

CHAPTER 4

RESEARCH RESULTS

4.1 INTRODUCTION

Data from the survey are analysed and discussed in detail in two chapters. In this chapter, we look into the demographic characteristics of respondents as well as the demographic comparison between non-regular and regular buyer (Section 4.2). Section 4.3 investigates the knowledge level of respondents toward certain brands, actual brand purchased, brand preference and their past purchases.

Section 4.4 investigates which of the eight attributes of sauces have the most influence on the purchasing decision. These attributes are price, well known brand, taste, appearance, attractive packaging, easily available, longer shelf-life and no colouring or preservative. Beside that, we also compare attributes among ethnic groups as well as among non-regular and regular buyer.

Section 4.5 summarizes the findings from Section 4.2, Section 4.3 and Section 4.4.

4.2 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

A total of 400 questionnaires were distributed to 4 selected schools in Klang. This yielded a return of 385 copies (96%) of which 378 (95%) were useable. Seven questionnaires were incomplete, thus it was decided not to include them in the analysis.

TABLE 4.1 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

| CHARACTERISTICS | No. of respondent | % |
|--|-------------------|-------|
| <u>GENDER</u> | | |
| Male | 73 | 19.3 |
| Female | 305 | 80.7 |
| Total | 378 | 100.0 |
| <u>ETHNIC GROUPS</u> | | |
| Malay | 147 | 38.9 |
| Chinese | 177 | 46.8 |
| Indians | 53 | 14.0 |
| Others | 1 | 0.3 |
| Total | 378 | 100.0 |
| <u>AGE</u> | | |
| 20-29 | 90 | 23.8 |
| 30-39 | 113 | 29.9 |
| 40-49 | 134 | 35.4 |
| 50+ | 41 | 10.8 |
| Total | 378 | 100.0 |
| <u>MARITAL STATUS</u> | | |
| Single | 46 | 12.2 |
| Currently Married | 317 | 83.9 |
| Have Been Married Before | 15 | 4.0 |
| Total | 378 | 100.0 |
| <u>NO. OF CHILDREN</u> | | |
| 0 | 26 | 6.9 |
| 1-2 | 154 | 40.7 |
| 3-4 | 135 | 35.7 |
| 5-6 | 17 | 4.5 |
| Not Applicable | 46 | 12.2 |
| Total | 378 | 100.0 |
| <u>EDUCATIONAL LEVEL</u> | | |
| No Schooling | 3 | 0.8 |
| Primary | 7 | 1.9 |
| Lower Secondary | 29 | 7.7 |
| Upper Secondary | 121 | 32.0 |
| Diploma | 64 | 16.9 |
| Tertiary | 154 | 40.7 |
| Total | 378 | 100.0 |
| <u>MONTHLY HOUSEHOLD INCOME</u> | | |
| < RM 1,000 | 30 | 7.9 |
| RM 1,000-1,999 | 83 | 22.0 |
| RM 2,000-2,999 | 60 | 15.9 |
| RM 3,000-3,999 | 64 | 16.9 |
| RM 4,000-4,999 | 65 | 17.2 |
| RM 5,000 or more | 70 | 18.5 |
| Not Applicable | 6 | 1.6 |
| Total | 378 | 100.0 |
| <u>OCCUPATION</u> | | |
| Professional | 16 | 4.2 |
| Management | 50 | 13.2 |
| Administrative Executive | 71 | 18.8 |
| Sales /Marketing | 57 | 15.1 |
| Supervisory | 12 | 3.2 |
| Clerical | 34 | 9.0 |
| Production /Technical | 26 | 6.9 |
| Lecturer /Teacher | 62 | 16.4 |
| Housewife | 47 | 12.4 |
| Not working /Student | 3 | 0.8 |
| Total | 378 | 100.0 |

Table 4.1 summarises the demographic characteristics of the 378 respondents. The sample comprised of 73 (19%) males and 305 (81%) females as expected since housewives mostly did the marketing. 147 (39%) of them are Malays, 177 (47%) Chinese and 53 (14%) Indians. Table 3.1 shows that the Klang residents consist of 38% Malays, 36% Chinese and 19% Indians. These show that the breakdown of respondent is quite close to the actual breakdown of the residents in Klang.

Respondents between the age of 40-49 years formed the largest percentage (35.4%) of the sample, followed by those in the 30-39 years category (30%) and those between 20-29 years (24%). The smallest percentage (11%) is from the above 50 years old category.

Majority of the respondents are currently married (84%) which 12% are single and 4% have been married before. This survey showed that 46% of married respondents had between 1 to 2 children and 41% of the married respondents had 3 to 4 children.

41% of the respondents had tertiary qualification whereas about 58% had diploma qualification and below. Only 3 respondents (0.8%) did not have formal education.

The results revealed that 22% of respondents had monthly household income between RM1,000- RM1,999, while 19% of the respondents reported figures between RM5,000 and above. Another 17% stated earning between RM4,000 – RM4,999 and 17% between RM3,000 – RM3,999 with 8% reported they earned less than RM1,000. This suggests that most of the respondents were from the middle-

income group. 2% of the respondents did not respond as some of them may think that income is confidential and did not want to disclose it.

4.2.1 DEMOGRAPHIC COMPARISON BETWEEN NON- REGULAR AND REGULAR BUYER

In this section, we look into the demographic comparison between regular and non-regular buyer. We define regular buyer as follows:-

1. Purchase at least 2 types of sauces
2. Last purchase is not more than one month ago

If the respondent does not fulfill the above criteria, he or she will be classified as non-regular buyer. An analysis of the demographic differences between these two groups could provide valuable input for market planning and segmentation purposes. Differences between them were elicited by computing the percentage and frequency counts for all the variables.

Since some of the categories in the demographic variables are too small, data transformation is executed. Data transformation is the process of changing the original form of the data to a more suitable format to perform a data analysis that will achieve the research objectives (Zikmund, 1997). In this case, some of the categories of the variables such as ethnic groups, age, no. of children, education level and occupation have been collapsed i.e. the "Indians" and "Others" categories from ethnic groups have been combined, the age categories "40-49" and "50+" were also combined. "No Schooling", "Primary" and "Lower Secondary" in the educational level have been collapsed into a single category. "Housewife" and "Not Working /Student" have been combined into one category and "Management" and

“Supervisory” have also been collapsed into one. “Not Applicable” in the income variable is not included in this analysis.

Chi-Square tests are executed to find if there are differences in demographic characteristics between regular and non-regular buyer. Results (Table 4.2) reveal that only race is significant at 0.05 level of significant. The analysis showed that there are more Malay (74%) than Chinese (60%) and Indian (55%), which were classified as regular buyer. Perhaps this has something to do with their cooking (food). Indian food is usually spicy and use less Tomato Ketchup, Chilli Sauce or Oyster Sauce.

Although the remaining demographic characteristics such as age, marital status, no. of children, education level, monthly household income and occupation are statistically not significant between the two groups, they too would be discussed in this report so as to provide a complete demographic description of the two groups of buyer.

TABLE 4.2

SUMMARY STATISTICS OF NON-REGULAR AND REGULAR BUYER FOR DEMOGRAPHIC CHARACTERISTICS

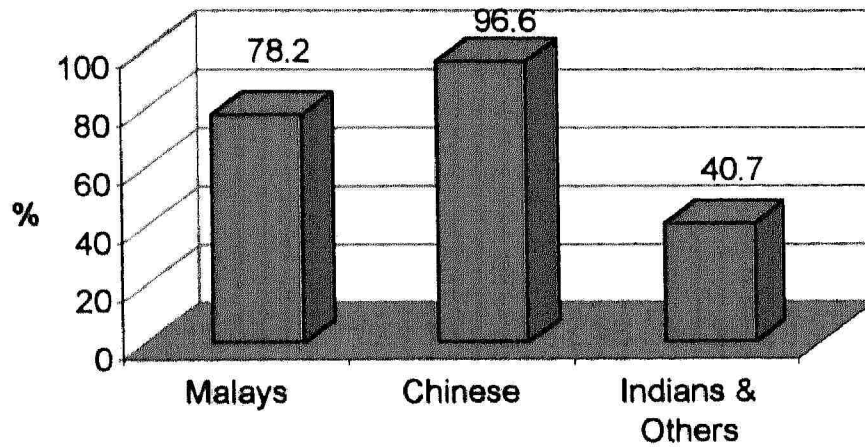
| CHARACTERISTICS | NON REGULAR BUYER | REGULAR BUYER | TOTAL | χ^2 P Value |
|---------------------------------|----------------------|---------------|-----------|---------------------|
| ETHNIC GROUPS | | | | 0.013* |
| Malay | 39 (26.5) | 108 (73.5) | 147 (100) | |
| Chinese | 71 (40.1) | 106 (59.9) | 177 (100) | |
| Indians & Others | 24 (44.4) | 30 (55.6) | 54 (100) | |
| Total | 134 (35.4) | 244 (64.6) | 378 (100) | |
| AGE | | | | 0.382 |
| 20-29 | 37 (41.1) | 53 (58.9) | 90 (100) | |
| 30-39 | 36 (31.9) | 77 (68.1) | 113 (100) | |
| 40+ | 61 (34.9) | 114 (65.1) | 175 (100) | |
| Total | 134 (35.4) | 244 (64.6) | 378 (100) | |
| MARITAL STATUS | | | | 0.128 |
| Single | 16 (34.8) | 30 (65.2) | 46 (100) | |
| Currently Married | 109 (34.4) | 208 (65.6) | 317 (100) | |
| Have Been Married Before | 9 (60.0) | 6 (40.0) | 15 (100) | |
| Total | 134 (35.4) | 244 (64.6) | 378 (100) | |
| NO. OF CHILDREN | | | | 0.17 |
| 0 | 11 (42.3) | 15 (57.7) | 26 (100) | |
| 1-2 | 63 (40.9) | 91 (59.1) | 154 (100) | |
| 3-4 | 41 (30.4) | 94 (69.6) | 135 (100) | |
| 5-6 | 3 (17.6) | 14 (82.4) | 17 (100) | |
| Total | 118 (35.5) | 214 (64.5) | 332 (100) | |
| EDUCATION LEVEL | | | | 0.676 |
| < Lower Secondary | 13 (33.3) | 26 (66.7) | 39 (100) | |
| Upper Secondary | 41 (33.9) | 80 (66.1) | 121 (100) | |
| Diploma | 20 (31.3) | 44 (68.7) | 64 (100) | |
| Tertiary | 60 (39.0) | 94 (61.0) | 154 (100) | |
| Total | 134 (35.4) | 244 (64.6) | 378 (100) | |
| MONTHLY HOUSEHOLD INCOME | | | | 0.071 |
| < RM 1,000 | 16 (53.3) | 14 (46.7) | 30 (100) | |
| RM 1,000 - 1,999 | 29 (34.9) | 54 (65.1) | 83 (100) | |
| RM 2,000 - 2,999 | 15 (25.0) | 45 (75.0) | 60 (100) | |
| RM 3,000 - 3,999 | 26 (40.6) | 38 (59.4) | 64 (100) | |
| RM 4,000 - 4,999 | 18 (27.7) | 47 (72.3) | 65 (100) | |
| RM 5,000 or more | 28 (40.0) | 42 (60.0) | 70 (100) | |
| Total | 132 (35.5) | 240 (64.5) | 372 (100) | |
| OCCUPATION | | | | 0.487 |
| Professional | 4 (25.0) | 12 (75.0) | 16 (100) | |
| Management /Supervisory | 23 (37.1) | 39 (62.9) | 62 (100) | |
| Administrative Executive | 18 (25.4) | 53 (74.6) | 71 (100) | |
| Sales /Marketing | 21 (36.8) | 36 (63.2) | 57 (100) | |
| Clerical | 14 (41.2) | 20 (58.8) | 34 (100) | |
| Production /Technical | 10 (38.5) | 16 (61.5) | 26 (100) | |
| Lecturer /Teacher | 27 (43.5) | 35 (56.5) | 62 (100) | |
| Housewife /Not working /Student | 17 (34.0) | 33 (66.0) | 50 (100) | |
| Total | 134 (35.4) | 244 (64.6) | 378 (100) | |

* Significance at 0.05 level of significance.

4.3 BRAND STUDY

A brand is a name, term, symbol, design, or combination of these that identifies the seller's goods and services and distinguishes them from competitors' products (Bernhardt, Kinnear and Krentler, 1995). With increased technological capabilities, competitors are able to market extremely similar goods and services. A brand is the most important characteristic used to distinguish among products and cannot be duplicated by competitors.

In this section, only those respondents who purchase sauces are analyzed. All the respondents are included in the brand study for Chilli Sauce and Tomato Ketchup except Oyster Sauce. Chilli Sauce and Tomato Ketchup are the common products that used by most of the household in Malaysia and in this study, all the respondents are using Chilli Sauce and Tomato Ketchup. Table 4.3 shows that 308 respondents from total of 378 respondents purchased Oyster Sauce. From Figure 4.1, we can observe that 97% of the Chinese respondents purchased Oyster Sauce as compared to only 78% of Malay and 59% Indians & Others. This also reflected by the Chi-Square result, significant of race with buying habit. This may due to their cooking where Malay and Indians dishes are spicier than Chinese dishes. Thus Malays and Indians tend to use lesser Oyster Sauce in their cooking as compared to Chinese. Many Chinese dishes such as vegetable, steam fish, chicken, fried rice or noodle use Oyster Sauce for more tastier taste.

FIGURE 4.1**PERCENTAGE OF RESPONDENTS PURCHASING OYSTER SAUCE****TABLE 4.3****OYSTER SAUCE PURCHASES COMPARISON BETWEEN ETHNICS**

| | Use Oyster Sauce | | | | | |
|------------------|------------------|--------|----|--------|-------|---------|
| | Yes | | No | | Total | |
| Malay | 115 | (78.2) | 32 | (21.8) | 147 | (100.0) |
| Chinese | 171 | (96.6) | 6 | (3.4) | 177 | (100.0) |
| Indians & Others | 22 | (40.7) | 32 | (59.3) | 54 | (100.0) |
| Total | 308 | (81.5) | 70 | (18.5) | 378 | (100.0) |

4.3.1 BRAND KNOWLEDGE AND ACTUAL BRAND PURCHASE

Respondents are asked to tick the brand they heard before and actual brand purchased. The results are summarized in Table 4.4. Maggi brand obtained the highest percentage for brand heard before, for both Chilli Sauce (98%) and Tomato Ketchup (99%). However, only 64% of the respondents purchased Maggi for Chilli Sauce and Tomato Ketchup. The survey results revealed that Kimball form the second largest percentage for brand heard before, where 92% and 90% of the respondents have heard of Kimball Chilli Sauce and Kimball Tomato Ketchup respectively. As for actual brand purchased, Kimball Chili Sauce and Kimball Tomato Ketchup is the second most popular brand purchased (Chilli Sauce, 33% and Tomato Ketchup, 37%).

As of Oyster Sauce, Lee Kum Kee brand is the most popular brand heard before (66%) as well as actual brand purchase (55%). Maggi comprised the second largest percentage for brand heard before (56%) and actual brand purchased (25%) followed by Adabi.

Spearman's Rank-Correlation procedure will be employed to determine whether there is evidence of a significant positive association between brand heard before and actual brand purchase, the test is one-tailed. Thus the null hypothesis, H_0 : There is no positive association between brand heard before and actual brand purchased.

TABLE 4.4

RELATIONSHIP OF BRAND HEARD BEFORE AND ACTUAL BRAND PURCHASE

| | Brand Heard Before | | | Actual Brand Purchased | | | Spearman's Rank Coefficient r_s & Z value |
|-----------------------|--------------------|------|------------|------------------------|------|------------|---|
| | No. of Respondent | % | Rank R_H | No. of Respondent | % | Rank R_A | |
| CHILLI SAUCE | (N=378) | | | | | | |
| 1. Adabi | 240 | 63.5 | 4 | 42 | 11.1 | 2 | $r_s=0.83$ $z = 1.85$ |
| 2. Aminah Hassan | 183 | 48.4 | 3 | 88 | 23.3 | 4 | |
| 3. Kampong Kok | 38 | 10.1 | 1 | 14 | 3.7 | 1 | |
| 4. Kimball | 348 | 92.1 | 5 | 123 | 32.5 | 5 | |
| 5. Life | 138 | 36.5 | 2 | 51 | 13.5 | 3 | |
| 6. Maggi | 372 | 98.4 | 6 | 242 | 64.0 | 6 | |
| TOMATO KETCHUP | (N=378) | | | | | | |
| 1. Adabi | 218 | 57.7 | 3 | 34 | 9.0 | 2 | $r_s=0.9$ $Z=1.80$ |
| 2. Aminah Hassan | 172 | 45.5 | 2 | 55 | 14.6 | 3 | |
| 3. Kimball | 340 | 89.9 | 4 | 141 | 37.3 | 4 | |
| 4. Life | 125 | 33.1 | 1 | 25 | 6.6 | 1 | |
| 5. Maggi | 374 | 98.9 | 5 | 240 | 63.5 | 5 | |
| OYSTER SAUCE | (N=308) | | | | | | |
| 1. Adabi | 138 | 44.8 | 6 | 62 | 20.1 | 6 | $r_s=0.79$ $Z=2.09$ |
| 2. Cheong Chan | 93 | 30.2 | 3 | 24 | 7.8 | 5 | |
| 3. Kimball | 86 | 27.9 | 2 | 22 | 7.1 | 4 | |
| 4. Lee Kum Kee | 204 | 66.2 | 8 | 169 | 54.9 | 8 | |
| 5. Lee Shun Hing | 97 | 31.5 | 4 | 18 | 5.8 | 3 | |
| 6. Life | 27 | 8.8 | 1 | 2 | 0.6 | 1 | |
| 7. Maggi | 172 | 55.8 | 7 | 77 | 25.0 | 7 | |
| 8. Sin Tai Hing | 109 | 35.4 | 5 | 10 | 3.2 | 2 | |

NOTE :

- Hypotheses - H_0 : There is no positive association between brand heard before and actual brand purchase.
 H_1 : There is a positive association between brand heard before and actual brand purchase (one- tailed).
- Critical Z value of +1.645, level of significance of 0.05.

Using 5% level of significant, the one-tailed test has a critical Z value of +1.645. Since all the three Z value for Chilli Sauce ($Z=1.86$), Tomato Ketchup ($Z=1.80$) and Oyster Sauce ($Z=2.09$) exceed this critical value of +1.645, the null hypotheses will be rejected, and we can conclude that there is evidence of positive correlation between brand heard before and actual brand purchase for all the three types of sauces.

4.3.2 BRAND PREFERENCE AND ACTUAL BRAND PURCHASE

This section look at the comparison between brand preference and actual brand purchase. Table 4.5 shows that Maggi and Kimball are the first and second brand preferred by the respondents for both Chilli Sauce and Tomato Ketchup. For Oyster Sauce, Lee Kum Kee is still the most preferred brand. This particularly may be due to Lee Kum Kee has been in this industry for more than a century (Lee Kum Kee Recipes Vol. 1). Spearman's Rank Coefficient test also showed that there is a positive relationship between brand preference and actual brand purchased for the three types of sauces. All the Z value exceeded the critical value of +1.645.

TABLE 4.5
RELATIONSHIP OF BRAND PREFERENCE AND ACTUAL BRAND PURCHASE

| | Brand Preference | | Actual brand purchased | Spearman's Rank Coefficient r_s & Z value |
|------------------------------|-------------------|------------|------------------------|---|
| | No. of Respondent | Rank R_h | Rank R_A | |
| <u>CHILLI SAUCE</u> | (N=378) | | | |
| 1. Adabi | 12 | 2 | 2 | $r_s=1$ $Z = 2.24$ |
| 2. Aminah Hassan | 58 | 4 | 4 | |
| 3. Kampong Kok | 10 | 1 | 1 | |
| 4. Kimball | 68 | 5 | 5 | |
| 5. Life | 23 | 3 | 3 | |
| 6. Maggi | 192 | 6 | 6 | |
| <u>TOMATO KETCHUP</u> | (N=378) | | | |
| 1. Adabi | 23 | 2 | 2 | $r_s=1$ $Z = 2$ |
| 2. Aminah Hassan | 38 | 3 | 3 | |
| 3. Kimball | 85 | 4 | 4 | |
| 4. Life | 10 | 1 | 1 | |
| 5. Maggi | 215 | 5 | 5 | |
| <u>OYSTER SAUCE</u> | (N=308) | | | |
| 1. Adabi | 52 | 6 | 6 | $r_s=0.81$ $Z = 2.14$ |
| 2. Cheong Chan | 5 | 2 | 5 | |
| 3. Kimball | 13 | 5 | 4 | |
| 4. Lee Kum Kee | 163 | 8 | 8 | |
| 5. Lee Shun Hing | 8 | 4 | 3 | |
| 6. Life | 6 | 3 | 1 | |
| 7. Maggi | 59 | 7 | 7 | |
| 8. Sin Tai Hing | 2 | 1 | 2 | |

NOTE :

1. Hypotheses - H_0 : There is no positive association between brand preference and actual brand purchase.
 H_1 : There is a positive association between brand preference and actual brand purchase (one- tailed).
2. Critical Z value of +1.645, level of significance of 0.05.

4.3.3 PAST PURCHASES AND CURRENT PURCHASES

In this section, we analyze the past purchases and current purchases of the respondents. Figure 4.2 shows that 95% of them bought the same brand of Chilli Sauce that they had bought in the past, and for Tomato Ketchup and Oyster Sauce, percentage of respondent bought the same brand that they had bought in the past for the last 6 months are 94% and 96% respectively. This result indicates that majority of the respondents interviewed in Klang are quite loyal to the sauces brand they purchased. Table 4.6 shows that majority of the three ethnic groups purchased the same brand of Chilli Sauce for the last 6 months (98% of Chinese, 93% of Malays and 93% of Indians & Others). For Tomato Ketchup, Chinese respondents formed the largest percentage i.e 97%, followed by Malays (93%) and Indians & Others (87%). As for Oyster Sauce, Malays and Chinese comprise the largest percentage (97%) of the respondents bought the same brand for last 6 months as compared to only 86% of Indians & Others. Spearman's Rank Coefficient analysis in Table 4.7, show very close relationships between past and current purchases for all the three types of sauces.

FIGURE 4.2

PERCENTAGE OF RESPONDENTS PURCHASING SAME BRAND FOR
LAST 6 MONTHS

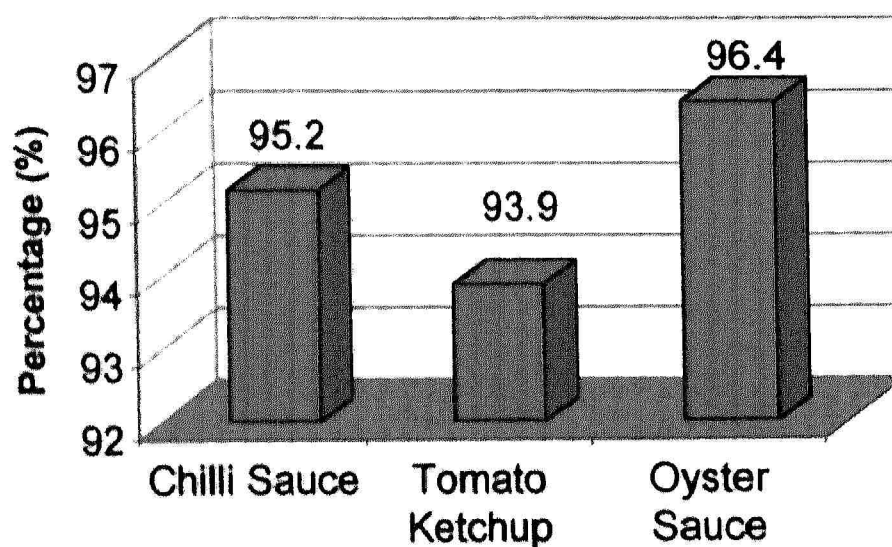


TABLE 4.6

COMPARISON BETWEEN ETHNICS WHO PURCHASED SAME BRAND
FOR LAST 6 MONTHS

| | Purchase of the same brand | | | | | |
|------------------|----------------------------|--------|----------------|--------|--------------|--------|
| | Chilli Sauce | | Tomato Ketchup | | Oyster Sauce | |
| Malays | 137 | (93.2) | 136 | (92.5) | 112 | (97.4) |
| Chinese | 173 | (97.7) | 172 | (97.2) | 166 | (97.1) |
| Indians & Others | 50 | (92.6) | 47 | (87.0) | 19 | (86.4) |
| Total | 360 | (95.2) | 355 | (93.9) | 297 | (96.4) |

TABLE 4.7

RELATIONSHIP OF PREVIOUS BRAND PURCHASED AND CURRENT BRAND PURCHASED

| | Previous Brand Purchased | | Current (Actual) Brand Purchased | Spearman's Rank Coefficient |
|------------------------------|--------------------------|------------|----------------------------------|-----------------------------|
| | No. of Respondent | Rank R_H | Rank R_A | r_s & Z value |
| <u>CHILLI SAUCE</u> | | | | |
| 1. Adabi | 45 | 2 | 2 | $r_s=1$ $Z = 2.24$ |
| 2. Aminah Hassan | 80 | 4 | 4 | |
| 3. Kampong Kok | 14 | 1 | 1 | |
| 4. Kimball | 125 | 5 | 5 | |
| 5. Life | 49 | 3 | 3 | |
| 6. Maggi | 247 | 6 | 6 | |
| <u>TOMATO KETCHUP</u> | | | | |
| 1. Adabi | 30 | 2 | 2 | $r_s=1$ $Z = 2$ |
| 2. Aminah Hassan | 52 | 3 | 3 | |
| 3. Kimball | 135 | 4 | 4 | |
| 4. Life | 25 | 1 | 1 | |
| 5. Maggi | 253 | 5 | 5 | |
| <u>OYSTER SAUCE</u> | | | | |
| 1. Adabi | 68 | 6 | 6 | $r_s=1$ $Z = 2.65$ |
| 2. Cheong Chan | 26 | 5 | 5 | |
| 3. Kimball | 22 | 4 | 4 | |
| 4. Lee Kum Kee | 164 | 8 | 8 | |
| 5. Lee Shun Hing | 20 | 3 | 3 | |
| 6. Life | 3 | 1 | 1 | |
| 7. Maggi | 71 | 7 | 7 | |
| 8. Sin Tai Hing | 10 | 2 | 2 | |

NOTE :

- Hypotheses - H_0 : There is no positive association between previous brand purchased and current brand purchase.
 H_1 : There is a positive association between previous brand purchased and current brand purchase (one-tailed).
- Critical Z value of +1.645, level of significance of 0.05.

SELECTION CRITERIA ANALYSIS

The influence of eight attributes (price, well known brand, taste, appearance, live packaging, easily available, longer shelf-life and no colouring or preservative) on purchase decisions is the best understood in terms of the interaction between the product and the person. According to Mowen (1987), these attributes account for the largest fraction of the consumer buying behaviour. In this study, respondents were asked to rank the eight attributes in their selection of products, based on 5-point scale (1=Not Important At All, 5=Very Important).

ANALYSIS OF ATTRIBUTES AMONG ETHNIC

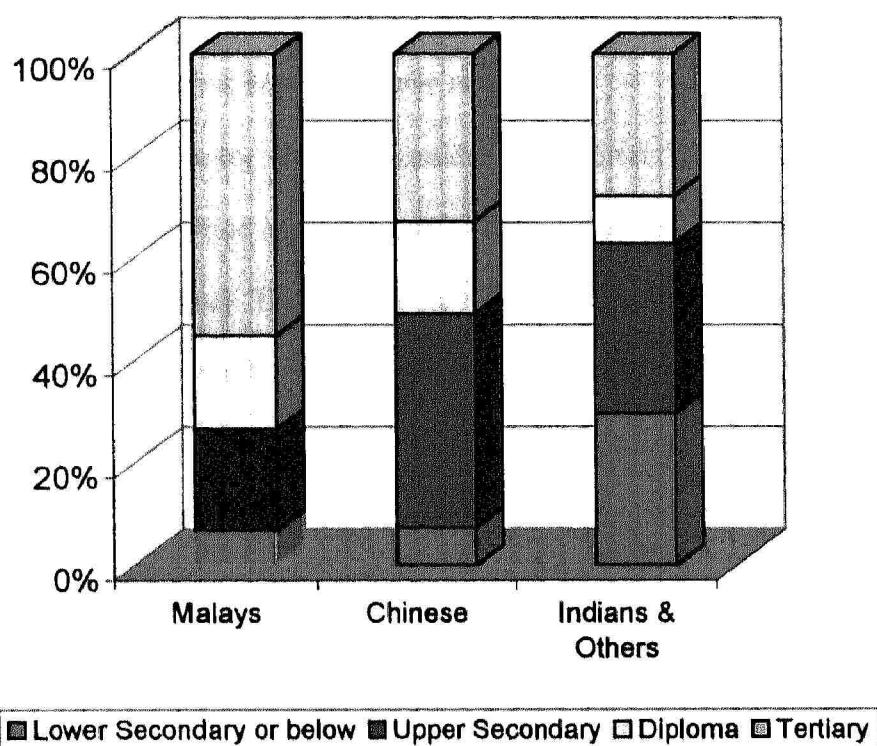
In this section, we look at differences in attributes among ethnic. Table 4.8 shows that Taste, followed by No Colouring or Preservative are the two most important selection criteria for all ethnic groups. 89% of Malays, 80% of Indians and Others and 69% of Chinese rate taste as "Very Important". 67% of Malays, 67% of Chinese and 43% of Indians and Others indicate that No Colouring or Preservative in the same category. Normally consumers buy a product if they think the taste is good. For No Colouring or Preservative, majority of respondents, regardless of ethnic groups, rate it as "Very important". This suggests that the Klang Valley respondents are health conscious. This may be due to their higher education level i.e. at least Upper Secondary. Figure 4.3 shows that only 7% of Malays, 7% of Chinese and 30% of Indians & Others educational level has attained "Lower Secondary or below". On the other hand, 93% of Malay and Chinese, and 70% of Indians & Others has at least Upper Secondary educational level.

TABLE 4.8 COMPARISON IMPORTANT OF SELECTION CRITERIA BETWEEN ETHNIC

| | Malays | | Chinese | | Indians & Others | | Total | | Chi-Square Test |
|-------------------------------------|--------|-------|---------|-------|------------------|-------|-------|-------|-----------------|
| | N | % | N | % | N | % | N | % | P value |
| PRICE | | | | | | | | | 0.000* |
| Not important | 29 | 19.7 | 21 | 11.9 | 3 | 5.6 | 53 | 14.0 | |
| Neutral | 5 | 3.4 | 40 | 22.6 | 12 | 22.2 | 57 | 15.1 | |
| Important | 71 | 48.3 | 84 | 47.5 | 32 | 59.3 | 187 | 49.5 | |
| Very Important | 42 | 28.6 | 32 | 18.1 | 7 | 13.0 | 81 | 21.4 | |
| Total | 147 | 100.0 | 177 | 100.0 | 54 | 100.0 | 378 | 100.0 | |
| WELL KNOWN BRAND | | | | | | | | | 0.000* |
| Not Important at all | 14 | 9.5 | 10 | 5.6 | 6 | 11.2 | 30 | 7.9 | |
| Not important | 58 | 38.1 | 37 | 20.9 | 12 | 22.2 | 105 | 27.8 | |
| Neutral | 36 | 24.5 | 61 | 34.5 | 4 | 7.4 | 101 | 26.7 | |
| Important | 28 | 19.1 | 61 | 34.5 | 26 | 48.1 | 115 | 30.4 | |
| Very Important | 13 | 8.8 | 8 | 4.5 | 6 | 11.1 | 27 | 7.1 | |
| Total | 147 | 100.0 | 177 | 100.0 | 54 | 100.0 | 378 | 100.0 | |
| TASTE | | | | | | | | | 0.000* |
| Important | 16 | 10.9 | 55 | 31.3 | 11 | 20.4 | 82 | 21.7 | |
| Very Important | 131 | 89.1 | 121 | 68.8 | 43 | 79.6 | 296 | 78.3 | |
| Total | 147 | 100.0 | 176 | 100.0 | 54 | 100.0 | 378 | 100.0 | |
| APPEARANCE | | | | | | | | | 0.005* |
| Not Important at all | 13 | 8.8 | 9 | 5.1 | 8 | 14.7 | 30 | 7.9 | |
| Not important | 22 | 15.0 | 40 | 22.6 | 17 | 31.5 | 79 | 20.9 | |
| Neutral | 25 | 17.0 | 46 | 25.4 | 13 | 24.1 | 83 | 22.0 | |
| Important | 61 | 41.5 | 62 | 35.0 | 13 | 24.1 | 136 | 36.0 | |
| Very Important | 26 | 17.7 | 21 | 11.9 | 3 | 5.6 | 50 | 13.2 | |
| Total | 147 | 100.0 | 177 | 100.0 | 54 | 100.0 | 378 | 100.0 | |
| PACKAGING | | | | | | | | | 0.000* |
| Not Important at all | 10 | 6.8 | 12 | 6.8 | 5 | 9.3 | 27 | 7.1 | |
| Not important | 17 | 11.6 | 38 | 21.5 | 19 | 35.2 | 74 | 19.6 | |
| Neutral | 20 | 13.5 | 67 | 37.8 | 11 | 20.3 | 98 | 25.9 | |
| Important | 68 | 46.3 | 49 | 27.7 | 19 | 35.2 | 136 | 36.0 | |
| Very Important | 32 | 21.8 | 11 | 6.2 | 0 | 0.0 | 43 | 11.4 | |
| Total | 147 | 100.0 | 177 | 100.0 | 54 | 100.0 | 378 | 100.0 | |
| AVAILABILITY | | | | | | | | | 0.002* |
| Not important | 9 | 6.1 | 8 | 4.5 | 2 | 3.7 | 19 | 5.0 | |
| Neutral | 16 | 10.9 | 22 | 12.4 | 9 | 16.7 | 47 | 12.4 | |
| Important | 49 | 33.3 | 98 | 55.4 | 21 | 38.9 | 168 | 44.4 | |
| Very Important | 73 | 49.7 | 49 | 27.7 | 22 | 40.7 | 144 | 38.1 | |
| Total | 147 | 100.0 | 177 | 100.0 | 54 | 100.0 | 378 | 100.0 | |
| EXPIRY DATE | | | | | | | | | 0.001* |
| Neutral | 34 | 23.1 | 61 | 34.5 | 6 | 11.1 | 101 | 26.7 | |
| Important | 72 | 49.0 | 64 | 36.2 | 21 | 38.9 | 157 | 41.5 | |
| Very Important | 41 | 27.9 | 52 | 29.4 | 27 | 50.0 | 120 | 31.7 | |
| Total | 147 | 100.0 | 177 | 100.0 | 54 | 100.0 | 378 | 100.0 | |
| NO COLOURING OR PRESERVATIVE | | | | | | | | | 0.004* |
| Neutral | 11 | 7.5 | 23 | 13.0 | 13 | 24.1 | 47 | 12.4 | |
| Important | 38 | 25.9 | 59 | 33.3 | 18 | 33.3 | 115 | 30.4 | |
| Very Important | 98 | 66.7 | 95 | 53.7 | 23 | 42.6 | 216 | 57.1 | |
| Total | 147 | 100.0 | 177 | 100.0 | 54 | 100.0 | 378 | 100.0 | |

* Significance at 0.05 level of significance.

* N = No. of respondent

FIGURE 4.3**PERCENTAGE COMPARISON OF EDUCATIONAL LEVEL BY ETHNIC****TABLE 4.9 COMPARISON OF EDUCATIONAL LEVEL BY ETHNIC**

| Educational Level | Malays | Chinese | Indians & Others | Total |
|--------------------------|-------------|-------------|------------------|-------------|
| Lower Secondary or below | 10 (6.8) | 13 (7.3) | 16 (29.6) | 39 (10.3) |
| Upper Secondary | 29 (19.7) | 74 (41.8) | 18 (33.3) | 121 (32.0) |
| Diploma | 27 (18.4) | 32 (18.1) | 5 (9.3) | 64 (16.9) |
| Tertiary | 81 (55.1) | 58 (32.8) | 15 (27.8) | 154 (40.7) |
| Total | 147 (100.0) | 177 (100.0) | 54 (100.0) | 378 (100.0) |

Availability of the product is also very important factor to the majority of Malay (50%) and Indians & Others (41%). On the other hand, some 55% of the Chinese rate it as "Important". Marketers have to make sure that their products are easily available in the supermarkets, mini markets, provision shops etc as this is one of the factors that can determine their sales.

Another factor that is considered important is Price. Majority of the respondents rate Price as "Important" (59% of Indians & Others, 48% of Malays and 48% of Chinese). This may be partly because of the small differences in prices of sauces i.e. between RM 0.10 – RM 0.50 per bottle.

Well-known brand is not one of the most important selection criteria for buying sauces and it contradicts the general public expectations that with the growing affluence of Malaysians, local consumers have become brand-conscious. Perhaps a study of other samples or even other products may provide different conclusions. In Table 4.6, majority of Malays (38%) rate Well-Known Brand as "Not Important" but for Indians & Others respondents, majority of them (48%) rate Well-Known Brand as "Important", and for Chinese respondents, majority of them (35%) giving the same rate for both "Important" and "Neutral". From this study, it appears that the respondents in Klang were not brand-conscious when purchasing their sauces.

Chi-square tests are executed to find out if there are differences in the level of importance of the selection criteria among ethnic groups. Since some of the categories in the level of important in the selection criteria are too small, criteria such as Price, Taste, Availability, Expiry Date and No Colouring or Preservative are

collapsed. According to Berenson and Levine (1992), as long as no more than 20% of the cells have theoretical frequencies below 5 and as long as no cell has theoretical frequency below 1, the validity of the chi-square test is not seriously affected. Results from SPSS (Table 4.8) reveal that all the selection criteria variables are significant at 0.05 level of significant. This shows that there are significant differences in the level of importance of the selection criteria among ethnic groups.

4.4.2 ANALYSIS OF ATTRIBUTES BETWEEN REGULAR AND NON-REGULAR BUYER

The next analysis is (Table 4.10) to compare the attributes between regular and non-regular buyer. Chi-Square test is carried out to test if there are differences in the level of important of the attributes of selection criteria for sauces between regular and non-regular buyer. The levels of importance of the attributes such as Price, Availability and No Colouring or Preservative are also collapsed. Results (Table 4.10) indicate that the selection criteria variables are significant at 0.05 level of significant except for Price, Taste, Expiry Date and No Colouring or Preservative. This reveals that there are significant differences between regular and non-regular buyer in the level of importance rated by the respondents for Well-Known Brand, Appearance, Packaging and Availability.

The Chi-Square tests show that the level of importance rated by Price, Taste, Expiry Date and No Colouring or Preservative are not significant between regular and non-regular buyer.

TABLE 4.10

COMPARISON IMPORTANT OF SELECTION CRITERIA BETWEEN REGULAR AND NON-REGULAR BUYER

| | Non-Regular Buyer | | Regular Buyer | | Total | | Chi-Square Test P value |
|-------------------------------------|-------------------|-------|---------------|-------|-------|-------|----------------------------|
| | N | % | N | % | N | % | |
| PRICE | | | | | | | 0.120 |
| Not important | 18 | 13.4 | 35 | 14.3 | 53 | 14.0 | |
| Neutral | 13 | 9.7 | 44 | 18.0 | 57 | 15.1 | |
| Important | 75 | 56.0 | 112 | 45.9 | 187 | 49.5 | |
| Very Important | 28 | 20.9 | 53 | 21.7 | 81 | 21.4 | |
| Total | 134 | 100.0 | 244 | 100.0 | 378 | 100.0 | |
| WELL KNOWN BRAND | | | | | | | 0.000* |
| Not important at all | 20 | 14.9 | 10 | 4.1 | 30 | 7.9 | |
| Not important | 33 | 24.6 | 72 | 29.5 | 105 | 27.8 | |
| Neutral | 25 | 18.7 | 76 | 31.2 | 101 | 26.7 | |
| Important | 51 | 38.1 | 64 | 26.2 | 115 | 30.4 | |
| Very Important | 5 | 3.7 | 22 | 9.0 | 27 | 7.1 | |
| Total | 134 | 100.0 | 244 | 100.0 | 378 | 100.0 | |
| TASTE | | | | | | | 0.058 |
| Neutral | 6 | 4.5 | 5 | 2.0 | 11 | 2.9 | |
| Important | 32 | 23.9 | 39 | 16.0 | 71 | 18.8 | |
| Very Important | 96 | 71.6 | 200 | 82.0 | 296 | 78.3 | |
| Total | 134 | 100.0 | 244 | 100.0 | 378 | 100.0 | |
| APPEARANCE | | | | | | | 0.000* |
| Not important at all | 11 | 8.2 | 19 | 7.8 | 30 | 7.9 | |
| Not important | 46 | 34.3 | 33 | 13.5 | 79 | 20.9 | |
| Neutral | 26 | 19.4 | 57 | 23.4 | 83 | 22.0 | |
| Important | 42 | 31.3 | 94 | 38.5 | 136 | 36.0 | |
| Very Important | 9 | 6.8 | 41 | 16.8 | 50 | 13.2 | |
| Total | 134 | 100.0 | 244 | 100.0 | 378 | 100.0 | |
| PACKAGING | | | | | | | 0.001* |
| Not important at all | 10 | 7.5 | 17 | 7.0 | 27 | 7.1 | |
| Not important | 42 | 31.3 | 32 | 13.1 | 74 | 19.6 | |
| Neutral | 30 | 22.3 | 68 | 27.9 | 98 | 25.9 | |
| Important | 40 | 29.9 | 96 | 39.3 | 136 | 36.0 | |
| Very Important | 12 | 9.0 | 31 | 12.7 | 43 | 11.4 | |
| Total | 134 | 100.0 | 244 | 100.0 | 378 | 100.0 | |
| AVAILABILITY | | | | | | | 0.025* |
| Not important | 8 | 6.0 | 11 | 4.5 | 19 | 5.0 | |
| Neutral | 11 | 8.2 | 36 | 14.8 | 47 | 12.4 | |
| Important | 72 | 53.7 | 96 | 39.3 | 168 | 44.4 | |
| Very Important | 43 | 32.1 | 101 | 41.4 | 144 | 38.1 | |
| Total | 134 | 100.0 | 244 | 100.0 | 378 | 100.0 | |
| EXPIRY DATE | | | | | | | 0.244 |
| Not important at all | 5 | 3.7 | 7 | 2.9 | 12 | 3.2 | |
| Not important | 13 | 9.7 | 18 | 7.4 | 31 | 8.2 | |
| Neutral | 13 | 9.7 | 45 | 18.4 | 58 | 15.3 | |
| Important | 58 | 43.3 | 99 | 40.6 | 157 | 41.5 | |
| Very Important | 45 | 33.6 | 75 | 30.7 | 120 | 31.7 | |
| Total | 134 | 100.0 | 244 | 100.0 | 378 | 100.0 | |
| NO COLOURING OR PRESERVATIVE | | | | | | | 0.447 |
| Not important | 2 | 1.5 | 11 | 4.5 | 13 | 3.4 | |
| Neutral | 11 | 8.2 | 23 | 9.4 | 34 | 9.0 | |
| Important | 43 | 32.1 | 72 | 29.5 | 115 | 30.4 | |
| Very Important | 78 | 58.2 | 138 | 56.6 | 216 | 57.1 | |
| Total | 134 | 100.0 | 244 | 100.0 | 378 | 100.0 | |

* Significance at 0.05 level of significance.

* N = No. of respondent

Table 4.10 shows that for Well Known Brand, majority of non-regular buyer (38%) rate it as "Important" whereby majority of regular buyer (31%) rate it as "Neutral". Majority of non-regular buyer rate Appearance (34%) and Packaging (31%) as "Not Important" but regular buyer rate both of them as "Important" i.e. 38% and 39% respectively. Selection of Availability is giving the rate as "Important" by majority of non-regular buyer (54%) but whereby majority of regular buyer (41%) rate it as "Very Important".

4.5 CONCLUSION

From the brand study i.e. between brand heard before and actual brand purchase, between brand preference and actual brand purchase and between past purchases and actual purchases, results show that there is positive association between the above variables.

Maggi rated the highest for brand heard before and actual brand purchase for both Chilli Sauce and Tomato Ketchup. For Oyster Sauce, Lee Kum Kee is the most popular brand for both brand heard before and actual brand purchased. Maggi is also the most preferred brand for both Chilli Sauce and Tomato Ketchup. Similarly, Lee Kum Kee brand is the most preferred brand for Oyster Sauce.

For selection criteria analyses, results show that Taste followed by No Colouring or Preservative are the most important selection criteria for all the ethnic groups. Price is not the most important selection criteria as the price for a bottle of sauces are not so expensive. Respondents also indicate that Well-Known brand is not the most important criteria when purchasing sauces. This may suggest that respondents are not price and brand conscious.

As for the comparison in the level of importance of selection criteria between non-regular and regular buyer, the Chi-Square tests reveal that there is no difference in the level of importance of selection criteria between non-regular and regular buyer for Price, Taste, Expiry Date and No Colouring or Preservative.