Market profile and consumer purchase pattern of honey in Tamil Nadu

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Abstract
Beekeeping is one of the oldest activities in India and makes it into the leading honey market in the world which has created an intense competition in terms of innovation. With the increasing market size and increasing consumer demand each year, honey makers have to search for new approaches and to learn to understand the consumers' need in order to improve their product satisfaction and customers' loyalty. The purpose of this study is to determine the purchase pattern of honey by the consumers in Tamil Nadu. Totally 301 responses were obtained from the online survey and observation method. It was identified that majority of the consumers were middle aged and purchased less than 100g of honey every time. Branded honey was highly preferred. There is a positive association of age and occupation with the quantity of honey purchased.

Keywords: Consumer preference, honey, market profile, purchase pattern

Introduction
Honey is widely used throughout the world since several million years as it is considered to be a safe and suggestive food for all age groups. The quality of honey depends on the type, variety of plants visited for nectar collection and the prevailing climatic conditions [1]. India's geographical position and the associated agro-climatic conditions promoted the growth of a wide range of natural and cultivated flora. The extensive forest area and millions of acres of cultivated land supported a large proportion of insects and honeybees. Beekeeping and management are diverse owing to diversity in flora, topography and people's activities. In India, beekeeping has been adapted to different ecosystems, socioeconomic profiles, and preferences of habitat [3].

In India, there are 300 honey varieties with different flavours and aroma. Some varieties have stronger tastes than others; some varieties are milder and more delicate. In general, honey which is light in colour may have a mild flavour and the ones with a darker colour usually have a strong flavour. The main reason behind the wider varieties of honey is due to the availability of different types of nectar sources. Bees visit many kinds of plants and flowers, getting different qualities of nectar from variety of flowers leading to the difference [5]. The objective of this study was to profile the market availability of types, brands and other value added products from honey and to analyse the consumer purchase pattern of honey in Tamil Nadu.

Methodology
Primary information was collected through online surveying and well-structured questionnaire for consumer preference and using the observation method for market profiling. The questionnaire was prepared in Google forms and the links were shared to the consumers through social media platforms. Totally 301 responses were obtained from the online survey in Tamil Nadu. The secondary information was collected from websites and other databases. Data from the survey was statistically analysed using the SPSS Software. Conventional tabular analysis, Chi-square test and Pearson Correlation analysis was used for analyzing the collected information to draw meaningful conclusion for the objectives envisaged.
Results and Discussion

Market profile of honey
Profiling was the collection of information about the product in order to categorize and describe the product. The research concentrated on the profiling of honey. Earlier honey was produced and sold by the local beekeeper and consumed locally while present day with improved technologies and support from government schemes paved the way for large scale production and consumption of honey.

Honey industry can be classified as organized and unorganized; the organized industry had well-established brands with large-scale production and marketing. The unorganized sector consisted of honey produced by local beekeeper or vendor in a small quantity and sold locally. It was usually sold under own label. The unorganized sector also included honey collected from wild areas. Tribal Cooperative Marketing Development Federation of India (TRIFED) has initiated to efforts to bring the honey obtained from wild in to the organized sector by selling them through their retail outlets.

In order to profile the various brands of honey available in the market, a survey was undertaken by observation method and the results are presented in the Table 1.

Table 1: Market Profile of Honey in Tamil Nadu

| S. No | Honey variety and brands | Place of Sale | SKUs | Certifications |
|-------|--------------------------|---------------|------|----------------|
|       |                          |               |      |                |
| 1     | Lion Kashmir honey       | All types of shop/online | 25g, 50g, 100g, 250g, 400g, 500g - and 1kg | AGMARK Grade A FSSAI |
| 2     | Dabur honey              | All type of shop/online | 20g, 50g, 100g, 130g, 300g, 400g 600g, 1.2kg and 1.3kg | -- |
| 3     | Apis Himalaya honey      | Supermarket/ Hypermarket/Online | 500g, 225g and 1kg | FSSAI |
| 4     | Patanjali honey          | All type of shop/online | 250g, 500g and 1kg | FSSAI |
| 5     | 24 Mantra                | Supermarket/ Hypermarket/Online | 250g, 500g | Control union certified FSSAI |
| 6     | SKM honey                | Local Supermarket | 1kg | FSSAI |
| 7     | Flavourlite              | Online         | 1kg | FSSAI |
| 8     | Pahadi organic honey     | Online         | 200g and 500g | FSSAI |
| 9     | Zandu pure honey         | Online         | 500g | FSSAI |
| 10    | Pure and Sure organic honey | Online     | 250g | USDA organic certification |
| 11    | Nature’s way Himachal wild honey | Online | 150g, 250g and 500g | FSSAI |
| 12    | Farm naturelle           | Online         | 815g | FSSAI |
| 13    | Eraniel Sarvodayasangh honey | Khadi store   | 100g, 500g 1kg | AGMARK |
| 14    | Marthandam honey         | Khadi store/ Supermarket | 500g, 1kg | AGMARK |
| 15    | Organic India wild forest honey | Online  | 250g | FSSAI |
| 16    | Pure hill honey          | Organic store  | 500g and 1kg | Produced by tribal people |
|       | Eucalyptus honey         |               |      |                |
| 1     | Nature’s way             | Online         | 150g, 250g - and 500g. | FSSAI |
| 2     | Superbee                 | Online         | 1kg  | FSSAI |
| 3     | Nutriwish                | Online         | 350g, and 1kg | Organic |
| 4     | Himalayan street honey   | Online         | 500g  | FSSAI |
| 5     | Satmaha                  | Online         | 1kg  | AGMARK Grade A FSSAI |
|       | Jamun honey              |               |      |                |
| 1     | Superbee                 | Online         | 500g, 1kg | FSSAI |
| 2     | Honeytub                 | Online         | 250g  | FSSAI |
| 3     | Himalayan street honey   | Online         | 500g  | FSSAI |
| 4     | Farm honey               | Online         | 250g  | FSSAI |
| 5     | Pioneer honey            | Online         | 250g  | FSSAI |
| 6     | Bharat honey             | Online         | 500g  | AGMARK Grade A FSSAI |
| 7     | Farm Naturelle           | Online         | 815g  | FSSAI Organic |
|       | Tulsi honey              |               |      |                |
| 1     | Farm honey               | Online         | 250g and 350g  | FSSAI |
| 2     | Beehive honey            | Online         | 500g  | FSSAI |
| 3     | Ayuramrit                | Online         | 250g  | FSSAI |
| 4     | Farm Naturelle           | Online         | 815g  | FSSAI |
| 5     | Nature’s nectar select honey | Online  | 400g  | FSSAI |
The consumers not only consumed plain honey but also preferred flavoured honey and honey value added products. Value addition created an extra value than the original value. The value-added products using honey were dry fruits honey, honey preserved foods (Honey amla), Flavored honey (Cinnamon honey, Lemon honey, etc), Mead, Honey Chews, etc.

The five major flavoured honey available in the market are plain honey, Eucalyptus honey, Jamun honey and Tulsi honey. The number of established brands is highest in case of plain coney and the Stock Keeping Units (SKUs) started from 25grams to One Kg. As the falavoured honey is more expensive and catered to the tastes of higher income groups. The SKUs available in the flavoured honey are limited.

Major honey brands in the Market
The major brands available in the Indian markets are Dabur honey, Lion honey, Patanjali honey, Apis Himalaya honey, etc. Dabur honey is one of the leading honey brands for over 30 years. Lion honey is manufactured in Tamil Nadu and played a major role in honey market all over India. Patanjali honey is one of the brands introduced recently and attracted the whole market in a short period.

Quality certifications and marketing of honey
The quality certification is given in order to maintain the quality of the product. Some of the important quality certification for honey were FSSAI, AGMARK, AGMARK Grade A, USDA organic certification, etc. In India, FSSAI had fixed food safety regulation to reduce the adulteration in honey. AGMARK provided certification of authorization on inspection of honey which is valid for five years. USDA organic certification had strict rules for production and labeling of honey. The certification is made to ensure the quality of the product and provide assurance to the trust of consumers.

Marketing of honey is generally done through local convenience stores, super markets, khadi stores, organic stores, online, etc. These brands were produced by beekeepers, small-scale and large-scale industries and also some of them are imported brands.

Purchase pattern of honey
Purchase pattern specifies the way in which consumer buy the goods or services. It involves duration, timing, quantity, etc. Honey purchase pattern indicates the quantity purchased by the consumer in a month, type of honey purchased, brand preferred, the place where a consume buy honey and awareness level and purchase of value-added products using honey.

| Variables | Quantity ("r" value) |
|-----------|----------------------|
| Occupation| 0.152**(0.008) |
| Area of residence| -0.085(0.144) |

*Significant at 5% level **Significant at 1% level

It can be interpreted from the table 3 that occupation and quantity of honey purchased was positively correlated. This implied that improvements in occupational status of the consumers’ resulted in increased quantity of purchase.

Table 4: Preference towards honey types by the consumers

| S. No | Category                  | Number of Consumers | Percentage to total |
|-------|---------------------------|---------------------|---------------------|
| 1.    | Branded honey (dark type) | 62                  | 20.59               |
| 2.    | Branded honey (light type)| 105                 | 34.88               |
| 3.    | Free-lance honey sellers  | 11                  | 3.65                |
| 4.    | Imported honey            | 19                  | 6.31                |
| 5.    | Wild/Tribal honey         | 104                 | 34.35               |
| Total |                          | 301                 | 100                 |

The above explained that the majority of the respondents (34.88 percent) preferred branded honey (Light type) followed by Wild/Tribal honey and dark type branded honey.

Preference of Consumers towards Honey brands
Honey market consists of both branded and unbranded segment. Consumers purchased products based on brand...
name, availability and accessibility or affordability. Consumers also purchased product based on their relationship with sellers/ producers. About 20.27 percent of the respondents preferred Dabur honey, 19.60 per cent preferred any brands and 13.62 percent of the respondents preferred Patanjali honey followed by Lion honey. The main reason for preference is the direct accessibility to local apiary producers or availability of other brands of honey available in their vicinity.

Table 5: Place of purchase of honey

| S. No | Category                        | Number of Consumers | Percentage to total |
|-------|---------------------------------|---------------------|--------------------|
| 1     | Super market                    | 60                  | 19.93              |
| 2     | Beekeeper / direct outlet        | 94                  | 31.23              |
| 3     | Online                          | 29                  | 9.64               |
| 4     | Exhibitions / Fairs             | 16                  | 5.32               |
| 5     | Khadi stores                    | 27                  | 8.97               |
| 6     | Local convenience store         | 33                  | 10.96              |
| 7     | Tribal stores                   | 42                  | 13.95              |

It is evident from the Table 5 that 31.23 percent of the respondents purchased honey from beekeepers / direct outlet, 19.93 percent of the respondents purchased honey from the super market, 13.95 percent of the respondents purchased honey from tribal people, 10.96 percent of the respondents purchased honey from local convenience stores, 9.64 percent of the respondents purchased honey from online, 8.97 percent of the respondents purchased honey from Khadi stores and 5.32 percent of the respondents purchased honey from exhibitions/Fairs.

### Awareness level and purchase of value-added products using honey

There are many value added products using honey. Some of them are dried fruits or nuts / dates in honey, honey preserved fruits (Eg. Honey Amla, etc), flavored honey (Eg. Thulsi honey, etc), mead (Honey wine), honey chews, honey fruit spread.

It is clear from Table 6 that in Dried fruits or nuts / dates in honey category, 68.44 percent of the respondents were aware and purchased the product, 21.93 percent of the respondents were aware and not purchased the product and 9.63 percent of the respondents were not aware of the product. In honey preserved fruits (Eg. Honey Amla, etc) category, 64.78 percent of the respondents were aware and purchased the product, 20.27 percent of the respondents were aware and not purchased the product and 14.95 percent of the respondents were not aware of the product. In flavored honey (Eg. Thulsi honey, etc) category, 49.83 percent of the respondents were aware and purchased the product, 21.93 percent of the respondents were aware and not purchased the product and 28.24 percent of the respondents were not aware of the product.

In mead (Honey wine) category, major share of the respondents were not aware about the honey wine. Around 40 per cent of the respondents were aware and not purchased the product. In Honey fruit spread category, 46.18 percent of the respondents were aware and purchased the product, 25.58 percent of the respondents were aware and not purchased the product and 28.24 percent of the respondents were not aware of the product.

### Conclusion

From the study, it was found that all of the variables have positive and significant relationship with the purchasing behavior of the consumers. Major share of the consumers preferred branded honey and preferred to buy it from beekeeper. As the consumers consumed the honey product, they need to ensure that the product will not harm their health. Certifications from the relevant organization, and credibility of the product played an important role in purchase of honey. Besides that, to assure the consumers, marketers need to ensure the products have more information on the labels. It was also found that people do know about honey and the value-added honey products. They are aware of its benefit however, not all of them purchased regularly.

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