segmented by budget to purchase a single house.

**Table 5.44 Analysis of Variance for Budget to Purchase a Single House and Material and Construction**

ANOVA

Material and construction

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 6.239 | 2 | 3.119 | 5.524 | .004 |
| Within Groups | 224.199 | 397 | .565 | | |
| Total | 230.438 | 399 | | | |

To compare importance level of material and construction when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.44 shows that there is a statistical significance with two-tailed significance at .004 which is less than .05 (.004 < .05). Therefore, at the .05 level of significance the null hypothesis is rejected, which means that there is a difference in material and construction when determined by budget.

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**Hypothesis 8**

$H_0$8 : There is no difference in security when segmented by budget to purchase a single house.

$H_1$8 : There is a difference in security when segmented by budget to purchase a single house.

**Table 5.45 Analysis of Variance for Budget to Purchase a Single House and Security**

ANOVA

Security

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .682 | 2 | .341 | .602 | .548 |
| Within Groups | 224.756 | 397 | .566 | | |
| Total | 225.438 | 399 | | | |

To compare importance level of security when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.45 shows that there is no statistical significance with two-tailed significance at .548 which is higher than .05 (.548 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in security when determined by budget.

**Hypothesis 9**

$H_0$9 : There is no difference in convenience entrance and exit way when segmented by budget to purchase a single house.

$H_1$9 : There is a difference in convenience entrance and exit way when segmented by budget to purchase a single house.

**Table 5.46 Analysis of Variance for Budget to Purchase a Single House and Convenience of Entrance and Exit Way**

**ANOVA**

Convenience of entrance and exit way

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 7.835 | 2 | 3.917 | 7.241 | .001 |
| Within Groups | 214.763 | 397 | .541 | | |
| Total | 222.598 | 399 | | | |

To compare importance level of convenience of entrance and exit way when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.46 shows that there is a statistical significance with two-tailed significance at .001 which is less than .05 (.001 < .05). Therefore, at the .05 level of significance the null hypothesis is rejected, which means that there is a difference in convenience of entrance and exit way when determined by budget.

**Hypothesis 10**

$H_0$10 : There is no difference in nearness to facilities when segmented by budget to purchase a single house.

$H_1$10 : There is a difference in nearness to facilities when segmented by budget to purchase a single house.

**Table 5.47 Analysis of Variance for Budget to Purchase a Single House and Nearness to Facilities**

ANOVA

Nearness to facilities

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 5.300 | 2 | 2.650 | 4.306 | .014 |
| Within Groups | 244.340 | 397 | .615 | | |
| Total | 249.640 | 399 | | | |

To compare importance level of nearness to facilities when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.47 shows that there is a statistical significance with two-tailed significance at .014 which is less than .05 (.014 < .05). Therefore, at the .05 level of significance the null hypothesis is rejected, which means that there is a difference in nearness to facilities when determined by budget.

**Hypothesis 11**

$H_0$11 : There is no difference in surrounding community when segmented by budget to purchase a single house.

$H_1$11: There is a difference in surrounding community when segmented by budget to purchase a single house.

**Table 5.48 Analysis of Variance for Budget to Purchase a Single House and Surrounding Community**

**ANOVA**

Surrounding community

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.582 | 2 | .791 | 1.073 | .343 |
| Within Groups | 292.658 | 397 | .737 | | |
| Total | 294.240 | 399 | | | |

To compare importance level of surrounding community when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.48 shows that there is no statistical significance with two-tailed significance at .343 which is higher than .05 (.343 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in surrounding community when determined by budget.

**Hypothesis 12**

$H_0$12 : There is no difference in flood when segmented by budget to purchase a single house.

$H_1$12 : There is a difference in flood when segmented by budget to purchase a single house.

**Table 5.49 Analysis of Variance for Budget to Purchase a Single House and Flood**

ANOVA

Flood

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.589 | 2 | .795 | 1.012 | .365 |
| Within Groups | 311.788 | 397 | .785 | | |
| Total | 313.378 | 399 | | | |

To compare importance level of flood when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.49 shows that there is no statistical significance with two-tailed significance at .365 which is higher than .05 (.365 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in flood when determined by budget.

**Hypothesis 13**

$H_0$13 : There is no difference in nearness to the existing residential area when segmented by budget to purchase a single house.

$H_1$13 : There is a difference in nearness to the existing residential area when segmented by budget to purchase a single house.

**Table 5.50 Analysis of Variance for Budget to Purchase a Single House and Nearness to the Existing Residential Area**

**ANOVA**

Nearness to the existing residential area

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 8.086 | 2 | 4.043 | 3.625 | .028 |
| Within Groups | 442.851 | 397 | 1.115 | | |
| Total | 450.937 | 399 | | | |

To compare importance level of nearness to the existing residential area when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.50 shows that there is a statistical significance with two-tailed significance at .028 which is less than .05 (.028 < .05). Therefore, at the .05 level of significance the null hypothesis is rejected, which means that there is a difference in nearness to the existing residential area when determined by budget.

**Hypothesis 14**

$H_0$14 : There is no difference in nearness to working area when segmented by budget to purchase a single house.

$H_1$14 : There is a difference in nearness to working area when segmented by budget to purchase a single house.

**Table 5.51 Analysis of Variance for Budget to Purchase a Single House and Nearness to Working Area**

**ANOVA**

Nearness to working area

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 7.385 | 2 | 3.693 | 4.464 | .012 |
| Within Groups | 328.365 | 397 | .827 | | |
| Total | 335.750 | 399 | | | |

To compare importance level of nearness to working area when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.51 shows that there is a statistical significance with two-tailed significance at .012 which is less than .05 (.012 < .05). Therefore, at the .05 level of significance the null hypothesis is rejected, which means that there is a difference in nearness to working area when determined by budget.

**Hypothesis 15**

$H_0$15 : There is no difference in nearness to children's school when segmented by budget to purchase a single house.

$H_1$15 : There is a difference in nearness to children's school when segmented by budget to purchase a single house.

**Table 5.52 Analysis of Variance for Budget to Purchase a Single House and Nearness to Children's School**

ANOVA

Nearness to children's school

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.932 | 2 | .966 | .999 | .369 |
| Within Groups | 384.045 | 397 | .967 | | |
| Total | 385.978 | 399 | | | |

To compare importance level of nearness to children's school when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.52 shows that there is no statistical significance with two-tailed significance at .369 which is higher than .05 (.369 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in nearness to children's school.

**Hypothesis 16**

$H_0$16 : There is no difference in having friend in the project when segmented by budget to purchase a single house.

$H_1$16 : There is a difference in having friend in the project when segmented by budget to purchase a single house.

**Table 5.53 Analysis of Variance for Budget to Purchase a Single House and Having Friend in the Project**

**ANOVA**

Having friend in the project

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.478 | 2 | .739 | .752 | .472 |
| Within Groups | 390.282 | 397 | .983 | | |
| Total | 391.760 | 399 | | | |

To compare importance level of having friend in the project when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.53 shows that there is no statistical significance with two-tailed significance at .472 which is higher than .05 (.472 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in having friend in the project when determined by budget.

**Hypothesis 17**

$H_0$17 : There is no difference in being able to do other activities when segmented by budget to purchase a single house.

$H_1$17 : There is a difference in being able to do other activities when segmented by budget to purchase a single house.

**Table 5.54 Analysis of Variance for Budget to Purchase a Single House and Being Able to Do Other Activities**

ANOVA

Being able to do other activities

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .504 | 2 | .252 | .257 | .774 |
| Within Groups | 389.694 | 397 | .982 | | |
| Total | 390.197 | 399 | | | |

To compare importance level of being able to do other activities when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.54 shows that there is no statistical significance with two-tailed significance at .774 which is higher than .05 (.774 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in being able to do other activities when determined by budget.

**Hypothesis 18**

$H_0$18 : There is no difference in previous project when segmented by budget to purchase a single house.

$H_1$18 : There is a difference in previous project pattern when segmented by budget to purchase a single house.

**Table 5.55 Analysis of Variance for Budget to Purchase a Single House and Previous Project**

ANOVA

Previous project

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.103 | 2 | 1.552 | 2.528 | .081 |
| Within Groups | 243.674 | 397 | .614 | | |
| Total | 246.778 | 399 | | | |

To compare importance level of previous project when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.55 shows that there is no statistical significance with two-tailed significance at .081 which is higher than .05 (.081 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in previous project when determined by budget.

**Hypothesis 19**

$H_0$19 : There is no difference in trust of company when segmented by budget to purchase a single house.

$H_1$19 : There is a difference in trust of company when segmented by budget to purchase a single house.

**Table 5.56 Analysis of Variance for Budget to Purchase a Single House and Trust of Company**

ANOVA

Trust of company

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.019 | 2 | 1.509 | 2.636 | .073 |
| Within Groups | 227.359 | 397 | .573 | | |
| Total | 230.378 | 399 | | | |

To compare importance level of trust of company when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.56 shows that there is no statistical significance with two-tailed significance at .073 which is higher than .05 (.073 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in trust of company when determined by budget.

**Hypothesis 20**

$H_0$20 : There is no difference in company's name when segmented by budget to purchase a single house.

$H_1$20 : There is a difference in company's name when segmented by budget to purchase a single house.

**Table 5.57 Analysis of Variance for Budget to Purchase a Single House and Company's Name**

ANOVA

Company's name

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.674 | 2 | 1.837 | 3.224 | .041 |
| Within Groups | 226.166 | 397 | .570 | | |
| Total | 229.840 | 399 | | | |

To compare importance level of company's name when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.57 shows that there is a statistical significance with two-tailed significance at .041 which is less than .05 (.041 < .05). Therefore, at the .05 level of significance the null hypothesis is rejected, which means that there is a difference in company's name when determined by budget.

**Hypothesis 21**

$H_0$21 : There is no difference in post sales services when segmented by budget to purchase a single house.

$H_1$21 : There is a difference in post sales services when segmented by budget to purchase a single house.

**Table 5.58 Analysis of Variance for Budget to Purchase a Single House and Post Sales Services**

ANOVA

Post sales services

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.039 | 2 | 1.519 | 2.262 | .105 |
| Within Groups | 266.639 | 397 | .672 | | |
| Total | 269.678 | 399 | | | |

To compare importance level of post sales services when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.58 shows that there is no statistical significance with two-tailed significance at .105 which is higher than .05 (.105 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in post sales services when determined by budget.

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**Hypothesis 22**

$H_0$22 : There is no difference in community charge when segmented by budget to purchase a single house.

$H_1$22 : There is a difference in community charge when segmented by budget to purchase a single house.

**Table 5.59 Analysis of Variance for Budget to Purchase a Single House and Community Charge**

ANOVA

Community charge

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.507 | 2 | 1.753 | 2.857 | .059 |
| Within Groups | 243.653 | 397 | .614 | | |
| Total | 247.160 | 399 | | | |

To compare importance level of community charge when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.59 shows that there is no statistical significance with two-tailed significance at .059 which is higher than .05 (.059 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in community charge when determined by budget.

**Hypothesis 23**

$H_0$23 : There is no difference in government support when segmented by budget to purchase a single house.

$H_1$23 : There is a difference in government support when segmented by budget to purchase a single house.

**Table 5.60 Analysis of Variance for Budget to Purchase a Single House and Government Support**

ANOVA

Government support

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 4.287 | 2 | 2.144 | 2.552 | .079 |
| Within Groups | 333.390 | 397 | .840 | | |
| Total | 337.677 | 399 | | | |

To compare importance level of government support when segmented by budget by which respondents plan to purchase a single house, the Analysis of Variance in Table 5.60 shows that there is no statistical significance with two-tailed significance at .079 which is higher than .05 (.079 > .05). Therefore, at the .05 level of significance the null hypothesis is accepted, which means that there is no difference in government support when determined by budget.

**Table 5.61 Summary of Hypotheses Testing**

| Hypotheses | Significance | Results |
|---|---|---|
| $H_0$1 : There is no difference in project pattern when segmented by budget to purchase a single house.<br>$H_1$1 : There is a difference in project pattern when segmented by budget to purchase a single house. | .044 | Reject $H_0$1 |
| $H_0$2 : There is no difference in project size when segmented by budget to purchase a single house.<br>$H_1$2 : There is a difference in project size when segmented by budget to purchase a single house. | .417 | Accept $H_0$2 |
| $H_0$3 : There is no difference in central area and building when segmented by budget to purchase a single house.<br>$H_1$3 : There is a difference in central area and building when segmented by budget to purchase a single house. | .016 | Reject $H_0$3 |
| $H_0$4 : There is no difference in environment when segmented by budget to purchase a single house.<br>$H_1$4 : There is a difference in environment when segmented by budget to purchase a single house. | .832 | Accept $H_0$4 |

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**Table 5.61 Summary of Hypotheses Testing (continued)**

| Hypotheses | Significance | Results |
|---|---|---|
| $H_0$5 : There is no difference in house pattern when segmented by budget to purchase a single house.<br>$H_1$5 : There is a difference in house pattern when segmented by budget to purchase a single house. | .118 | Accept $H_0$5 |
| $H_0$6 : There is no difference in house usable area when segmented by budget to purchase a single house.<br>$H_1$6 : There is a difference in house usable area when segmented by budget to purchase a single house. | .526 | Accept $H_0$6 |
| $H_0$7 : There is no difference in material and construction when segmented by budget to purchase a single house.<br>$H_1$7 : There is a difference in material and construction when segmented by budget to purchase a single house. | .004 | Reject $H_0$7 |
| $H_0$8 : There is no difference in security when segmented by budget to purchase a single house.<br>$H_1$8 : There is a difference in security when segmented by budget to purchase a single house. | .548 | Accept $H_0$8 |

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**Table 5.61 Summary of Hypotheses Testing (continues)**

| Hypotheses | Significance | Results |
|---|---|---|
| $H_0$9 : There is no difference in convenience entrance and exit way when segmented by budget to purchase a single house.<br>$H_1$9 : There is a difference in convenience entrance and exit way when segmented by budget to purchase a single house. | .001 | Reject $H_0$9 |
| $H_0$10 : There is no difference in nearness to facilities when segmented by budget to purchase a single house.<br>$H_1$10 : There is a difference in nearness to facilities when segmented by budget to purchase a single house. | .014 | Reject $H_0$10 |
| $H_0$11 : There is no difference in surrounding community when segmented by budget to purchase a single house.<br>$H_1$11: There is a difference in surrounding community when segmented by budget to purchase a single house. | .343 | Accept $H_0$11 |
| $H_0$12 : There is no difference in flood when segmented by budget to purchase a single house.<br>$H_1$12 : There is a difference in flood when segmented by budget to purchase a single house. | .365 | Accept $H_0$12 |

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**Table 5.61 Summary of Hypotheses Testing (continued)**

| Hypotheses | Significance | Results |
|---|---|---|
| $H_0$13 : There is no difference in nearness to the existing residential area when segmented by budget to purchase a single house.<br>$H_1$13 : There is a difference in nearness to the existing residential area when segmented by budget to purchase a single house. | .028 | Reject $H_0$13 |
| $H_0$14 : There is no difference in nearness to working area when segmented by budget to purchase a single house.<br>$H_1$14 : There is a difference in nearness to working area when segmented by budget to purchase a single house. | .012 | Reject $H_0$14 |
| $H_0$15 : There is no difference in nearness to children's school when segmented by budget to purchase a single house.<br>$H_1$15 : There is a difference in nearness to children's school when segmented by budget to purchase a single house. | .369 | Accept $H_0$15 |

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**Table 5.61 Summary of Hypotheses Testing (continues)**

| Hypotheses | Significance | Results |
|---|---|---|
| $H_0$16 : There is no difference in having friend in the project when segmented by budget to purchase a single house.<br>$H_1$16 : There is a difference in having friend in the project when segmented by budget to purchase a single house. | .472 | Accept $H_0$16 |
| $H_0$17 : There is no difference in being able to do other activities when segmented by budget to purchase a single house.<br>$H_1$17 : There is a difference in being able to do other activities when segmented by budget to purchase a single house. | .774 | Accept $H_0$17 |
| $H_0$18 : There is no difference in previous project when segmented by budget to purchase a single house.<br>$H_1$18 : There is a difference in previous project pattern when segmented by budget to purchase a single house. | .081 | Accept $H_0$18 |
| $H_0$19 : There is no difference in trust of company when segmented by budget to purchase a single house.<br>$H_1$19 : There is a difference in trust of company when segmented by budget to purchase a single house. | .073 | Accept $H_0$19 |

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**Table 5.61 Summary of Hypotheses Testing (continues)**

| Hypotheses | Significance | Results |
|---|---|---|
| $H_0$20 : There is no difference in company's name when segmented by budget to purchase a single house.<br>$H_1$20 : There is a difference in company's name when segmented by budget to purchase a single house. | .041 | Reject $H_0$20 |
| $H_0$21 : There is no difference in post sales services when segmented by budget to purchase a single house.<br>$H_1$21 : There is a difference in post sales services when segmented by budget to purchase a single house. | .105 | Accept $H_0$21 |
| $H_0$22 : There is no difference in community charge when segmented by budget to purchase a single house.<br>$H_1$22 : There is a difference in community charge when segmented by budget to purchase a single house. | .059 | Accept $H_0$22 |
| $H_0$23 : There is no difference in government support when segmented by budget to purchase a single house.<br>$H_1$23 : There is a difference in government support when segmented by budget to purchase a single house. | .079 | Accept $H_0$23 |

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# Chapter VI

# Summary, Conclusion and Recommendations

The analyses of the data collected on budget to purchase single house and the importance level of purchasing single house factors of the respondents and hypotheses testing are summarized in this chapter. In addition, based on these results, conclusions are drawn and implications of the study for practitioners are derived. Finally, in the last section recommendations and suggestions are given for future research.

## 6.1 SUMMARY OF FINDINGS

This part presents the interpretations of the results from the data gathered which consists of a summary of respondents' characteristics, the importance level of purchasing single house factors which are considered when make a decision to purchase a single house and hypotheses testing. Based on the data of 400 respondents collected for the survey, all respondents' characteristics are presented in Figure 6.1 on page 179.

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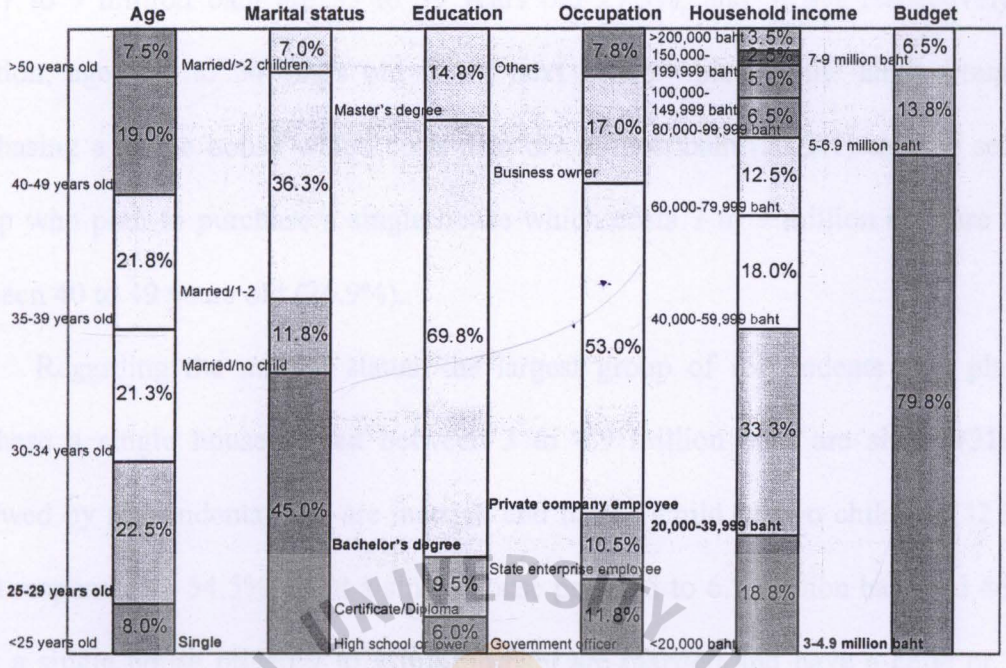


**Figure 6.1 Respondents' Characteristics**

Most respondents are single, 180 respondents or 45%, and 90 respondents or 22.5% aged 25 to 29 years old. The majority of respondents, 279 respondents or 69.8% are university graduates with a Bachelor's degree. In terms of occupation, the largest number of respondents is private company employees 212 respondents or 53% of total respondents. The highest number of respondents 133 respondents or 33.3% has an average monthly household income between 20,000 to 39,999 baht. In addition, 319 respondents or 79.8% of all respondents plan a budget to purchase a single house between 3 to 4.9 million baht.

Concerning age groups, the majority of respondents who plan to purchase a single house priced between 3 to 4.9 million baht are 25 to 29 years old (24.5%), followed by respondents aged 30 to 34 years old (22.3%), whereas the majority of respondents who plan to purchase a single house priced between 5 to 6.9 million baht

and 7 to 9 million baht are 35 to 39 years old 27.3%, and 30.8% respectively. In addition, aged 30 to 34 years old is the next group which is the large group for purchasing a single house which costs 5 to 6.9 million baht (22.3%) and the second group who plan to purchase a single house which costs 7 to 9 million baht are aged between 40 to 49 years old (26.9%).

Regarding the marital status, the largest group of respondents who plan to purchase a single house priced between 3 to 4.9 million baht are single (51.4%) followed by respondents who are married and have a child or two children (32.3%). Most respondents, 54.5%, want a single house priced 5 to 6.9 million baht and 46.2% want a single house priced 7 to 9 million baht are married and have a child or, two children. Moreover, 21.8% of respondents who are single are the second group that plan to purchase a single house 5 to 6.9 million baht and 26.9% respondents who are married and not have a child plan to purchase a single house priced 7 to 9 million baht.

In this research, education of respondents who plan to purchase a single house also determines the kind of house they want. Respondents aiming for 3 to 4.9 million baht are university graduates with a Bachelor's degree 70.2% and Master's degree or higher 13.2%. Prospective buyers who plan to purchase 5 to 6.9 million baht are university graduates with a Bachelor's degree 65.5% and Master's degree or higher 23.6%. Prospect buyers who plan to purchase 7 to 9 million baht are university graduates with a Bachelor's degree 73.1% and Master's degree or higher 15.4%.

Regarding the occupation of respondents, there are the highest proportion of private company employees who want to purchase single house priced 3 to 4.9 million baht 54.5%, business owner 12.9%, government officer 12.5%, state enterprise employee 11% and other occupations 9.1%. For single house priced 5 to 6.9 million baht private company employee 49.1%, business owner 27.3%, state enterprise

employee 12.7%, government officer 7.3% and other occupation 3.6%. For single house priced 7 to 9 million baht, business owner 46.2%, private company employee 42.3% and government officer 11.5%.

In this particular study, the results show that the majority of respondents who plan to purchase a single house priced between 3 to 4.9 million baht have the average household income of between 20,000 to 39,999 baht 37.3%, followed by 22.9% respondents who have the average household income less than 20,000 baht, respondents who have the average household income between 40,000 to 59,999 baht 19.1%, and respondents who have the average household income more than 59,999 baht 9.4%. For single house priced between 5 to 6.9 million baht, the majority of respondents have average household income between 20,000 to 39,999 baht 21.8%, followed by household income between 40,000 to 59,999 baht 20%, household income between 60,000 to 79,999 baht 12.7% and income between 100,000 to 149,999 baht 12.7% and other range 32.8%. For single house priced between 7 to 9 million baht, the majority 26.9% have the average household income between 60,000 to 79,999 baht, and 26.9% have the average household income 200,000 baht or higher, followed by income between 100,000 to 149,999 baht at 23.1% and household income between 20,000 to 39,999 baht, 80,000 to 99,999 baht and 100,000 to 199,999 baht at 7.7% for each group.

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In the section on respondents' opinion about importance of each purchasing single house factor, when they are considering the purchase of single house, 23 factors are asked in this study and the five rankings of importance level consist of very important at 5 scores, important at 4 scores, neutral at 3 scores, not important at 2 scores and not at all important at 1 score are applied to interpret their opinion. The results from 400 questionnaires are as follows:

Majority of respondents (42.3%) think that project pattern is an important factor for single house purchase

Majority of respondents (43.3%) think that project size is an important factor for single house purchase.

Majority of respondents (45.8%) think that central area and building is an important factor for single house purchase.

Majority of respondents (51.8%) think that environment is an important factor for single house purchase.

Majority of respondents (54%) think that house pattern is an important factor for single house purchase.

Majority of respondents (53%) think that house useable area is an important factor for single house purchase.

Majority of respondents (46.3%) think that material and construction is an important factor for single house purchase.

Majority of respondents (49%) think that security is a very important factor for single house purchase.

Majority of respondents (47.5%) think that convenience of entrance and exit way is an important factor for single house purchase.

Majority of respondents (44.3%) think that proximity to facilities is an

important factor for single house purchase.

Majority of respondents (45%) think that surrounding community is an important factor for single house purchase.

Majority of respondents (59%) think that flood is a very important factor for single house purchase.

Majority of respondents (38.3%) think that proximity to the existing residential area is a neutral factor for single house purchase.

Majority of respondents (40%) think that proximity to working area is an important factor for single house purchase.

Majority of respondents (39.3%) think that proximity to children's school is an important factor for single house purchase.

Majority of respondents (40%) think that having friends in the project is a neutral factor for single house purchase.

Majority of respondents think (36%) that being able to do other activities is a neutral factor for single house purchase.

Majority of respondents (47%) think that previous project is an important factor for single house purchase

Majority of respondents (47.8%) think that trust of company is an important factor for single house purchasing.

Majority of respondents (51.3%) think that company's name is an important factor for single house purchase

Majority of respondents (38.8%) think that post sales services is an important factor for single house purchase

Majority of respondents (45.3%) think that community charge is an important factor for single house purchase.

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Majority of respondents (39.3%) think that government support is an important factor for single house purchase.

The findings for the importance level of purchasing single house factors are shown in Table 6.1 on page 185. From 400 respondents' opinions,, flood is the most important factor which impacts on decision making to purchase a single house, followed by other important to very important factors. These are security, environment, material and construction, convenience of entrance and exit way, post sales services, trust of company, community charge, house area, nearness to facilities and house pattern. The other supporting factors which respondents give neutral to important opinions when considering to purchase a single house are company's name, surrounding community, government support, central area and building, nearness to working area, previous project, project pattern, project size, nearness to children's school and being able to do other activities. Furthermore, nearness from the existing residential area and having friends in the project have less impact on decision making to purchase a single house. In the overview, the potential targets of every price level have similar opinions about importance level of these purchasing single house factors as seen in Table 6.1.

**Table 6.1 Importance of Factors for Purchasing Single House**

| Importance Arrangement | Factor | Mean Score of Importance Level | Standard Deviation |
|---|---|---|---|
| 1 | Flood | 4.39 | .886 |
| 2 | Security | 4.34 | .752 |
| 3 | Environment | 4.31 | .666 |
| 4 | Material and construction | 4.24 | .760 |
| 5 | Convenience of entrance and exit way | 4.20 | .747 |
| 6 | Post sales services | 4.18 | .822 |
| 7 | Trust of company | 4.11 | .760 |
| 8 | Community charge | 4.11 | .787 |
| 9 | House usable area | 4.10 | .707 |
| 10 | Nearness to facilities | 4.03 | .791 |
| 11 | House pattern | 4.02 | .720 |
| 12 | Company's name | 3.98 | .759 |
| 13 | Surrounding community | 3.88 | .859 |
| 14 | Government support | 3.82 | .920 |
| 15 | Central area and building | 3.70 | .783 |
| 16 | Nearness to working area | 3.68 | .917 |
| 17 | Previous project | 3.67 | .786 |
| 18 | Project pattern | 3.59 | .927 |
| 19 | Project size | 3.51 | .769 |
| 20 | Nearness to children's school | 3.51 | .984 |
| 21 | Being able to do other activities | 3.28 | .989 |
| 22 | Nearness to the existing residential area | 2.99 | 1.063 |
| 23 | Having friends in the project | 2.84 | .991 |

However, the factor on nearness to the existing residential area has the highest standard deviation value at 1.063 which means that some respondents give importance level to this factor very different from others. Furthermore, some respondents also consider about government support, nearness to working area, project pattern, nearness to children's school, being able to do other activities and having friends in the project a lot different from others as reported that these factors have high standard deviation value.

## 6.2 SUMMARY OF HYPOTHESES TESTING

In order to conduct hypotheses testing, data from 400 respondents were gathered in this research. The main objective was to test the difference of importance level of each purchasing single house factor when separated by different budget level. The conclusions of hypotheses testing between independent variables and the dependent variable are listed in table 6.7.

**Table 6.2 Summary of Hypotheses Testing**

| Hypotheses | Statistical test | Significance | Results |
|---|---|---|---|
| $H_0$1 : There is no difference in project pattern when segmented by budget to purchase a single house.<br>$H_1$1 : There is a difference in project pattern when segmented by budget to purchase a single house. | ANOVA | .044 | Reject $H_0$1 |
| $H_0$2 : There is no difference in project size when segmented by budget to purchase a single house.<br>$H_1$2 : There is a difference in project size when Segmented by budget to purchase a single house. | ANOVA | .417 | Accept $H_0$2 |

**Table 6.2 Summary of Hypotheses Testing (continued)**

| Hypotheses | Statistical test | Significance | Results |
|---|---|---|---|
| $H_0$3 : There is no difference in central area and building when segmented by budget to a single house.<br>$H_1$3 : There is a difference in central area and building when segmented by budget to purchase a single house. | ANOVA | .016 | Reject $H_0$3 |
| $H_0$4 : There is no difference in environment when segmented by budget to purchase a single house.<br>$H_1$4 : There is a difference in environment when segmented by budget to purchase a single house. | ANOVA | .832 | Accept $H_0$4 |
| $H_0$5 : There is no difference in house pattern when segmented by budget to purchase a single house.<br>$H_1$5 : There is a difference in house pattern when segmented by budget to purchase a single house. | ANOVA | .118 | Accept $H_0$5 |

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**Table 6.2 Summary of Hypotheses Testing (continued)**

| Hypotheses | Statistical test | Significance | Results |
|---|---|---|---|
| $H_0$6 : There is no difference in house usable area When segmented by budget to purchase a single house.<br>$H_1$6 : There is a difference in house usable area when segmented by budget to purchase a single house. | ANOVA | .526 | Accept $H_0$6 |
| $H_0$7 : There is no difference in material and construction when segmented by budget to purchase a single house.<br>$H_1$7 : There is a difference in material and construction when segmented by budget to purchase a single house. | ANOVA | .004 | Reject $H_0$7 |
| $H_0$8 : There is no difference in security when segmented by budget to purchase a single house.<br>$H_1$8 : There is a difference in security when segmented by budget to purchase a single house. | ANOVA | .548 | Accept $H_0$8 |

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**Table 6.2 Summary of Hypotheses Testing (continued)**

| Hypotheses | Statistical test | Significance | Results |
|---|---|---|---|
| $H_0$9 : There is no difference in convenience entrance and exit way when segmented by budget to purchase a single house.<br>$H_1$9 : There is a difference in convenience entrance and exit way when segmented by budget to purchase a single house. | ANOVA | .001 | Reject $H_0$9 |
| $H_0$10 : There is no difference in nearness to facilities when segmented by budget to purchase a single house.<br>$H_1$10 : There is a difference in nearness to facilities when segmented by budget to purchase a single house. | ANOVA | .014 | Reject $H_0$10 |
| $H_0$11 : There is no difference in surrounding community when segmented by budget to purchase a single house.<br>$H_1$11: There is a difference in surrounding community when segmented by budget to purchase a single house. | ANOVA | .343 | Accept $H_0$11 |

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**Table 6.2 Summary of Hypotheses Testing (continued)**

| Hypotheses | Statistical test | Significance | Results |
|---|---|---|---|
| $H_0$12 : There is no difference in flood when segmented by budget to purchase a single house.<br>$H_1$12 : There is a difference in flood when segmented by budget to purchase a single house. | ANOVA | .365 | Accept $H_0$12 |
| $H_0$13 : There is no difference in nearness to the existing residential area when segmented by budget to purchase a single house.<br>$H_1$13 : There is a difference in nearness to the existing residential area when segmented by budget to purchase a single house. | ANOVA | .028 | Reject $H_0$13 |
| $H_0$14 : There is no difference in nearness to working area when segmented by budget to purchase a single house.<br>$H_1$14 : There is a difference in nearness to working area when segmented by budget to purchase a single house. | ANOVA | .012 | Reject $H_0$14 |

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**Table 6.2 Summary of Hypotheses Testing (continued)**

| Hypotheses | Statistical test | Significance | Results |
|---|---|---|---|
| $H_0$15 : There is no difference in nearness to children's school when segmented by budget to purchase a single house.<br>$H_1$15 : There is a difference in nearness to children's school when segmented by budget to purchase a single house. | ANOVA | .369 | Accept $H_0$15 |
| $H_0$16 : There is no difference in having friend in the project when segmented by budget to purchase a single house.<br>$H_1$16 : There is a difference in having friend in the Project when segmented by budget to purchase a single house. | ANOVA | .472 | Accept $H_0$16 |
| $H_0$17 : There is no difference in being able to do other activities when segmented by budget to purchase a single house.<br>$H_1$17 : There is a difference in being able to do other activities when segmented by budget to purchase a single house. | ANOVA | .774 | Accept $H_0$17 |

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**Table 6.2 Summary of Hypotheses Testing (continued)**

| Hypotheses | Statistical test | Significance | Results |
|---|---|---|---|
| $H_0$18 : There is no difference in previous project when segmented by budget to purchase a single house.<br>$H_1$18 : There is a difference in previous project pattern when segmented by budget to purchase a single house. | ANOVA | .081 | Accept $H_0$18 |
| $H_0$19 : There is no difference in trust of company when segmented by budget to purchase a single house.<br>$H_1$19 : There is a difference in trust of company when segmented by budget to purchase a single house. | ANOVA | .073 | Accept $H_0$19 |
| $H_0$20 : There is no difference in company's name when segmented by budget to purchase a single house.<br>$H_1$20 : There is a difference in company's name when segmented by budget to purchase a single house. | ANOVA | .041 | Reject $H_0$20 |

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**Table 6.2 Summary of Hypotheses Testing (continued)**

| Hypotheses | Statistical test | Significance | Results |
|---|---|---|---|
| $H_0$21 : There is no difference in post sales services when segmented by budget to purchase a single house.<br>$H_1$21 : There is a difference in post sales services when segmented by budget to purchase a single house. | ANOVA | .105 | Accept $H_0$21 |
| $H_0$22 : There is no difference in community charge when segmented by budget to purchase a single house.<br>$H_1$22 : There is a difference in community charge when segmented by budget to purchase a single house. | ANOVA | .059 | Accept $H_0$22 |
| $H_0$23 : There is no difference in government support when segmented by budget to purchase a single house.<br>$H_1$23 : There is a difference in government support when segmented by budget to purchase a single house. | ANOVA | .079 | Accept $H_0$23 |

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All hypotheses are tested by using ANOVA. From the result in the analysis of hypothesis one ($H_0$1), the null hypothesis is rejected at the .05 level of significance so it can be concluded that there is a difference in project pattern when segmented by budget to purchase a single house.

Regarding to the second hypothesis ($H_0$2) testing, the null hypothesis is accepted at the .05 level of significance. It can be implied that there is no difference in project size when segmented by budget to purchase a single house.

The third hypothesis ($H_0$3), the null hypothesis is also rejected at the .05 level of significance, which means that there is a difference in central area and building when segmented by budget to purchase a single house.

For the fourth hypothesis ($H_0$4), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in environment when segmented by budget to purchase a single house.

The fifth hypothesis ($H_0$5), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in house pattern when segmented by budget to purchase a single house.

The sixth hypothesis ($H_0$6), the null hypothesis is also accepted at the .05 level of significance, which means that there is no difference in house usable area when segmented by budget to purchase a single house.

In case of the seventh hypothesis ($H_0$7), the null hypothesis is rejected at the .05 level of significance. So there is a difference in material and construction when segmented by budget to purchase a single house.

The eighth hypothesis ($H_0$8), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in security when segmented by budget to purchase a single house.

Due to the fact that the null hypothesis of the ninth hypothesis ($H_1$9) is rejected at the .05 level of significance, it can be concluded that there is a difference in convenience of entrance and exit ways when segmented by budget to purchase a single house.

Similarity, the null hypothesis of the tenth hypothesis ($H_1$10) is rejected at the .05 level of significance, it can be concluded that there is a difference in nearness to facilities when segmented by budget to purchase a single house.

The eleventh hypothesis ($H_0$11), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in surrounding community when segmented by budget to purchase a single house.

The twelve hypothesis ($H_0$12), the null hypothesis is also accepted at the .05 level of significance, which means that there is no difference in flood when segmented by budget to purchase a single house.

For the null hypothesis of the thirteenth hypothesis ($H_1$13) is rejected at the .05 level of significance, it can be concluded that there is a difference in nearness to the existing residential area when segmented by budget to purchase a single house.

The null hypothesis of the fourteenth hypothesis ($H_1$14) is also rejected at the .05 level of significance, which means that there is a difference in nearness to working area when segmented by budget to purchase a single house.

In case of the fifteenth hypothesis ($H_0$15), the null hypothesis is accepted at the .05 level of significance, so it can be concluded that there is no difference in nearness to children's school when segmented by budget to purchase a single house.

The sixteenth hypothesis ($H_0$16), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in having friend in the project when segmented by budget to purchase a single house.

The seventeen hypothesis ($H_0$17), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in being able to do other activities when segmented by budget to purchase a single house.

The eighteenth hypothesis ($H_0$18), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in previous project when segmented by budget to purchase a single house.

The nineteenth hypothesis ($H_0$19), the null hypothesis is also accepted at the .05 level of significance, which means that there is no difference in trust of company when segmented by budget to purchase a single house.

According to the twentieth hypothesis ($H_0$20), the null hypothesis is rejected at the .05 level of significance, which means that there is a difference in company's name when segmented by budget to purchase a single house.

For the twenty-one hypothesis ($H_0$21), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in post sales services when segmented by budget to purchase a single house.

The twenty-two hypothesis ($H_0$22), the null hypothesis is accepted at the .05 level of significance, which means that there is no difference in community charge when segmented by budget to purchase a single house.

The twenty-three hypothesis ($H_0$23), the null hypothesis is also accepted at the .05 level of significance, which means that there is no difference in government support when segmented by budget to purchase a single house.

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## 6.3 IMPLICATION AND CONCLUSIONS

According to the summary of findings and results of hypotheses testing in the previous section, the result shows that there is no difference in flood, security, environment, post sales services, trust of company, community charge, house usable area, house pattern, surrounding community, government support, previous project, project size, nearness to children's school, being able to do other activities and having friend in the project when segmented by budget to purchase a single house. However, there is a difference in material and construction, convenience of entrance and exit way, nearness to facilities, company's name, central area and building, nearness to working area, project pattern and nearness to the existing residential area when segmented by budget to purchase a single house or different prices of single house have impact on differences in some purchasing single house factors.

These findings can be supported by Hoyer and MacInnis's (1997) who argued that the price of product is one of the most important variables influencing consumer decision making and consumers may infer that higher price is also high in quality when consumers are not knowledgeable about brands. Particularly for fashion or prestige goods, a high price symbolizes status. Black et al., (2003) proposed the importance of prices in determining purchasing levels. Block and Roering (1976) indicated that some consumers also use price as a guide to quality. Cox and Brittain (1996) mentioned that price is often considered a surrogate indicator of quality. Bolen (1988) indicated that, prices influence the target market in many ways. Customers tend to equate quality with price.

Research of Government Housing Department (2003) about the impact of residence development in Thailand indicated that the effective factors for decision

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making to purchase residence are different at varying price levels. This research also presented that the effective factors for purchasing high priced residence are location (convenience of entrance and exit way, nearness to facilities, nearness to working area, nearness to the existing residential area), followed by quality (material and construction, central area and building, project pattern) and communication (convenience for communication); the effective factors for purchasing medium priced residence are location followed by quality and price and the effective factors for purchasing low priced residence are location, followed by price and communication which implied that people who purchase high priced residence are more concerned about quality living than price.

From various literature and studies, the price of product may infer quality which influences consumer decision making. Generally, customers who consent to purchase high priced product have high expectations about the about product's quality and image. Contrary, the findings of this research reveal that the potential target group of single house priced from 3 to 4.9 million baht consider most purchasing single house factors more than the group who plan to purchase a high priced single house. It may be caused by the fact that the potential targets of this low priced segment are younger, single and have never been single house buyers. This group may have to work and do activities a lot so they may be concerned about convenience of entrance and exit way, nearness to facilities and nearness to working area more than targets of high priced segment. Furthermore, this new generation group tends to have more overall knowledge. Hoyer and McInnis (1997) proposed that generation X who was born from 1965 to 1976 working for better position and want to have good image in their society so they pay more attention to compare and approach information from many media than the previous generation or the group who have experience in buying

residence in order to select the worthwhile single house which will satisfy their need. They may have more time and opportunities to concern with detail of factors on housing project than higher price buyers.

However, the standard for considering factors may result from different demographic factors which are related to purchasing power of single house buyers. From this study, the results of hypothesis testing have shown that customer of lower price single house tend to consider and give importance to material and construction, convenience of entrance and exit way, nearness to facilities, company's name, nearness to working area and project pattern more than customer of high price single house but customer of high price single house give importance to factors in central area and building and nearness to the existing residential area more than customers of lower price single house. Difference of customer's age, occupation and income level may impact on these factors due to the large target customers of single house priced 3 to 6.9 million baht are private company employees while the majority target customers of single house priced 7 to 9 million baht are business owners and private company employees who have high income. Occupational effects on lifestyle and purchasing power or budget to purchase single house. Most business owners and private company employees who have high income are adult and they may have stable society and connection so they may want a new house near the existing residential area more than the target customers of low price single house who are still flexible for work and living. It is supported by Hawkins, Best, Coney (1983) who stated that the type of work one does and the types of individuals one works with, directly influence one's preferred lifestyle. Block and Roering (1976) implied that an individual's occupation is the best single clue to his or her social class membership and may also be ranked according to the prestige, honor and respect associated with them by members of

society.

Hoyer and MacInnis (1997) stated that individuals with the same occupation tend to share similar lifestyles. Bolen (1988) explained that what a person does for a living affects that person as a consumer, and affects his or her buying patterns as well. Kotler (1997) described that a person's occupation also influences his or her consumption pattern. The results from research of Government Housing Department (2003) on the impact of residence development in Thailand showed that people of the different occupations show differences in purchasing residence. The majority of high priced residence owners are business owners, the majority of medium priced and low priced residence owners are government officers, state enterprise employees, and private company employees. This implies that persons in different occupation groups have different criteria to consider factors when they make a decision to purchase single house because each group have own lifestyles. High priced single house buyers are mostly business owners because this group also has higher income level and they are adults who have big families and need a large high quality house and good central public area. Wilkes (1995) supported that middle age, married, with at least one child aged six or over, is associated with sharp increase in spending for home improvement for separate bedrooms. This group want to live closer to their familiar society and community than considering other detailed factors like the lower priced single house buyers who are more flexible in living and have more time and chance to consider and select the best single house to satisfy their need.

Company's name is the one factor which potential target of low priced segment gives importance higher than potential target of high priced segment. Because media and company's name will present characteristic and reputable of housing project so the potential customers of low priced segment who never have experience in buying single

house have to consider company's name as the guide before make a decision.

As it can be seen that, there is no difference in certain purchasing single house factors between price levels at the .05 level of significance because the potential customer of each priced segment have similar opinion for these factors. Some factors such as flood, security, environment, post sales services, trust of company, community charge, house usable area are the important factors for everyone when they plan to buy single house. Most customer also alike thinking that house pattern, surrounding community, government support, previous project, project size, nearness to children's school and being able to do other activities are neutral to important but having friends in the project are not important from their point of view.

Therefore, under budget condition, most buyers evaluate all purchasing single house factors and select single house which satisfy their basic needs, such as has no flood, safety and proper usable area for members in the family at the main points. After that, they may consider factors which satisfy social needs, esteem needs and self-actualization needs. They want to live with their family in a good environment. Purchasing single house from a reputable company makes them confidence to receive good post sales services and community charges. It also presents image and social status of owner. However, customers of each priced segment may have different opinion for some factors. Customer of lower price segment concern more about many factors such as material and construction, convenience of entrance and exit way, nearness to facilities, company's name, nearness to working area and project pattern which relate to quality living under their limited budget to buy a single house so they consider before buying a worthwhile single house. But, customers of high priced segment who are more concerned about their existing society and quality tend to select large single house in good location which they prefer so they may have to ignore some

other factors.

## 6.4 RECOMMENDATIONS

Purchasing single house requires extensive problem solving by consumers who trade infrequently in the market for these expensive and highly visible durable goods. This research was designed to find the important factors to guide housing project developers, marketers and potential customers when they develop or purchase single house. Nowadays, there is high competition in housing project market. It is very important to know the real need of target customers in order to succeed in the business and gain a high market share. So the researcher will recommend the housing developers and marketers to implement certain strategies to develop and improve their products or services to satisfy customer's need effectively.

The result of this research shows that the majority of respondents or potential customers of single house are concerned about flood as the most important factor. The second to the fifth most important factors are security, environment, material and construction, and convenience of entrance and exit way, which implies that the potential customers who evaluate alternatives to purchase single house are interested in location and quality living in housing project as the main concern, so housing project developers should pay attention to these factors as crucial. These components are the basis factors which many projects employ to attract customers. In the real estate market, there are a lot of companies who try to present their product, quality and promotion price which may not be different from other competitors.

As the findings indicate that post sale services, trust of company, community charge, house usable area and nearness to facilities are the next important factors

which potential customers consider. It can be concluded that before making a decision to purchase, customers consider more about trust in the company which responds to their products and services such as community charge and post sale services. So marketers should build and promote the trust of company, which means to sell good products and services and make customers have full confidence to purchase the housing project with the feeling that they could live there with convenience and no long term problems. This confidence may help to trade off other weak factors.

In addition, other factors such as house pattern, company's name or housing project developer's reputation, surrounding community, government support and central area and building in the project are the complementary factors which help customers make a decision to purchase a particular housing project. Besides the quality of basis components and trust of company, customers may compare more value factors before selecting the best choice. Therefore, developers and marketers should create value added to the project such as good central area and building and beautiful house pattern design with interesting concept including clean surrounding community to impress customers. Moreover, creating a good image and character of the company or reputation of company will assist house sales because customers buy not only a house but also an image and other special components which will satisfy their individual needs. Marketers could adopt strategies by setting high prices for the special or exclusive houses which have these more value added components to appeal to the target group.

Setting price or presenting houses has to be supported by good references such as the previous project the developer has launched. As reported in this study, the majority of potential customers also consider nearness to their working area, previous project, project pattern, project size, nearness to children's school, application of their

single house for other activities such as doing business, but these factors are not the main decision making factors in purchasing a single house. In conclusion, the majority of potential customers think that nearness to their existing residential area and having friends in the project are not important factors in purchasing a single house. However, this study presented that there are great differences in consideration of factors about government support, nearness to working area, nearness to children's school, application their single house for other activities, having friends in the project and nearness to their existing residential area. Some potential customers are not fixated on living in the existing area or existing society and think that they can adapt themselves when they move to the new house, but some potential customers are still happy to stay near a familiar location and society or can not move working area or children school. These factors may be important or not important to some people. Sales of the housing projects should analyze potential customer's detail and convince the right persons to purchase the house in the project.

Additionally, the profile of majority of potential targets of each price level of single house shows that the target group for single house priced 3 to 4.9 million baht are young (25 to 29 years old), single, Bachelor's degree graduates, private company employees and have a household income of 20,000 to 39,999 baht per month tend to consider and give more importance to most factors than the target group of single house priced 5 to 9 million baht who are 35 to 39 years old, married, and have a child or two children, Bachelor's degree graduates, private company employees or business owners and have high household income except the factors such as surrounding community, central area and building, project size, being able to do other activities, nearness to the existing residential area in which the large market for single house priced 5 to 9 million baht have more interest. High priced single house target groups

are concerned with the good location and quality of housing project rather than the price. Therefore, developers of high priced single houses should emphasize on surrounding community, central area and building, project size and being able to do other activities especially single house range from about 5 to 6.9 million baht, because the target group are adults who tend to spend time at home more than younger target, they would like to purchase the project which has a good location and good image and they still want complete facilities for members in family to do activities while the target customers for single houses range from about 7 to 9 million baht are the business owner group who are concerned with old age, therefore they look for nearness to the existing residential area more than the other groups. It may because of this group have stable work so they have more tendency to bind with the existing connections. Project developers and marketers should make and promote good community for the housing project to satisfy the need of majority of their customers. If they are proud about their house and related factors, they will induce their friends to live together.

Generally, customers of high price products should have more expectations about product's quality and consider factors more than low price product. Nevertheless, current potential customers of low price single houses priced 3 to 4.9 million baht also consider and give importance to more factors than previous generations. This is because the target groups of this segment are the new buyers and new generation who are live in information era and are interested in many activities, they tend to receive and search for information on many housing companies from various media and compare carefully before making a decision to purchase the most worthwhile single house suitable for their limited incomes.

Developers and marketers of this single house segment should design and propose low price houses which have suitable functions to match the lifestyle of single

or beginner family groups who do not need a large single house, but still want quality living such as having the convenience of entrance and exit way and being near to facilities. The project should be near public transportation services to support customers who do not have a car so they can access their working area conveniently. Administration and cost management should be applied to produce good quality economic single houses. Some value added factors such as beautiful house patterns and central area and building also should be increased to offers better options than competitors. This group should also consider company's name more than other groups due to the fact that new buyers expectation depends on company's name and reputation.

Under high competition in market, it is essential that marketers should try to research and analyze customer needs and identify buying factors to understand who their customers are and what influences them when they are buying. The strategies to sales, conversions and inquiries should employ consumer profiles for market identification and product positioning. This knowledge will contribute to more accurate valuations, more efficient transactions and more satisfied consumers. Marketers should propose product and services which are above average and create a positive image for brand and company which will help to differentiate them from competitors and obtain increased acceptance from customers over time.

Finally, marketers should have continuous improvement and constant search for new and improved products.

## 6.5 SUGGESTION OF FURTHER STUDY

This research was aimed at studying the impact of budget upon single house purchase factors. As previously discussed, this research was limited in resources and is done in a very short of period time, the research only focused on purchase of single house factors in the Bangkok area. Different results might have been obtained under different investigative conditions, therefore future research may consider other factors as follows:-

This research was designed to study only the factors for considering purchase of single house which consists of project pattern, project size, central area and building, environment, house pattern, house area, material and construction, security, convenience entrance and exit way, nearness to facilities, surrounding community, flood, nearness to the existing residential area, nearness to working area, nearness to children's school, having friends in the project, being able to do other activities, previous project, trust of company, company's name, post sales services, community charge and government support. There are other factors that should be investigated by subsequent studies.

For this research, survey method was used to collect the data of target respondents and was limited to Bangkok area only. Future research should be on different geographic areas of the country which are interesting areas for developing residential projects such as Changmai, Chonburi and Phuket.

This research attempted to examine factors under consideration for purchasing single houses valued at 3 to 9 million baht only. Hence, it is recommended that future research can be conducted to identify the specific dimensions of other residence segments such as condominiums or townhouses at different price levels

which may show different results about purchase factors and the results will help to extend the residential housing market.

The results of this study have illustrated that different budget levels have impact on some purchase single house factors that are material and construction, convenience of entrance and exit way, nearness to facilities, company's name, central area and building, nearness to working area, project pattern and nearness to the existing residential area. However, it is still doubtful whether other demographic factors have impact on purchasing single house. The researcher recommends that other factors be studied to know the wants and characteristics of target group. Future studies should be conducted to find out about other demographic factors such as age, marital status, education level, occupation and household income, lifestyle or other factors which may impact purchase of residences.

Furthermore, this study focused only on the opinions of the group who evaluate alternatives or persons who are evaluating factors before making a decision to purchase single house because this group has the real demand to purchase single house or they are potential targets for single houses. This group may include persons who have actually purchased a single house or residence and persons who have never purchased a residence, so the real single house buyer's opinion may be studied in the future research to know whether there are other factors that have an impact on purchasing a residence.

In addition, future research may be conducted to study specific cases, such as a comparison of different brands to know the real competition in the residential market.

Finally, this research and future studies may help to develop management and marketing strategies for the Thai real estate market.

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# Appendix A

## Questionnaire

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# QUESTIONNAIRE

This questionnaire was designed to obtain information to be used as a part of the thesis entitled "Budget segments impacting consideration of factors for single house purchase among consumer in Bangkok" for a Masters in Business Administration at Assumption University. The information obtained will only be used for study purpose. Thank you for your full cooperation in responding to all items in the questionnaire.

---

**Part 1 : Personal data**

Please tick ✓ in the box ☐ that most matches your answer.

1. Age :

☐ Less than 25 years old
☐ 25 - 29 years old
☐ 30 - 34 years old
☐ 35 - 39 years old
☐ 40 - 49 years old
☐ 50 years old up

2. Marital status :

☐ Single
☐ Married / don't have a child
☐ Married / have a child or two children
☐ Married / have more than two children

3. Education level :

☐ High school graduate or lower
☐ Certificate / Diploma
☐ Bachelor's degree
☐ Master's degree or higher

4. Occupation :

☐ Government officer
☐ State enterprise employee
☐ Private company employee
☐ Business owner
☐ Others (please specify).....

5. Average house hold income per month (your income and partner borrower's income) :

☐ Less than 20,000 baht
☐ 20,000 - 39,999 baht
☐ 40,000 - 59,999 baht
☐ 60,000 - 79,999 baht
☐ 80,000 - 99,999 baht
☐ 100,000 - 149,999 baht
☐ 150,000 - 199,999 baht
☐ 200,000 baht or higher

6. Budget to purchase a single house :

☐ 3 - 4.9 million baht
☐ 5 - 6.9 million baht
☐ 7 - 9 million baht

**Part 2 : Single house factors**

Please indicate the degree of your responses to the following statements:

| Purchasing single house factors | Important level | | | | |
|---|---|---|---|---|---|
| | 1 Not at all important | 2 Not important | 3 Neutral | 4 Important | 5 Very important |
| 1. Project pattern | | | | | |
| 2. Project size | | | | | |
| 3. Central area and building | | | | | |
| 4. Environment | | | | | |
| 5. House usable pattern | | | | | |
| 6. House usable area | | | | | |
| 7. Material and construction | | | | | |
| 8. Security | | | | | |
| 9. Convenience of entrance and exit way | | | | | |
| 10. Nearness to facilities | | | | | |
| 11. Surrounding community | | | | | |
| 12. Flood | | | | | |
| 13. Nearness to the existing residential area | | | | | |
| 14. Nearness to working area | | | | | |
| 15. Nearness to children's school | | | | | |
| 16. Having friends in the project | | | | | |
| 17. Being able to do other activities | | | | | |
| 18. Previous project | | | | | |
| 19. Trust of company | | | | | |
| 20. Company's name | | | | | |
| 21. Post sales services | | | | | |
| 22. Community charge | | | | | |
| 23. Government support | | | | | |

**- Thank you for your cooperation -**

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# แบบสอบถาม

เรื่อง ผลกระทบของระดับงบประมาณต่อการพิจารณาปัจจัยในการซื้อบ้านเดี่ยวของผู้บริโภคในกรุงเทพมหานคร

แบบสอบถามชุดนี้เป็นส่วนหนึ่งของงานวิจัยวิทยานิพนธ์ของนิสิตปริญญาโท คณะบริหารธุรกิจ มหาวิทยาลัยอัสสัมชัญ (ABAC) ซึ่งข้อมูลจะถูกใช้ประกอบในการวิจัยเท่านั้น ผู้จัดทำขอความกรุณาในการตอบแบบสอบถามให้ครบถ้วน เพื่อความถูกต้องในการวิเคราะห์ข้อมูล และขอขอบคุณทุกท่านที่กรุณาสละเวลาของท่านทำแบบสอบถามชุดนี้

---

**ส่วนที่ 1 : ข้อมูลผู้ตอบแบบสอบถาม**

กรุณาทำเครื่องหมาย ✓ ลงใน ☐ หรือเติมข้อความลงในช่องว่าง ที่ตรงกับคำตอบของท่านมากที่สุด

1. อายุ :

☐ ต่ำกว่า 25 ปี
☐ 25 - 29 ปี
☐ 30 - 34 ปี
☐ 35 - 39 ปี
☐ 40 - 49 ปี
☐ 50 ปีขึ้นไป

2. สถานภาพสมรส :

☐ โสด
☐ แต่งงานแล้ว ยังไม่มีบุตร
☐ แต่งงานแล้ว มีบุตร 1 หรือ 2 คน
☐ แต่งงานแล้ว มีบุตรมากกว่า 2 คน

3. ระดับการศึกษา :

☐ มัธยมศึกษาตอนปลาย, ปวช, หรือต่ำกว่า
☐ อนุปริญญา, ปวส.
☐ ปริญญาตรี
☐ สูงกว่าปริญญาตรี

4. อาชีพ :

☐ ข้าราชการ
☐ พนักงานรัฐวิสาหกิจ
☐ พนักงานบริษัทเอกชน
☐ เจ้าของกิจการ
☐ อื่นๆ โปรดระบุ.....

5. รายได้ของท่านและผู้กู้ร่วม เฉลี่ยต่อเดือน :

☐ ต่ำกว่า 20,000 บาท
☐ 20,000 - 39,999 บาท
☐ 40,000 - 59,999 บาท
☐ 60,000 - 79,999 บาท
☐ 80,000 - 99,999 บาท
☐ 100,000 - 149,999 บาท
☐ 150,000 - 199,999 บาท
☐ 200,000 บาท ขึ้นไป

6. งบประมาณในการซื้อบ้าน :

☐ 3 - 4.9 ล้านบาท
☐ 5 - 6.9 ล้านบาท
☐ 7 - 9 ล้านบาท

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**ส่วนที่ 2 : ปัจจัยในการซื้อบ้านเดี่ยว**

กรุณาระบุระดับความสำคัญที่ตรงกับคำตอบของท่านมากที่สุด

| ปัจจัยในการซื้อบ้านเดี่ยว | ระดับความสำคัญ | | | | |
|---|---|---|---|---|---|
| | 1<br>น้อยที่สุด | 2<br>น้อย | 3<br>ปานกลาง | 4<br>มาก | 5<br>มากที่สุด |
| 1. แผนผังโครงการ | | | | | |
| 2 ขนาดโครงการ | | | | | |
| 3. อาคารและพื้นที่ส่วนกลาง | | | | | |
| 4. สภาพแวดล้อม | | | | | |
| 5. รูปแบบบ้าน | | | | | |
| 6. พื้นที่ใช้สอย | | | | | |
| 7. วัสดุและการก่อสร้าง | | | | | |
| 8. ระบบรักษาความปลอดภัย | | | | | |
| 9. ทางเข้าออกสะดวก | | | | | |
| 10. ใกล้สิ่งอำนวยความสะดวก | | | | | |
| 11. ชุมชนโดยรอบ | | | | | |
| 12. ปัญหาน้ำท่วม | | | | | |
| 13. ใกล้ที่อยู่อาศัยเดิม | | | | | |
| 14. ใกล้ที่ทำงาน | | | | | |
| 15. ใกล้โรงเรียนของบุตร/ธิดา | | | | | |
| 16. มีเพื่อนบ้านรู้จักกัน | | | | | |
| 17. สามารถใช้ทำกิจกรรมอื่นได้ | | | | | |
| 18. ผลงานที่ผ่านมา | | | | | |
| 19. ความน่าเชื่อถือของผู้ประกอบการ | | | | | |
| 20. ชื่อเสียงผู้ประกอบการ | | | | | |
| 21. บริการหลังการขาย | | | | | |
| 22. การดูแลชุมชน | | | | | |
| 23. มาตรการรัฐ | | | | | |

**- ขอขอบพระคุณเป็นอย่างสูง -**

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# Appendix B

## Reliability Analysis

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**Factors used in consideration of the Purchase of a Single House**

# Reliability

****** Method 1 (space saver) will be used for this analysis ******

_

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 40.0 N of Items = 23

Alpha = .9406

# Reliability

****** Method 1 (space saver) will be used for this analysis ******

_

RELIABILITY ANALYSIS - SCALE (ALPHA)

| Statistics for | Mean | Variance | Std Dev | N of Variables |
|---|---|---|---|---|
| SCALE | 88.4625 | 119.0111 | 10.9092 | 23 |

Reliability Coefficients

N of Cases = 400.0 N of Items = 23

Alpha = .9033

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# Appendix C

## Descriptive Analysis

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# Frequencies Table of Demographic Factors

## Frequencies

## Age

**Statistics**

Age

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.44 |
| Std. Error of Mean | | .071 |
| Std. Deviation | | 1.418 |
| Variance | | 2.011 |
| Minimum | | 1 |
| Maximum | | 6 |

**Age**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Less than 25 years old | 32 | 8.0 | 8.0 | 8.0 |
| | 25 - 29 years old | 90 | 22.5 | 22.5 | 30.5 |
| | 30 - 34 years old | 85 | 21.3 | 21.3 | 51.8 |
| | 35 - 39 years old | 87 | 21.8 | 21.8 | 73.5 |
| | 40 - 49 years old | 76 | 19.0 | 19.0 | 92.5 |
| | 50 years old up | 30 | 7.5 | 7.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Marital status

**Statistics**

Marital status

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 2.05 |
| Std. Error of Mean | | .052 |
| Std. Deviation | | 1.045 |
| Variance | | 1.092 |
| Minimum | | 1 |
| Maximum | | 4 |

**Marital status**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Single | 180 | 45.0 | 45.0 | 45.0 |
| | Married / not have a child | 47 | 11.8 | 11.8 | 56.8 |
| | Married / have a child or two children | 145 | 36.3 | 36.3 | 93.0 |
| | Married / have more than two children | 28 | 7.0 | 7.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Education level

**Statistics**

Education level

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 2.93 |
| Std. Error of Mean | | .035 |
| Std. Deviation | | .692 |
| Variance | | .479 |
| Minimum | | 1 |
| Maximum | | 4 |

**Education level**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | High school graduate or lower | 24 | 6.0 | 6.0 | 6.0 |
| | Certificate / diploma | 38 | 9.5 | 9.5 | 15.5 |
| | Bachelor's degree | 279 | 69.8 | 69.8 | 85.3 |
| | Master's degree or higher | 59 | 14.8 | 14.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Occupation

**Statistics**

Occupation

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 2.99 |
| Std. Error of Mean | | .051 |
| Std. Deviation | | 1.028 |
| Variance | | 1.057 |
| Minimum | | 1 |
| Maximum | | 5 |

**Occupation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Government officer | 47 | 11.8 | 11.8 | 11.8 |
| | State enterprise employee | 42 | 10.5 | 10.5 | 22.3 |
| | Private company employee | 212 | 53.0 | 53.0 | 75.3 |
| | Business owner | 68 | 17.0 | 17.0 | 92.3 |
| | Others | 31 | 7.8 | 7.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Household income level

**Statistics**

Household income level

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 2.97 |
| Std. Error of Mean | | .089 |
| Std. Deviation | | 1.789 |
| Variance | | 3.200 |
| Minimum | | 1 |
| Maximum | | 8 |

**Household income level**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Less than 20,000 baht | 75 | 18.8 | 18.8 | 18.8 |
| | 20,000 - 39,999 baht | 133 | 33.3 | 33.3 | 52.0 |
| | 40,000 - 59,999 baht | 72 | 18.0 | 18.0 | 70.0 |
| | 60,000 - 79,999 baht | 50 | 12.5 | 12.5 | 82.5 |
| | 80,000 - 99,999 baht | 26 | 6.5 | 6.5 | 89.0 |
| | 100,000 - 149,999 baht | 20 | 5.0 | 5.0 | 94.0 |
| | 150,000 - 199,999 baht | 10 | 2.5 | 2.5 | 96.5 |
| | 200,000 baht or higher | 14 | 3.5 | 3.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Budget to purchase a single house

**Statistics**

Budget to purchase a single house

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 1.27 |
| Std. Error of Mean | | .029 |
| Std. Deviation | | .572 |
| Variance | | .327 |
| Minimum | | 1 |
| Maximum | | 3 |

**Budget to purchase a single house**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 3 - 4.9 million baht | 319 | 79.8 | 79.8 | 79.8 |
| | 5 - 6.9 million baht | 55 | 13.8 | 13.8 | 93.5 |
| | 7 - 9 million baht | 26 | 6.5 | 6.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Crosstabs

**Age * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 - 4.9 million baht | 5 - 6.9 million baht | 7 - 9 million baht | Total |
| Age | Less than 25 years old | Count | 30 | 1 | 1 | 32 |
| | | % within Age | 93.8% | 3.1% | 3.1% | 100.0% |
| | | % within Budget to purchase a single house | 9.4% | 1.8% | 3.8% | 8.0% |
| | | % of Total | 7.5% | .3% | .3% | 8.0% |
| | 25 - 29 years old | Count | 78 | 9 | 3 | 90 |
| | | % within Age | 86.7% | 10.0% | 3.3% | 100.0% |
| | | % within Budget to purchase a single house | 24.5% | 16.4% | 11.5% | 22.5% |
| | | % of Total | 19.5% | 2.3% | .8% | 22.5% |
| | 30 - 34 years old | Count | 71 | 12 | 2 | 85 |
| | | % within Age | 83.5% | 14.1% | 2.4% | 100.0% |
| | | % within Budget to purchase a single house | 22.3% | 21.8% | 7.7% | 21.3% |
| | | % of Total | 17.8% | 3.0% | .5% | 21.3% |
| | 35 - 39 years old | Count | 64 | 15 | 8 | 87 |
| | | % within Age | 73.6% | 17.2% | 9.2% | 100.0% |
| | | % within Budget to purchase a single house | 20.1% | 27.3% | 30.8% | 21.8% |
| | | % of Total | 16.0% | 3.8% | 2.0% | 21.8% |
| | 40 - 49 years old | Count | 57 | 12 | 7 | 76 |
| | | % within Age | 75.0% | 15.8% | 9.2% | 100.0% |
| | | % within Budget to purchase a single house | 17.9% | 21.8% | 26.9% | 19.0% |
| | | % of Total | 14.3% | 3.0% | 1.8% | 19.0% |
| | 50 years old up | Count | 19 | 6 | 5 | 30 |
| | | % within Age | 63.3% | 20.0% | 16.7% | 100.0% |
| | | % within Budget to purchase a single house | 6.0% | 10.9% | 19.2% | 7.5% |
| | | % of Total | 4.8% | 1.5% | 1.3% | 7.5% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Age | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

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**Marital status * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 - 4.9 million baht | 5 - 6.9 million baht | 7 - 9 million baht | Total |
| Marital status | Single | Count | 164 | 12 | 4 | 180 |
| | | % within Marital status | 91.1% | 6.7% | 2.2% | 100.0% |
| | | % within Budget to purchase a single house | 51.4% | 21.8% | 15.4% | 45.0% |
| | | % of Total | 41.0% | 3.0% | 1.0% | 45.0% |
| | Married / not have a child | Count | 33 | 7 | 7 | 47 |
| | | % within Marital status | 70.2% | 14.9% | 14.9% | 100.0% |
| | | % within Budget to purchase a single house | 10.3% | 12.7% | 26.9% | 11.8% |
| | | % of Total | 8.3% | 1.8% | 1.8% | 11.8% |
| | Married / have a child or two children | Count | 103 | 30 | 12 | 145 |
| | | % within Marital status | 71.0% | 20.7% | 8.3% | 100.0% |
| | | % within Budget to purchase a single house | 32.3% | 54.5% | 46.2% | 36.3% |
| | | % of Total | 25.8% | 7.5% | 3.0% | 36.3% |
| | Married / have more than two children | Count | 19 | 6 | 3 | 28 |
| | | % within Marital status | 67.9% | 21.4% | 10.7% | 100.0% |
| | | % within Budget to purchase a single house | 6.0% | 10.9% | 11.5% | 7.0% |
| | | % of Total | 4.8% | 1.5% | .8% | 7.0% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Marital status | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

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**Education level * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 - 4.9 million baht | 5 - 6.9 million baht | 7 - 9 million baht | Total |
| Education level | High school graduate or lower | Count | 22 | 2 | 0 | 24 |
| | | % within Education level | 91.7% | 8.3% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 6.9% | 3.6% | .0% | 6.0% |
| | | % of Total | 5.5% | .5% | .0% | 6.0% |
| | Certificate / diploma | Count | 31 | 4 | 3 | 38 |
| | | % within Education level | 81.6% | 10.5% | 7.9% | 100.0% |
| | | % within Budget to purchase a single house | 9.7% | 7.3% | 11.5% | 9.5% |
| | | % of Total | 7.8% | 1.0% | .8% | 9.5% |
| | Bachelor's degree | Count | 224 | 36 | 19 | 279 |
| | | % within Education level | 80.3% | 12.9% | 6.8% | 100.0% |
| | | % within Budget to purchase a single house | 70.2% | 65.5% | 73.1% | 69.8% |
| | | % of Total | 56.0% | 9.0% | 4.8% | 69.8% |
| | Master's degree or higher | Count | 42 | 13 | 4 | 59 |
| | | % within Education level | 71.2% | 22.0% | 6.8% | 100.0% |
| | | % within Budget to purchase a single house | 13.2% | 23.6% | 15.4% | 14.8% |
| | | % of Total | 10.5% | 3.3% | 1.0% | 14.8% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Education level | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

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**Occupation * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 - 4.9 million baht | 5 - 6.9 million baht | 7 - 9 million baht | Total |
| Occupation | Government officer | Count | 40 | 4 | 3 | 47 |
| | | % within Occupation | 85.1% | 8.5% | 6.4% | 100.0% |
| | | % within Budget to purchase a single house | 12.5% | 7.3% | 11.5% | 11.8% |
| | | % of Total | 10.0% | 1.0% | .8% | 11.8% |
| | State enterprise employee | Count | 35 | 7 | 0 | 42 |
| | | % within Occupation | 83.3% | 16.7% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 11.0% | 12.7% | .0% | 10.5% |
| | | % of Total | 8.8% | 1.8% | .0% | 10.5% |
| | Private company employee | Count | 174 | 27 | 11 | 212 |
| | | % within Occupation | 82.1% | 12.7% | 5.2% | 100.0% |
| | | % within Budget to purchase a single house | 54.5% | 49.1% | 42.3% | 53.0% |
| | | % of Total | 43.5% | 6.8% | 2.8% | 53.0% |
| | Business owner | Count | 41 | 15 | 12 | 68 |
| | | % within Occupation | 60.3% | 22.1% | 17.6% | 100.0% |
| | | % within Budget to purchase a single house | 12.9% | 27.3% | 46.2% | 17.0% |
| | | % of Total | 10.3% | 3.8% | 3.0% | 17.0% |
| | Others | Count | 29 | 2 | 0 | 31 |
| | | % within Occupation | 93.5% | 6.5% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 9.1% | 3.6% | .0% | 7.8% |
| | | % of Total | 7.3% | .5% | .0% | 7.8% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Occupation | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

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**Household income level * Budget to purchase a single house Crosstabulation**

| | | | Budget to purchase a single house | | | |
|---|---|---|---|---|---|---|
| | | | 3 - 4.9 million baht | 5 - 6.9 million baht | 7 - 9 million baht | Total |
| Household income level | Less than 20,000 baht | Count | 73 | 2 | 0 | 75 |
| | | % within Household income level | 97.3% | 2.7% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 22.9% | 3.6% | .0% | 18.8% |
| | | % of Total | 18.3% | .5% | .0% | 18.8% |
| | 20,000 - 39,999 baht | Count | 119 | 12 | 2 | 133 |
| | | % within Household income level | 89.5% | 9.0% | 1.5% | 100.0% |
| | | % within Budget to purchase a single house | 37.3% | 21.8% | 7.7% | 33.3% |
| | | % of Total | 29.8% | 3.0% | .5% | 33.3% |
| | 40,000 - 59,999 baht | Count | 61 | 11 | 0 | 72 |
| | | % within Household income level | 84.7% | 15.3% | .0% | 100.0% |
| | | % within Budget to purchase a single house | 19.1% | 20.0% | .0% | 18.0% |
| | | % of Total | 15.3% | 2.8% | .0% | 18.0% |
| | 60,000 - 79,999 baht | Count | 36 | 7 | 7 | 50 |
| | | % within Household income level | 72.0% | 14.0% | 14.0% | 100.0% |
| | | % within Budget to purchase a single house | 11.3% | 12.7% | 26.9% | 12.5% |
| | | % of Total | 9.0% | 1.8% | 1.8% | 12.5% |
| | 80,000 - 99,999 baht | Count | 20 | 4 | 2 | 26 |
| | | % within Household income level | 76.9% | 15.4% | 7.7% | 100.0% |
| | | % within Budget to purchase a single house | 6.3% | 7.3% | 7.7% | 6.5% |
| | | % of Total | 5.0% | 1.0% | .5% | 6.5% |
| | 100,000 - 149,999 baht | Count | 7 | 7 | 6 | 20 |
| | | % within Household income level | 35.0% | 35.0% | 30.0% | 100.0% |
| | | % within Budget to purchase a single house | 2.2% | 12.7% | 23.1% | 5.0% |
| | | % of Total | 1.8% | 1.8% | 1.5% | 5.0% |
| | 150,000 - 199,999 baht | Count | 2 | 6 | 2 | 10 |
| | | % within Household income level | 20.0% | 60.0% | 20.0% | 100.0% |
| | | % within Budget to purchase a single house | .6% | 10.9% | 7.7% | 2.5% |
| | | % of Total | .5% | 1.5% | .5% | 2.5% |
| | 200,000 baht or higher | Count | 1 | 6 | 7 | 14 |
| | | % within Household income level | 7.1% | 42.9% | 50.0% | 100.0% |
| | | % within Budget to purchase a single house | .3% | 10.9% | 26.9% | 3.5% |
| | | % of Total | .3% | 1.5% | 1.8% | 3.5% |
| Total | | Count | 319 | 55 | 26 | 400 |
| | | % within Household income level | 79.8% | 13.8% | 6.5% | 100.0% |
| | | % within Budget to purchase a single house | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 79.8% | 13.8% | 6.5% | 100.0% |

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# Descriptives Table of Factors for Consideration to Purchase Single House

**Descriptive Statistics**

| | N | Minimum | Maximum | Sum | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| Project pattern | 400 | 1 | 5 | 1437 | 3.59 | .927 |
| Project size | 400 | 1 | 5 | 1405 | 3.51 | .769 |
| Central area and building | 400 | 1 | 5 | 1479 | 3.70 | .783 |
| Environment | 400 | 1 | 5 | 1723 | 4.31 | .666 |
| House pattern | 400 | 1 | 5 | 1609 | 4.02 | .720 |
| House usable area | 400 | 2 | 5 | 1639 | 4.10 | .707 |
| Material and construction | 400 | 1 | 5 | 1695 | 4.24 | .760 |
| Security | 400 | 1 | 5 | 1735 | 4.34 | .752 |
| Convenience of entrance and exit way | 400 | 1 | 5 | 1681 | 4.20 | .747 |
| Nearness to facilities | 400 | 2 | 5 | 1612 | 4.03 | .791 |
| Surrounding community | 400 | 1 | 5 | 1552 | 3.88 | .859 |
| Flood | 400 | 1 | 5 | 1757 | 4.39 | .886 |
| Nearness to the existing residential area | 400 | 1 | 5 | 1195 | 2.99 | 1.063 |
| Nearness to working area | 400 | 1 | 5 | 1470 | 3.68 | .917 |
| Nearness to children's school | 400 | 1 | 5 | 1403 | 3.51 | .984 |
| Having friends in the project | 400 | 1 | 5 | 1136 | 2.84 | .991 |
| Being able to do other activities | 400 | 1 | 5 | 1311 | 3.28 | .989 |
| Previous project | 400 | 1 | 5 | 1467 | 3.67 | .786 |
| Trust of company | 400 | 1 | 5 | 1643 | 4.11 | .760 |
| Company's name | 400 | 1 | 5 | 1592 | 3.98 | .759 |
| Post sales services | 400 | 1 | 5 | 1673 | 4.18 | .822 |
| Community charge | 400 | 2 | 5 | 1644 | 4.11 | .787 |
| Government support | 400 | 1 | 5 | 1527 | 3.82 | .920 |
| All factors | 400 | 47 | 115 | 35385 | 88.46 | 10.909 |
| Valid N (listwise) | 400 | | | | | |

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# Frequencies Table of Factors for Consideration to Purchase Single House

## Project pattern

**Statistics**

Project pattern

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.59 |
| Std. Error of Mean | | .046 |
| Std. Deviation | | .927 |
| Variance | | .859 |
| Minimum | | 1 |
| Maximum | | 5 |

**Project pattern**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 11 | 2.8 | 2.8 | 2.8 |
| | Not important | 30 | 7.5 | 7.5 | 10.3 |
| | Neutral | 130 | 32.5 | 32.5 | 42.8 |
| | Important | 169 | 42.3 | 42.3 | 85.0 |
| | Very important | 60 | 15.0 | 15.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

## Project size

**Statistics**

Project size

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.51 |
| Std. Error of Mean | | .038 |
| Std. Deviation | | .769 |
| Variance | | .591 |
| Minimum | | 1 |
| Maximum | | 5 |

**Project size**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 4 | 1.0 | 1.0 | 1.0 |
| | Not important | 24 | 6.0 | 6.0 | 7.0 |
| | Neutral | 167 | 41.8 | 41.8 | 48.8 |
| | Important | 173 | 43.3 | 43.3 | 92.0 |
| | Very important | 32 | 8.0 | 8.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Central area and building

**Statistics**

Central area and building

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.70 |
| Std. Error of Mean | | .039 |
| Std. Deviation | | .783 |
| Variance | | .613 |
| Minimum | | 1 |
| Maximum | | 5 |

**Central area and building**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 2 | .5 | .5 | .5 |
| | Not important | 16 | 4.0 | 4.0 | 4.5 |
| | Neutral | 141 | 35.3 | 35.3 | 39.8 |
| | Important | 183 | 45.8 | 45.8 | 85.5 |
| | Very important | 58 | 14.5 | 14.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# Environment

**Statistics**

Environment

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.31 |
| Std. Error of Mean | | .033 |
| Std. Deviation | | .666 |
| Variance | | .444 |
| Minimum | | 1 |
| Maximum | | 5 |

**Environment**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 2 | .5 | .5 | .5 |
| | Not important | 2 | .5 | .5 | 1.0 |
| | Neutral | 28 | 7.0 | 7.0 | 8.0 |
| | Important | 207 | 51.8 | 51.8 | 59.8 |
| | Very important | 161 | 40.3 | 40.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# House pattern

**Statistics**

House pattern

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.02 |
| Std. Error of Mean | | .036 |
| Std. Deviation | | .720 |
| Variance | | .518 |
| Minimum | | 1 |
| Maximum | | 5 |

**House pattern**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 5 | 1.3 | 1.3 | 1.5 |
| | Neutral | 78 | 19.5 | 19.5 | 21.0 |
| | Important | 216 | 54.0 | 54.0 | 75.0 |
| | Very important | 100 | 25.0 | 25.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# House usable area

**Statistics**

House usable area

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.10 |
| Std. Error of Mean | | .035 |
| Std. Deviation | | .707 |
| Variance | | .499 |
| Minimum | | 2 |
| Maximum | | 5 |

**House usable area**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not important | 5 | 1.3 | 1.3 | 1.3 |
| | Neutral | 67 | 16.8 | 16.8 | 18.0 |
| | Important | 212 | 53.0 | 53.0 | 71.0 |
| | Very important | 116 | 29.0 | 29.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Material and construction

**Statistics**

Material and construction

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.24 |
| Std. Error of Mean | | .038 |
| Std. Deviation | | .760 |
| Variance | | .578 |
| Minimum | | 1 |
| Maximum | | 5 |

**Material and construction**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 10 | 2.5 | 2.5 | 2.8 |
| | Neutral | 43 | 10.8 | 10.8 | 13.5 |
| | Important | 185 | 46.3 | 46.3 | 59.8 |
| | Very important | 161 | 40.3 | 40.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# Security

**Statistics**

Security

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.34 |
| Std. Error of Mean | | .038 |
| Std. Deviation | | .752 |
| Variance | | .565 |
| Minimum | | 1 |
| Maximum | | 5 |

**Security**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 4 | 1.0 | 1.0 | 1.3 |
| | Neutral | 50 | 12.5 | 12.5 | 13.8 |
| | Important | 149 | 37.3 | 37.3 | 51.0 |
| | Very important | 196 | 49.0 | 49.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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## Convenience of entrance and exit way

**Statistics**

Convenience of entrance and exit way

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.20 |
| Std. Error of Mean | | .037 |
| Std. Deviation | | .747 |
| Variance | | .558 |
| Minimum | | 1 |
| Maximum | | 5 |

**Convenience of entrance and exit way**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 7 | 1.8 | 1.8 | 2.0 |
| | Neutral | 52 | 13.0 | 13.0 | 15.0 |
| | Important | 190 | 47.5 | 47.5 | 62.5 |
| | Very important | 150 | 37.5 | 37.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

## Nearness to facilities

**Statistics**

Nearness to facilities

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.03 |
| Std. Error of Mean | | .040 |
| Std. Deviation | | .791 |
| Variance | | .626 |
| Minimum | | 2 |
| Maximum | | 5 |

**Nearness to facilities**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not important | 9 | 2.3 | 2.3 | 2.3 |
| | Neutral | 92 | 23.0 | 23.0 | 25.3 |
| | Important | 177 | 44.3 | 44.3 | 69.5 |
| | Very important | 122 | 30.5 | 30.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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St. Gabriel's Library, Au

# Surrounding community

**Statistics**

Surrounding community

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.88 |
| Std. Error of Mean | | .043 |
| Std. Deviation | | .859 |
| Variance | | .737 |
| Minimum | | 1 |
| Maximum | | 5 |

**Surrounding community**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 24 | 6.0 | 6.0 | 6.3 |
| | Neutral | 96 | 24.0 | 24.0 | 30.3 |
| | Important | 180 | 45.0 | 45.0 | 75.3 |
| | Very important | 99 | 24.8 | 24.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# Flood

**Statistics**

Flood

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.39 |
| Std. Error of Mean | | .044 |
| Std. Deviation | | .886 |
| Variance | | .785 |
| Minimum | | 1 |
| Maximum | | 5 |

**Flood**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 5 | 1.3 | 1.3 | 1.3 |
| | Not important | 15 | 3.8 | 3.8 | 5.0 |
| | Neutral | 34 | 8.5 | 8.5 | 13.5 |
| | Important | 110 | 27.5 | 27.5 | 41.0 |
| | Very important | 236 | 59.0 | 59.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Nearness to the existing residential area

**Statistics**

Nearness to the existing residential area

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 2.99 |
| Std. Error of Mean | | .053 |
| Std. Deviation | | 1.063 |
| Variance | | 1.130 |
| Minimum | | 1 |
| Maximum | | 5 |

**Nearness to the existing residential area**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 33 | 8.3 | 8.3 | 8.3 |
| | Not important | 94 | 23.5 | 23.5 | 31.8 |
| | Neutral | 153 | 38.3 | 38.3 | 70.0 |
| | Important | 85 | 21.3 | 21.3 | 91.3 |
| | Very important | 35 | 8.8 | 8.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# Nearness to working area

**Statistics**

Nearness to working area

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.68 |
| Std. Error of Mean | | .046 |
| Std. Deviation | | .917 |
| Variance | | .841 |
| Minimum | | 1 |
| Maximum | | 5 |

**Nearness to working area**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 3 | .8 | .8 | .8 |
| | Not important | 38 | 9.5 | 9.5 | 10.3 |
| | Neutral | 122 | 30.5 | 30.5 | 40.8 |
| | Important | 160 | 40.0 | 40.0 | 80.8 |
| | Very important | 77 | 19.3 | 19.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Nearness to children's school

**Statistics**

Nearness to children's school

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.51 |
| Std. Error of Mean | | .049 |
| Std. Deviation | | .984 |
| Variance | | .967 |
| Minimum | | 1 |
| Maximum | | 5 |

**Nearness to children's school**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 15 | 3.8 | 3.8 | 3.8 |
| | Not important | 40 | 10.0 | 10.0 | 13.8 |
| | Neutral | 130 | 32.5 | 32.5 | 46.3 |
| | Important | 157 | 39.3 | 39.3 | 85.5 |
| | Very important | 58 | 14.5 | 14.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# Having friends in the project

**Statistics**

Having friends in the project

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 2.84 |
| Std. Error of Mean | | .050 |
| Std. Deviation | | .991 |
| Variance | | .982 |
| Minimum | | 1 |
| Maximum | | 5 |

**Having friends in the project**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 39 | 9.8 | 9.8 | 9.8 |
| | Not important | 101 | 25.3 | 25.3 | 35.0 |
| | Neutral | 160 | 40.0 | 40.0 | 75.0 |
| | Important | 85 | 21.3 | 21.3 | 96.3 |
| | Very important | 15 | 3.8 | 3.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Being able to do other activities

**Statistics**

Being able to do other activities

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.28 |
| Std. Error of Mean | | .049 |
| Std. Deviation | | .989 |
| Variance | | .978 |
| Minimum | | 1 |
| Maximum | | 5 |

**Being able to do other activities**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 19 | 4.8 | 4.8 | 4.8 |
| | Not important | 62 | 15.5 | 15.5 | 20.3 |
| | Neutral | 144 | 36.0 | 36.0 | 56.3 |
| | Important | 139 | 34.8 | 34.8 | 91.0 |
| | Very important | 36 | 9.0 | 9.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# Previous project

**Statistics**

Previous project

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.67 |
| Std. Error of Mean | | .039 |
| Std. Deviation | | .786 |
| Variance | | .618 |
| Minimum | | 1 |
| Maximum | | 5 |

**Previous project**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 2 | .5 | .5 | .5 |
| | Not important | 21 | 5.3 | 5.3 | 5.8 |
| | Neutral | 137 | 34.3 | 34.3 | 40.0 |
| | Important | 188 | 47.0 | 47.0 | 87.0 |
| | Very important | 52 | 13.0 | 13.0 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Trust of company

**Statistics**

Trust of company

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.11 |
| Std. Error of Mean | | .038 |
| Std. Deviation | | .760 |
| Variance | | .577 |
| Minimum | | 1 |
| Maximum | | 5 |

**Trust of company**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 6 | 1.5 | 1.5 | 1.8 |
| | Neutral | 72 | 18.0 | 18.0 | 19.8 |
| | Important | 191 | 47.8 | 47.8 | 67.5 |
| | Very important | 130 | 32.5 | 32.5 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# Company's name

**Statistics**

Company's name

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.98 |
| Std. Error of Mean | | .038 |
| Std. Deviation | | .759 |
| Variance | | .576 |
| Minimum | | 1 |
| Maximum | | 5 |

**Company's name**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 9 | 2.3 | 2.3 | 2.5 |
| | Neutral | 86 | 21.5 | 21.5 | 24.0 |
| | Important | 205 | 51.3 | 51.3 | 75.3 |
| | Very important | 99 | 24.8 | 24.8 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Post sales services

**Statistics**

Post sales services

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.18 |
| Std. Error of Mean | | .041 |
| Std. Deviation | | .822 |
| Variance | | .676 |
| Minimum | | 1 |
| Maximum | | 5 |

**Post sales services**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 1 | .3 | .3 | .3 |
| | Not important | 10 | 2.5 | 2.5 | 2.8 |
| | Neutral | 69 | 17.3 | 17.3 | 20.0 |
| | Important | 155 | 38.8 | 38.8 | 58.8 |
| | Very important | 165 | 41.3 | 41.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

# Community charge

**Statistics**

Community charge

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 4.11 |
| Std. Error of Mean | | .039 |
| Std. Deviation | | .787 |
| Variance | | .619 |
| Minimum | | 2 |
| Maximum | | 5 |

**Community charge**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not important | 11 | 2.8 | 2.8 | 2.8 |
| | Neutral | 71 | 17.8 | 17.8 | 20.5 |
| | Important | 181 | 45.3 | 45.3 | 65.8 |
| | Very important | 137 | 34.3 | 34.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Government support

**Statistics**

Government support

| | | |
|---|---|---|
| N | Valid | 400 |
| | Missing | 0 |
| Mean | | 3.82 |
| Std. Error of Mean | | .046 |
| Std. Deviation | | .920 |
| Variance | | .846 |
| Minimum | | 1 |
| Maximum | | 5 |

**Government support**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Not at all important | 6 | 1.5 | 1.5 | 1.5 |
| | Not important | 20 | 5.0 | 5.0 | 6.5 |
| | Neutral | 116 | 29.0 | 29.0 | 35.5 |
| | Important | 157 | 39.3 | 39.3 | 74.8 |
| | Very important | 101 | 25.3 | 25.3 | 100.0 |
| | Total | 400 | 100.0 | 100.0 | |

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# Appendix D

## Hypotheses

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# Oneway

**Descriptives**

Project pattern

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.65 | .902 | .051 | 3.55 | 3.75 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.45 | .997 | .134 | 3.19 | 3.72 | 1 | 5 |
| 7 - 9 million baht | 26 | 3.23 | .992 | .195 | 2.83 | 3.63 | 1 | 5 |
| Total | 400 | 3.59 | .927 | .046 | 3.50 | 3.68 | 1 | 5 |

**ANOVA**

Project pattern

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 5.354 | 2 | 2.677 | 3.152 | .044 |
| Within Groups | 337.224 | 397 | .849 | | |
| Total | 342.578 | 399 | | | |

# Oneway

**Descriptives**

Project size

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.49 | .764 | .043 | 3.40 | 3.57 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.64 | .778 | .105 | 3.43 | 3.85 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.54 | .811 | .159 | 3.21 | 3.87 | 1 | 5 |
| Total | 400 | 3.51 | .769 | .038 | 3.44 | 3.59 | 1 | 5 |

**ANOVA**

Project size

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.037 | 2 | .519 | .876 | .417 |
| Within Groups | 234.900 | 397 | .592 | | |
| Total | 235.937 | 399 | | | |

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# Oneway

**Descriptives**

Central area and building

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.71 | .753 | .042 | 3.62 | 3.79 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.84 | .788 | .106 | 3.62 | 4.05 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.31 | 1.011 | .198 | 2.90 | 3.72 | 1 | 5 |
| Total | 400 | 3.70 | .783 | .039 | 3.62 | 3.77 | 1 | 5 |

**ANOVA**

Central area and building

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 5.031 | 2 | 2.515 | 4.172 | .016 |
| Within Groups | 239.367 | 397 | .603 | | |
| Total | 244.397 | 399 | | | |

# Oneway

**Descriptives**

Environment

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.31 | .646 | .036 | 4.24 | 4.38 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 4.31 | .690 | .093 | 4.12 | 4.50 | 3 | 5 |
| 7 - 9 million baht | 26 | 4.23 | .863 | .169 | 3.88 | 4.58 | 1 | 5 |
| Total | 400 | 4.31 | .666 | .033 | 4.24 | 4.37 | 1 | 5 |

**ANOVA**

Environment

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .165 | 2 | .082 | .185 | .832 |
| Within Groups | 177.013 | 397 | .446 | | |
| Total | 177.178 | 399 | | | |

# Oneway

**Descriptives**

House pattern

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.05 | .718 | .040 | 3.97 | 4.13 | 2 | 5 |
| 5 - 6.9 million baht | 55 | 3.84 | .601 | .081 | 3.67 | 4.00 | 3 | 5 |
| 7 - 9 million baht | 26 | 4.04 | .916 | .180 | 3.67 | 4.41 | 1 | 5 |
| Total | 400 | 4.02 | .720 | .036 | 3.95 | 4.09 | 1 | 5 |

**ANOVA**

House pattern

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 2.215 | 2 | 1.107 | 2.149 | .118 |
| Within Groups | 204.583 | 397 | .515 | | |
| Total | 206.797 | 399 | | | |

# Oneway

**Descriptives**

House usable area

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.12 | .702 | .039 | 4.04 | 4.19 | 2 | 5 |
| 5 - 6.9 million baht | 55 | 4.00 | .694 | .094 | 3.81 | 4.19 | 2 | 5 |
| 7 - 9 million baht | 26 | 4.08 | .796 | .156 | 3.76 | 4.40 | 2 | 5 |
| Total | 400 | 4.10 | .707 | .035 | 4.03 | 4.17 | 2 | 5 |

**ANOVA**

House usable area

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .643 | 2 | .321 | .643 | .526 |
| Within Groups | 198.555 | 397 | .500 | | |
| Total | 199.198 | 399 | | | |

# Oneway

**Descriptives**

Material and construction

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.30 | .724 | .041 | 4.22 | 4.38 | 2 | 5 |
| 5 - 6.9 million baht | 55 | 3.95 | .705 | .095 | 3.75 | 4.14 | 2 | 5 |
| 7 - 9 million baht | 26 | 4.12 | 1.107 | .217 | 3.67 | 4.56 | 1 | 5 |
| Total | 400 | 4.24 | .760 | .038 | 4.16 | 4.31 | 1 | 5 |

**ANOVA**

Material and construction

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 6.239 | 2 | 3.119 | 5.524 | .004 |
| Within Groups | 224.199 | 397 | .565 | | |
| Total | 230.438 | 399 | | | |

# Oneway

**Descriptives**

Security

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.35 | .738 | .041 | 4.27 | 4.44 | 2 | 5 |
| 5 - 6.9 million baht | 55 | 4.31 | .742 | .100 | 4.11 | 4.51 | 3 | 5 |
| 7 - 9 million baht | 26 | 4.19 | .939 | .184 | 3.81 | 4.57 | 1 | 5 |
| Total | 400 | 4.34 | .752 | .038 | 4.26 | 4.41 | 1 | 5 |

**ANOVA**

Security

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .682 | 2 | .341 | .602 | .548 |
| Within Groups | 224.756 | 397 | .566 | | |
| Total | 225.438 | 399 | | | |

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# Oneway

**Descriptives**

Convenience of entrance and exit way

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.27 | .712 | .040 | 4.19 | 4.35 | 2 | 5 |
| 5 - 6.9 million baht | 55 | 3.95 | .705 | .095 | 3.75 | 4.14 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.88 | 1.033 | .202 | 3.47 | 4.30 | 1 | 5 |
| Total | 400 | 4.20 | .747 | .037 | 4.13 | 4.28 | 1 | 5 |

**ANOVA**

Convenience of entrance and exit way

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 7.835 | 2 | 3.917 | 7.241 | .001 |
| Within Groups | 214.763 | 397 | .541 | | |
| Total | 222.598 | 399 | | | |

# Oneway

**Descriptives**

Nearness to facilities

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.09 | .780 | .044 | 4.00 | 4.17 | 2 | 5 |
| 5 - 6.9 million baht | 55 | 3.82 | .748 | .101 | 3.62 | 4.02 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.77 | .908 | .178 | 3.40 | 4.14 | 2 | 5 |
| Total | 400 | 4.03 | .791 | .040 | 3.95 | 4.11 | 2 | 5 |

**ANOVA**

Nearness to facilities

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 5.300 | 2 | 2.650 | 4.306 | .014 |
| Within Groups | 244.340 | 397 | .615 | | |
| Total | 249.640 | 399 | | | |

St. Gabriel's Library, Au

# Oneway

**Descriptives**

Surrounding community

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.89 | .865 | .048 | 3.79 | 3.98 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.95 | .756 | .102 | 3.74 | 4.15 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.65 | .977 | .192 | 3.26 | 4.05 | 2 | 5 |
| Total | 400 | 3.88 | .859 | .043 | 3.80 | 3.96 | 1 | 5 |

**ANOVA**

Surrounding community

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.582 | 2 | .791 | 1.073 | .343 |
| Within Groups | 292.658 | 397 | .737 | | |
| Total | 294.240 | 399 | | | |

# Oneway

**Descriptives**

Flood

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.41 | .878 | .049 | 4.31 | 4.50 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 4.42 | .832 | .112 | 4.19 | 4.64 | 2 | 5 |
| 7 - 9 million baht | 26 | 4.15 | 1.084 | .213 | 3.72 | 4.59 | 2 | 5 |
| Total | 400 | 4.39 | .886 | .044 | 4.31 | 4.48 | 1 | 5 |

**ANOVA**

Flood

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.589 | 2 | .795 | 1.012 | .365 |
| Within Groups | 311.788 | 397 | .785 | | |
| Total | 313.378 | 399 | | | |

# Oneway

**Descriptives**

Nearness to the existing residential area

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.03 | 1.052 | .059 | 2.91 | 3.14 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 2.65 | .985 | .133 | 2.39 | 2.92 | 1 | 4 |
| 7 - 9 million baht | 26 | 3.23 | 1.243 | .244 | 2.73 | 3.73 | 1 | 5 |
| Total | 400 | 2.99 | 1.063 | .053 | 2.88 | 3.09 | 1 | 5 |

**ANOVA**

Nearness to the existing residential area

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 8.086 | 2 | 4.043 | 3.625 | .028 |
| Within Groups | 442.851 | 397 | 1.115 | | |
| Total | 450.937 | 399 | | | |

# Oneway

**Descriptives**

Nearness to working area

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.74 | .926 | .052 | 3.64 | 3.84 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.38 | .805 | .109 | 3.16 | 3.60 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.46 | .905 | .177 | 3.10 | 3.83 | 2 | 5 |
| Total | 400 | 3.68 | .917 | .046 | 3.58 | 3.77 | 1 | 5 |

**ANOVA**

Nearness to working area

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 7.385 | 2 | 3.693 | 4.464 | .012 |
| Within Groups | 328.365 | 397 | .827 | | |
| Total | 335.750 | 399 | | | |

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# Oneway

**Descriptives**

Nearness to children's school

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.54 | .986 | .055 | 3.43 | 3.65 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.38 | 1.009 | .136 | 3.11 | 3.65 | 1 | 5 |
| 7 - 9 million baht | 26 | 3.35 | .892 | .175 | 2.99 | 3.71 | 1 | 5 |
| Total | 400 | 3.51 | .984 | .049 | 3.41 | 3.60 | 1 | 5 |

**ANOVA**

Nearness to children's school

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.932 | 2 | .966 | .999 | .369 |
| Within Groups | 384.045 | 397 | .967 | | |
| Total | 385.978 | 399 | | | |

# Oneway

**Descriptives**

Having friend in the project

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 2.87 | .982 | .055 | 2.76 | 2.98 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 2.76 | .922 | .124 | 2.51 | 3.01 | 1 | 5 |
| 7 - 9 million baht | 26 | 2.65 | 1.231 | .241 | 2.16 | 3.15 | 1 | 5 |
| Total | 400 | 2.84 | .991 | .050 | 2.74 | 2.94 | 1 | 5 |

**ANOVA**

Having friend in the project

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 1.478 | 2 | .739 | .752 | .472 |
| Within Groups | 390.282 | 397 | .983 | | |
| Total | 391.760 | 399 | | | |

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# Oneway

**Descriptives**

Being able to do other activities

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.27 | .982 | .055 | 3.16 | 3.37 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.36 | 1.043 | .141 | 3.08 | 3.65 | 1 | 5 |
| 7 - 9 million baht | 26 | 3.23 | .992 | .195 | 2.83 | 3.63 | 1 | 5 |
| Total | 400 | 3.28 | .989 | .049 | 3.18 | 3.37 | 1 | 5 |

**ANOVA**

Being able to do other activities

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .504 | 2 | .252 | .257 | .774 |
| Within Groups | 389.694 | 397 | .982 | | |
| Total | 390.197 | 399 | | | |

# Oneway

**Descriptives**

Previous project

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.71 | .776 | .043 | 3.63 | 3.80 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.51 | .814 | .110 | 3.29 | 3.73 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.46 | .811 | .159 | 3.13 | 3.79 | 2 | 5 |
| Total | 400 | 3.67 | .786 | .039 | 3.59 | 3.74 | 1 | 5 |

**ANOVA**

Previous project

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.103 | 2 | 1.552 | 2.528 | .081 |
| Within Groups | 243.674 | 397 | .614 | | |
| Total | 246.778 | 399 | | | |

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# Oneway

**Descriptives**

Trust of company

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.15 | .746 | .042 | 4.07 | 4.23 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.96 | .719 | .097 | 3.77 | 4.16 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.88 | .952 | .187 | 3.50 | 4.27 | 2 | 5 |
| Total | 400 | 4.11 | .760 | .038 | 4.03 | 4.18 | 1 | 5 |

**ANOVA**

Trust of company

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.019 | 2 | 1.509 | 2.636 | .073 |
| Within Groups | 227.359 | 397 | .573 | | |
| Total | 230.378 | 399 | | | |

# Oneway

**Descriptives**

Company's name

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.03 | .741 | .042 | 3.95 | 4.11 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.78 | .809 | .109 | 3.56 | 4.00 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.81 | .801 | .157 | 3.48 | 4.13 | 2 | 5 |
| Total | 400 | 3.98 | .759 | .038 | 3.91 | 4.05 | 1 | 5 |

**ANOVA**

Company's name

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.674 | 2 | 1.837 | 3.224 | .041 |
| Within Groups | 226.166 | 397 | .570 | | |
| Total | 229.840 | 399 | | | |

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# Oneway

**Descriptives**

Post sales services

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.22 | .818 | .046 | 4.13 | 4.31 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 4.11 | .786 | .106 | 3.90 | 4.32 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.88 | .909 | .178 | 3.52 | 4.25 | 2 | 5 |
| Total | 400 | 4.18 | .822 | .041 | 4.10 | 4.26 | 1 | 5 |

**ANOVA**

Post sales services

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.039 | 2 | 1.519 | 2.262 | .105 |
| Within Groups | 266.639 | 397 | .672 | | |
| Total | 269.678 | 399 | | | |

# Oneway

**Descriptives**

Community charge

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 4.16 | .749 | .042 | 4.07 | 4.24 | 2 | 5 |
| 5 - 6.9 million baht | 55 | 3.95 | .891 | .120 | 3.70 | 4.19 | 2 | 5 |
| 7 - 9 million baht | 26 | 3.88 | .952 | .187 | 3.50 | 4.27 | 2 | 5 |
| Total | 400 | 4.11 | .787 | .039 | 4.03 | 4.19 | 2 | 5 |

**ANOVA**

Community charge

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3.507 | 2 | 1.753 | 2.857 | .059 |
| Within Groups | 243.653 | 397 | .614 | | |
| Total | 247.160 | 399 | | | |

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**Descriptives**

Government support

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 3 - 4.9 million baht | 319 | 3.87 | .898 | .050 | 3.77 | 3.97 | 1 | 5 |
| 5 - 6.9 million baht | 55 | 3.58 | .917 | .124 | 3.33 | 3.83 | 1 | 5 |
| 7 - 9 million baht | 26 | 3.69 | 1.123 | .220 | 3.24 | 4.15 | 1 | 5 |
| Total | 400 | 3.82 | .920 | .046 | 3.73 | 3.91 | 1 | 5 |

**ANOVA**

Government support

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 4.287 | 2 | 2.144 | 2.552 | .079 |
| Within Groups | 333.390 | 397 | .840 | | |
| Total | 337.677 | 399 | | | |

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C.7

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## Assumption University

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Signed.....

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Date: --25/11/05----------

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