

The Study of Consumers' Buying Behavior and Consumer Satisfaction in Beverages Industry in Tainan, Taiwan

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Abstract—The beverages industry is the widest base compared to others. A consumer is anyone makes a purchases and transaction decision of goods and services form a store or a company. This study wanted to investigate the consumers' beverage purchasing behavior and their preference for different beverage groups in Tainan City, Taiwan. Descriptive research method was used to survey 150 customers and data were collected through questionnaire administered. Descriptive statistic and Pearson correlation coefficient was used as a method of data analysis. The result of the analysis reveals a positive correlation between product attribute and consumer purchase decision.

Index Terms—Purchasing behavior, preference, customer satisfaction, beverages industry

I. INTRODUCTION

The beverages industry customer base is probably widest and deepest base in the world. According to Beverage Digest, it has about 85% consumer base. In fact, the beverages market in Taiwan is about NT\$4,930 billion which includes water, juice, milk, tea, coffee and other kind energy drinks.

H.Y. Chen (2007) found that beverages are popular commodities in many convenience stores and drinks shops [1]. In today's busy society, everyone has a fast pace of life and everything needs to be done quickly. Therefore we can see 24-hour convenience store everywhere in Taiwan. The major convenience stores are 4,776 of 7-LEVEN until January 22nd 2013, 2,228 of Family Mart and 1,300 of Hi-Life International, Inc (a total of 8,304 stores).

As the popularity of convenience stores, people are easily purchase daily necessities in the convenience stores in Taiwan. Therefore, the aim of this study wanted to investigate the influence of consumer purchasing behavior on the consumer satisfaction.

Kotler (1977 and 2001) thought that consumer buying behavior is how individuals, groups and organizations to select, purchase, use and disposal of products, services, ideas or experience to meet the consumers' demand. Buying behavior is the decision processes and acts people involved in buying and using products which includes social and mental process [2], [3].

Fornell (1992) pointed out that customer satisfaction is the overall measurement of customers' experience after

buying products or using services [4].

II. LITERATURE REVIEW

A. Demographic Factors and Consumer Buying Behavior

See Table I, Kotler (2001) mentioned that demographic factors influenced customer's buying behavior are the internal factors including age, gender, income, occupation, education, family size, and religion, race, generation, nationality and social class, so the market is divided based on these factors. And these factors are the basic factors to differentiate customer groups as the customer wants, preferences and usage are usually involve demographic factors [5].

TABLE I: CONSUMER BUYING BEHAVIOR

Year	Scholar	Definition
1970	Walters & Paul	People are buying and using the product or service involved in the decision-making and behavior [11].
1974	Pratt	By cash, check exchange of goods or services necessary decisions referring to the purchasing behavior [12].
1983	Francken	Consumers are satisfied with the product or service will generate repeat purchase intention [13].
2010	Shiffman & Kannk	Performance in the search for, purchase, use and evaluate the behavior of products and services to meet the demand [14].
1993	Engel, Blackwell & Miniard	Consumer buying behavior is directly related to the consumption of products and services which are triggered by the decision-making process before and after [9].
2005 & 2012	Kotler	Consumer buying behavior is how individuals, groups and organizations to select, purchase, use and disposal of products, services, ideas or experience to meet the consumers' demand [15], [16].

According to Flynn (1995), age is a very important demographic factors that influences on the decision making process on the purchase behavior because natural factor, easy to measure and use it a lot of social science theories. People of different age have different needs and wants and buy different goods and services over their life time [6].

Dunne and Lusch (1999), the accomplishment in the education field is the most reliable index for the income potential, attitudes and the way of spending of a person [7]. Acton (2005) stated that the consumer purchase behavior is defined as "consumer buying behavior" which is consumed in order to meet the needs of consumers" [8].

Engel (*et al.*, 1993) declared that consumer buying

behavior is directly related to the consumption of products and services which are triggered by the decision-making process before and after. He also expressed that the purchase behavior of the narrow explanation refers to the buying behavior of individuals substitutes the exchange of goods or services in money or money [9]. East (*et al.* 2008) said that purchase behavior have been accepted that most repeat purchase decision are done as a habit and often this range of decision-making from rational to automatic is related to the degree of involvement [10].

B. Customer Satisfaction

According to ISO9000 Quality Management System (2001) explored that customer satisfaction requirements have been met because of the degree of customer awareness and customer acceptance of its services, including product, service , quality, price and open hours.

See Table II, Cardozo (1965) considered that the raising of customers' satisfactions can increase their purchasing behaviors, further it would also affect for customer to purchase other products [17]. Howard & Sheth (1969) thought satisfaction is whether customers can get appropriate compensation after purchasing product [18]. East (*et al.* 2008) believed that customers' satisfaction was an emotional response by product expectations, products performance and the quality [10]. Chi, Wen Hai(2007) thought customers' satisfaction coming from the result of purchase and the service; the better service the higher customers' satisfaction [19]. Fornell (1992) pointed out that customer satisfaction is created by customers' buying experience [4]. Kotler (2009) said that customer satisfaction is a person feeling of pleasure or disappointment about if the perception of the product performance is as well as expectations [20].

TABLE II: CUSTOMER SATISFACTION

Year	Scholar	Definition
1965	Cardozo	First scholar proposed the concept of customer satisfaction [17].
1969	Howard & Sheth	Customer satisfaction was is whether customers can get appropriate compensation after purchasing product [18].
1992	Fornell	Customer satisfaction was created by customers' buying experience [4].
2000	Kotler	The performances of goods can meet customers' expectations [21].
2007	Chi Wen Hai	The better service the higher customers' satisfactions [19].
2008	East	An emotional response by product expectations, products performance and the quality of customer services [10].

On the basis of literature review, two hypotheses were developed.

- 1) H1: Consumer buying behavior has significant relationship with consumer satisfaction.
- 2) H2: Consumer buying behavior has significant influenced consumer satisfaction.

III. RESEARCH METHODOLOGY

A. Research Objectives

- 1) To know the preference of different group of consumers while purchasing beverages.

- 2) To know the relationship between consumers buying behavior and consumer satisfaction.
- 3) To suggest the beverages industry what product items should pay attention.

This study was conducted to investigate the above objectives and also to understand the influence of consumers' beverage buying behavior on consumer satisfaction.

B. The Demographic Characteristics

In this study, a total of 150 questionnaires were distributed and 150 valid questionnaires were returned and analyzed. From the result of demographic characteristics (see Table III), we can tell male and female is about even-split, the majority of age range is 20-29 years old (25.2%) and 30-39 (20.3%), minor age range is 40-49 (18.1%), 50-60 (15.6%), under 20 (13.7%) and above 60 (7.1%); the majority of occupation is student (33.8%), manufacturer (24.9%) and service/business (20.8%), the minor is housekeeper (12.4%) and others (8.1%); the majority of monthly diet spending is NT2,000-3,999 (33.9%), NT\$4,000-5,999 (32.2%), the minor is above \$6,000 (19%) and under NT\$2,000 (17.9%).

TABLE III: THE DEMOGRAPHIC CHARACTERISTICS

Category	Item	Percentage	Group of Bottle	Group of Handmade	Group of Self-paperead
		% (150 total)	drinks (%) (63 interviewees)	drinks (%) (55 interviewees)	drinks (%) (32 interviewees)
Gender	Male	49.3	56.8	45.6	41.4
	Female	50.7	43.2	54.4	58.6
Age	Under 20	13.7	12.3	10.4	5.6
	20-29	25.2	27.8	25.6	10.2
	30-39	20.3	23.3	27.4	12.7
	40-49	18.1	17.1	22.3	22.3
	50-60	15.6	12.7	12.2	25.2
	Above 60	7.1	6.8	2.1	29.6
Occupation	Service/Business	20.8	32.4	23.8	21.6
	Student	33.8	20.6	33.7	12.1
	Manufacturer	24.9	26.5	32.6	15.8
	Housekeeper	12.4	15.4	18.7	22.4
Monthly diet spending	Others	8.1	5.1	8.8	28.1
	Under NT\$2,000	17.9	11.5	4.3	19.1
	NT\$2,000 - 3,999	33.9	39.8	25.8	35.7
	NT\$4,000 - 5,999	32.2	28.4	32.4	30.6
Weekly consumption frequency	Above NT\$6,000	16	20.3	37.5	14.6
	0	11.6	5.3	4.2	54.8
	1-2	31.9	33.8	24.7	31.4
	3-4	25.7	27.3	32.1	8.7
Daily	4-5	18.2	20.7	23.4	3.5
	Daily	12.6	12.9	15.6	1.6

The summary of demographic characteristics is as below:

- 1) Group of bottle drinks: Male is greater than female consumers, the majority age range is under 20 to 39 years old. The majority of occupation is service/business (32.4%) and manufacture (26.5%), the minor is student (20.6%). The majority of monthly diet spending is NT\$2,000-3,999 (39.8%) and NT\$4000-5,999 (28.4%) which are higher the average of total.
- 2) Group of handmade drinks: Female is greater than male consumers, the majority age range is under 20 to 49 years old which is higher than the average of total. The majority of occupation is student (33.7%) and

manufactures (32.6%). The majority of monthly diet spending is above NT\$6,000 (37.5%) and NT\$4000-5,999 (32.4%) which are higher than the average of total.

- 3) Group of self-prepared drinks: Female is greater than male consumers, the majority age range is older than other groups; above 60 is 29.6% and 50 to 60 years old is 25.2% which are higher than the average of total. The majority of occupation is others (28.1%) and housekeeper (22.4%). The majority of monthly diet spending is NT\$2,000-3,999 (35.7%) and NT\$4000-5,999 (30.6%) which are higher than the average of total.

C. Consumption Frequency of Buying Beverage

From Table IV, we can see the major consumption frequency is 3 to 4 time a week for handmade drinks (95.8%), and minor is bottle drinks (94.7%), both groups are higher than the average of total (88.4%); the less frequency is self-papered drinks (45.2%). The percentage of people enjoying the handmade drinks daily or 4-5 times a week is much higher than others group.

TABLE IV: CONSUMPTION FREQUENCY

Times	Percent	Group of	Group of	Group of
age	%	Bottle	Handmade	Self-papered
(150 total)		drinks (%)	drinks (%)	drinks (%)
		(63 interviewees)	(55 interviewees)	(32 interviewees)
Weekly Consumption Frequency	0	11.6	5.3	54.8
1-2	31.9	32.8	24.7	31.4
3-4	25.7	28.3	33.1	8.7
4-5	18.2	20.7	22.4	3.5
Daily	12.6	12.9	15.6	1.6

The summary of consumption behavior of buying beverage is handmade drinks are popular and attract lots of consumers to buy, the bottle drinks is the minor, the self-prepared drinks is less attraction and purchase intention than the others two drinks.

D. The Preference of Beverage Consumption

Different groups of drink lover have the different ideas and attitudes to health and formula drinks. The health and formula drinks gets the highest preference and support from group of self-papered drinks (58.5%) which is greater than the average of the total (42.7) but not the group of handmade drinks (41.7%) and bottle drinks (41.3%).

The study showed that the group of self-papered drinks pays attention on the healthy and formula drinks, the beverages industry can develop or create healthier beverage items to seduce senior consumers to buy for meeting the market demand.

E. Descriptive Statistics and Reliability Test

Reliability reflects the consistency of participants' responses to the statements of a questionnaire based on the

average correlation among those statements. In order to do this, Cronbach Alpha were calculated using SPSS version 17. The reliability statistics for the measurement sets were presented in Table VI. Cronbach Alpha value was acceptable range $\alpha = 0.7$ (Girden, 2001).

TABLE V: THE PREFERENCE OF CONSUMERS WHILE PURCHASING BEVERAGES

Category	Percentage (%)	Group of Bottle drinks (%)	Group of Handmade drinks (%)	Group of Self-papered drinks (%)
	(150 total)	(63 interviewees)	(55 interviewees)	(32 interviewees)
Soft Drinks	79.5	83.6	85.4	62.6
Tea Beverage	76.8	82.2	85.9	60.8
Healthy and Formula Drinks	42.7	41.3	41.7	58.5

TABLE VI: DESCRIPTIVE STATISTICS AND RELIABILITY TEST

S/No.	No. of items	Mean	Std. Deviation	N	Cronbach Alpha Value	
1	Consumer buying behavior	4	4.74	.249	150	0.845
2	Consumer Satisfaction	3	4.63	.292	150	0.863

TABLE VII: THE CORRELATION ANALYSIS BETWEEN CONSUMER BUYING BEHAVIOR AND CUSTOMER SATISFACTION

		Consumer Buying Behavior	Customer Satisfaction
Consumer Buying Behavior	Pearson Correlation Sig. (2-tailed)	1	0.788(**)
	N	150	150
Customer Satisfaction	Pearson Correlation Sig. (2-tailed)	0.788(**)	1
	N	150	150

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

TABLE VIII: THE COEFFICIENTS OF CONSUMER BUYING BEHAVIOR AND CUSTOMER SATISFACTION

Independent Variables	Customer Satisfaction
Dependent variable	B
Constant Value	2.229
Consumer Buying Behavior	0.680
R	0.665
R2	0.815
F value	25.012
P-value	0.000***

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

F. Correlation

Table VII indicates that consumer buying behavior is positively related to the consumer satisfaction with value 0.788 which achieves significant level ($p < 0.01$) and also explains that buying behavior and customer satisfaction has a significant correlation which supports H1.

G. Multiple Regression Analysis

Table VIII shows the significant level is .000 which is less than .05. Thus is acceptable and shows strong impact of consumer buying behavior on consumer satisfaction. Hence H2 is supported.

IV. CONCLUSION AND SUGGESTION

From the above the results of statistic analyses, we learned that younger female likes handmade drinks, older female likes self-prepared drinks, only younger male likes bottle drinks. This study also showed that the frequency of the major consumption is 3 to 4 times a week for handmade drinks, the less frequency is self-prepared drinks. In addition, this study also demonstrated that there are positive relationship and direct impact for consumer buying behavior and consumer satisfaction in beverage industry.

But the most surprising discovery in this study is that the group of self-prepared drinks pays more attentions and concern on the healthy and formula drinks than the group of bottle drink and handmade beverage; the group of self-prepared drinks don't like soft drink and tea beverage as much as the other two groups. Therefore, how to make the healthy and formula drinks are adopted by younger groups will be the key factors to increase the sales and profit in the beverage industry.

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