

Consumers' attitudes toward consumption of two
different types of juice beverages based on
country of origin
(local vs. imported)

Presented at

Emerging Local Food Systems in the Caribbean
and Southern USA

July 6, 2014

Govind Seepersad, Edward Evans, Nkosi Felix, Ardon Iton

Globalization

- Significant changes are taking place in food and agricultural markets.
- Advances in transportation, post-harvest technologies and trade agreements have virtually transformed the world into a single global village.

Problem

In the Caribbean region, there has been a steady increase in the importation of fruit juices to meet shortfalls in domestic supply.

This takes place although many tropical fruits can be produced for juice given the favorable year-round climatic conditions that exist in the region.

Problem

Moreover there exists an increasing amount of agricultural lands available, due in part to the erosion of preferential markets for traditional crops such as sugar and bananas.

Much of these lands are of high quality and, in most cases, are suitable for orchard cultivation. Yet despite the situation, the region continues to import large quantities of fruit juices.

Current Imports

Import volumes of **HS 2009**
(Fruit & Vegetables juices
unfermented) was 59,000
tons in 2012, valued at
US\$84 million in 2012

General Objective:

This study was conducted to determine consumers' attitudes toward consumption of two different types of juice beverages based on country of origin or **local vs. imported.**

Specific Objective

1. to determine the drivers behind the growing consumer preference for juices and whether source of origin was an important factor.

Hypothesis

1. It was hypothesized that source of origin (import vs local) will be significant based on age of respondents and the younger population will be less concerned about origin.

(We thought that the importance of "origin" will be of diminishing importance given the advent of globalization, online e-commerce etc (i.e., whether the product was locally made or imported).

Thus, age would be a significant factor in the determination of origin of the product.

Definition

- For this study, **juice** is defined as any fruit-based beverage intended for direct consumption.
- In the Trinidad and Tobago market, juice beverages available for direct consumption include "**juice drinks**" and "**juice beverages**", both of which may contain 10% to 20% fruit juice.

Methodology

1. Data were collected using a structured questionnaire across a random set of consumers in Trinidad and Tobago.
2. A total of 200 questionnaires were enumerated.
3. The study used Point Score (PS) analysis
4. Chi-Square cross tabulation to analyze the results.
5. Regression analysis was also used to determine the relationship between attributes.

Juices Used in the Study



Table 1: Five-point Likert Scale ranking used in the study

Label (level of importance)	Value used for analysis
Very important	5
Important	4
Neutral	3
Little importance	2
Unimportant	1

Point Score Analysis

The point score of each variable is calculated by the summation of the values selected multiplied by the number of respondents that choose the respective value.

This formula is shown below:

$$\text{Point score} = \sum (i * w_i) \dots\dots\dots (1)$$

where,

i = value from chosen for level of impact... $i = 1, 2, 3, 4$ or 5

w = Number of respondents that choose the respective ' i '

Categorical Regression:

This model quantifies categorical data through numerical assignment.

The estimated coefficients of this model reflect how changes in the predictors affect the response.

The use of this model allows the relationship between a dependent variable and categorical independent variables.

Dependent variables

Y = choice between imported or locally made juice products and,

Y = the willingness to pay for imported juice or local juice.

Independent variables

X_{1-9} = importance of juice product attributes of

- packaging,
- labeling,
- availability,
- price,
- taste,
- appearance,
- experience,
- safety, and
- health.

Results

- **Demographics**
- The majority (72.5%) of respondents preferred locally made juice as compared to imported juices, with a larger percentage of females being regular consumers of juice drinks (Chi=15.133, p value=0.004).
- The study also revealed that **age of an individual and his/her highest educational level did not influence the consumption of juice.**

Results

- **Demographics - Local Juice**
- The preference for local juice was supported by the **prices** that respondents were willing to pay:
 - 66% were willing to pay between \$5 and \$8,
 - 23.7% were willing to pay \$4 and lower
 - 10% were willing to pay between \$9 and \$15.

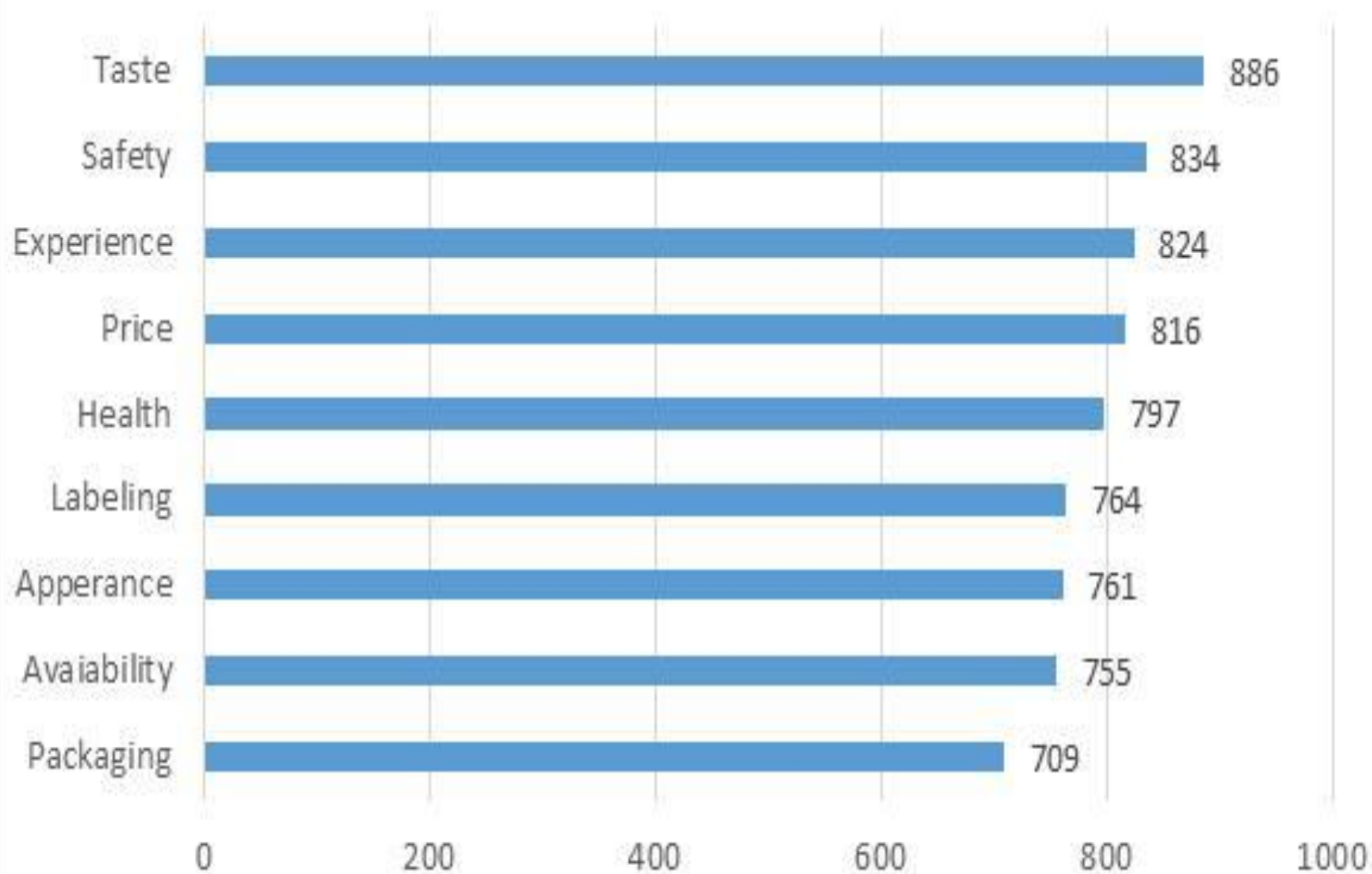
Results

- **Demographics - Imported Juice**
- In contrast, more (97.9%) respondents were willing to pay \$8 and lower for imported juice and only 2.1% were willing to pay between \$9 and \$12.

Results

- respondents considered all the factors presented to be very important in their purchase decision

Juice Attributes Point Scores



Ranking of Importance using Point Score Analysis

- Product "taste" was ranked number one with a score of 886,
- "Safety" was second with a score of 834.
- "Price" paid was ranked at number 4th among the attributes.

Ranking of Importance using Point Score Analysis

- It should be noted that "availability" and "packaging" of juice received the lowest rankings among the attributes.

Point Score Analysis

- This analysis showed that consumers were more interested in the "taste" and "price" of juice as compared to the "health benefits" derived from its consumption.

Regression analysis: Disaggregation of factors which influence the consumption of local and imported juice

- There were only two attributes found to be statistically significant that influenced the price consumers were willing to pay.

Regression analysis: Disaggregation of factors which influence the consumption of local and imported juice

Imported Juice (source of origin)

(i) **Dependent variable** - A significant but negative relationship was found between the price of the imported juice product and consumers' willingness to pay.

Regression analysis: Disaggregation of factors which influence the consumption of local and imported juice

Local Juice (source of origin)

(i) **Dependent variable** - **Taste** and the **experience** of consuming these juices were significant.

(ii) These attributes had a positive relationship with willingness to pay .



Age of Respondents was
not found to be significant



Thank You