CUSTOMER'S ATTITUDE AND AWARNESS OF FOOD WASTE DISPOSAL MACHINE

by

Mr. Chai Chaovawanich

A Final Report of the Three - Credit Course
CE 6998 Project

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science
in Computer and Engineering Management
Assumption University

November 2000

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Project Title	Customer's Attitude and Awareness of Food Waste Disposal Machine
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Academic Year	November 2000

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ABSTRACT

This research has been conducted in relation with the customer perception on new product. The core study is to find out what factor or factors relate to consumer's opinion in order to make them perceive the food waste disposal machine. Thus, the research was conducted to analyze the right Marketing Strategy serving the customer's attitude toward the product and find the method to create customers' awareness.We have stated the managerial problem as the customers' attitude and awareness of food waste disposal machine in accordance with new product acceptance. Along with this managerial problem, research problems are to identify the attitude, which concerns about the environment, convenience and health and make the right strategy toward the customers' awareness in food waste disposal machine, which is new product acceptance.

We have used survey technique and distributed 400 questionnaires to individuals person in selected places at shopping Malls in Bangkok. Then, non-probability-sampling design was used since the particular members of population are unknown. This research uses correlation method, which is the method that collect data in order to determine whether, and to what degree, a relationship exists between two or more variables.

From the hypotheses and the research conducted, the outcome reveals that hypothesis # 1 & 2 reject the Null, which means that a set of customers' attitude and awareness have positive relationship to new product acceptance. For the academic and management purpose, this research may help to support the instant literature about the new product acceptance of food waste disposal machine, which is related to environment, health, convenience and customers' awareness.

ACKNOWLEDGEMENTS

I am indebted to the following people and organizations. Without them, this project would not have been possible.I wish to express sincere gratitude to my advisor and committee member, Asst.Prof.Dr. Boonmark Sirinaovakul. His assistance, guidance, and constant encouragement had led me from the research inception to the research completion. I would like to thank Ms. Kittiporn Kiatsuranon for giving me information. Special appreciation is due to my family for their fervent and continuous encouragement. Above all am forever grateful to my parents whose willingness to invest in my future has enabled me to achieve my educational goal.

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I. INTRODUCTION

1.1 Introduction

Historically, health and safety have been the major concerns in waste management. Waste must be managed in a way that minimizes risk to human health. Today, society demands more than this; besides being safe, waste management also need .to look at its wider effects on the environment. Environmental concerns about the management and disposal of waste can be divided into two major areas : conservative of resources and pollution of the environment. Waste is an inevitable product of society managing this waste more effectively is a need that society has to address. The environment objective is to reduce the amount of waste generated and manage the waste in an environmentally sustainable way, by minimizing the overall environmental impacts associate with the waste management system.

The concept of waste as a by-product of human activity and the current environment concerns over waste disposal are discussed. Physically, it contains the same materials as are found in useful product. It only differs from useful production by its lack of value. During the twentieth century, the creation of new technology production increased rapidly. A new product development should be well defined product concept prior to development, in which the product is carefully defined and assessed to the target market. Before proceeding to create successful new product, a company must understand its consumers, market, and competitors and develop products that deliver superior value to customers. And a new product must meet growing social and government constraints such as consumer safety and ecological standards. The cost of finding, developing, and launching new product will rise steadily due to rising manufacturing, media, and distribution costs.

But to know the market, the first thing that a company should know is customer's attitude and awareness to product. Attitudes put people into a frame of mind of liking or disliking things, of moving toward or away from them. The product would fit well into customer existing attitude. And the product market should know how to reach consumers behaviors. The customer may hold such attitudes and awareness as "Buy the best product."

1.2 Statement of Problems

We should know "how to make food Waste Disposal product accepted by the customers". Moreover, we also "identify the effect of consumer's awareness toward the product acceptance"

Regarding the statement of problems, In this research has provided the acknowledge about the customer's attitude toward the products; those are: environments, convenience and health and concern. From our analysis, we can conclude that the customers' attitude has positive relationship with the product acceptance.

1.3 Objectives of the Study

(1) To find the right Marketing Strategy serving the customers' attitude toward the product

(2) To find the method to create Customers' awareness of product.

(3) To find the attitude and awareness of people that relate to the food waste disposal, which concerns environment, health and convenience.

1.4 Scope

(1) The willingness and ability of new product responsible for preparing and conducting new product to participate in this study and respond accurately within limited time framework.

(2) The study attempts only to examine the customer attitude an awareness of

new product.

3. The study concentrates only on the assessment of the attitude and awareness of customer in market.

4. The study will focus on the customer behavior in attitude an awareness but not on sub stage or each stage of customer behavior.

5. The study concentrates only on customer attitude an awareness in Bangkok.

In sampling design, the target population is people whose aged between 25-50 years old. Among them are either male or female all of them are Thai people who receive income 10,000 bahts per month up. The shopping mall in Bangkok Selected shopping Mall in Bangkok: Central Department Store, The Mall Department Store, SEACON Square are selected as the place for carrying outs the sampling. Without sampling flam and non-probability sampling. It was carried out on 2-8 August 2000, during 3.00-8.00 pm

Data collection method, we apply the convenience sampling method for data collection. We will go to the selected department Store on Bangkok during the specific period and launch the questionnaire to the people that we accidentally meet and willing to give us the information. And use by data collection method SPSS version 9.

1.5 Deliverables

This Research is designed to identify the customers' attitude and the customers' awareness toward the new product being launched to the market. The product is "Food Waste Disposal". The importance of study is decided for:

The major concern information for strategic planning. This research provides the acknowledgement about customer's attitude on the "Food Waste Disposal". The knowledge will enable to develop appropriate marketing plan for marketing Food Waste Disposal in the market.

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II. LITERATURE REVIEW

This chapter is divided into two main sections. The first section is about the issues surrounding the supporting literature. The second section explains application of relevant theories. it includes attitude and awareness of customer. This section is followed by another section that describes importance of attitude and awareness that note on the conceptual framework prepared on the basis of insight gained from first 2 sections to apply this framework on the customer's attitude and awareness of food Waste disposal.

2.1 Issues Surrounding the Supporting Literature

Journals

New trend business environment focuses on one of industry's contribution to safeguarding the environment: the use and production of environment information. Access to such responsibility for the environment. The objective of the paper is to assess how far public regulation, private and self-regulation provide an incentive to industry to use and produce environment information (Andrea Ross, Environmental Planning and Management , 1997). So it makes to many firms make the choice to protect or enhance the natural environment as they go about their business activities. And this paper focuses on the several models have been advanced to explain why people engage in wellness behavior. (J.L. MURROW, Improving Marketing Strategies for Wellness, 1997)

(1) The Health Belief Model (HBM) base on the drive toward exuberant well being

(2) The Health-promotion behavior is based on social cognitive theory in which cognition, affect, and environmental events interactively determine

behavior.

(3) Wellness Behavior Model (WBM) proposed both a desire for exuberant well-being and perceived threat as predictive variables with health-seeking behavior as criterion variables.

And marketing opportunity, it focuses on advance technology and helps to feed consumer's need for information about products and services.

Consumer's ratings of competitors on key success factors, using customer awareness as one factor to rate competitor is the key to success in the new product acceptant This topic refers what a supplier can do to ensure the success of its new products. Estimating competitors' reaction pattern, it has found that the leading success factor is a unique superior product (e.g., higher quality, new features, higher value in use, etc.) and its must to do an accordance the consumer adoption process describes how potential customers learn about new products, try them, and adopt or reject them.

Theory

"Product Development Strategies"

It is to reach the customer in the market of product. A marketing development strategy concentrates on finding new markets for existing products and make a high efficiency.

2.2 Application of Relevant Theories

(1) Attitude

Attitude of customers toward the product can be classified into three dimensions

(a) Environment

The 1990s is the age of the green consumers who concern about the deteriorating environment and are willing to take action to save environment, including sacrificing personal consumption. From the research' (Sheth et al.year:107-112) in the USA, the profile of green consumers by demographic, the typical green consumer is a women who is likely to be 39-49 years of age; who has children aged six years or older; is educated, affluent, politically liberal; is nutrition conscious; and lives in northeast, west, or Midwest suburb.

This environmental issue is concerned in global rapidly by the green consumers around the world. Moreover, compared to non green consumer, green consumers are also willing to pay more for green products, and willing to make the extra effort to find green products. Promotional and distribution factors were the most significant predictors of consumers' green buying behavior, taking precedence over the role of attitudinal and belief factors.

Food waste disposal has the benefits of saving water environment in the part that waste can be spun into pieces and can be easily digested by the microorganism in the water. Thus, attitude of customers, especially these green consumers, is really significant for the marketers to adjust their marketing strategies to match consumers' conscious. For instance, using marketing to mix in such a way as to make green products convenient to purchase, and providing educational communication to mold consumers' attitudinal beliefs.

(b) Health care

Lifestyle and current health status, future health states, and mortality have been empirically demonstrated over the past few decades. People engage in wellness behavior neither in the threat or fear of illness or in the desire for feeling good. The empirical research states that Health Belief Model (HBM) (a prevention-oriented model

With threat or fear arousal as the primary motivator of health behavior) and the Health Promotion Model (HPM) (based on the drive toward exuberant well being) are involved in the health-related behavior. Furthermore, the Wellness Behavior Model (WBM) proposes both a desire for exuberant well being and perceived threat as predictive variables of age, income, education, and gender have a direct impact on the exercise, stress management, nutrition, health responsibility, and social support.

Since people desire and tend to seek way to obtain good health, the sink serves this point by disposing the waste cleanly without interfering by the cockroach or mouse. A marketer should take the benefit of this concept by capturing attitude of customers toward their health and drive them the motivation of individuals to perform health-seeking behaviors and then by the product.

(c) Convenience

Compared to past decades, consumers are busier, are older, and have more money to spend. They want products and ways to buy them that provide maximum convenience' and service. People in town are always rusting because they have to work and compete to others

all the times, which makes their lifestyles change. Therefore, they like an accessory that they make them save their time and can be operated easily. This sink can dispose the waste that they do not need to distinct the waste while they do dish. It lets the housework easier, faster and more convenient.

(2) Awareness

Once the need has been recognized, customers search for information about various alternative ways for obvious recognition. The company uses the promotion, which is the tool for customer's awareness toward our products

The promotional tools have their own unique characteristics and costs. These can be classified in 4 types.

(a) Advertising

Advertising is one of the most common tools that companies use to direct persuasive communications to target buyers and publics. We define advertising as any paid form of non personal presentation and promotion of ideas, goods, and services by an identified sponsor. Organizations handled their advertising in different ways. In small companies, advertising is handled by someone in the sales or marketing department, who works with an advertising agency. A large company will often set up its own advertising department to develop the total budget; help develop advertising strategy; approve ads and campaign and other forms of advertising agency not ordinarily performed by the agency. In developing an advertising program, the

company has to always start by identifying the target market and buyer motives. The major advertising media along with costs, advantages, and limitations.

Advertising can be used to build up a long- term image for a product and trigger quick sales. Advertising is an efficient way to reach numerous geographically dispersed buyers at a low cost per exposure. Moreover, advertising can build awareness building that prospect who are not aware of the company or product might refuse to see the sales representative. Advertising can be introduction to the company and its products.

(b) Sales Promotion

Sales promotion is a key ingredient in marketing campaigns . Sales promotion consists of a diverse collection of incentive tools, mostly short term, designed to stimulate quicker and/or greater purchase of particular products/services by consumers or the trade. Where advertising offers a reason to buy, sales promotion offers an incentive to buy. Sales promotion includes tools for:

(1) Consumer promotion (samples, coupons, cash refund offers, price off,premiums, prizes, patronage rewards, free trials, warranties, tie-in promotions, cross-promotions, point —of-purchase displays, and demonstrations)

(2) Trade promotion (price off, advertising and display allowances ,and free goods.

(3) Business and sales force promotion (trade shows and conventions, contests for sales reps, and specialty advertising.

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Many sales-promotion tools are available. The promotion planner should take account of the type of markets, sales-promotion objective, competitive conditions, and each tool's cost effectiveness. The company should use sales-promotion tools to create a stronger and quicker response. Sales-promotion can be used to dramatize product offers and to boost sagging sales. Sales-promotion effects are usually short-run, however, and not effective in building long-run brand preference.

(c) Public Relation

Public relation is an important marketing tool. Not only must the company relate constructively to its customers, suppliers, and dealers, but it must also relate to a large set of interest publics. We define a public relation as any group that has an actual or potential interest in or impact on a company's ability to achieve its objective. Public Relation s (PR) involves a variety of programs designed to promote and/or protect a company's image or its individual products.

Most companies operate the public relations department to plan these relations. The PR department monitors the attitudes of the organization's publics and distributes information and communications to build goodwill. When negative publicity breaks out, the PR department acts as a trouble —shooter. The best PR department spends time counseling top management to adopt positive program and to eliminate questionable practices so that negative publicity does not arise in the first place.

Public Relations (PR) involves a variety of programs designed to promote and/or protect a company's image or its individual products. Many companies today use marketing public relation (MPR) to support their marketing departments in corporate/product promotion and image making. MPR can potentially impact public awareness at a fraction of the cost of advertising, and is often much more credible. The main tools of PR are publications, events, news, speeches, public-service activities, and identity media.

(d) Sales Force

Sales personnel serve as the company's personal link to customers. The sales representative is sent to many of its customers, and it is the sales rep who brings back to the company much-need information about the customer. As companies compete harder to get more customers, they are increasingly judging their sales reps on their ability to create satisfaction and company profits.

Companies compete with other companies to get orders from customers. They must therefore deploy their sales force strategically so that calls on the right customers at the right time and in the right way. Sales representative works with customer in several ways.

(1) Sales representative to buyer: A sales representative discuss as issue with a prospective or customer in person or over the phone

(2) Sales representative to buyer group: A sales representative gets to know as many members of the buyer group as possible.

(3) Sales team to buyer group: A company sales team work closely with members of the customer's buying group.

(4) Conference selling: The sales representatives bring company resource people to discuss a major problem or opportunity.

(5) Seminar selling: A company team conducts an educational seminar for the customer company about state-of-the-art development

If the company sells one product line to one end-using industry with customers in many locations, the company would use a territorial sales force structure.

The heart of successful sales forces is the selection of effective sales representative. The sales force initially draws the buyers into the discussion in a way that reveals the buyer's need and attitudes. Then the salesperson moves into a formulated presentation that shows how the product will satisfy the buyers' need. Moreover the company has to focus as much on managing its customers as on managing its products and at the same time the company must judge which segments and which specific customers will respond profitably to relationship management.

New products are the lifeblood of any organization. Few products remain economically viable for extended periods. So a firm must periodically add new ones to assure continued prosperity. Some new products may result from major technological break through; others simply extend current product lines.

2.3 Product Development Strategies

A firm's product development strategy depends on its existing product mix, the match between current offerings and overall marketing objectives, and the current market positions of products early in their life cycles.

Table 2.1. Alternative Product Development Strategies.

	Old product	New product
Old market	Market penetration	Product development
New market	Market development	Product diversification

Stages in New-product Development

The most successful new products are significant innovations that deliver unique benefits. Getting a new product market involves an orderly process of overlapping stage. Throughout this effort, teamwork among experts across visional boundaries often allow firm to strengthen its new-product development process.

Table 2.2. Process for Developing New Goods and Services.

Step 4	Commercialization
Step 3	Prototype or service process development and testing
Step 2	Concept development and business analysis
Step 1	New-product idea generation and screening

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III. CONCEPTUAL FRAMEWORK

This conceptual framework includes information on two important dimensions and they are critical factors of customer's attitude, awareness (independent variables) and new product acceptant (dependent variables)

Critical factor of customer's attitude affecting all of following:

Factor 1: Refer to environment of social.

Factor 2: Refer to health care of people in social.

Factor 3: Refer to convenient of people in daily.

Critical factor of customer's awareness

Factorl : Advertising is the most common tools market use to direct persuasive communications to target buyers and publics.

Factor 2: Sales Promotion is designed to stimulate quicker and or greater purchase of particular products/services by consumers in short term.

Factor 3: Public Relation is any group that has an actual or potential interested to build good view of product.

Factor 4: Sales Force sales personnel serve as the household's product link to customer.

3.1 Conceptual Framework

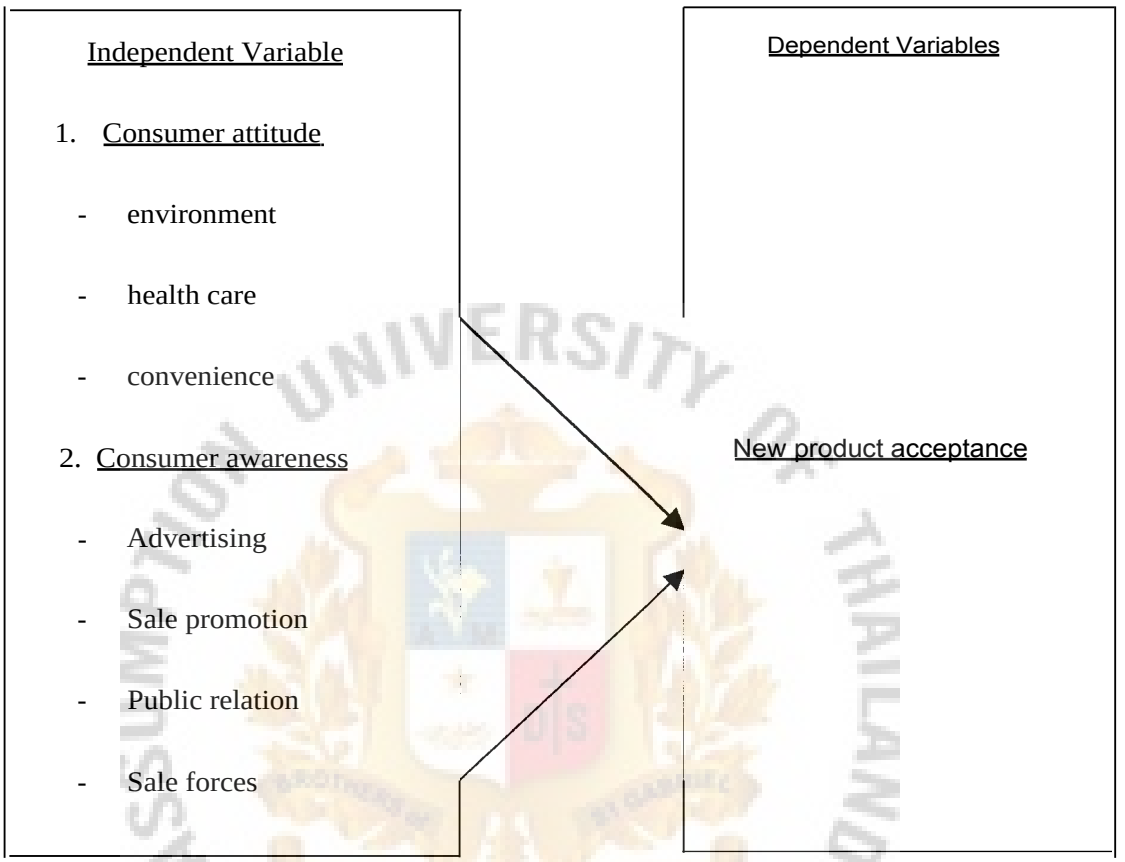

Figure 3.1. Conceptual Framework

3.2 Independent and Dependent Variables

According to the framework, this research set 2 hypothesises to test the relationship between 2 independent variables and 1 dependent variable. The independent variables in our research are Customers' attitude and Customers' awareness while the only dependent variable is Product Acceptance. As the result of the scale bivariate correlation analysis is exploit, the hypothesises are set in the statistical testable form, which the null and the alternate are presented.

Research Hypotheses (statement of hypotheses)

Based on the conceptual framework presented earlier, the hypotheses are necessary to be constructed to test the relationship between dependent variable and independent variable to see the validity of the assumption. This will explore how each independent variable is associated with the dependent variable, and in which direction.

Customer's Attitude

H10: There is negative / no relationship between customers' attitude and product acceptance

$H1_a$: There is positive relationship between customers' attitude and product acceptance

This hypothesis is set to test the relationship between a set of customers' attitude and product acceptance.

Awareness's Attitude

$H2_0$: There is negative / no relationship between customers' awareness and product acceptance

$H2_a$: There is positive relationship between customers' awareness and product acceptance

This hypothesis is set to test the relationship between customers' awareness and product acceptance.

3.3 Hypothesis

Null and Alternate hypotheses

Null hypotheses

(1) Customer's attitude is not positive related to new product acceptance when consumer has the attitude that concerns about environment, health and convenience.

(2) Customer's awareness will not be positively related to new product acceptance when consumer can make the customer perceives that consumer's product is differentiate.

Alternate hypotheses

(1) Customer's attitude is positive related to new product acceptance when consumer has the attitude that concerns about environment, health and convenience.

(2) Customer's awareness will be positively related to new product acceptance when consumer can make the customer perceives that consumer's product is differentiated.

Statistical Notation and Test statistics of all the conjectured hypothesis

Hypothesis 1: "Customer's attitude is positive related to new product acceptance when consumer has the attitude that concerns about environment, health and convenience."

Measure of Association

Statistical Notation HO : p 0 --> No or Negative relationship

Ha : p > 0 -+ Positive relationship

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(between attitude and product acceptance)

Level of Significant = 95% ; oc = 0.05%

Test statistic : Correlation

$$r_{xy} \quad \frac{E\,(x_i - x)\,(y_i - y)}{(x_i - \text{VI}\,(y_i}$$

Hypothesis 2: "Customer's awareness will be positively related to new product acceptance when consumer can make the customer perceives that consumer's product is differentiate."

Measure of Association

Statistical Notation HO : p 0 No or Negative relationship

Ha : p > 0 Positive relationship

(between awareness and product acceptance)

Level of Significant = 95% ; oc = 0.05%

Test statistic : "Correlation"

$$r_{xy} \quad \frac{(x_i - x)\,(y_i\ y)}{(x_i -)0^2\ E\,(y_i - y)^2}$$

3.4 Concepts and Variables Operationalisation

Table 3.1. Concepts and Variables Operationalisation.

Conceptual Label	Definition of Concept	Activities Component	Level of Measurement
Attitude	A lasting general evaluation of people, object, advertisements or issues	- Environment - Health Concern - Convenience	Ordinal Scale
Awareness	The need of Customers' recognized or customers aware	Promotion - Advertising - Sales Promotion - Public Relation - Sales Force	Nominal Scale

IV. RESEARCH METHODOLOGY

4.1 Techniques

Survey Research

Type of Investigation:	Non-casual
Purpose of study:	Hypothesis testing
Extent of researcher interference:	Partial interference to objects
Study setting:	Non-contrived
Unit of the analysis:	Individuals
Time horizon of study	Cross-sectional

The type of investigation is non-casual because we want to understand the respondents' characteristic. The purpose of our research study is hypothesis testing because we want to use the characteristic of sample to explain the population characteristic about the customer' attitude, customer's awareness and appropriate distribution channel appealing to the customers. We apply partial interference in our research design because we will let the respondent answer the question by him or herself but if they have any doubt we can explain them in more detail. Our research study is non-contrived due to collecting information of the respondents in the real situation, which is uncontrollable. The unit of analysis is individual, as we want to understand individual's attitude, awareness and preferred distribution channel. The analysis of individuals' information can lead to the population which refers to our company's target groups and then we can create the strategic by using its. We use cross-sectional in order to understand the customer's attitude at the single of time when we are going to market the product to the customers.

We use self-administrative questionnaire because our questions are easy to

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answer. It can save time and cost in collecting data from the respondents. It can also reduce the bias that occurs with respondents such as acquiescence bias, social desirability bias and interview bias.

In survey method we use personal interview to know attitude of customers toward our product as mentioned in the objective.

Objectives:

(1) To find the right market strategy serving the customer's attitude toward the product

(2) To find method to create customer's awareness

(3) To find appropriate distribution channel that offer convenience to customers

The advantage of survey is fast data collection speed. Another advantage of personal interview is we can probe the respondents to clarify the questions about the product. Since our product is new to the market, we have to give more infolination to the respondent. This type of survey can also reduce non-response errors because we can ask the respondent to fill in unanswered questions.

4.2 Methods

Related data collection begins with survey in the market. The nature of this primary data collection is based on active data collection, which involves the questionnaire respondent.

The initial goal of this study is to describe the major characteristics of customer's attitude and customer's awareness and best on some previous understanding are constitute as descriptive research. Further this survey used questionnaire to describe the result of the study by collecting a sample of testing.

4.3 Data Collection Method

We apply the convenience sampling method for data collection. We will go to the selected department Store on Bangkok during the specific period and launch the questionnaire to the people that we accidentally meet and willing to give us the information.

Method of collection: the primary data collection is obtained from the units of analysis in the study by way of written questionnaire. Using scale to measure the magnitude of the variables.

4.4 Sampling Design

In sampling design is designate critical activities in the selection of sample as the population under this study is defined as the based in Bangkok area the target population is people whose aged between 25-50 years old. Among them are either male or female all of them are Thai people who receive income 10,000 bahts per month up. The shopping mall in Bangkok Selected shopping Mall in Bangkok: Central Department Store, The Mall Department Store, SEACON Square are selected as the place for carrying outs the sampling. Without sampling frame and non-probability sampling. It was carried out on 2-8 August 2000, during 3.00-8.00 p.m.

4.5 Determining Sample Size

This study examines the non-probability sampling design because the respondent's chance of being included in the sample is unknown. According to the infinite population, the techniques for determining sample size of statistical inference are based on the relationship among the estimated proportion of customer, the maximum allowance for error between the true proportion and sample proportion, and the confidence level which indicates the long-run probability that the confidence

interval estimate will be correct. Thus, the formula is:

$$\frac{Z^2pq}{E^2}$$

Where;

n – Sample size

p – Population proportion that has the required characteristics

- (1-q) estimated proportion of the non-customer to overall population

E^2 = Allowed errors between the true and sample population

Z^2 = Square of the confidence level in standard error units

Confidence Level

We will apply the 95% confidence level so that the maximum allowance for error between the true and sample proportion is 5% or 0.05.

Standardized Normal Distribution

A probability distribution that reflects a specific normal curve for the standardized value, Z score, in accordance with the specific confidence level is 1.96.

Estimated Proportion of Customer

As we do not have the characteristics of the population, we divide the proportion of population equally. The result of p is equal to 0.5 and then q is equal to 0.5.

Substitution these values into the formula,

$$\frac{(1.96)^2(0.5)(0.5)}{(0.05)^2}$$

384 or about 400 respondents.

Therefore, the sample size for this research is 400 units.

4.6 Data Analysis Technique

The data will be analyzed and summarized in a readable and easily interpretable form. The Statistical Package for the social Sciences (SPSS) version 9 will be utilized to summarized the data where needed.

Descriptive statistic aim to describe and summarize the data that are collected in the survey. The statistical procedures. Reliability is measured by the consistency and stability of the questionnaire result. Frequency and percentage tables are most common form of data description in the questionnaire. More importantly, the sample percentages used directly as an estimate of the percentages of the total population that indicate each alternative response.

All statistical interpretations of the data will follow commonly accepted research practices. The form of data presentation from these procedures would again be presented in an easily interpreted format. The computer to ensure accuracy and to minimize costs will perform all statistical procedures. It indicates the strength of relationship between two ordinal variables: the measurements ranked for each variable and difference scores calculated.

V. PRESENTATION OF DATA AND CRITICAL DISCUSSION OF RESULTS

5.1 Data Analysis

The result of the research can be interpreted by using each sampling unit to collect the data. From each tabulation below, we can summarize the result in order to provide a clear picture of the target consumers (population) and to see what their attitudes and awareness towards the subject of this research are.

5.2 Frequency Analysis

According to the question (Do you agree with Garbage Reducing Campaign?), the result can be shown that most of the target consumers strongly agree with this campaign. Some of them agree whereas just only a few of them are likely not to agree. This can be claimed that most of the target population being asked to answer the questionnaire may have some problems about how to get rid of the garbage, especially in their community, living places etc. Some of them are probably trying to find alternative or effective way to dispose it. Coincidentally, this campaign is introduced to them, then, they may think that this campaign can more or less help them to solve their problems of garbage disposal.

The question is asked to see whether the target consumers actually have the problem with in-house garbage or not. More than 50% of them do have these problems while almost half of them do not. By analyzing this result, it can be proposed that although 48% of them do not have in house garbage problem, they are still likely to agree with this campaign. They might see the problem of garbage disposal as an important problem of the community or society, not just only an individual problem. Almost all of them, therefore, agree and even strongly agree with the campaign. They

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may think that this campaign may help them (society or community) to solve this problem.

For the target population of how they solve the garbage problem. As the data collected, most of them dispose the garbage by putting in a bag (made of paper or plastic etc.) This might be the most popular way of disposing the garbage. Since not many of them solve this problem by using other methods, for instance, putting in the sink, using waste disposer etc. It seems to be easy and convenient way to put the garbage in the bags because the government provides the service to the people to dispose the garbage if it is put in the bags. The people just only put their bags (which are filled with garbage), in front of the house every morning and the officials will come to take those bags by themselves. Furthermore it would cost a lot of money if they dispose the garbage by putting in the sink or wing the waste disposer. They have to pay more money to buy some specific machine. Therefore, by putting the garbage in a bag appears to be better way and helps to save more money for the target consumers.

The result of survey tends to lead the target population to concern more about the health of their family. The majority of them appear to strongly agree and also agree that in-house garbage can have an effect on their family members. Sometimes we can say that garbage can cause the pollution in an environment, since its bad smell can make people feel irritated and annoyed. This may affect the people's health and also their ability to do anything, particularly the ones who live in that bad environment for a long time or even just a period of time.

Many of people have already known that the garbage can more or less cause pollution no matter how it is disposed. Since there are some people who tend to get rid of the garbage by putting in the sink, then will ask the target population whether they

think that this garbage disposal method can cause a problem to a sink and a problem of water pollution or not. The result shows that 99% of them think that by putting the garbage in the sink can cause the sink problem and water pollution. Here, it could be claimed that this method is likely not to be a good way of disposing the garbage.

In the sixth question, the question is asked to lead the target population to focus more on the product related to the Garbage Reducing Campaign. This product is called "Food Waste Disposer". From the data collected, most of the target people (337 out of 400) do not know what it is, only 5.8% (23 persons) of them know. This might be claimed that this product is relatively new to the target population. Somehow, this product is still not available in the general market place. So, they have never known or seen this product before.

Later on, we have supposed that there is a Waste Disposer available in the market right now and also want to know how their opinion towards this product is. Then the target population is asked to give their opinion whether they agree or not that this product can give more convenience in doing housework. Just a few of them appear to disagree while many of them tend to exactly agree and relatively agree (neutral) that this product may be helpful. The people who disagree that this product may not give any more convenience probably do not exactly know what it is. Moreover, they may have never used it before. So, they choose to answer "Disagree" in this question. Since most of the target group do not know about this product well, some of them choose to answer "Neutral" instead of "Agree". They seems to be unsure that this product can be greatly helpful but they probably think that it can be somehow more helpful than the old way of disposing garbage, like putting in a bag.

Linking to the preceding question, we want to find the target population's opinion

if the In-house Waste Disposer can give more convenience in disposing the waste. Similar to the result of the last question, the majoring of the target people (78.3%) seem to agree (also strongly agree) that this product is helpful. Only a few people still disagree to the usefulness of this product. Apparently, we can see the result of research being collected from the question No. 8, to show the customer agree for used the waste disposal that give them more convenience indisposing the waste.

Up to this point, the target people (consumers) are asked to give opinion about the price of this product. They have to select the range of the price that they feel like it is most appropriate. More than 87% of them think that the price of the Waste Disposer should not be more than 9,000 Bahts (6,001 — 9,000 Bahts). These people appear not to value this product as very expensive goods. It may be claimed that if the price of this product is rather high, the target people may not use it since there are some other ways to dispose garbage, which is relatively cheaper.

For the customer think about the waste disposer is divided into 3 sub-questions. All of these tend to focus mainly on the usefulness of the product, Waste Disposer itself. In the first, the target population are asked to state their opinion of how they think that this product can actually / conveniently dispose the waste. More than 365 out of 400 strongly agree and agree that this product conveniently dispose the waste. Next, they also have to give another opinion of how they feel that this product can reduce their waste. The results of these two sub questions appear to be congruent since the number (frequency) of target people being asked who agree and strongly agree are the same. In the last sub-question, the target consumers also give their opinion of whether the Waste Disposer can reduce disease vehicles or not. Just only a few of them appear not to agree (and neutral) that it can help decrease disease vehicles. Probably these people still do

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agree and strongly agree that this product can be convenient for them to reduce the garbage are also correspond to the number of them who believe that this product can help reduce the disease vehicles.

Later, the question is changed from asking the target group about the product to asking about the source of information instead. In other words, the target people have to answer about the place or source where they usually get the information about the household products. The target population will be given 5 choices of the source of information: Friend, Television, Radio, Newspaper and Magazine. In each choice, they have to rank the number (1 — 5) according to its importance. For instance, if they think that radio is the most important source of information, they have to write number "1" on the space given. Conversely, they have to put number "5" if they feel that this source of information is least important for getting information about the household product. The data shows more than 50% of target people view that "Friend" is the least important. Few people they know the information about the household from their friends. Television appears to be the most important source of information since more than 70% of the target people put number "1" for the TV and 13.8% to number "2", 5.5% to number "3" respectively. Almost like the result of Television, Radio as one of media appears not to be the very important source of information of the household products. However, they can still more or less get this kind of information from radio sometimes. In the fourth alternative, "Newspaper", the majority of people seem not to see it as most important or neutral important source of information. They think that newspaper is relatively less important source for getting the information of household products. There are only 126 persons (out of 400 persons), view the newspaper as the most or very important source. Finally, we also put "Magazine" as the last choices of the source of

information. The result shows that a few of people see the magazine as the least important or even less important source than friend. They could probably get a lot of information needed from the newspaper since the manufacturer or seller of the household products tend to have more space available in the newspaper than in the magazine in order to put their advertisement.

To ask the target people about the places where they usually buy the household products: Superstore, Department Store, Traditional market, from catalog and internet. Like in the question number 2, they have to rank the number 1 to 5 on each choice of buying place according to its importance. The majority of the target group seems to rank the superstore with number 1, 2, and 3. This means that the superstore is also not a very important place to buy this kind of goods. Since more than 90 percent of people asked place number 1 and 2 to at the department store. Most people now a day usually by household product at department store which provide several product and convenience to customers. Furthermore, traditional market is also not a very popular place to buy the household products. In this category, 222 persons out of 400 place number 3 to this choice. It means that they do not see the traditional market place as very important on unimportant place for supplying the goods used in the house. In contrast to the three market places above, a few of target people are likely to buy the household products from catalog and internet. Particularly on internet, 85% of them put number 5 to show that internet is the least important place for purchasing goods. Since at this time, internet appears to be the very convenient and easy way to buy things. The purchasers are not necessary to go out to buy anything, they just click on the computer to order the goods that they went. From the result of this question, it should be stated that "Internet" is the most important place where the target population usually buys the household

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products. But it not true in an internet is the last important place when analysis from the data survey in real situation.

5.3 Personal Data Analysis

After carrying out this research, the personal data can be concluded that:

(1) The majority of target people asked are female (62.3%) whereas not more than 38% of them are male. It can be claimed that female population seems to be more concerned about the problem of disposing garbage than the males do. They are also more interested in any new product that can more or less help them to solve this problem. In conclusion, the female population tends to have more awareness towards this product "Waste Disposer" than male population.

(2) More than 50 % of people who answer the questionnaire are between 25-34 years old. As new generation people, they seem to relatively highly concentrate on the problem of pollution caused by garbage. In addition, some of them are less than 25 and some are 35-44 years old. Just only 5.5 % of them are more than 45 years old. It means that almost all of the target people who answer this questionnaire are not the people in the old generation. They appear to use alternative way of purchasing product such as on internet from a catalog that are different from the old people did in the past for example buying at the traditional market etc.

(3) Since most of the target people appear to be single, they may live alone or live with their parents. However, in the case that they live alone, it is very necessary for them to find the easiest way to get rid of the waste / garbage, since this might cause many problems to them and they have to take time to

solve this problem. Therefore, the use of this product can probably keep them in some way.

(4) The occupation of the majority of the target population is a private officer. Sometimes they are rather busy and do not have enough time to do the housework by themselves. The garbage problem, as one of the household problem, can be solved by the use of new product to be launched in the market. In addition, it seems to be possible for them to afford this product since we can see from the research that most of the target people have the income more than 10,000 bahts per month. Moreover, some of them also have an income more than 250,000 bahts per month. So, it is not too hard for them to buy the Waste Disposer if it can help or give them any convenience in doing the housework.

(5) Lastly, since up to 72.5% of target consumers live in a single house (Town (house), it is very crucial for them to prevent to pollution caused by garbage, because Since this problem has an effect not only on their family members and them but also on other people in a community. Therefore, it seems to be not surprising if most of them are interested in this campaign.

5.4 Cross -Tabulation Analysis

By analyzing the result of each questionnaire together with the personal data being collected, it can be stated that:

(1) Female people tend to agree with the Garbage Reducing Campaign since most of them are the ones who take care and do housework. They appear to have some problem of reducing the garbage. So, they may be glad this campaign being launched.

(2) Both types of people who have or do not have the problem with in-house garbage do solve the problem or get rid of the garbage mainly by putting in the bag. There are just a few of them do solve the problem by putting in a sink or using waste disposer. It can be claimed that to put the garbage in a bag is the most popular way and easy way to get rid of the in-house garbage.

(3) As women tend to be more concerned about health's awareness, they think that in-house garbage can have an effect on health of their family members. More than 66% of them strongly agree to this point whereas men appear not to have a strong agreement to that problem. They probably have lower level of health awareness than women do.

(4) Most of the target population does not know whether there is any waste disposer in the market or not. Nevertheless, they still agree that this product can more or less give them convenience in doing their housework. Therefore, more than 63% of them give strong agreement to this idea.

(5) As mentioned before, the majority of people in this research have relatively high income, they seem to be able to afford any device if it can facilitate their housework. However, the reasonable price of the Waste Disposer should be about 6,001 — 9,000 Bahts. It means that if the price is higher than this rate, the consumers may not buy it since there are still alternative ways of disposing the garbage for them to use. Particularly, some of these methods are rather cheaper.

(6) By seeing their opinion that the in-house garbage can cause health problem to family members together with their status, it can be concluded that the people who are widow or divorced couple tend not to concern about this

problem that much. Conversely, the married couples or some single people who probably live with their parents or other people seem to concern more. They care not only their own health but also their family members' health.

From every result of this research, it can be defined that the majority of target people who answer the questionnaire seem to have the problem in disposing garbage. They, especially the females , are more concerned about this problem. In addition, both males and females also think that the in-house garbage can have an effect on their family members. They will be glad if there is any new product to be launched in the market to help them to solve this problem. Since their income appears to be relatively high, they can actually purchase this new product. However, it should not cost more than 10,000 Baht. In addition, the seller or manufacturer should also provide other new way of buying such as internet for them because most of them see that buying goods from internet is very important and convenient way.

5.5 Testing Hypothesis

In summary of the research, the descriptive statistic is divided into two parts as follows:

(1) The characteristic of the respondents

Since our research focuses on the household product (Food Waste Disposer), we collected some useful characteristics of the respondents who are people in Bangkok, our target populations.

(2) Independent and Dependent Variables

The followings are the hypothesis testing results.

The Characteristic of the Respondents

There are two questions for the two useful information toward the respondents'

characteristic. They play as the categorical variables that have been used to analyze the Food Waste Disposer prospective. The variables are as follows:

(1) The accommodation of the respondents. We classified the respondents into 3 categories; those are:

(a) House / Townhouse

(b) Commercial Building

(c) Condominium

Customer's Attitude

H10: There is negative / no relationship between customers' attitude and product acceptance

$H1_a$: There is positive relationship between customers' attitude and product acceptance

These hypothesises are set to test the relationship between a set of customers' attitude and product acceptance.

Customer's Awarenes

H20: There is negative / no relationship between customers' awareness and product acceptance

$H2_a$: There is positive relationship between customers' awareness and product acceptance.

These hypothesises are set to test the relationship between a set of customers' awareness and product acceptance.

VI. SUMMARY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This research is conducted for the purpose of finding out the consumer's attitude, awareness of food waste disposal machine in accordance with new product acceptance in the market. The highlight aspects of the study showed both of the hypotheses that are needed to do the test by using the SPSS program. All hypotheses are tested systematically under the condition of measure of association between the consumer attitude and consumer awareness as two independent variables and product acceptance as dependent variable.

6.2 Summary

Highlight Aspects of the Study

The research shows both of the hypothesises that are needed to do the test by using the SPSS program. All hypothesises are tested systematically under the condition of measure of association between the two big independent variables and product acceptance. The test results can be summarized as follow :

Table 6.1. Highlight Summary.

			Correlation		Signif -icant Value
Hypothesis	Ind Var	Dep Var	Kendall's tau _b	Spearman' s rho	
H 1	Attitude	Product Acceptance	0.277	0.299	.000
H 2	Awareness		0.103	0.105	.018

This table can clearly explain further that the consumer attitude toward the food waste disposal as shown in the research provides positive relationship with the product acceptance. It means that the more positive attitude the consumers have the more possibility of the product acceptance by the consumers will grow. Further, it can explain in the same way that with consumer awareness toward the food waste disposal as shown in this research it provides positive relationship with the product acceptance. It means that the more the positive awareness of the consumer, there is the higher possibility of the product acceptance by the consumers will grow.

From the above result, it clearly shows that the consumer are highly aware of and accept the food waste disposal machine more easily if the product can help the consumer protect the environment. As food waste disposal has the benefits of saving water environment in the part that waste can be spun into pieces that can be easily digested by the microorganism in the water. Thus, attitude of consumer, especially that of these green consumer, is really significant for the marketers to adjust their marketing strategies to match consumer's conscious, for instance, using marketing mix in such a way as to make green product convenient to purchase.

6.3 Recommendations and Implications

As this research conducted on the consumer attitude of food waste disposal machine, it could be useful for marketing sources in every company that concerns environment's product. It showed that if the product can protect the environment better, it has high possibility to accept the new product in the new market.

As the analyses shows, the results are able to achieve all factors we mentioned against the objective — as this research could help the marketing plan for the company to achieve the success of product launching in the market. The researcher highly recommended that since consumer desired and tended to seek way to obtain good health from the environment, it has high possibility of the product success in the market. For instance, the sink serves the point by disposing the waste cleanly without being interfered by the cockroach or mouse. A marketer should take the benefit of this concept by capturing attitude of consumer toward their health and drive them the motivation of individuals to perform health seeking behaviors and then by the product. In addition, people engage in wellness behavior neither in the threat or fear of illness or the desire for feeling good is also the important point that the marketer for the food waste disposal company to bring out these need be the selling point of the product. The another important aspects are the consumers also want to buy what provides maximum conveniences and services. For example, people in town are always rusting because they have to work and compete with others all the times and that makes their lifestyles changed. Therefore, they like an accessory that makes them save their time and can be operated easily. This sink can dispose the waste that they do not need to distinct the waste while they do the washing. It can set the housework done more easily, faster and more conveniently.

Therefore, this research could mention the behavior of the consumer by seeing their attitude, awareness toward the new product acceptance. And it shows the highly possible success for the company who could provide the product that concerns about the environment and suits the consumer's need. As a result, it can help the marketer of these types of companies point out the trend of the consumer in the future and lead the company to market their product and set the appropriate marketing strategies which can provide maximum satisfaction and create positive consumer attitude in the future.

6.4 Academic Contribution

As the research is the systematic approach to find out the problem and to achieve the objective, the following are the recommendation that will help the researcher who are interested in finding the factors that associate to consumer attitude about the food waste disposal product.

(1) Clearly pinpoint what our research problem is and what objectives we want to achieve.

(2) Determine dependent and independent variables clearly and support the variables from previous study done.

(3) Set question to test dependent and independent variable by using the same data level for both variables.

(4) Separate the questionnaire to test the consumer's attitude, consumer's awareness

APPENDIX A

DEFINITION TERMS AND QUESTIONARE

Exhibit 1:

DEFINITION TERMS (From Oxford Advanced Learner's dictionary)

Convenience:	The quality of being convenient or suitable; freedom from trouble or difficulty
	Arrangement applicable or device that is useful, helpful or suitable
Environment:	Natural condition, eg. land, air and water, in which we live
Health:	Condition of a person's body or mind
	State of being well and free from illness
Acceptance:	Favorable reception; approval
Accept:	Treat (somebody/something) as welcome

Exhibit 2: Questionnaire

QUESTIONNAIRE

1. Do you agree with Garbage Reducing Campaign?

❑ Strongly agree ❑ Agree ❑ Neutral Ej Disagree ❑ Strongly disagree

2. Do you have the problem with in-house garbage?

❑ Yes ❑ No

3. How do you solve the garbage problem?

❑ Put in the bag ❑ Put it in the sink ❑ Use food waste disposer ❑ Others _____

4. Do you think that in-house garbage have the effect on your family's health?

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree 0 Strongly disagree

5. Do you think that putting the garbage in the sink is the source of sink problem and water pollution or not?

❑ Yes ❑ No

6. Do you know that there is Food waste Disposer in the Market?

❑ Yes ❑ No (please specified)

7. If there is a Waste Disposer available in the market, do you agree that it will give you more convenience in doing your housework?

❑ Agree ❑ Neutral ❑ Disagree

8. What is your opinion if there is an in-house Waste Disposer that gives you more convenience in disposing the waste?

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

9. What is the suitable price for Waste Disposer?

t_:] 6001-9000 ❑ 9001-12000 ❑ 12001-15000

10. Do you think about the the Waste Disposer that

10.1 What is your opinion for Waste Disposer that conveniently dispose the waste

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

10.2 What is your opinion for Waste Disposer that can reduce your waste?

❑ Strongly agree (D Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

10.3 What is your opinion for Waste Disposer that reduces disease vehicles?

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

11.From where do you usually get info about household products? (Please rank from most important (1) to least important (5))

❑ Friend ❑ TV ❑ Radio Newsoper MagEine

12. From where do you usually buy household products?

D Super store ❑ Department Store o Traditional market ❑ Catalog ❑ Internet

Personal Information

Gender	0 Male	O female	
Age	0 below 25 yrs	❑ 25-34 yrs	❑ 35-44 yrs.
Status	❑ Single	0 Married	0 Widow
No. of family		person	
Occupation	0 Government Officer	0 State Enterprise	0 Private Officer
	❑ Personal Business	❑ Student	o Unemployed
Income	El Below 10,000	O10,000-24,999	O25,000-39,999 Omore than 40,000
Accommodation	0 Single house/Townhouse	O Commercial Building	0 Codomedium

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APPENDIX B

RELIABILITY ANALYSIS OF CUSTOMER'S ATTITUDE AND AWARENESS

Exhibit 3:

Reliability Analysis of Customers' Attitude

RELIABILITY ANALYSIS - SCALE (ALPHA)

	Mean	Std Dev.	Cases
Q4_RECOD	1.9900	.0996	400.0
Q7_RECOD	1.9575	.2020	400.0
Q^5	1.9900	.0996	400.0

Covariance Matrix

	Q4_RECOD	Q7_RECOD	Q^5
Q4_RECOD	.0099		
Q7_RECOD	.0071	.0408	
Q^5	.0099	.0071	.0099

Correlation Matrix

	Q4 RECOD	Q7 RECOD	Q^5
Q4_RECOD	1.0000		
Q7_RECOD	.3525	1.0000	
Q^5	1.0000	.3525	1.0000

N of Cases = 400.0

Statistics for	Mean	Variance	Std Dev	Variables
Scale	5.9375	.1089	.3299	3

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Item Means	Mean	Minimum	Maximum	Range	Max/Min	Variance
	1.9792	1.9575	1.9900	.0325	1.0166	.0004

Item Variances	Mean	Minimum	Maximum	Range	Max/Min	Variance
	.0202	.0099	.0408	.0309	4.1105	.0003

Inter-item Covariances	Mean	Minimum	Maximum	Range	Max/Min	Variance
	.0080	.0071	.0099	.0028	1.3993	.0000

Inter-item Correlations	Mean	Minimum	Maximum	Range	Max/Min	Variance
	.5683	.3525	1.0000	.6475	2.8370	.1118

Reliability Coefficients 3 items Alpha = .6644

Standardized item alpha = .7980

APPENDIX C

DESCRIPTIVE STATISTICS

Exhibit 4: Descriptive statistic

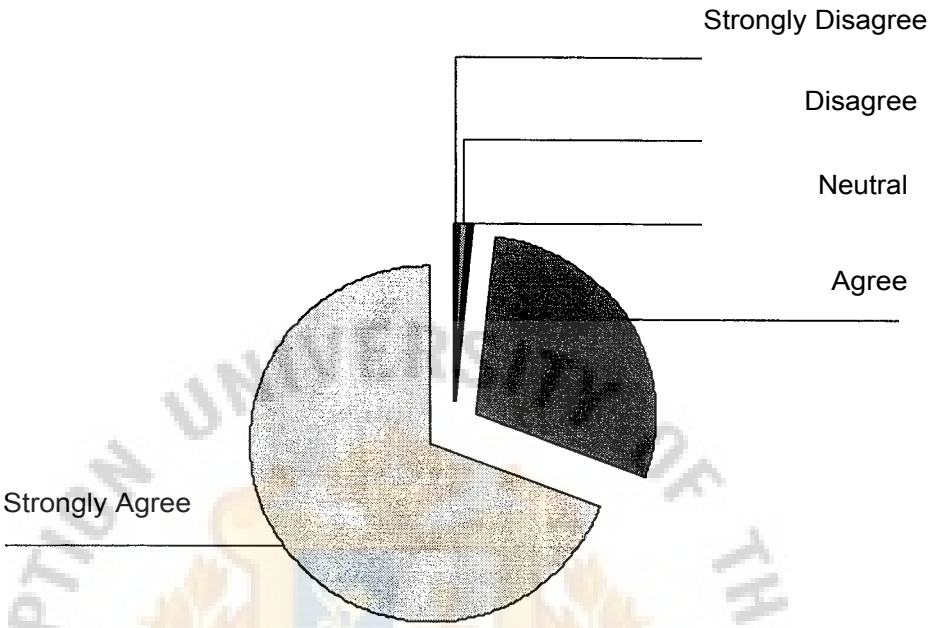

Figure C.1. Do You Agree with Garbage Reducing Campaign?

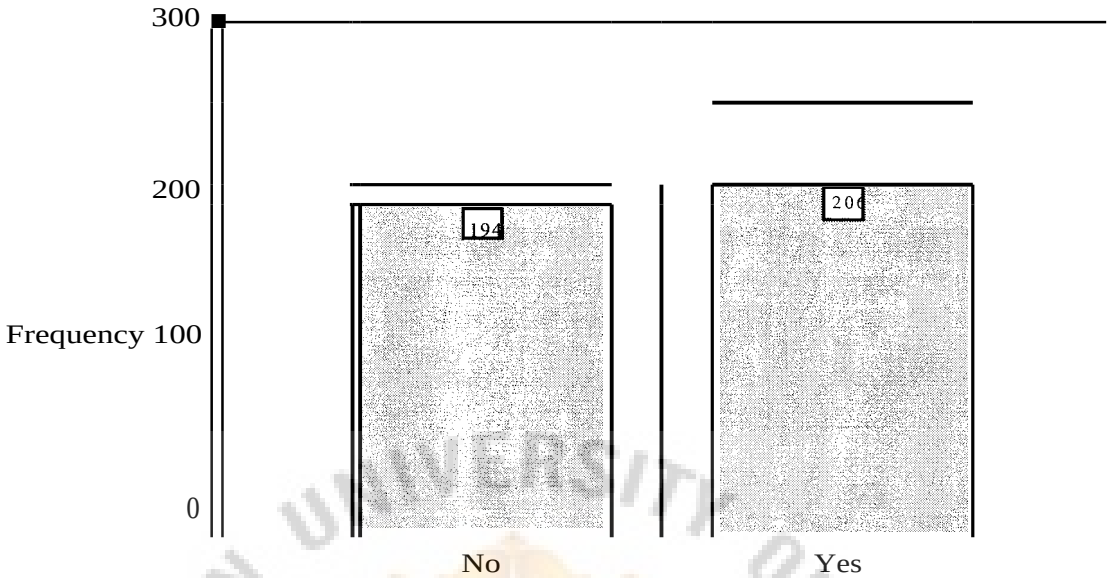

Figure C.2. Do You Have the Problem with In-house Garbage?

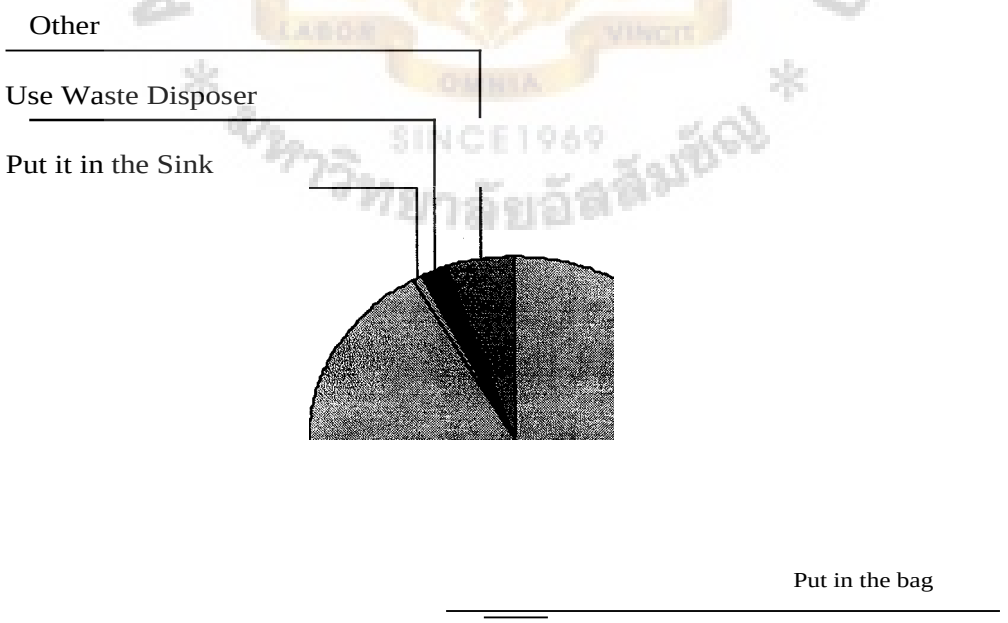

Figure C.3. How Do You Solve the Garbage Problem?

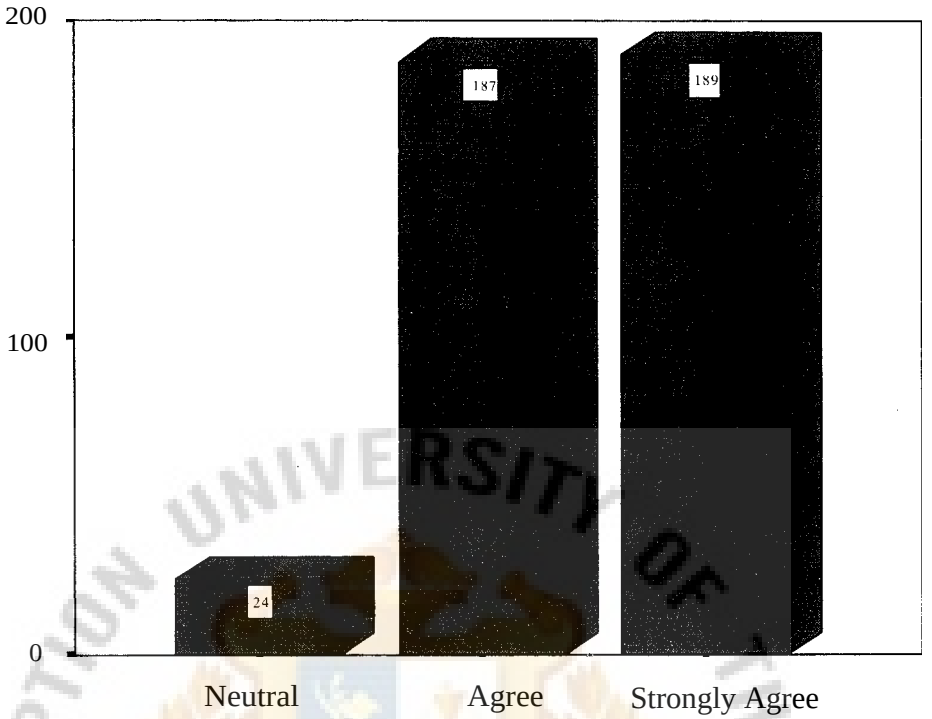

Figure C.4. Do You Think That In-house Garbage Has an Effect on Your Family's Health?

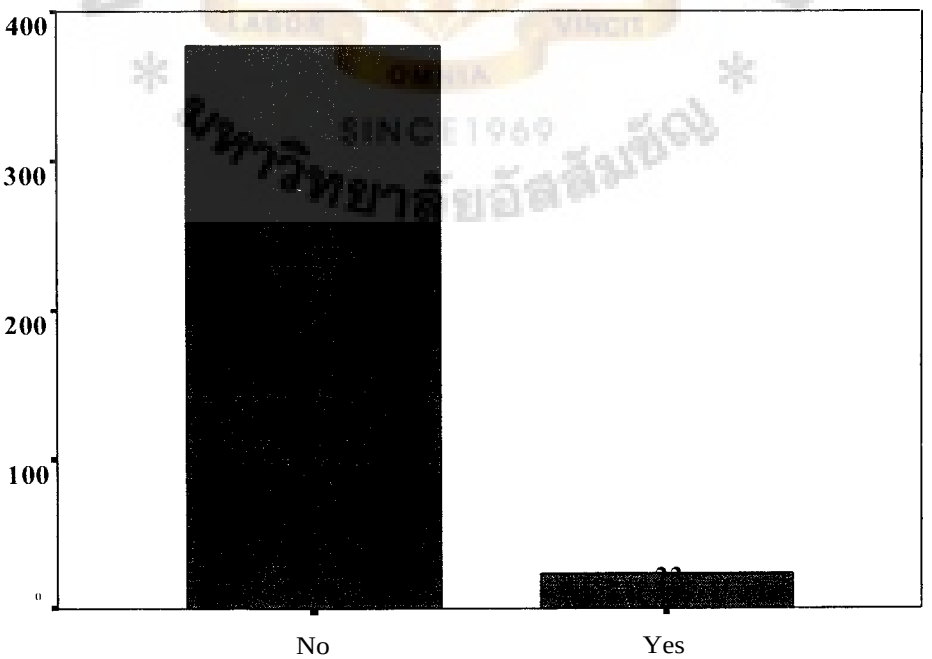

Figure C.5. Do You Know That There Is Food Waste Disposer in the Market?

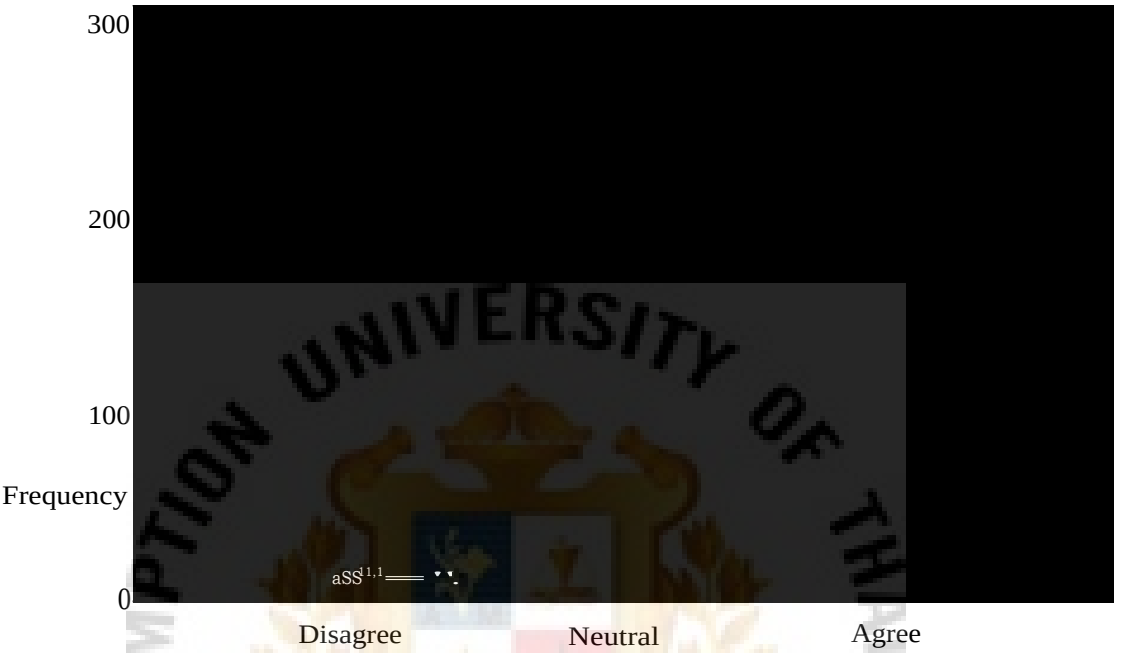

Figure C.6. If There Is a Waste Disposer Available in the Market, Do You Agree That It will Give You More Convenience in Doing Your House.

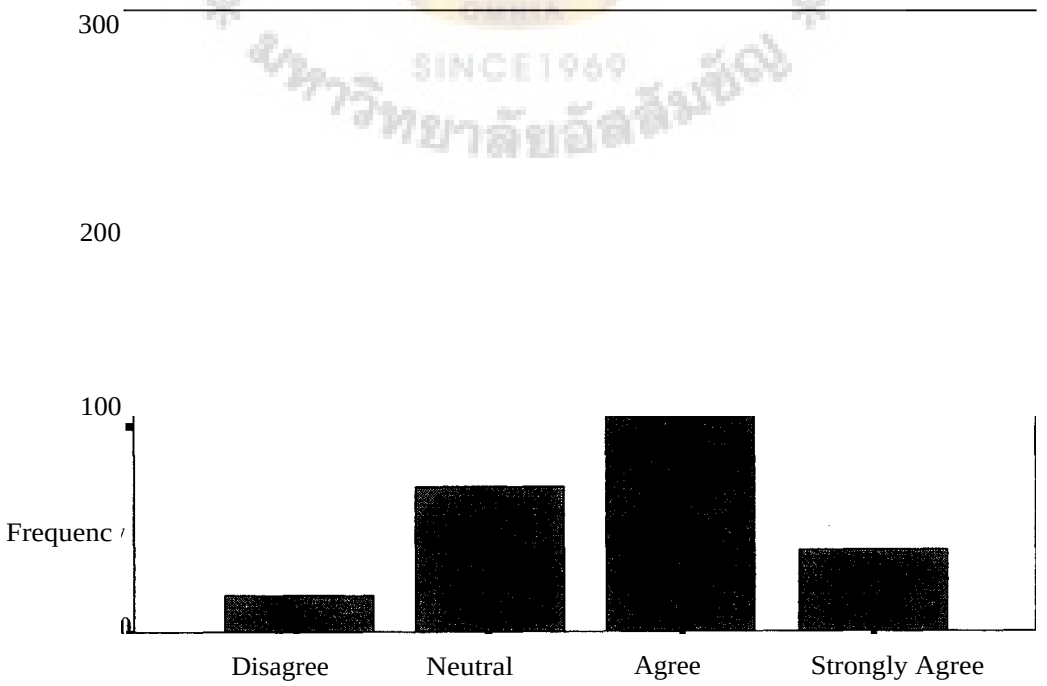

Figure C.7. What Is Your Opinion That Gives You More Convenience.

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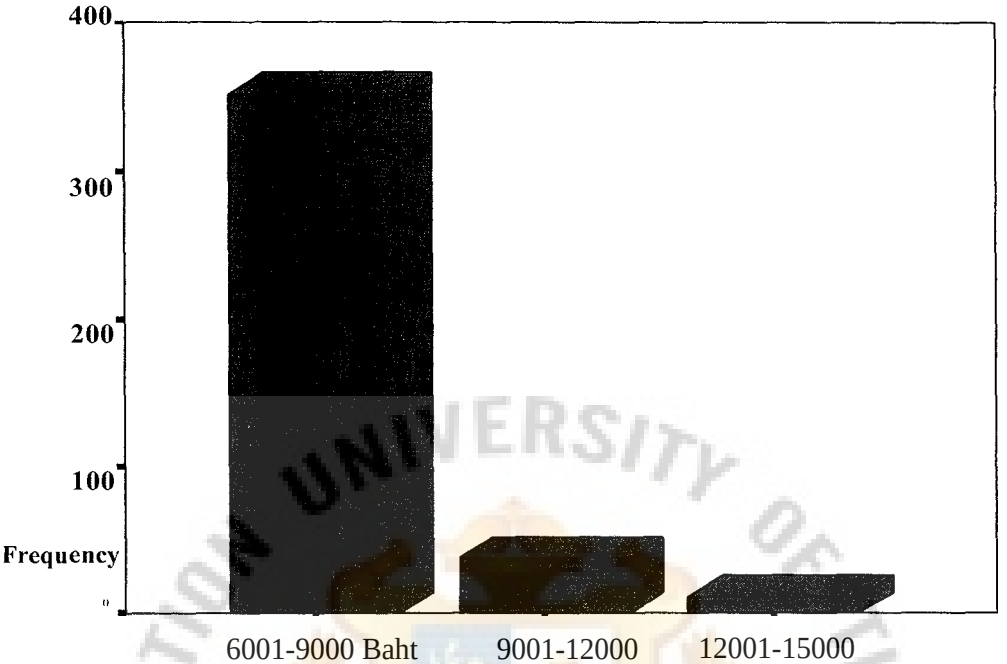

Figure C.8. What Is the Suitable Price for Waste Disposer?

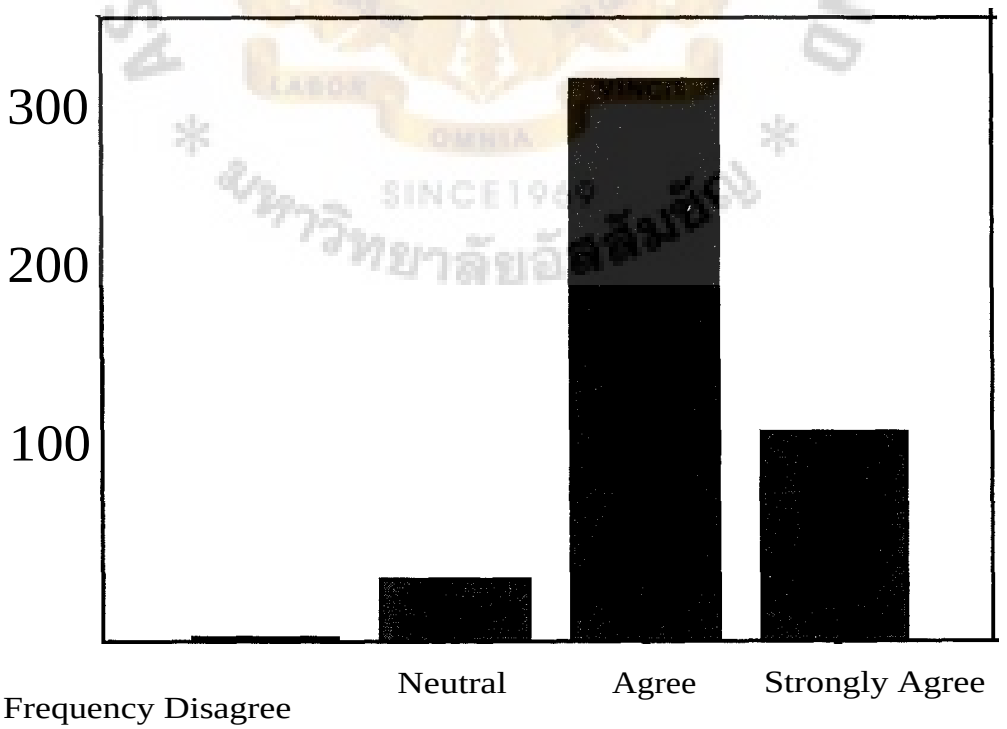

Figure C.9. What Is Your Opinion for Waste Disposer That Conveniently Dispose the Waste?

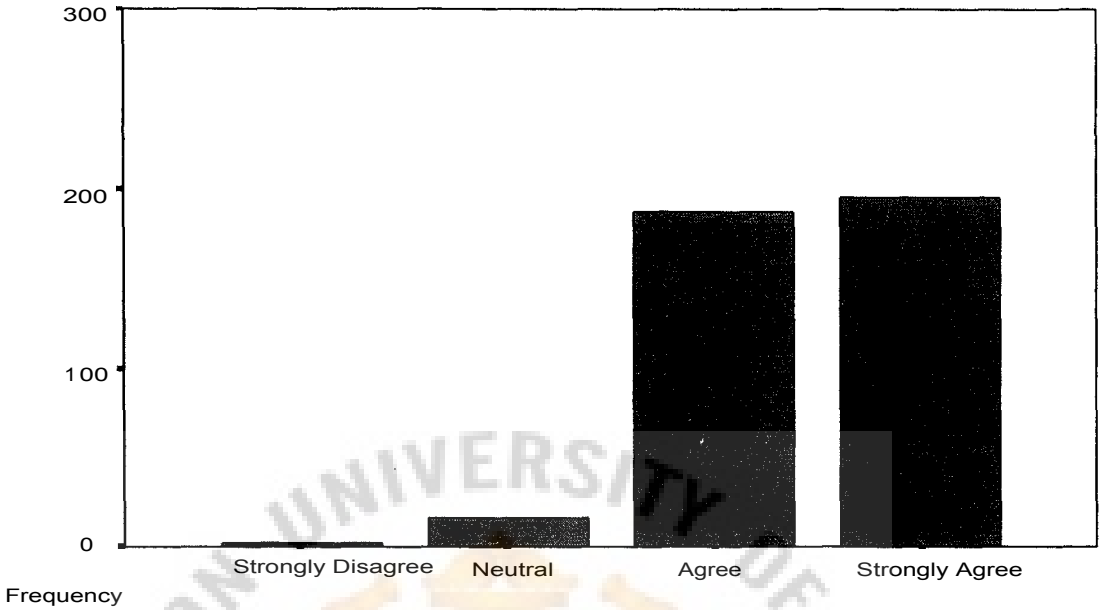

Figure C.10. What Is Your Opinion for Waste Disposer That Reduce Disease Vehicles?

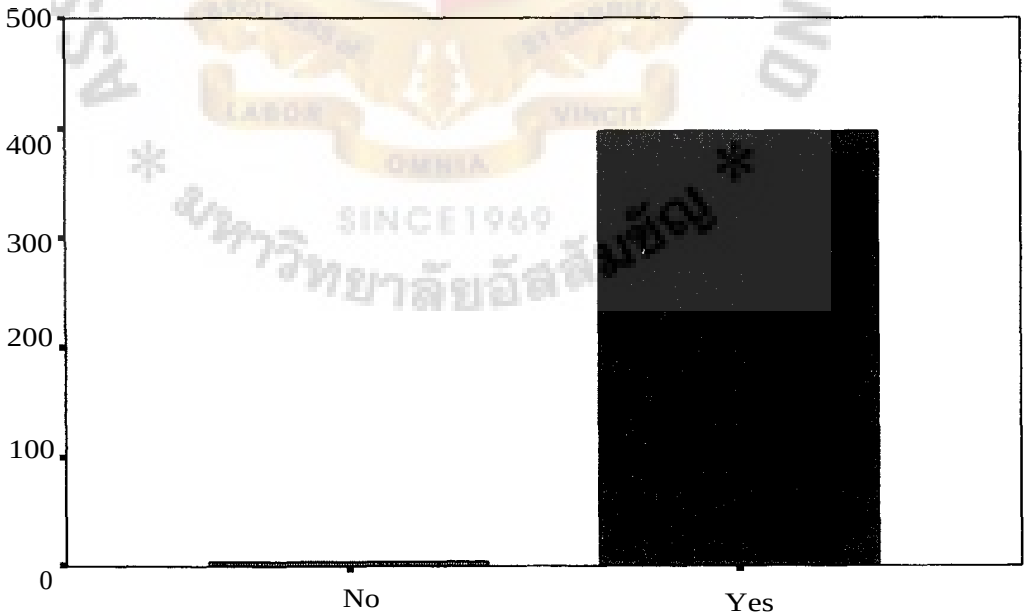

Figure C.11. Do You Think That Putting the Garbage in the Sink is the Source of Sink Problem and Water Pollution or Not?

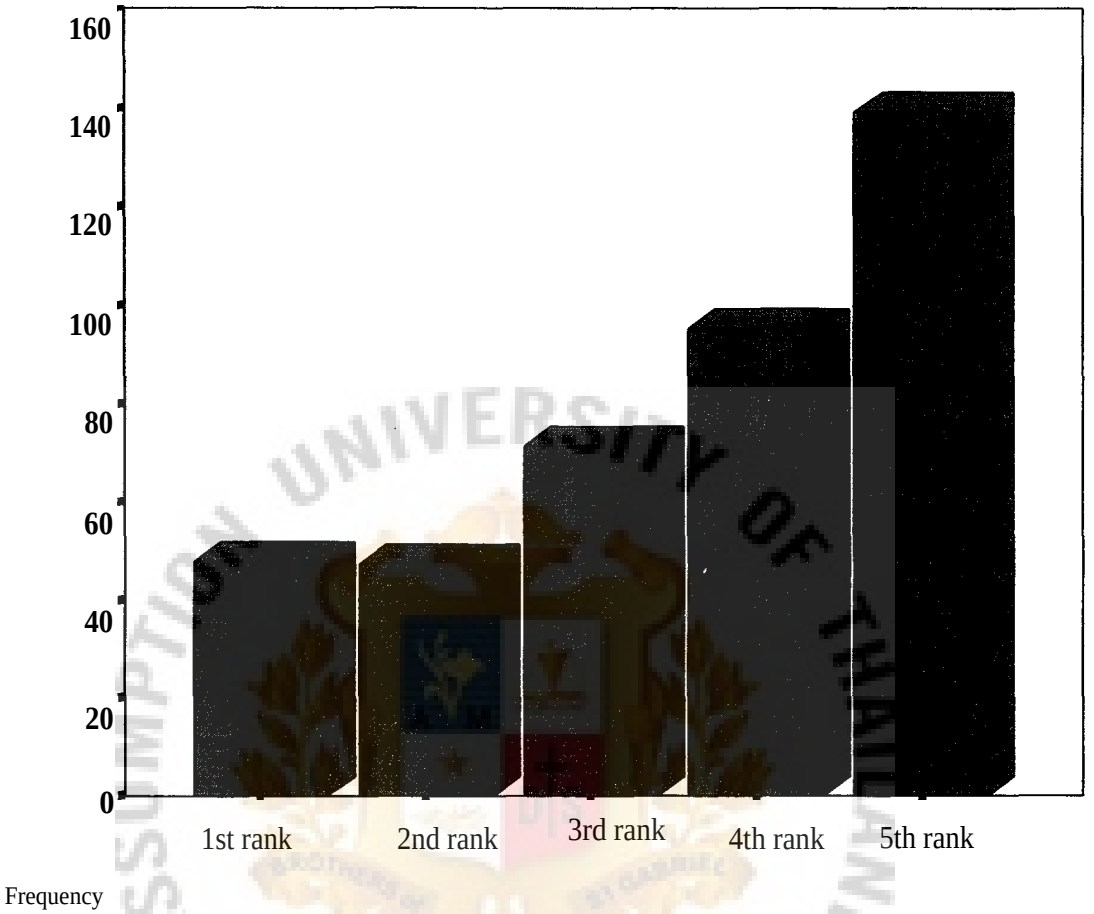

Figure C.12. From Where Do You Usually Get Info About Household Products? - Rank for Friend.

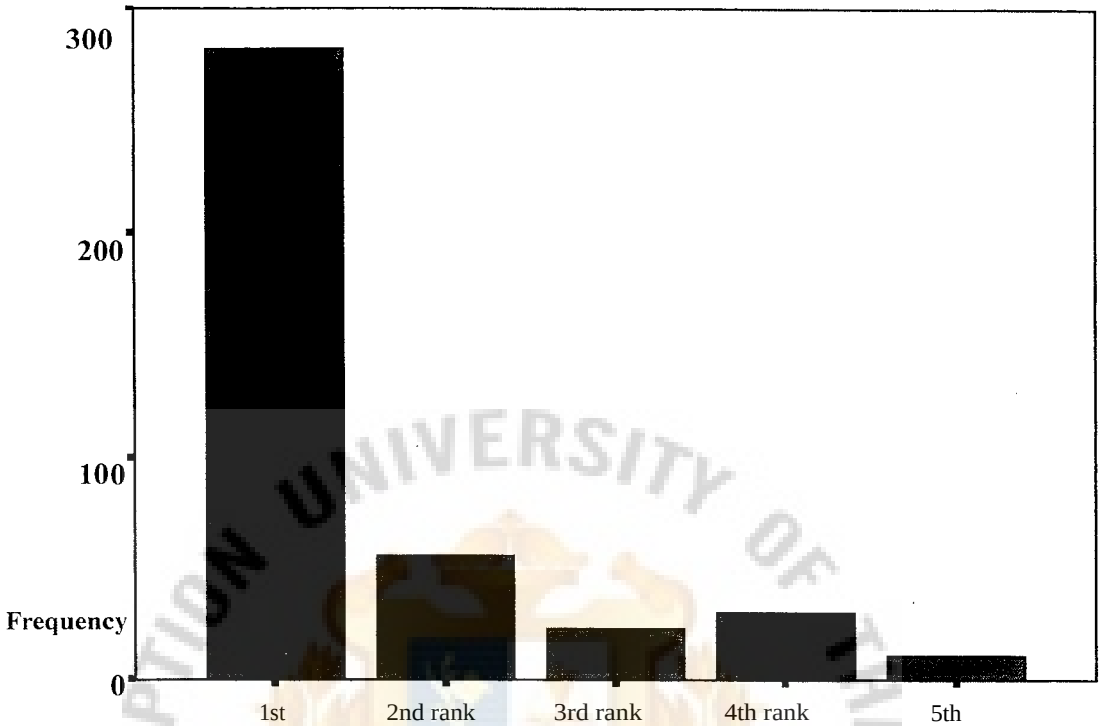

Figure C.13. From Where Do You Usually Get the Info about Household Products? - Rank for TV.

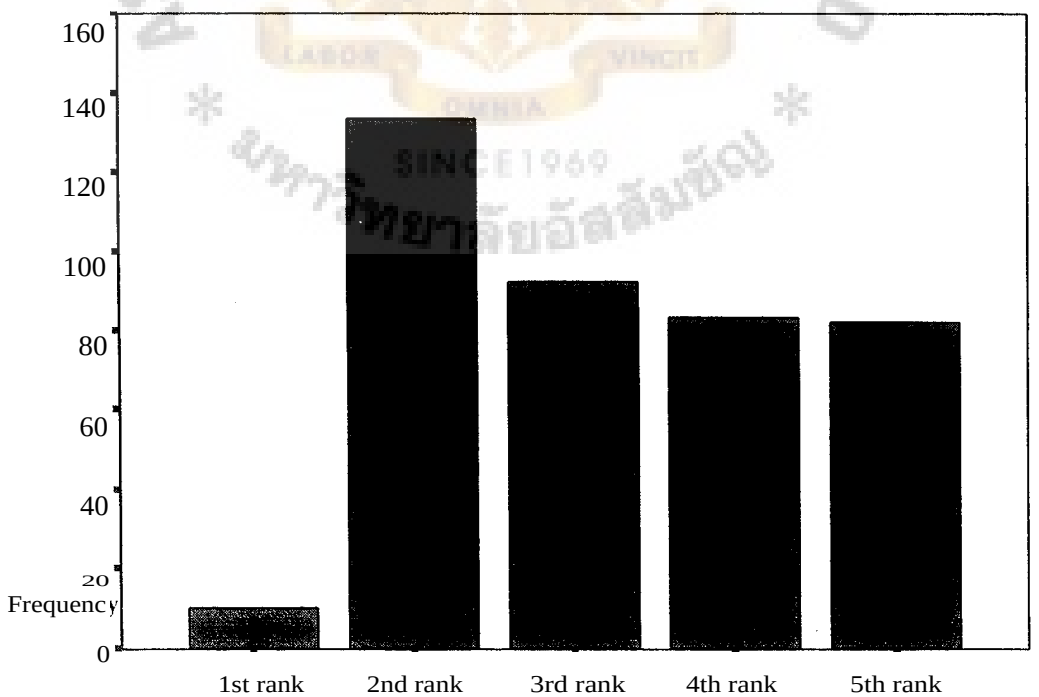

Figure C.14. From Where Do You Usually Get Info about Household Products? - Rank for Radio.

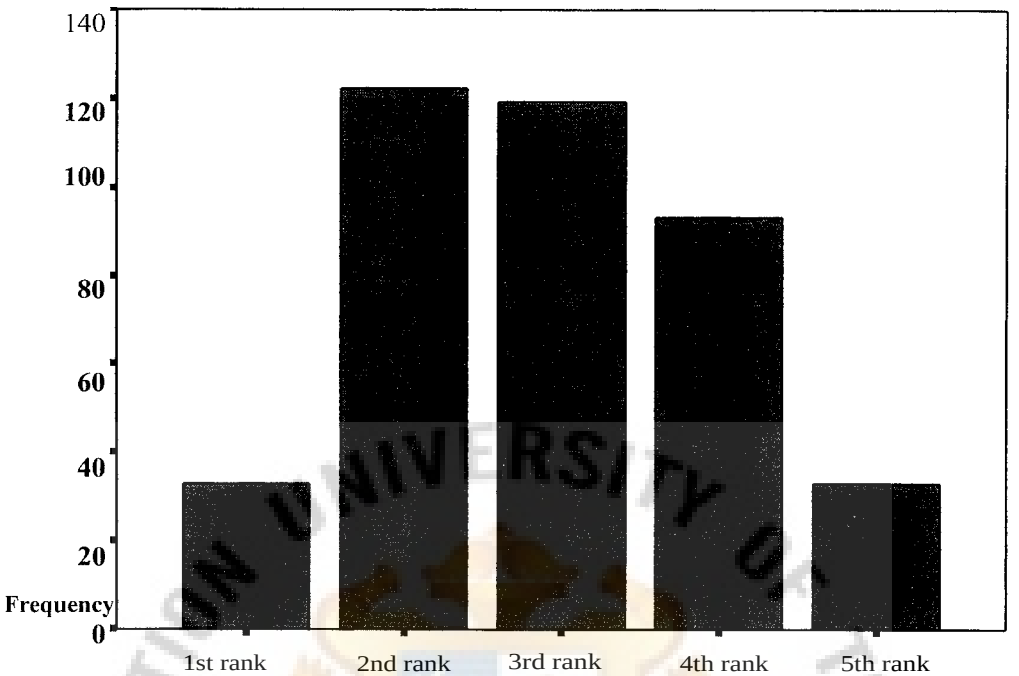

Figure C.15. From Where Do You Usually Get Information about Household Products? - Rank for Newspaper.

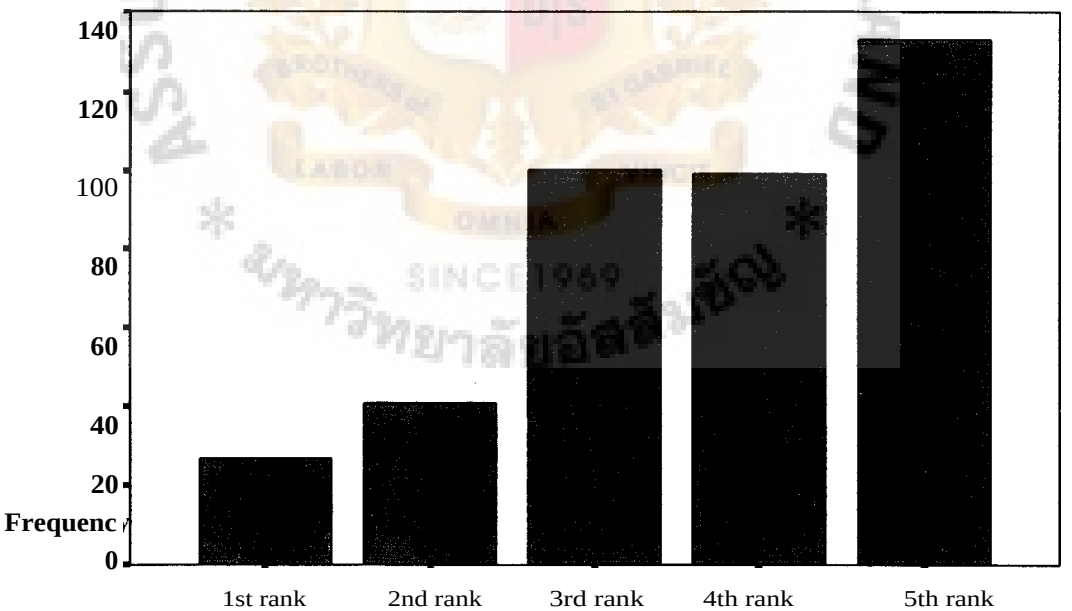

Figure C.16. From Where Do You Usually Get the Information about Household Products? - Rank for Magazine.

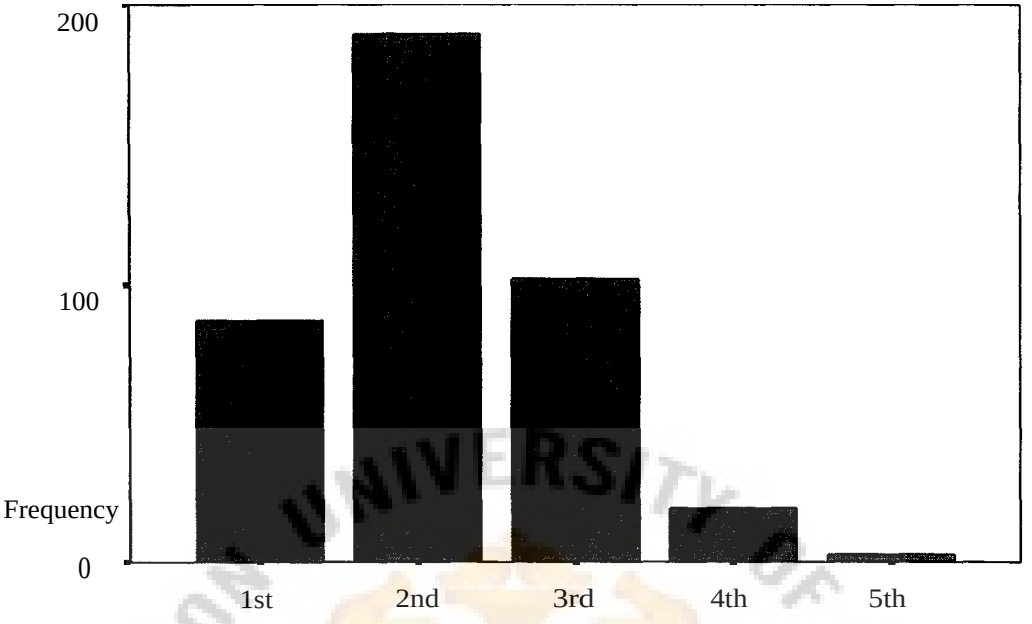

Figure C.17. From Where Do You Usually Buy Household Products? Rank for Superstore.

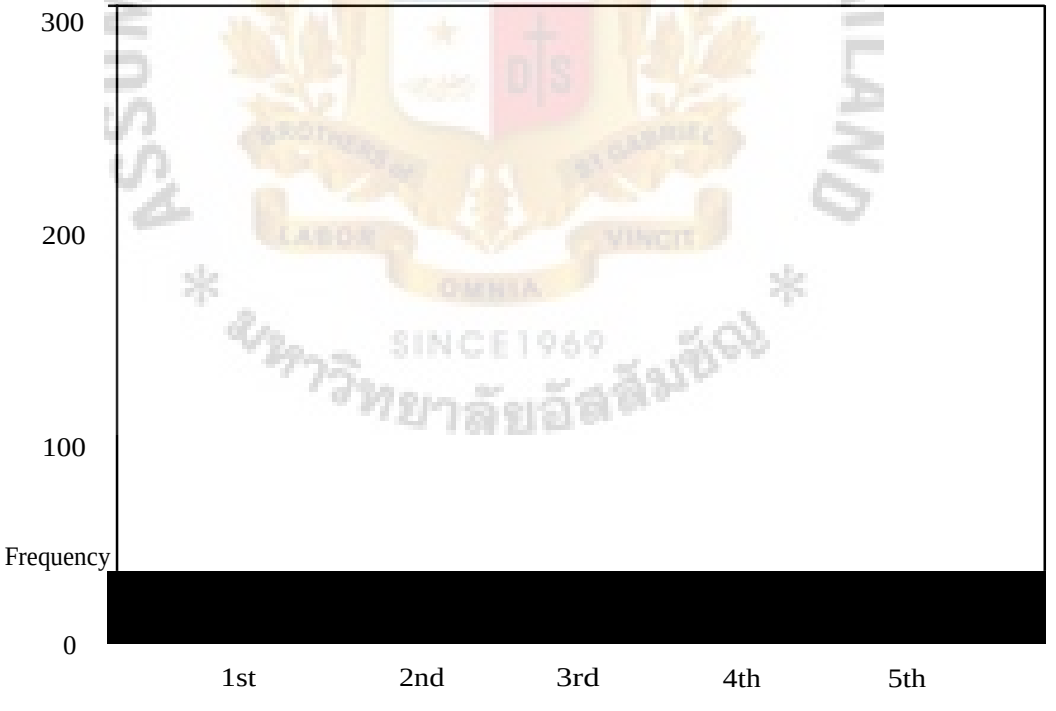

Figure C.18. From Where Do You Usually Buy Household Products? Rank for Department Store.

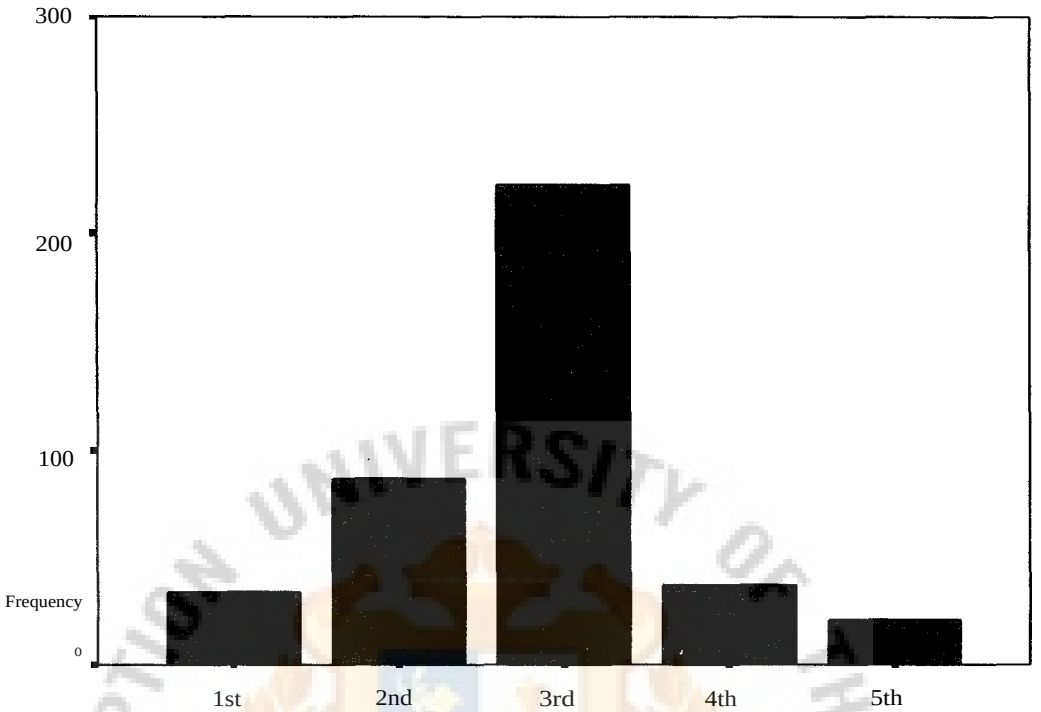

Figure C.19. From Where Do You Usually Buy Household Products? Rank for Traditional Market.

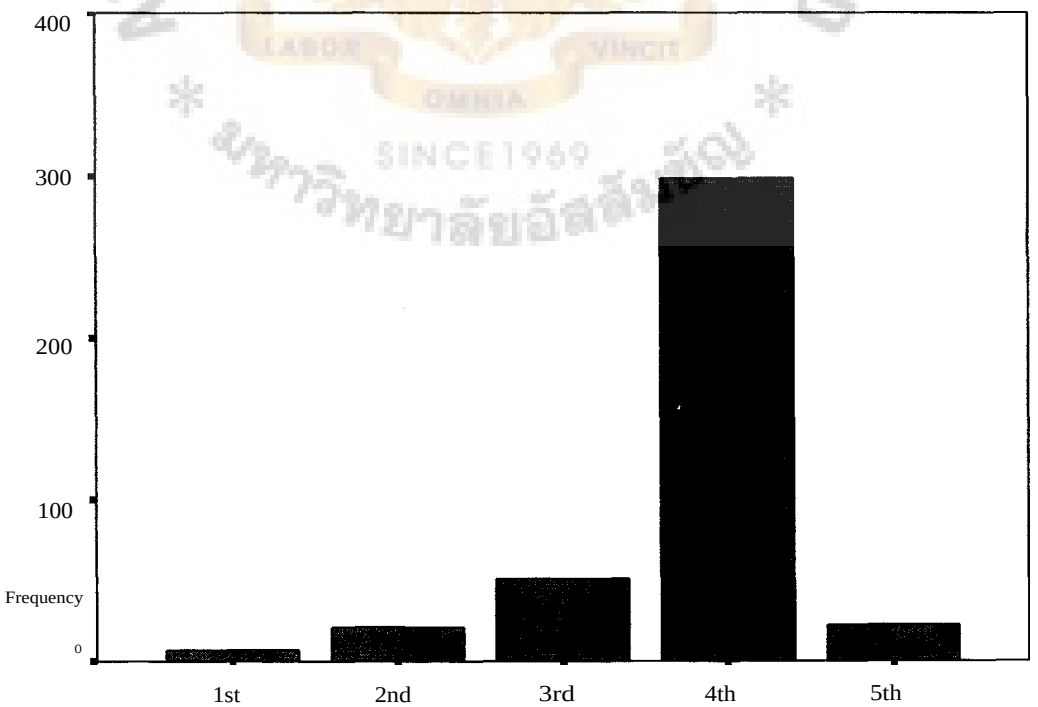

Figure C.20. From Where Do You Usually Buy Household Products? Rank for Catalog.

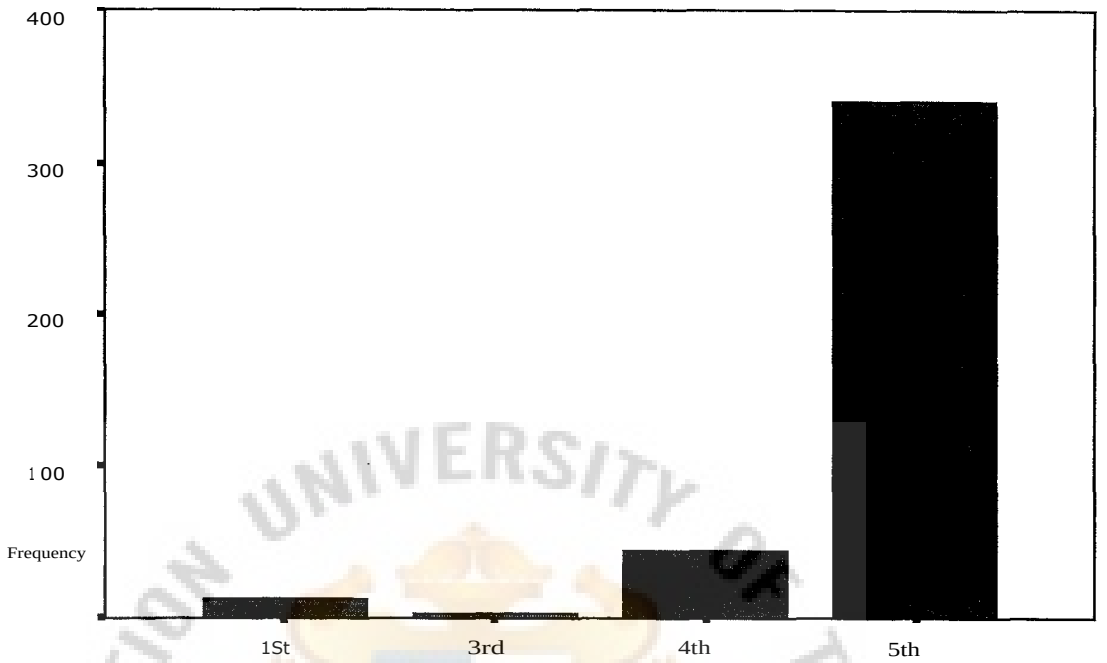

Figure C.21. From Where Do You Usually Buy Household Products? Rank for Internet.

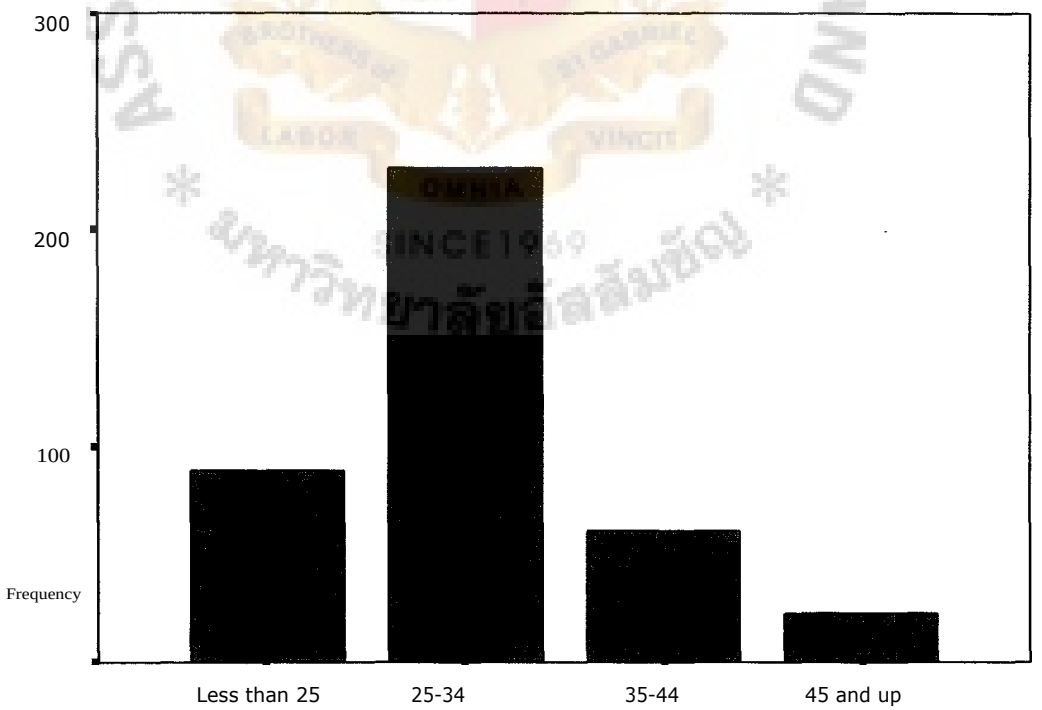

Figure C.22. Age.

St. Gabriel's Library

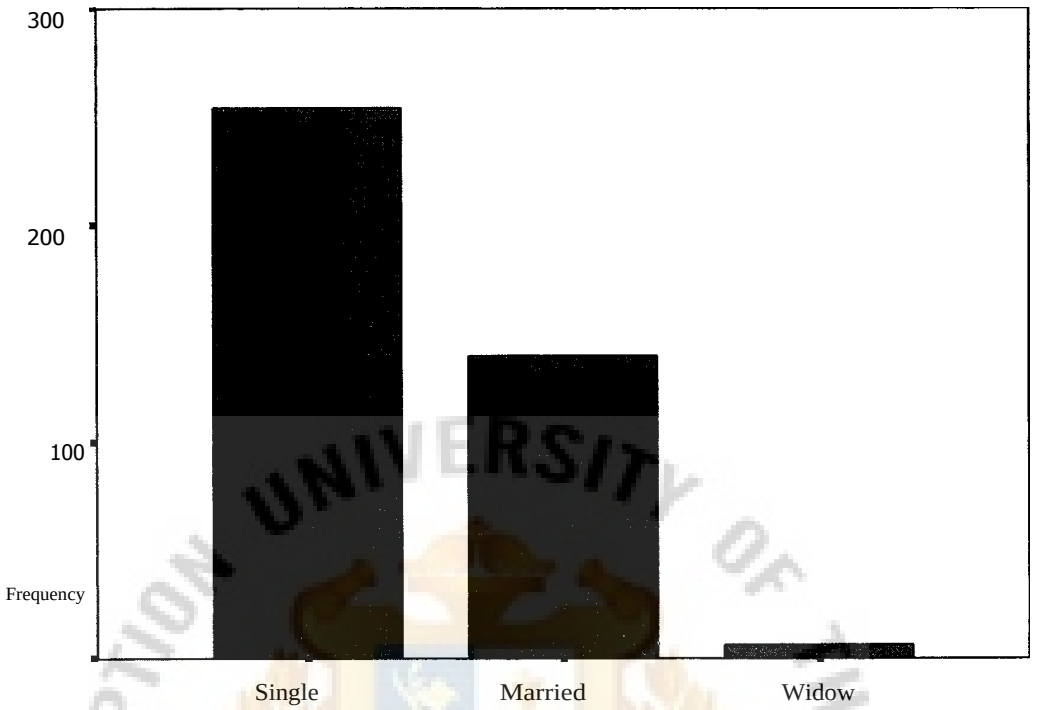

Figure C.23. Status.

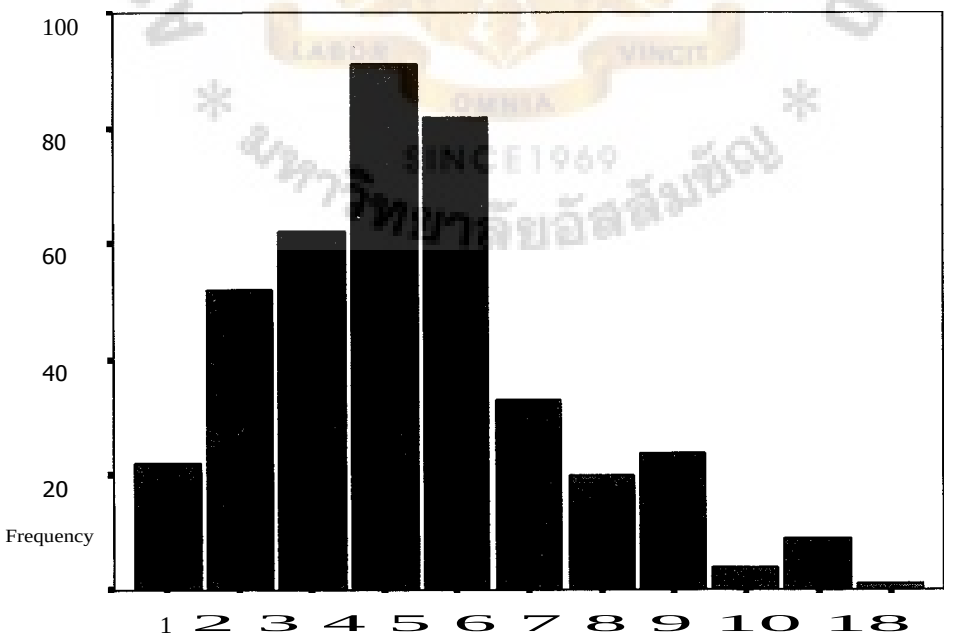

Figure C.24. No. of Family.

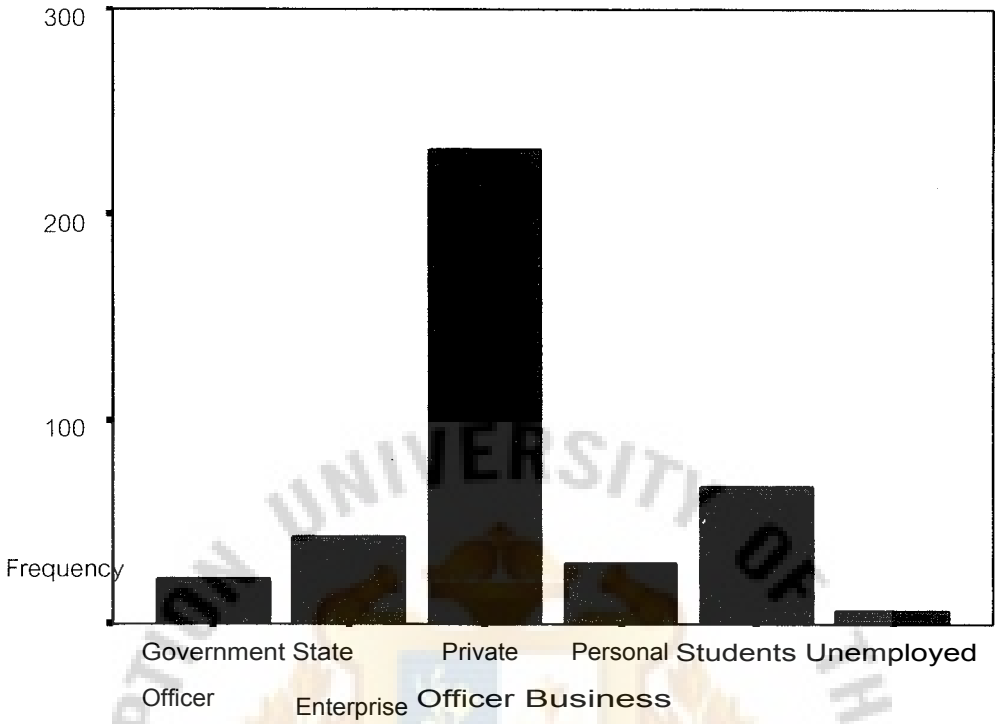

Figure C.25. Occupation.

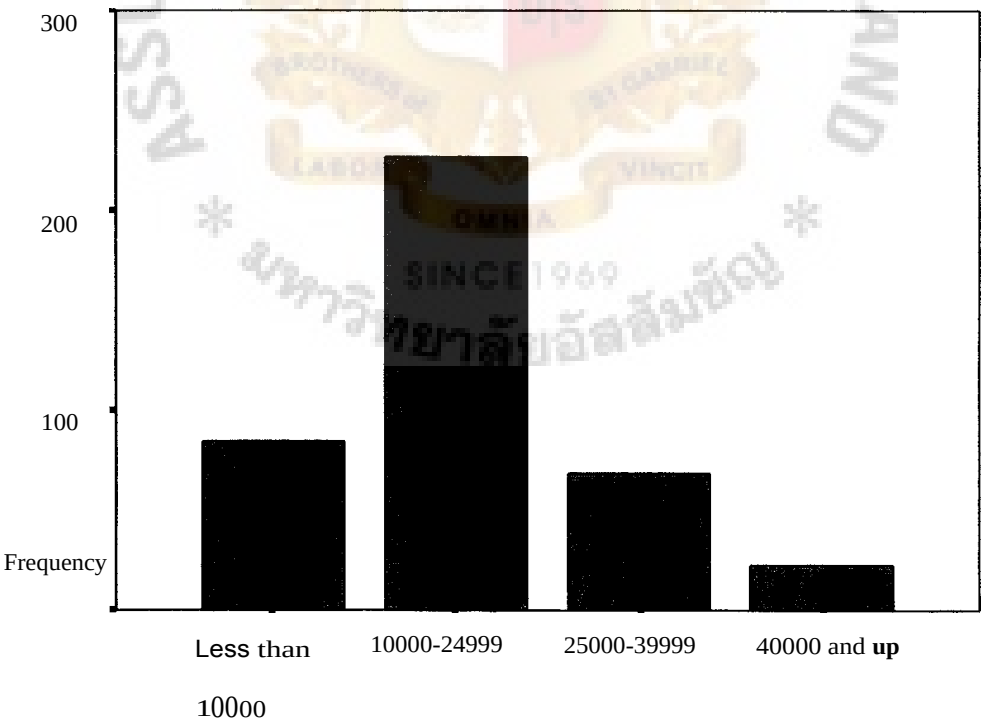

Figure C.26. Income.

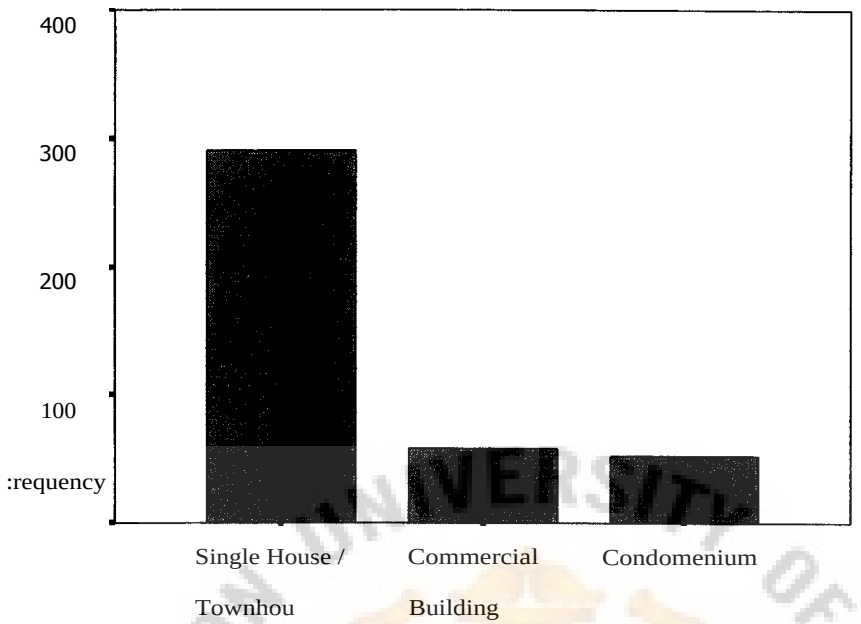

Figure C.27. Accommodation.

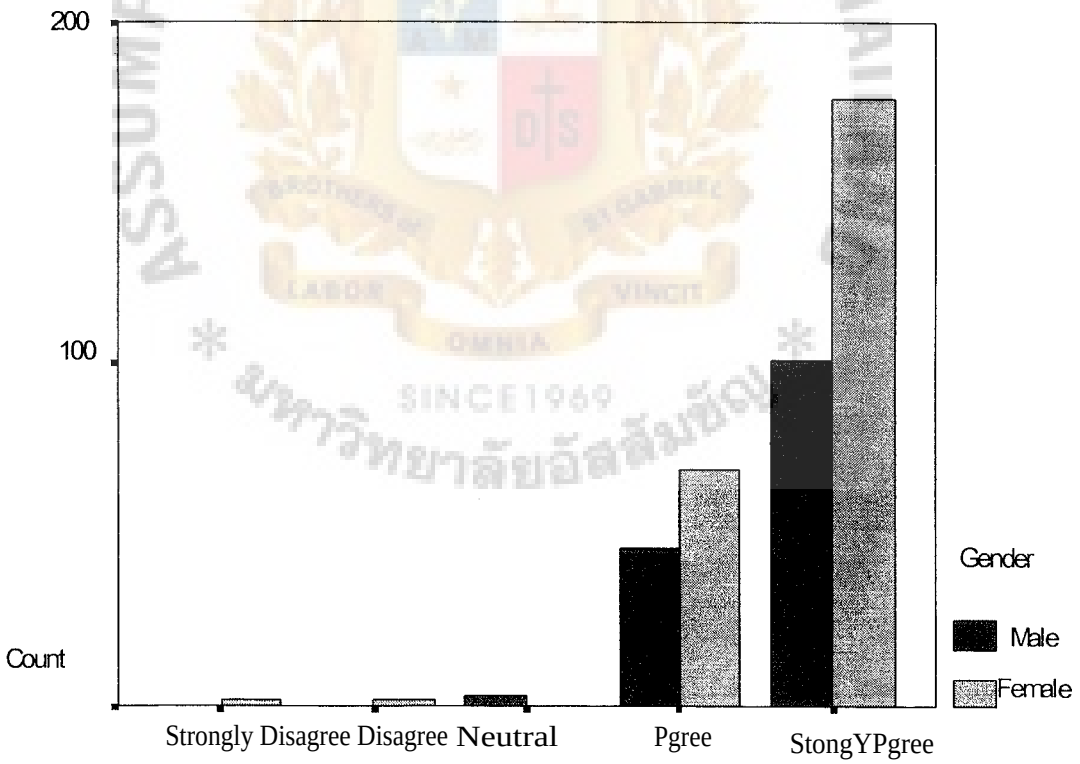

Figure C.28. Do You Agree with Garbage Reducing Campaign?

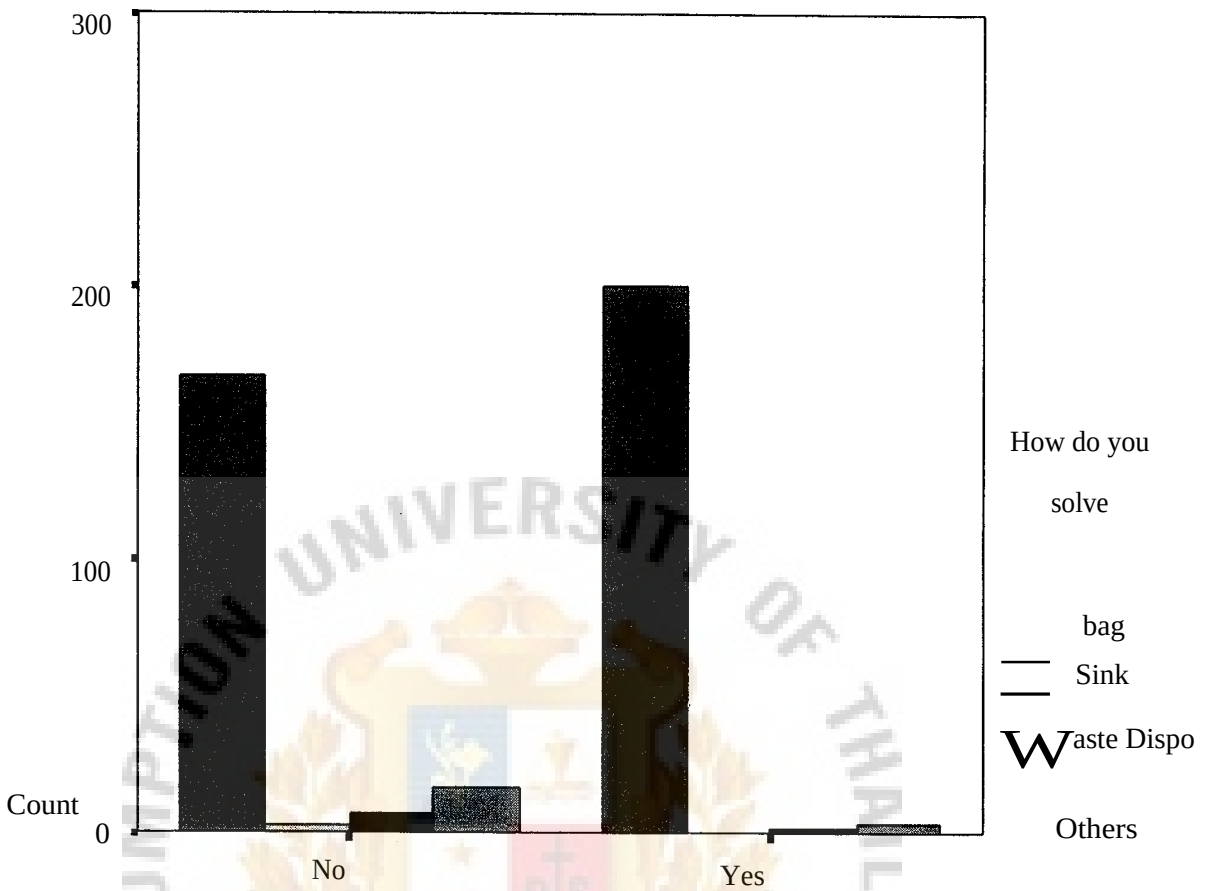

Figure C.29. Do You Have the Problem With In-house Garbage ?

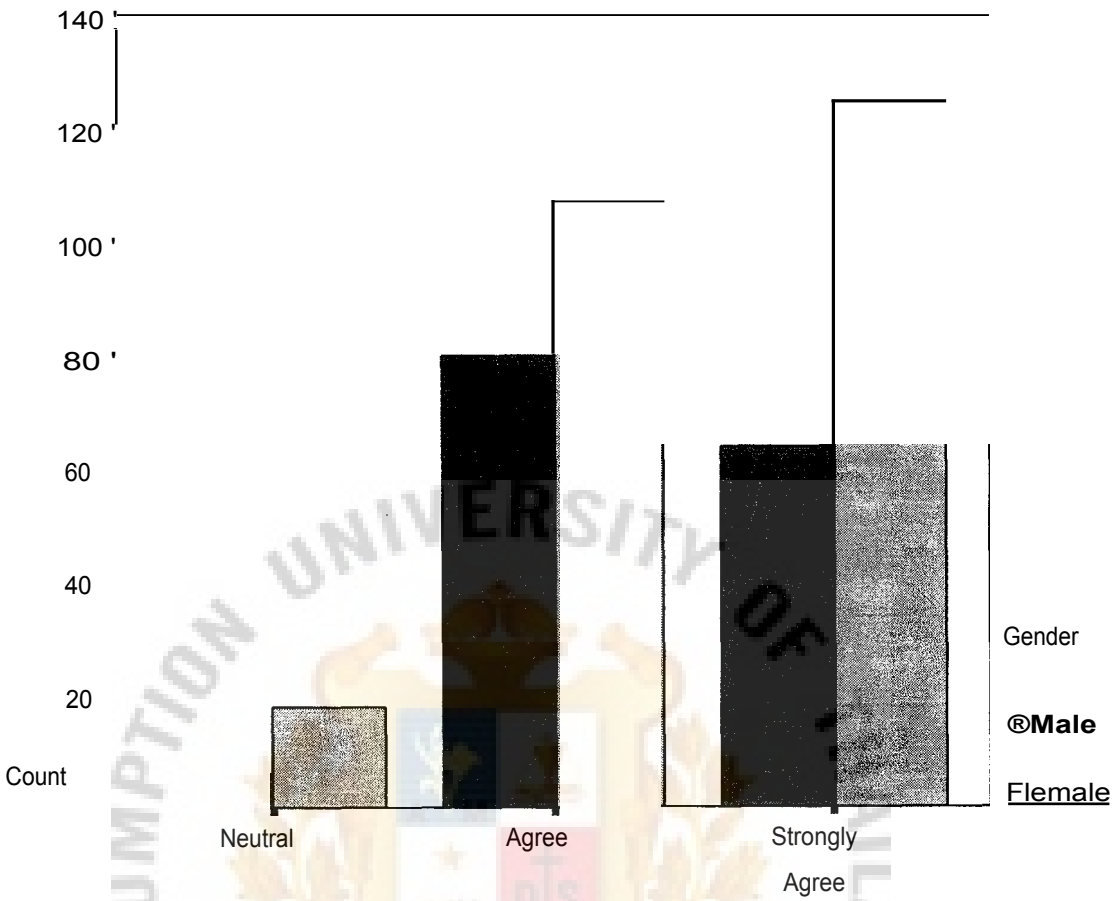

Figure C.30. Do You Think That In-house Garbage Has the Effect on Your Family's Health?

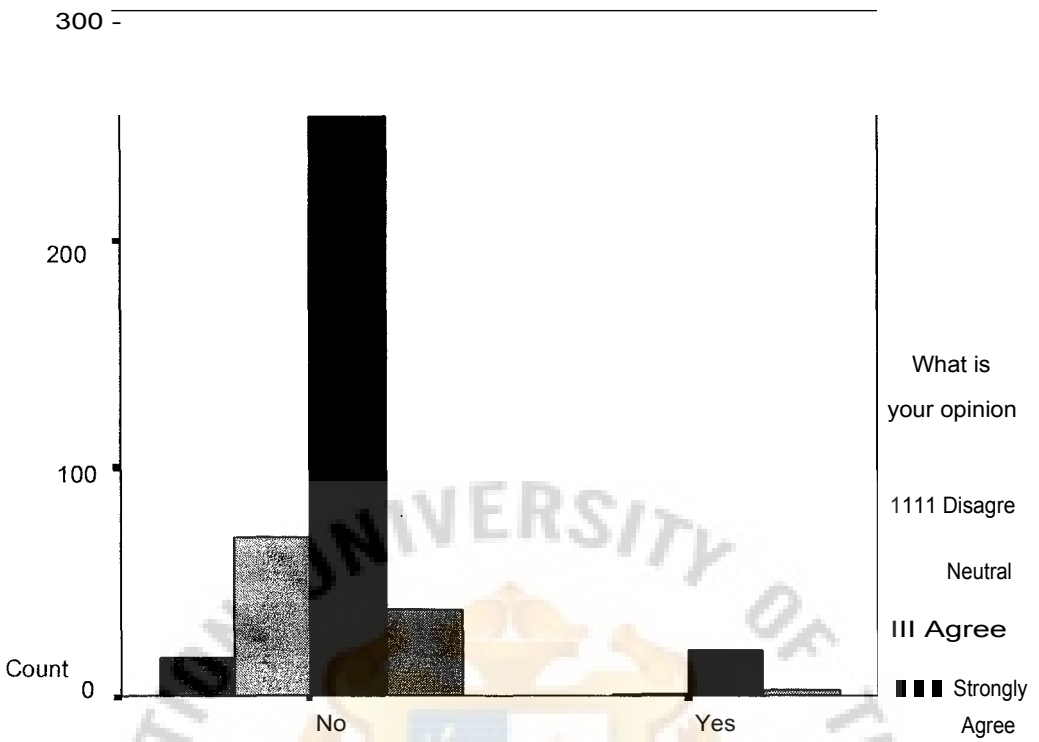

Figure C.31. Do You Know That There Is Foods Waste Disposer in the Market?

St. Gabriel's Library

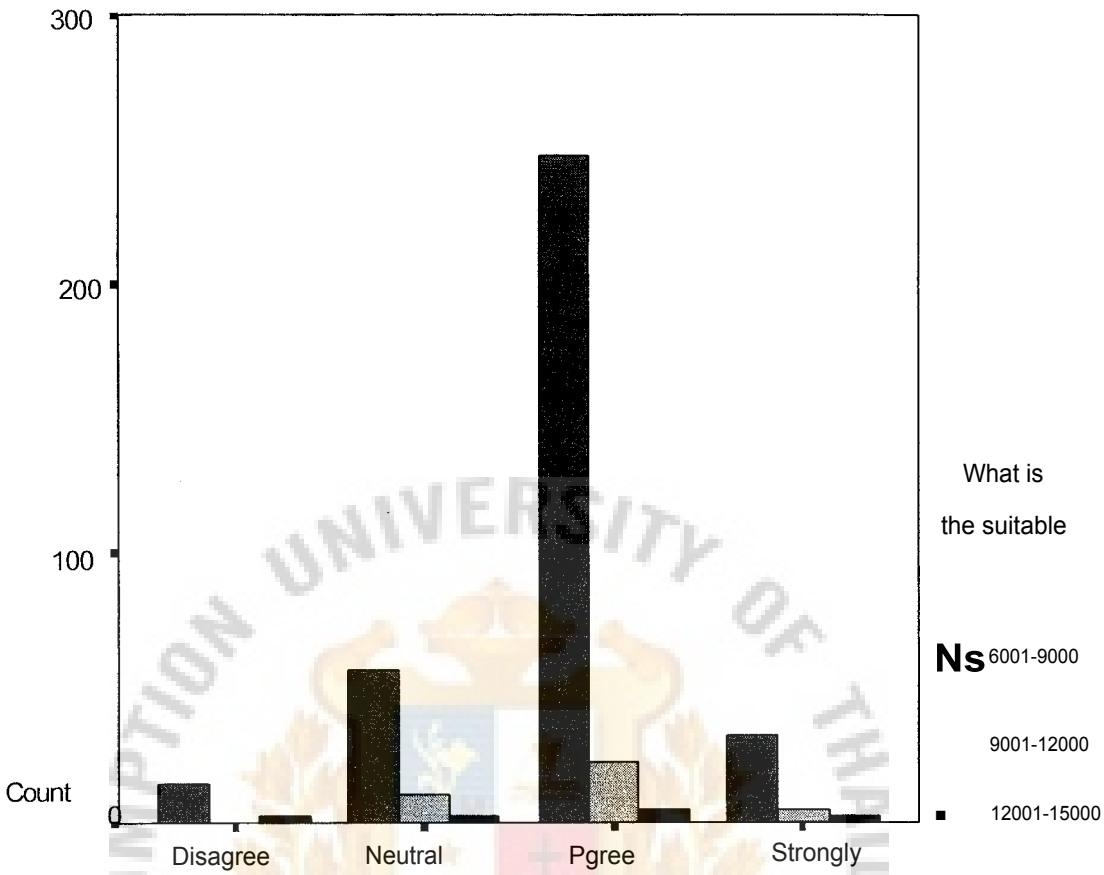

Figure C.32. What Is Your Opinion If There Is a In-House Waste Disposer That Give You More Convenient in Disposing the Waste?

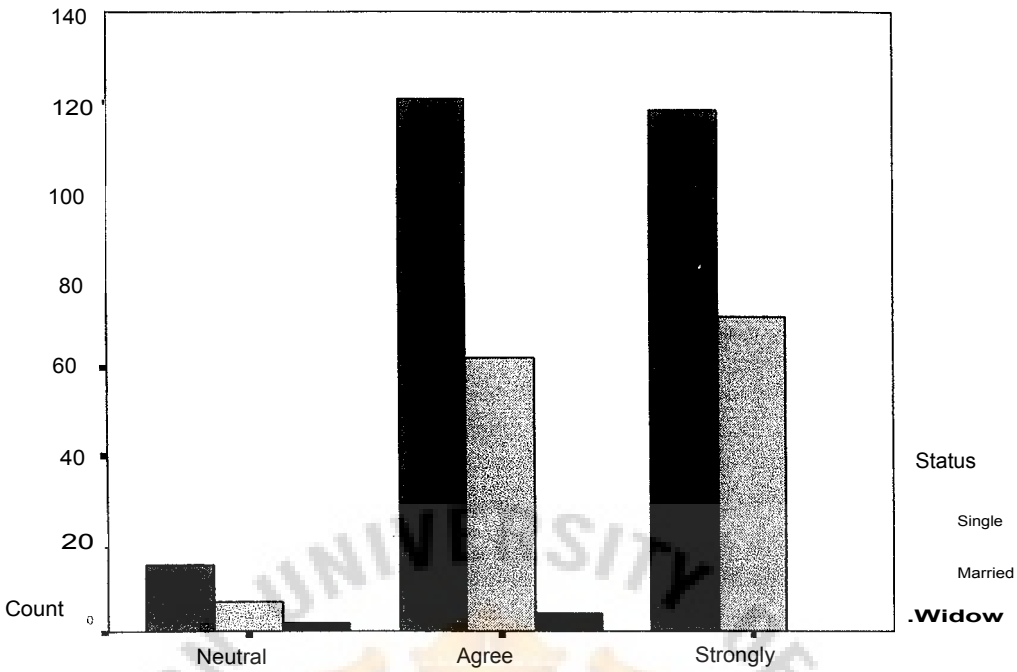

Figure C.33. Do You Think That In-house Garbage the Effect on Your Family's Health?

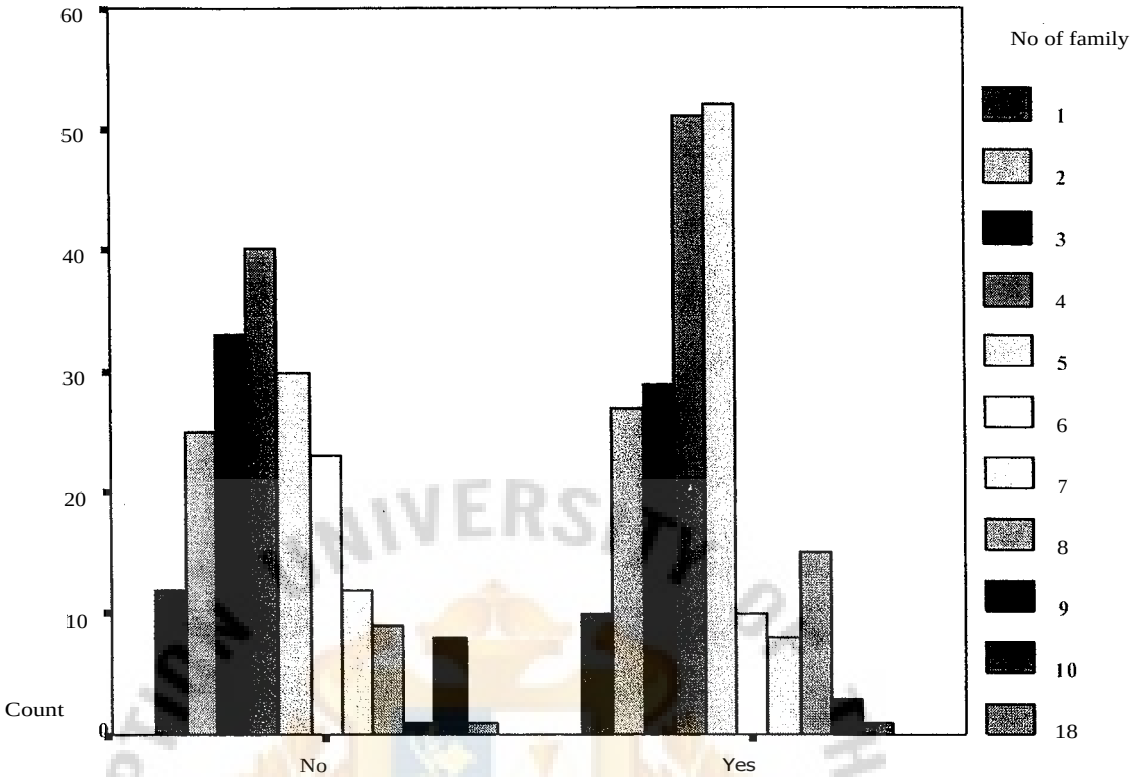

Figure C.34. Do You Have the Problem with In-house Garbage?

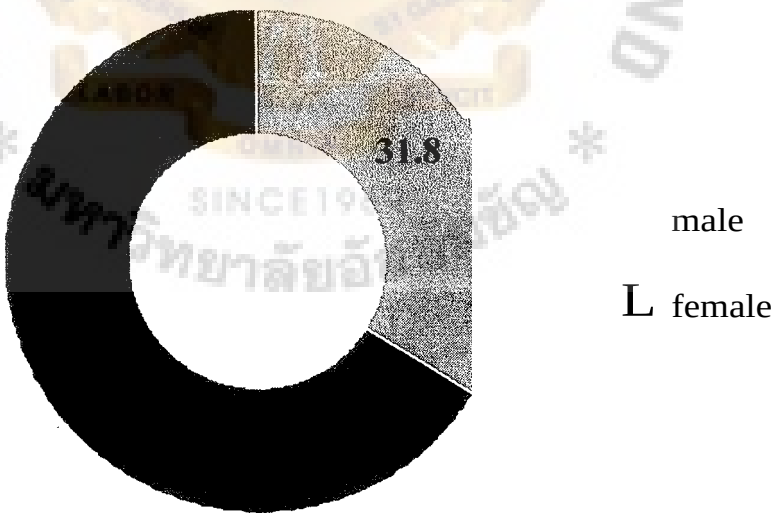

Figure C.35. Percentage of People Who Concern with the Purchasing Behavior of Household Product.

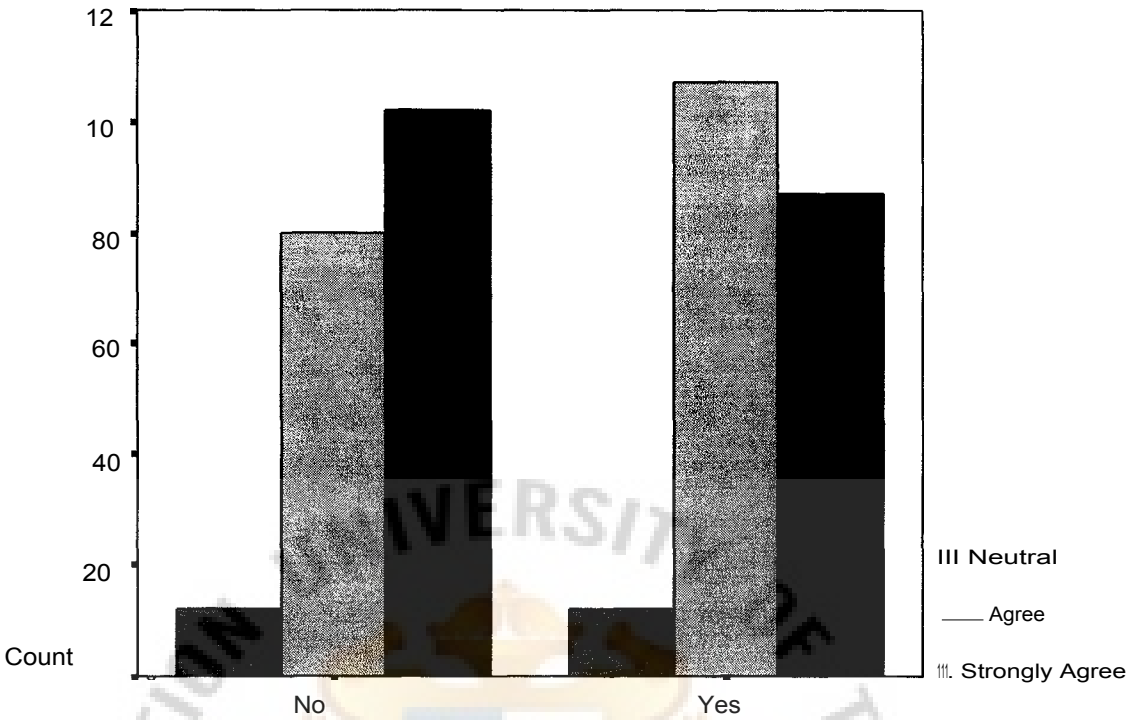

Figure C.36. Do You Have the Problem with In-house Garbage?

Table C.1. Do You Agree with Garbage Reducing Campaign?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	.5	.5	.5
	Disagree	2	.5	.5	1.0
	Neutral	3	.8	.8	1.8
	Agree	115	28.8	28.8	30.5
	Strongly Agree	278	69.5	69.5	100.0
	Total	400	100.0	100.0	

Table C.2. Do You Have the Problem with In-house Garbage?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	194	48.5	48.5	48.5
	Yes	206	51.5	51.5	100.0
	Total	400	100.0	100.0	

Table C.3. How Do You Solve the Garbage Problem?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Put in the bag	367	91.8	91.8	91.8
	Put it in the Sink	3	.8	.8	92.5
	Use Waste Disposes	9	2.3	2.3	94.8
	Others	21	5.3	5.3	100.0
	Total	400	100.0	100.0	

Table C.4. Do You Think In-house Garbage Has the Effect on Your Family's Health?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	24	6.0	6.0	6.0
	Agree	187	46.8	46.8	52.8
	Strongly Agree	189	47.3	47.3	100.0
	Total	400	100.0	100.0	

Table C.S. Do You Think That Putting the Garbage in the Sink Is the Source of Sink Problem and Water Pollution or Not?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	4	1.0	1.0	1.0
	Yes	396	99.0	99.0	100.0
	Total	400	100.0	100.0	

Table C.6. Do You Know That There Is Food Waste Disposer in the Market?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	337	94.3	94.3	94.3
	Yes	23	5.8	5.8	100.0
	Total	400	100.0	100.0	

Table C.7. Here Is a Waste Disposer Available in the Market, Do You Agree That It Give You More Convenience in Doing Your House Work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	14	3.5	3.5	3.5
	Neutral	107	26.8	26.8	30.3
	Agree	279	69.8	69.8	100.0
	Total	400	100.0	100.0	

Table C.B. What Is Your Opinion If There Is a In-house Waste Disposer That Give You More Convenience in Disposing the Waste?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	17	4.3	4.3	4.3
	Neutral	70	17.5	17.5	21.8
	Agree	274	68.5	68.5	90.3
	Strongly Agree	39	9.8	9.8	100.0
	Total	400	100.0	100.0	

Table C.9. What Is The Suitable Price for Waste Disposer?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6001-9000 Bahts	351	87.8	87.8	87.8
	9001-12000 Bahts	38	9.5	9.5	97.3
	12001-15000 Bahts	11	2.8	2.8	100.0
	Total	400	100.0	100.0	

Table C.10. What Is Your Opinion for Waste Disposer That Conveniently Dispose the Waste?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	.5	.5	.5
	Neutral	29	7.3	7.3	7.8
	Agree	269	67.3	67.3	75.0
	Strongly Agree	100	25.0	25.0	100.0
	Total	400	100.0	100.0	

Table C.11. What Is Your Opinion for Waste Disposer That Can Reduce Your Waste?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	31	7.8	7.8	7.8
	Agree	238	59.5	59.5	67.3
	Strongly Agree	131	32.8	32.8	100.0
	Total	400	100.0	100.0	

Table C.12. What Is Your Opinion for Waste Disposer That Reduce Disease Vehicles?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	.5	.5	.5
	Neutral	16	4.0	4.0	4.5
	Agree	187	46.8	46.8	51.3
	Strongly Agree	195	48.8	48.8	100.0
	Total	400	100.0	100.0	

Table C.13. From Where Do You Usually Get Info about Household Products?
-Rank for Friend.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st rank	48	12.0	12.0	12.0
	2nd rank	47	11.8	11.8	23.8
	3rd rank	71	17.8	17.8	41.5
	4th rank	95	23.8	23.8	65.3
	5th rank	139	34.8	34.8	100.0
	Total	400	100.0	100.0	

Table C.14. From Where Do You Usually Get Infonnation About Household Products?
-Rank for TV.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1St rank	282	70.5	70.5	70.5
	2nd rank	55	13.8	13.5	84.3
	3rd rank	22	5.5	5.5	89.8
	4th rank	30	7.5	7.5	97.3
	5th rank	11	2.8	2.8	100.0
	Total	400	100.0	100.0	

Table C.15. From Where Do You Usually Get Infonnation about Household Products?
-Rank for Radio.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1St rank	10	2.5	2.5	2.5
	2nd rank	133	33.3	33.3	35.8
	3rd rank	92	23.0	23.0	58.8
	4th rank	83	20.8	20.8	79.9
	5th rank	82	20.5	20.5	100.0
	Total	400	100.0	100.0	

Table C.16. From Where Do You Usually Get Information about Household Products?
-Rank for Newspaper.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st rank	33	8.3	8.3	8.3
	2nd rank	122	30.5	30.5	38.8
	P rank	119	29.8	29.8	68.5
	4th rank	93	23.3	23.3	91.8
	5th rank	33	8.3	8.3	100.0
	Total	400	100.0	100.0	

Table C.17. From Where Do You Usually Get Information about Household Products? -Rank for Magazine.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st rank	27	6.8	6.8	6.8
	2nd rank	41	10.3	10.3	17.0
	3rd rank	100	25.0	25.0	42.0
	4th rank	99	24.8	24.8	66.8
	5th rank	133	33.3	33.3	100.0
	Total	400	100.0	100.0	

Table C.18. From Where Do You Usually Buy Household Products? -Rank for Superstore.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st rank	87	21.8	21.8	21.8
	2nd rank	189	47.3	47.3	69.0
	3rd rank	102	25.5	25.5	94.5
	4th rank	19	4.8	4.8	99.3
	5th rank	3	.8	.8	100.0
	Total	400	100.0	100.0	

Table C.19. From Where Do You Usually Buy Household Products? -Rank for Department Store.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st rank	260	65.0	65.0	65.0
	2nd rank	101	25.3	25.3	90.3
	3rd rank	21	5.3	5.3	95.5
	4th rank	3	.8	.8	96.3
	5th rank	15	3.8	3.8	100.0
	Total	400	100.0	100.0	

Table C.20. From Where Do You Usually Buy Household Products?
-Rank for Traditional Market.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st rank	34	8.5	8.5	8.5
	2nd rank	86	21.5	21.5	30.0
	3rd rank	222	55.5	55.5	85.5
	4th rank	37	9.3	9.3	94.3
	5th rank	21	5.3	5.3	100.0
	Total	400	100.0	100.0	

Table C.21. From Where Do You Usually Buy Household Products?
-Rank for Catalog.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st rank	7	1.8	1.8	1.8
	2nd rank	22	5.5	5.5	7.3
	3rd rank	51	12.8	12.8	20.0
	4th rank	297	74.3	74.3	94.3
	5th rank	23	5.8	5.8	100.0
	Total	400	100.0	100.0	

Table C.22. From Where Do You Usually Buy Household Products?
-Rank for Internet.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st rank	13	3.3	3.3	3.3
	3rd rank	3	.8	.8	4.01
	4th rank	44	11.0	11.0	15.0
	5th rank	340	85.0	85.0	100.0
	Total	400	100.0	100.0	

Table C.23. Gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	151	37.8	37.8	37.8
	Female	249	62.3	62.3	100.0
	Total	400	100.0	100.0	

St. Gabriel's Library

Table C.24. Age.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 25	89	22.3	22.3	22.3
	25-34	228	57.0	57.0	79.3
	35-44	61	15.3	15.3	94.5
	45 and up	22	5.5	5.5	100.0
	Total	400	100.0	100.0	

Table C.25. Status.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	254	63.5	63.5	63.5
	Married	140	35.0	35.0	98.5
	Window	6	1.5	1.5	100.0
	Total	400	100.0	100.0	

Table C.26. No of Family Members.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	22	5.5	5.5	5.5
	2	52	13.0	13.0	18.5
	3	62	15.5	15.5	34.0
	4	91	22.8	22.8	56.8
	5	82	20.5	20.5	77.3
	6	33	8.3	8.3	85.5
	7	20	5.0	5.0	90.5
	8	24	6.0	6.0	96.5
	9	4	1.0	1.0	97.5
	10	9	2.3	2.3	99.8
	18	1	.3	.3	100.0
	Total	400	100.0	100.0	

Table C.27. Occupation.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government Officer	2	5.5	5.5	5.5
	Tylvniiii	4	10.8	10.8	16.3
	Private Officer	232	58.0	58.0	74.3
	Personal Business	3	7.5	7.5	81.8
	Students	67	16.8	16.8	98.5
	Unemployed	6	1.5	1.5	100.0
	Total	100	100.0	100.0	

Table C.28. Income.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 10000	84	21.0	21.0	21.0
	10000-24999	226	56.5	56.5	77.5
	25000-39999	68	17.0	17.0	94.5
	40000 and up	22	5.5	5.5	100.0
	Total	400	100.0	100.0	

Table C.29. Accommodation.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single House/Townhouse	290	72.5	72.5	72.5
	Commercial Building	58	14.5	14.5	87.0
	Condominium	52	13.0	13.0	100.0
	Total	400	100.0	100.0	

Table C.30. Do You Think That In-House Garbage Have the Effect on Your Family's Health? *Gender Crosstabulation.

			Gender		Total
			Male	Female	
Do you think that in-house barbage have the effect on your family's health?	Neutral	Count	6	18	24
		% within Do you think that in-house barbage have the effect on you family's health?	25.0%	75.0%	100.0%
		% within Gender	4.0%	7.2%	6.0%
		% of Total	1.5%	4.5%	6.0%
	Agree	Count	80	107	187
		% within Do you think that in-house barbage have the effect on you! family's health?	42.8%	57.2%	100.0%
		°A within Gender	53.3%	42.8%	46.8%
		% of Total	20.0%	26.8%	46.8%
	Strongly Agree	Count	64	125	189
		% within Do you think that in-house barbage have the effect on you family's health?	33.9 %	66.1 %	100.0 %
		% within Gender	42.7%	50.0%	47.3%
		% of Total	16.0%	31.3%	47.3%
Total		Count	150	250	400
		% within Do you think that in-house barbage have the effect on your family's health?	37.5 %	62.5 %	100.0 %
		% within Gender	100.0%	100.0%	100.0%
		% of Total	37.5%	62.5%	100.0%

Table C.31. If There Is a Waste Disposer Availbale in the Market, Do You Agree That It Will Give You More Convenience in Doing Your House Work? *What is Your Opinion If There is In-House Waste Disposer That Give You More Convenience in Disposing the Waste. Crosstabulation.

Count

		What is your opinion if there is a In-House Waste Disposer that give you more convenience in disposing the waste.				Total
		Disa•ree	Neutral	A ree	Strongly A ree	
If there is a Waste Disposer available in the market, do you agree that it will give you more convenience in doing your house work?	Disagree	4	2	9	2	17
	Neutral		34	59		107
	Agree	5	34	206	31	276
Total		17	70	274	39	400

Table C.32. If There Is a Waste Disposer Available in the Market, Do You Agree That It Will Give You More Convenience in Doing Your House Work? *What Is the Suitable Price for Waste Disposer? Crosstabulation.

Count

		What is the suitable price for Waste Disposer?			
		6001-9000 Baht	9001-12000 Baht	12001-15000 Baht	Total
If there is a Waste Disposer available in the market, do you agree that it will give you more convenience in doing your house work?	Disagree	14	2	1	17
	Neutral	95	8	4	107
	Agree	242	28	6	276
Total		351	38	11	400

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Table C.33. What Is Your Opinion If There Is Waste Disposer That Give You the Suitable Price for Waste Disposer?

			What is the suitable price for VVaste Disposer?			Total
			6001-9000 Baht	9001-12000 Baht	12001-15000 Baht	
Mat is your opinion if there is a In-House VVaste Disposer that give you more convenient in disposing the waste.	Disagree	Coun	15		2	i7
		%within What is opinion if there In-House Disposer that give more disposing the	88.2		11.8	100.0
		%within Mat is Suitable price VVaste	4.3		18.2	4.3
		%of	3.8		.5%	4.3
	Neutral	Coun	57	11	2	70
		% within What is opinion if there In-House Disposer that give more disposing the	81.4	15.7	2.9	100.0
		% within What is Suitable price VVaste	16,2	28.9	18.2	17.5
		℅ of	14.3	2.8	.5%	17.5
	Pgree	Coun	247	22	5	274
		%Within What is opinion if there In-House Disposer that gi'e more disposing the	90.1	8.0	1.8	100.0
		%within What is the suitable price for VVaste Disposer?	70.4	57.9	45.5	68.5
		% of Total	61.8	5.5	1.3	68.5
	Strongly Pgree	Count	32	5	2	39
		%within Mat is your opinion if there is a In-House VVaste Disposer that ghe you more convenient in disposing the waste.	82.1	12.8	5.1	100.0
		%Within Mat is the suitable price for VVaste Disposer?	9.1	13.2	18.2	9.8
		% of Total	8.0	1.3	.5°/0	9.8
Total		Count	351	38	11	400
		%within What is your opinion if there is a In-House VVaste Disposer that gi'e wu more convenient in disposing the	87.8	9.5	2.8	100.0
		%within What is Suitable price for \AtIste Disposer?	100.0	100.0	100.0	100.0
		% of Total	87.8	9.5	2.8	100.0

Table C.34. Do You Have the Problem with In-House Garbage? *Do You Think That In-House Garbage Have The Effect on Your Family's Health?

Crosstabulation

			Do you think that in-house barbage have the effect on your familys health?			
			Neutral	Agree	Strongly Agree	Total
Do you have the problem with in-house garbage?	No	Count	12	80	102	194
		% within Do you have the problem with in-house garbage?	6.2%	41.2%	52.6%	100.0%
		% within Do you think that in-house barbage have the effect on your family's health?	50.0%	42.8%	54.0%	48.5%
		% of Total	3.0%	20.0%	25.5%	48.5%
	Yes	Count	12	107	87	206
		% within Do you have the problem with in-house garbage?	5.8%	51.9%	42.2%	100.0%
		% within Do you think that in-house barbage have the effect on your family's health?	50.0%	57.2%	46.0%	51.5%
		% of Total	3.0%	26.8%	21.8%	51.5%
Total		Count	24	187	189	400
		% within Do you have the problem with in-house garbage?	6.0%	46.8%	47.3%	100.0%
		% within Do you think that in-house barbage have the effect on your familys health?	100.0%	100.0%	100.0%	100.0%
		% of Total	6.0%	46.8%	47.3%	100.0

APPENDIX D

HYPOTHESIS TESTING RESULTS

Table D.1. Correlation

Correlations

			Q8 RECOD	ATTITUD@
Kendall's tau_b	Q8_RECOD	Correlation Coefficient	1.000	.277**
		Sig. (1-tailed)		.000
		N	400	400
	ATTITUD@	Correlation Coefficient	.277**	1.000
		Sig. (1-tailed)	.000	.
		N	400	400
Spearman's rho	Q8_RECOD	Correlation Coefficient	1.000	.299**
		Sig. (1-tailed)		.000
		N	400	400
	ATTITUD@	Correlation Coefficient	.299**	1.000
		Sig. (1-tailed)	.000	
		N	400	400

• Correlation is significant at the .01 level (1-tailed).

Table D.2. Correlation

Correlations

			Do you know that there is Foos waste Disposer in the Market?	Q8 RECOD
Kendall's tau_b	Do you know that there is Foos waste Disposer in the Market?	Correlation Coefficient	1.000	.103*
		Sig. (1-tailed)		.018
		N	400	400
	Q8_RECOD	Correlation Coefficient	.103*	1.000
		Sig. (1-tailed)	.018	
		N	400	400
Spearman's rho	Do you know that there is Foos waste Disposer in the Market?	Correlation Coefficient	1.000	.105*
		Sig. (1-tailed)		.018
		N	400	400
	OLRECOD	Correlation Coefficient	.105*	1.000
		Sig. (1-tailed)	.018	
		N	400	400

*- Correlation is significant at the .05 level (1-tailed).

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