

NATIVE CHICKEN ATTRIBUTES INFLUENCING CONSUMERS' PURCHASING DECISION

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Abstract – Native chicken production has steadily increased throughout the past ten years, especially in the rural regions of Thailand. Consumer behavior in Bangkok regarding the purchasing of native chicken has been influenced by tradition and culture. In this study, we undertook to understand the product attributes that affected the buying of native chicken in Bangkok, using the Conjoint Analysis (CA) technique. The analytical results showed that consumer preferences were affected respectively by the packaging, cleanness, production date label, skin color, and price. Finally, this study determined that the price of native chicken was of lesser importance than the physical characteristics of the product. This finding could assist meat producers in Thailand, and suggest improvements are needed to maintain the quality of their product marketed to customers, even in tradition markets.

Key Words – Attribute, Native chicken, Conjoint Analysis.

I. INTRODUCTION

The demand for and consumption of meat in developing countries continues to grow in alignment with increases in available income [1]. The growing demand for poultry meat has caused producers to increase the growth rate of birds, however greater problems with meat quality has been shown to be related to this rapid growth of muscle [2]. Martínez [3] identified healthiness, nutrition, composition, processing methods, and purchasing convenience as the key attributes affecting consumers in discriminating poultry products among other meat products. Although previous studies focused on the market of chicken, no research has been performed to identify the factors influencing consumer preference for native chicken. In this study, 'native chicken' was defined as: pure bred; hybrid bred of Thai local chicken.

Identifying the most important product attributes is required to generate insight into consumer-driven product specifications. Developing native chicken products that better satisfy consumer demands, at a price that both improves Thai processors' profits and increases consumer acceptance of native chicken products, will lead to greater future market development [4]. In redesigning supply chains, trade-offs need to be made between these consumer concerns, for instance between certain aspects of product quality and price.

The objective of this study was to determine and rank the attributes of native chicken products that most affect consumer purchasing preferences.

II. MATERIALS AND METHODS

Data were collected by interviewing 428 consumers in Bangkok from January to February 2016, using a paper-based questionnaire. The collected data consisted of 3 sections; socio-demographic information, purchasing behavior, and attribute preferences. The product attributes in the questionnaire were derived from a pre-test. Next, the orthogonal design was applied for selecting 12 different hypothetical native chicken products. Then, the consumers were asked to rank the 12 products concepts based on their preferences. The Conjoint Analysis was conducted to analyze the data.

III. RESULTS AND DISCUSSION

1. Consumer Demographics and Buying Behavior

This research found that 165 males (38.55%) and 263 females (61.45%) were interviewed, the age of consumer were average 35 years, the education status had attained a level of bachelor around 48%

(209 persons), and with a monthly income of approximately 15,000 - 30,000 THB (41%). Around 53% of the respondents used to buy native chicken, and 66% of them preferred buying from traditional market because of its availability (Table 1).

2. Factors Influencing Native Chicken Purchase

The estimated total utility model from the Conjoint Analysis was

$$U = 1.377Cl_1 + 2.755Cl_2 - 0.179C_1 + 0.179C_2 + 1.214L_1 + 2.428L_2 + 0.669P_1 + 1.338P_2 + 2.007P_3 - 0.109Pr_1 - 0.145Pr_2 - 0.431$$

Whereas, Cl_1 was some feather on carcass, Cl_2 was no feather on carcass, C_1 was white skin, C_2 was yellow skin, L_1 was no production date label, L_2 was had production date label, P_1 was plastic bag packing, P_2 was vacuum packing, P_3 was plastic tray packing, Pr_1 was 120 THB/kg, and Pr_2 was 160 THB/kg.

The study found a strong relation between the observed preferences and the estimated results (Table 2) since the Pearson's R was 0.934 (P-value = 0.000) and Kendell's tau was 0.857 (P-value = 0.000). The study results showed that the factors most affecting consumer preferences, ranked by packaging, cleanness, labeling, color, and price (23.55%, 23.36%, 21.35%, 19.33%, and 12.42%, respectively) (Figure 1). The average utility of attributes (Table 2) showed that the cleanness of native chicken without feather residues revealed a strong preference (2.76), followed by labeling of manufacturing date on package (2.43), plastic tray package (2.01), yellow skin of native chicken (0.18) and 120 THB /kg pricing (-0.11). A positive sign indicates that, for this study, the presence of that level of the attribute adds that amount of utility to the product (for two levels with positive signs, which of greater value is the one that provides greater utility). A negative sign, in contrast, implies that the presence of that level of the attribute in the product lessens its utility [5].

The study results revealed that the consumers who bought native chickens from traditional markets preferred cleanness and nice packaging to the

price of the chicken. Since, native chicken is one of a very few agricultural products that never face price problems. Because of the high meat quality which results in high demand, while the supply is always low.

The maximum utility is obtained from the combination of the greatest part-worth of each attribute. The corresponding ideal product is given in Table 3.

Table 1. Characteristics of respondents (n=428).

Category	Frequency (%)
Age (years)	34.91
Gender	
Male	38.55
Female	61.45
Education	
Less than college	19.39
College	48.83
Post graduate	32.01
Income (THB)	
Below 15,000	34.58
15,000 - 30,000	41.12
30,001 or above	24.30
Use to buy native chicken	
Yes	53.74
No	46.26
Purchasing location	
Supermarket	14.25
Traditional market	66.36
Other	23.60

Table 2. Attributes affecting the consumer preferences for purchasing native chicken (n=428).

Attribute	Level	Utility value
Cleanness	Some feather	1.38
	No feather	2.76
Color of skin	White	-0.18
	Yellow	0.18
Production date label	No	0.67
	Yes	2.43
Packaging	Plastic bag with zip	0.67
	Vacuum pack	1.34
	Plastic pack	2.01
Price	120THB/kg	-0.11
	160THB/kg	-0.14

Pearson's R = 0.934 (Indicates 5% significance level).
Kendell's tau = 0.857 (Indicates 5% significance level).

Table 3. Ideal product.

Attributes	Levels
Cleanness	No feather
Color of skin	Yellow
Product date label	Yes
Packing	Plastic pack
Price	120 THB/kg

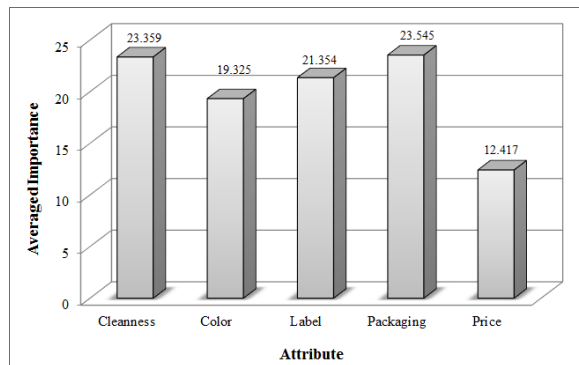


Figure 1. Important attributes of native chicken in summary.

IV. CONCLUSION

The conjoint analysis enables us to recognize the consumers' behavior on purchasing native chickens products. Traditional markets are still popular among the consumers. The physical characteristics of the products such as packaging, cleanness, and skin seem to attract the buyers. Concerning marketing strategies, Thai native chicken producers should focus on such physical characteristics of the products since they are more attractive than the price.

Another application of CA was seen to be the possibility of determining the economic value that consumers put on the presence or absence of a certain level of an attribute, which could be used to orientate future marketing strategies.

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