

## Consumer Behavior and Preference in the Fruit Markets of Taiwan

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**Abstract:** This study examined consumer behavior and preference of the fresh fruit consumption in Taiwan fruit markets. The Factors influencing fruit consumer behavior in the three sites of the study area been investigated. The target respondents were the fruit consumers in Taipei, Pingtung and Kaohsiung City respectively. Questionnaires were designed to collect primary data by interviewing consumers in traditional markets, super markets and educational institutions. A total of 292 questionnaires were received out of 360 questionnaires with a percentage of 92, 84 and 60% respectively. The result shows that, amount expend per week by consumers from three cities is NT\$200 as minimum expenditure. The traditional markets were preferred places of purchasing fruits with a percentage of 69.09%, 82.18% and 80.00% for Taipei, Kaohsiung and Pingtung, respectively. The preference for traditional markets was a result of cheap price, quality and freshness of fruits. Basing on research results, we conclude that, gender perspective from the three locations, especially females have the highest frequency of purchase and highest amount of disposable income expend on fruits per week compared to males.

**Key words:** Consumer behavior % Fruit consumers % Taiwan fruit markets % Frequency of purchase% Taiwan

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### INTRODUCTION

The population of the Taiwan area was 22,689,000 according to December, 2004 census report. The population density was 626.98 people per square kilometer at that time. The Tropic of Cancer passes through Hualien, Chiayi and Penghu, creating two distinct climatic zones in Taiwan. The south of Taiwan is tropical and the north is subtropical. Both regions are typically hot (averaging 20 degrees Celsius), rainy and subject to seasonal typhoons. Seasonal distinctions are moderate and chances of freezing temperatures or snowfall are paucity. Economic liberalization and internationalization are the administrative principles of the government. More than 50% of the Asian consumer's food bills spend on Fresh Food categories. Food will continue to be Asian consumers' biggest single area of expenditure and increasing at 2.6% a year faster than the rate of Asia's population growth. Not only will Asian consumers be

spending more per capita on food in the future, but also there will soon be hundreds of millions more consumers. It has been projected that, by the year 2020, there will be 700 million new consumers in Asia. The development of Taiwan's agricultural sector since World War II has been extraordinary. Government programs, farmers' efforts, as well as favorable domestic and international market conditions have contributed to agricultural growth and progress during this period. According to the Council of Agriculture for Economic Planning and Development of the Republic of China on Taiwan, had a population of 22.53 million people with an economic growth rate of 3.3%. Gross Domestic Product (GDP) per capita, in Taiwan increased from US\$11,577 in 1994 to US\$12,691 in 2003 (National Statistic, Republic of China, 2005). Disposable income per household remained relatively high from 1994 to 2004, with US\$25,615 recorded for 2004 [4]. Even though Taiwan produces many kinds of fruits like bananas, pineapples and citrus fruits, which combine to

account for one-third of total production, other important fruits include mangos, grapes, papayas, betel nuts, guavas, longans, pears etc. The main market for Taiwan fruits is predominantly on domestic markets. The Importation paradigm of fruits and vegetables increased steadily and reached to US\$300 million in 1992. Before 1987, export earnings from fruits showed a surplus. Nevertheless, starting from 1988, Taiwan became a net importing country of fruits. Imported fruits are beginning to claim a substantial share in volume and value in the fruit market of Taiwan. Consumers' attitudes and response towards such cues, however, may be modified by certain inherent personal characteristics, such as their level of category knowledge. The objective of this study was to examine the consumers' behavior and preference of buying fruits in different markets in Taiwan. The main contributions of this paper to the existing literature on the moderating effect of consumer knowledge on purchase decisions on the total amount of information used by the consumers in their choice of products.

### **Review of Literature**

**Consumer Behavior and Preference of Fruits:** Market researchers' long-standing interest in consumer food purchasing habits remains as alert as ever in the current global environment in which the majority of product categories are in continual expansion with the addition of new brands [1]. This situation calls for a differentiation strategy aimed at creating added value and increasing competitive edge, while also responding to consumer needs and/or preferences [2]. Since current differentiation strategies in the agribusiness sector focus mainly on product quality, price is no longer the sole indicator of product quality [3]. The importance of price as a barrier to purchase organic fruit and vegetable is confirmed by an increasing amount of research that assesses the consumers' willingness to pay a premium for organic or safe products [4]. Products are conceived as a set of attributes, each of which acts as a cue contributing to the formation of the consumer's impressions of the product itself [5-6]. From the marketing point of view, moreover, the importance of extrinsic quality cues lies in the fact that they can be manipulated without the need for any physical alterations to the product. Consumers' attitudes and response towards such cues, however, may be modified by certain inherent personal characteristics, such as their level of category knowledge. Hence, the assessment and perception of quality can vary from one consumer to another. Past research has shown that the level of consumers' product knowledge influences the

way they use information to form product quality judgments and ultimately, on their product choice [7]. Consumption behavior for fruits has been a neglected area of research. Nevertheless, understanding the features of fruit consumption is critical to the success of the fruit industry. The demand for domestic grown fruits with efficient packing methods, better quality and pesticide-free are the key factors to pay attention. Apart from complete consumption information, system of agricultural products needs to be established [8]. According to the Council of Agriculture [4] the demand for fruits increases before Lunar New Year. From February 13 to 17 in 2007, the supply of vegetables and fruit increased by 46% and 53% respectively at the fruit and vegetable wholesale markets. Hence, the assessment and perception of quality can vary from one consumer to another. Past research has shown that the level of consumers' product knowledge influences the way they use information to form product quality judgments and ultimately, on their product choice [9]. The fruit suppliers from Taipei, Taichung and Kaohsiung provided 3,200 tons of fruits. The production season for fruits like tangerines, oranges, Chinese dates and wax apples production, the supply of those products is sufficient too. The COA reported that there was sufficient supply of fruits, due to normal weather conditions. This in turn, led to stable market prices. Due to the suppliers' speculation the increase in demand for agriculture products and adopts timely measures, the abrupt changes in supply and prices neglected. Modern food consumer is highly concerned about the safety and quality of the food products purchased. This concern goes simultaneously with their awareness of the relation between the production practice and quality of food products which has altogether contributed towards growing demand for food from non-conventional production practices [10]. Price is probably the best-known extrinsic quality indicator. It becomes more important when information about other attributes is lacking and there is a risk of making the wrong choice. When comparing two similar products, the higher-priced alternative is usually expected to be of better quality [10-11]. Consumer behavior refers to the buying of final consumers-individuals and households who buy goods and services for personal consumption. All of these final consumers combined to make up the costumer market [12]. The understanding of customer needs and wants is one of the major underpinning marketing concepts. The nature of being market-orientated requires organization to consider who their best purchasers might be, where they are, how to target them and with what and an important

starting point is to understand what is it they really “want” [12-13]. Consumers around the world vary tremendously in age, income, education level and tastes. They also buy an incredible variety of goods and services. The diverse consumers’ behaviors connect each other with other elements around the world influences their choices among various products, services and companies [14]. Product, price, place and promotion influence consumer’s choice. Other stimuli include major forces and events in the buyer’s environment: economic, technological, political and cultural. All these inputs enter the buyer’s black box, where they change to observable buyer responses: product choice, brand choice, dealer choice, purchase timing and purchase amount [15]. The brand name is another way of differentiating a product. Its role is to represent the aggregate consumer perception of a particular producer. Thus it tells us what to expect of a specific product. When consumers are unable to judge quality, brand names often emerge as an important assessment criterion or as a substitute quality indicator [14-16]. It is clear then that there is an urgent need to encourage healthy food choices and good nutrition to facilitate healthy ageing and nutritional needs change with ageing [17]. Furthermore, poor health status and functional abilities have been associated with a reduction in the ability to procure and prepare food in later life, particularly among socially and geographically isolated people [18]. Life course transitions, for example from being a couple to widowhood, have also been identified as barriers to healthy eating as people age [19]. Whilst there has been considerable market research conducted on the shopping habits of mothers for various products, little peer-reviewed literature is available on factors that influence their food choices. However there is a perception that mature-aged customers have more disposable income to spend on food and groceries [20] although this is only likely to apply to high income earners. Furthermore, they are also more likely to be traditional consumers, store and brand loyal. According to [20-21] food choice considers product attributes as one of the perspectives to increase understanding of consumer or buyer choice. A product is therefore comprehended as an aggregation of several characteristics and components-referred as product attributes. [22] divided them on intrinsic and extrinsic, whereas extended classification includes: search attributes (e.g. price, colour), experience attributes (e.g. taste and flavour) and credence attributes (e.g. health and safety). A recent study concerning behaviour and attitudes of the organic fruit consumers has been

prepared by [23-23]. They concluded that health hazards are the main motivation for purchase and correspondingly free-from-pesticides is the most important attribute of the produce. Main constraints to purchase organic foods are high price premiums, availability and to a lesser extent lack of information, lack of trust in organic certification schemes and quality [24]. The importance of price as a barrier to purchase organic fruit and vegetable is confirmed by an increasing amount of research that assesses the consumers’ willingness to pay a premium for fruits and vegetables or safe products [25].

## METHODOLOGY

Previous studies have pointed out that, the behavior of consumers affected by their perceived values and experiences and influenced by their own values guided by their culture and subculture. Therefore, this investigation attempts to examine the influence of demographic variables and consumer motivations of purchasing intention of fruits in Taiwan. The first variable groups in this study were consumer’s demographics, i.e., gender, age, education status, household size and occupation. The second groups of variables are factors influencing consumer behavior and preferences.

**Questionnaire Description:** The questionnaires were design in two sections. The first section described the respondent’s demographic data. This section used to check the statistical variation between variables in terms of age, gender, occupation, education level and household size. The second section investigates the respondents’ consumption preferences for fruits. Behavioral questions are employed in this section in order to identify the truthful information on what respondent does and what actions are carried out, as: where the respondent buy fruit, how much they buy, how much does they expend on fruit and what is their main concern making a choice of fruit purchasing.

**Sampling Method:** The study targeted fruit consumers, in three different Cities of Taiwan and two different counties, which are Taipei City, Pingtung City, Pingtung County, Kaohsiung City and Kaohsiung County. The number of questionnaires distributed to consumers in the cities of Taipei, Pingtung and Kaohsiung was 120 in each city totaling to 360 respondents. These locations selected because of its high production and the consumption pattern of the consumers. A simple pre-test conducted to 30 Taiwanese students, considered as daily fruit

consumers. The pre-test is an assumption aiming to define the proportion of peoples who regularly purchase tropical fruit. Among those 30 students who were, ask whether they regularly purchase fruit as a daily ingredient of their meal and seven gave affirmative respond. Taking this into consideration, a proportion =19% was used in this study to determine the sample size by using the equation (1). The statistical method used in this study was based on the methodology describe by [6] as followed.

$$n = \frac{P(1-P)Z^2}{E^2} \quad (1)$$

Where:

- $n$  = Sample size needed to be determined,
- $P$  = Estimation of the population,
- $Z$  = Value associated with the desired confidence level,
- $E$  = Desired precision

**Sampling Design:** Consumers in Taipei were interview in public spaces (parks, streets, train station, etc.) and traditional markets and the second part of survey focuses on student Taipei. In Pingtung and Kaohsiung the study was done in traditional markets, small supermarkets and public places respectively.

**Statistical Analysis Methods:** Descriptive analyses, ANOVA and correlation analysis used for this research work. Statistical analysis of SPSS software used for analysis. The results of the questionnaires entered into a database for analysis. Quantitative variables expressed as means and qualitative variables as percentages. The dependent variables were the scale for each of the questionnaire domains. The internal consistency was analyzed using Cronbach's  $\alpha$ . Statistical significance was set at a value of  $p$  less than 0.05. Descriptive analyses in this study based on the frequency distribution, dispersion of measurable variables. Analysis of Variance (ANOVA) used for the comparison of the sample demographic between the cities considered in this study. One-way ANOVA used for testing the statistical difference among sample demographic of three cities. Analysis of Variance allows examining the statistical difference between the demographic from different samples [20]. A chi-square statistic, denoted used to test if a sample of data came from a population with a specific distribution. It is a sample statistic used to measure the degree of association among nominally scaled variable [6]. The cross-

Tabulation between variables were examine using Chi-square statistic test. The chi-square statistic test used to test the statistical significance between the frequencies, distributions of two or more groups.

## RESULTS AND DISCUSSION

This analysis shows the basic statistics of the frequency distribution of the sample populations for Taipei, Pingtung and Kaohsiung, respectively. For Taipei, 57.66% were female and 42.34% were male, In addition, 76.58% of the interviewees are less than 25 years old and 79.28% of them have a high education level. The household size of four members is the most represented (39.64%). Most of the respondents in Taipei were students (71.17%), in a group of (67.57 %) the mother was in charge of purchasing the fruit for family consumption. For Pingtung, the female and male represented 64.36% and 35.64% respectively. It is notice that 90.10% of the respondents in Pingtung were students with a high education level, representing 81.19% of the sample. The household size with four members represented the majority of the sample (38.61%), followed by 5 members (33.66%), similarly to Taipei; mother was the person in charge of purchasing fruit for the family. Furthermore, in Kaohsiung, 77.50% were female and 22.50% male. It was observed that 32.50% of the respondents were less than 35 years old and 30% where less than 45 years old. In addition, the study showed that 42.50% of the respondents have a higher education level, 30% have a household size of 4 members. The education level indicates 22.50% of the sample populations were students and 20% service workers. From the result, 37.5% of the respondents purchased fruits for their consumption by themselves, while for 35% of the respondents mentioned their mothers responsible for family shopping. The sample populations from the survey areas, 292 valid questionnaires collected and high percentage of female of 65.41% while the male represented 34.59% respectively. The result shows that, 64.32% of the populations were students and 44.52% have high education level. The household sizes for the respondents of this study were majority based on 4 members 36.64%. The results of this study agreed with the conclusions drawn by [3], women now represent the majority in population and consume purchasing power-they are not only buyers but also influencers. Women are responding by integrating other purchases with grocery purchases. Women are responsible for 75% of grocery purchases;

Table 1: Descriptive statistics of fruit consumption variables of the sample population

Variable	Level	Location					
		Taipei		Pingtung		Kaohsiung	
		No.	%	No.	%	No.	%
Frequency of purchase per week	1	54	49.54	65	58.56	22	27.50
	2	38	34.86	24	21.62	24	30.00
	3	12	11.01	9	8.11	10	12.50
	4	5	4.59	3	2.70	24	30.00
Place of purchase	Producers	3	2.73	1	0.99	2	2.50
	Traditional market	76	69.09	83	82.18	64	80.00
	Small supermarket	9	8.18	9	8.91	12	15.00
	Chain store supermarket	22	20.00	8	7.92	2	2.50
Spend per week	Less than 200 \$NT	57	51.82	67	66.34	26	32.50
	200-350 \$NT	30	27.27	21	20.79	22	27.50
	350-500 \$NT	14	12.73	7	6.93	16	20.00
	500-600 \$NT	4	3.64	6	5.94	12	15.00
Motivation of buy fruit	More than 1000 \$NT	5	4.55	0	0.00	4	5.00
	Price/cheap	53	47.75	30	29.70	20	25.00
	Quality	22	19.82	13	12.87	4	5.00
	Convenience	9	8.11	12	11.88	12	15.00
Inconvenient to buy fruit with damage by pest	Healthy	9	8.11	18	17.82	18	22.50
	Taste preference	17	15.32	27	26.73	26	32.50
	Other	1	0.90	1	0.99	0	0.00
	Yes	25	22.52	33	32.67	42	52.50
The size of fruit is important	No	86	77.48	68	67.33	38	47.50
	Yes	55	52.38	62	61.39	40	51.28
	No	50	47.62	39	38.61	38	48.72
In which circumstances fruits are bought as gift	Chinese New year	27	24.32	27	26.73	40	50.00
	Birthday	3	2.70	4	3.96	0	0.00
	Mid autumn festival	3	2.70	2	1.98	0	0.00
	Hospital visit	28	25.23	45	44.55	16	20.00
	Mothers day	2	1.80	1	0.99	0	0.00
	Visit friend	9	8.11	9	8.91	8	10.00
	Workship	39	35.14	13	12.87	16	20.00

the organizations that recognize and harness this trend will have a commercial advantage over competitors. Table 1 shows the descriptive statistics of consumption variables for Taipei, Pingtung and Kaohsiung. This table shows the frequency of purchase once per week. In Taipei, (49.54%) and Pingtung (58.56%), interpreted, as most of the respondents in these two locations are student. Thus, they are more concern about saving money due to their restricted budget. In the case of Kaohsiung 30% of the respondents, buy two and four times per week due to their high incomes. In concluding, the consumer behavior in terms of purchase frequency is dependent of their income level. As generally, people buy

more fruit when they have high income. The amount expend per week by the respondent from those three cities is around NT\$200 as minimum. The traditional market is the preferred place of purchase at the three locations with a percentage of 69.09, 82.18 and 80.00% for Taipei, Kaohsiung and Pingtung, respectively. The preference for traditional market explained by the price of fruits considered as cheap by most of the respondents. As well, the traditional market fruits are considered as a good quality product, due to it freshness.

From the results, we observed that, the place of purchase and fruit phyto-sanitary situation could influence the consumer motivation to buy fruit or not.

Table 2: Favorite fruit chosen by the respondents of the sample population

Variable	Level	Location					
		Taipei		Pingtung		Kaohsiung	
		No.	%	No.	%	No.	%
Favorite fruit	Apple	32	28.83	34	34.34	20	25.00
	Banana	17	15.32	9	9.09	16	20.00
	Guava	12	10.81	11	11.11	10	12.50
	Orange	11	9.91	9	9.09	0	0.00
	Pineapple	1	0.90	7	7.07	8	10.00
	Watermelon	7	6.31	5	5.05	6	7.50
	Wax Apple	3	2.70	6	6.06	2	2.50
	Tomato (small)	3	2.70	7	7.07	4	5.00
	Cherry	0	0.00	1	1.01	0	0.00
	Mango	0	0.00	2	2.02	0	0.00
	Dragon fruit	0	2.70	1	1.01	0	0.00
	Pear	3	1.80	1	1.01	0	0.00
	Papaya	2	0.00	2	2.02	0	0.00
	Kiwi	0	0.00	1	1.01	0	0.00
	Strawberry	2	1.80	1	1.01	0	0.00
	Jack fruit	1	0.90	0	0.00	0	0.00
	Grapes	3	2.70	1	1.01	4	5.00
	Melon	1	0.90	1	1.01	0	0.00
	Coconut	1	0.90	0	0.00	0	0.00
	Peach	1	0.90	0	0.00	2	2.50
	Lemon	0	0.00	0	0.00	2	2.50
	Pitaya	1	0.90	0	0.00	0	0.00
	Honey dew	1	0.90	0	0.00	0	0.00
	Tangerine	1	0.90	1	1.01	0	0.00
	Durian	1	0.90	0	0.00	0	0.00
	Jujube	0	0.00	0	0.00	0	0.00
Seasonal fruit	5	6.31	1	1.01	6	7.50	

In Taipei and Pingtung were 47.75% and 29.7% consumers buy fruits in the traditional market because of the price. Moreover, when buying they consider the cheapest price and difference can be seen in Kaohsiung, where majority of the respondents (32.50%), taste of fruit determine the place of purchase. A small damage of pest on the fruit could distract the consumers to buy the fruit or not in a particular locations. In Taipei and Pingtung 77.48% and 67.33%, of costumers did not show any inconvenient to buy fruit with small pest damage respectively.

Moreover, in Kaohsiung, 52.50% of the respondents found an inconvenient to buy fruit with a small damage by pest, the explanation of that could be the difference of both Taipei and Pingtung to Kaohsiung in term of the age and gender. The old age populations of respondents found in Kaohsiung and were mainly women; they are

more concern about the aspect of food. For the size of the fruit, in Taipei, Pingtung and Kaohsiung, 52.38%, 61.39% and 51.28% put more emphasis to fruit size. The size of the fruit matters, interpreted, as majority of the population were students and they prefer buying the normal size of the fruit. As it more convenient for them to put inside their bags without taking much space and eaten in few bites. In Taipei, 44.55% of the respondents buy fruit for offering in the celebration of “Pai Pai” (worship), in Pingtung, 44.55% of fruits bought as gift for hospital visits; and, in Kaohsiung, 50% of fruits offered as gift for Chinese New Year.

Table 2: shows the fruit preference chosen by the respondents and among the 26 selected fruits; seven of them popularly consumed. In ranking, apple (first), followed by banana, guava, orange, pineapple, watermelon and wax apple respectively.

Table 3: Comparison of consumer's family size, occupation, frequency of purchase and their expenditure for the three cities

Location	Family size	Occupation	Frequency of purchase	Expend per week
Kaohsiung City	4.125b	5.450a	2.450a	2.325a
Taipei City	4.611a	2.750b	1.713b	1.833b
Pingtung City	4.723a	1.376c	1.505b	1.525c

Means within a column with the same letter were not significantly different ( $p > 0.05$ )

Note: letters a, b and c, where from ANOVA mean comparison by Duncan grouping

Table 4: Correlation matrix within and between variables characterizing the consumers allocation

	AGE	EDU	FAS	FP	SPW	SF
AGE	1					
EDU	-0.324**	1				
FAS	-0.105	0.150*	1			
FP	0.273**	-0.120*	-0.098	1		
SPW	0.278**	-0.114	-0.158**	0.557*	1	
SF	0.013	-0.127*	-0.062	0.048	0.025	1

Note: Bold on significant correlations

\*\* Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

Notes:

GEN = Gender AGE = Age EDU = Education level FAS = Family size FP = Frequency of purchase SPW = Spend in fruit per week

SF = Size of fruit

Fresh apple consumption in Taiwan remained steady during Marketing Year, 2003 at around 115 thousand metric tons, although the composition of this supply differed in significant ways from previous years [4]. The apple mostly consumed as imported fruit in Taiwan. Only oranges, 96% of which are grown domestically consumed in greater quantity. However, in terms of real growth, the apple is losing competitiveness to a host of other imported fruits, including grapes, nectarines, cherries and berries. If the Taiwan economy would able to keep on track the growth rates of 3 to 5%, apples would have more potential to boost the demand by injecting additional 10~20 thousand metric tons of imports per year [6]. However, due to the variety of imported and availability of domestic fruits now offered, consumption of apples is not expected to reach the climax seen in the late 1990s, without some new factor or factors changing the competitive picture (e.g., positive findings regarding the health benefits of apples). The apple symbolizes many positive things to the Taiwanese consumers. When purchased as a gift, origin of the country, size, appearance and taste remain as important as price in the consumer's decision to buy [5].

Table 3 shows a mean comparison of consumer's family size and their expenditure per week. For the variable of family size and frequency of purchase, there is a significant difference among Kaohsiung, Taipei and

Pingtung. The comparison of the occupation and expenditure per week shows significant difference between the tree locations. Respondents in Kaohsiung were in the service level of occupation, which allows them to expend more per week.

Table 4 presents the correlation between variables characterizing the consumers regardless of the location. This study explored several correlations between the demographic variables: age and frequency of purchase; age and education. The significant and negative correlation between age and education that better explains as eldest the person with lower level of education.

From a study conducted by the Economic Grow Center of Yale University in the U.S. in 2001, about the consumption growth of Taiwan between the year 1976 and 1996, an observation made about how Taiwan experienced a marked expansion in education throughout the post of World War II. If consumption growth rates differ across education groups within birth cohorts, then differences in education levels may account for some of the differences in estimated consumption growth between birth cohorts. As one moves from younger to older cohorts, individuals tend to have less education [18].

**Purchasing Behavior Variables:** Figure 1.shows the buying motivation of the sample population for all location, with its different variables. We can observe from

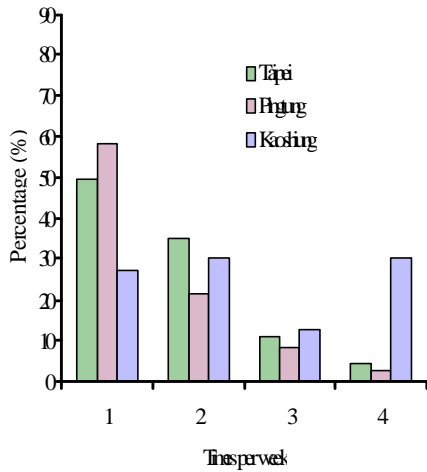


Fig. 1: Frequency of Purchase per week of the Sample Population

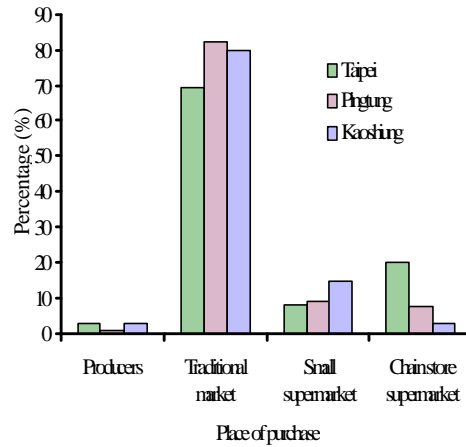


Fig. 3: Place of Purchase of the Sample Population

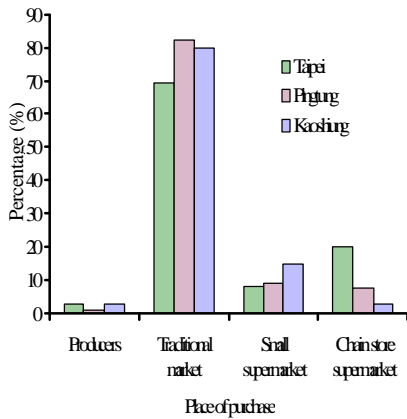


Fig. 2: Place of Purchase of the Sample Population

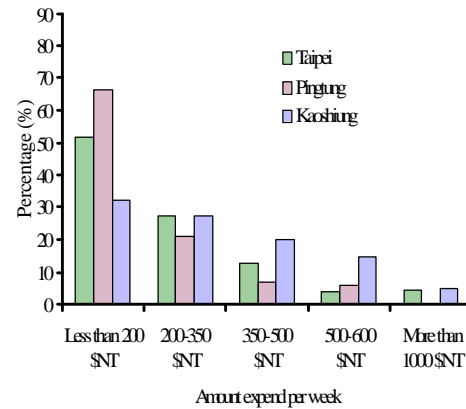


Fig. 4: Amount Expend per Week of the Sample Population

this figure that for the cities of Taipei and Kaohsiung the motivation that ignites the population to buy in a specific place is the price difference and taste preference in Kaohsiung city.

The result from figure 2 shows that the frequency of purchase per week of the sample population for the three locations, based on the frequency of purchase per week. The cities of Taipei and Pingtung have a high percentage of variables per week, while Kaohsiung's population buys four times per week.

In addition, from figure 3 shows remarkable high percentage of preference of buying in traditional markets for the three cities. According to [24] less than 50 percent of urban shoppers are using supermarkets on a regular basis, hypermarket penetration is low and convenience stores are hardly used. The traditional trade dominates

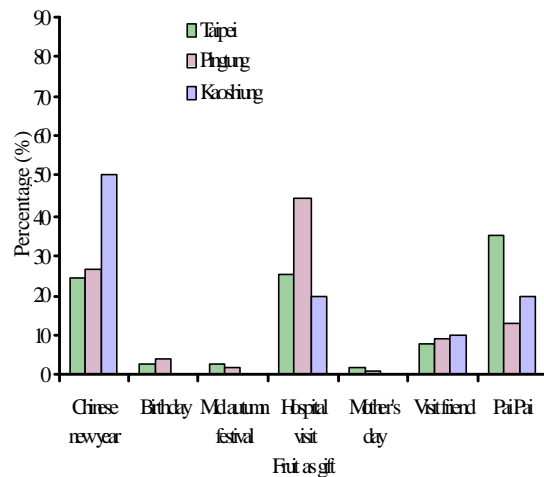


Fig. 5: Fruits offered as gift by the sample population



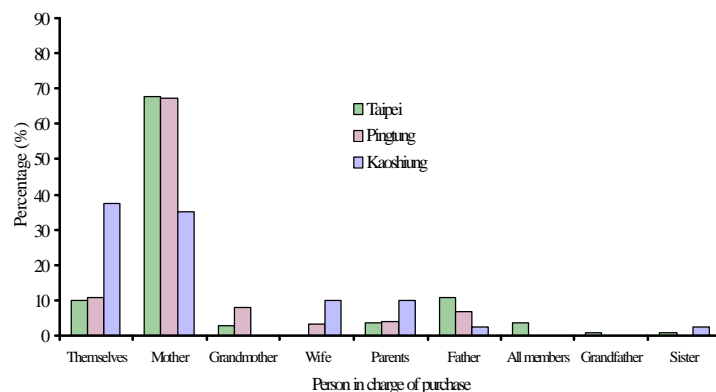


Fig. 6: Person in charge of fruit purchasing for the family

these markets: counter service grocery stores and wet markets. These outlets are visited on daily basis or once every other day, whereas consumers visits supermarkets twice a month.

In Figure 4, we can observe the amount expend per week of the sample population fort the 3 cities, which shows that in the 3 locations, the highest percentage is for the variable of less than NT\$200, expend per week.

Figure 5 shows the percentage of fruit used as gift by the sample population for each city. For Taipei, the highest percentage given for fruit as gift was for Chinese New Year, while in Pingtung, the highest percentage was for hospital visits and Kaohsiung for offering the fruit in the worshipping or “Pai Pai”.

Figure 6 shows the person in charge of purchasing fruit among the sample population of the three cities. I observed that, the highest percentage in the three locations was for the mother; while in Kaohsiung consumers buy fruits by themselves.

## CONCLUSIONS

For the Consumer Behavior analysis, many attribute factors that needs more consideration. In general, results from the research work revealed factors such as gender, age and education affects the motivation and frequency of Fruit Purchase. In addition, there are other factors that affects the consumer behavior, such as household size and occupation. Taiwanese population is motivated to buy fruit as gift for different occasions and with different motivation. Most of the respondents buy fruit for Chinese New Year, hospital visits and for religious purpose (Pai-Pai). The most popular place of purchase for the population is the traditional market preferred

because of the low price of fruits, their freshness and convenience. It has been observed that the role of the mother in the decision of purchasing fruits is the most important factor. Fruit marketers should consider targeting mothers for future promotion of fruits.

The majority of the respondents of this study were students, accordingly have high education level. Education level has been found in this study as an important affecting factor in the consumer decision to buy fruit. High education is one of the main factors influencing the consumer motivation for buying fruit, as more education a person has, more knows about the benefits and nutritional value of fruits. The variables age and education influence the consumer behavior. In spite of the differences among respondents composition in Taipei, Pingtung and Kaohsiung, as observed from the population more aging, more motivation and high frequency of purchasing fruits. Basing on research results, we conclude that, gender perspective from the three locations, especially females have the highest frequency of purchase and the highest amount disposable income expend on fruits per week compared to males. The variables age and education influence the consumer.

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