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Consumer Preference on Different Aspects of Honey

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Abstract The study focuses on the nutritional aspects of honey. Information regarding consumption and purchasing pattern of honey by the consumers was collected using a structured questionnaire developed and pretested. A convenient sampling method was adopted to select the respondents. Percentage analysis was used to study the general characteristics of the consumers which include age, sex, occupation, education, body mass index (BMI), family income, food habits, duration of honey used. The factors were first categorized into different levels based on their mean value and percentage was calculated to draw meaningful inferences. In conclusion, It can be seen that highest weightage of 76.0 percent was given to the health benefits of honey followed by nutritional benefit of honey. Consumer's most preferred parameter while purchasing honey is taste. Study on consumer's preference for certified honey revealed that 41 percent of the respondents look for certified honey while purchasing.

Keywords Consumer profile, Parameters, Honey consumption, Purchasing pattern.

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Introduction

Honey is considered as food of foods, drink of drinks and drug of drugs. It is used for initiating appetite, strengthening the stomach and eliminating phlegm, as a meat preservative, hair conditioner, eye salve, and mouthwash. The best honey is that produced in the spring, the second best is that of summer, and the least quality is produced in winter [1]. Honey is completely a natural product and raw honey can be used directly from the comb as taken from the beehive. Honey contains about 181 substances including sugars, proteins, moisture, vitamins, minerals, hydroxyl methyl furfural (HMF), enzymes, flavonoids, phenolic acids, volatile compounds [2]. However, the main constituents of honey are moisture, glucose (dextrose), fructose, maltose, sucrose, mineral matter and proteins [3]. Honey, a natural skin softener used in formulation as an emollient and humectant. Honey is anti-fungal and anti-bacterial, suggesting that it contains anti-microbial ingredients. It offers high levels of hydrogen peroxide and also preservative in some body care products.

Materials and Methods

Information regarding consumption and purchasing pattern of honey by the consumers was collected using a structured questionnaire developed and pretested. A convenient sampling method was adopted to select the respondents. The sampling was done in different localities of Bengaluru to get a diversification in the sample mainly based on region. Data was collected from various age groups, income groups and from both the sexes. Data was collected from consumers who visited the outlets selling honey us-

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ing questionnaire. A total of 100 respondents, belonging to different fields such as, marketing, academicians, self employee, agriculture, housewife were interviewed while they were purchasing honey.

Data were collected regarding socio-economic characteristics like household size, age, income, education, expenditure, purchasing behavior, attributes influencing their purchase and mode of payment were collected by personally interviewing the respondents using a structured questionnaire which was pre-tested and redefined. The respondents were contacted individually and the objectives of the study were clearly explained to them to ensure their cooperation and accuracy in their responses. Data were also collected to assess the extent of awareness on honey aspect by the consumers. The obtained raw data were analyzed using appropriate statistical techniques and categorized into tables to draw meaningful inferences. The analytical techniques employed in this study are explained below.

Results and Discussion

To get a broad view about the sample respondents it would be useful to examine the distribution of the sample according to age, income, sex, occupation and education. Socio-economic profile of consumers is presented in Table 1, shows 39.0 per cent of the respondent identified in the age of more or equal to 25 years followed by 32.0 per cent found in the age of 25 to 35 years. Further 29.0 per cent of the respondents were observed to be above 35 years of age. The result indicates that majority of respondents (52.0%) were male as compared to remaining 48.0 per cent were female respondents in the study group.

Majority of the respondents (49%) were private employees, 24 per cent of the respondents were government employees, 15 per cent of the respondents were businessmen, 7 per cent of the respondents were housewives and the remaining 5 per cent of the respondents were agriculturists in the study group. It was observed from the findings that 46.0 per cent of the respondents were graduates, 29.0 per cent of the respondents were post-graduates, 16.0 per cent of

Table 1. Personal characteristics profile of consumers.

Characte-		Respondents	
ristics	Category	N	%
Age (years)	Below 25	39	39.0
	25—35	32	32.0
	Above 35	29	29.0
Sex	Male	52	52.0
	Female	48	48.0
Occupational status	Private employee	49	49.0
	Govt. employee	24	24.0
	Housewife	7	7.0
	Business	15	15.0
	Agriculture	5	5.0
Educational	Up to secondary	9	9.0
level	PUC	16	16.0
	Graduates	46	46.0
	Postgraduates	29	29.0
Body Mass	Underweight	21	21.0
Index (BMI)	Normal	62	62.0
	Obese	17	17.0

the respondents had passed their PUC and remaining 9 per cent had education up to secondary. Also it was observed from the findings that 62 per cent of respondents were normal in BMI, followed by surprisingly only 21 per cent of the respondents were underweight and remaining 17 per cent were noticed with obese.

Study revealed that 50 per cent of the respondents were belonging to nuclear family and 50 per cent belonging to joint family in the study. It was observed that 43 per cent of the respondents were belonging to the income of below Rs 10,000, 39 per cent were between Rs 10,000 to 25,000 and remaining 18 per cent were belonging to the family income of above Rs 25,000. Study also revealed that, 22 per cent of the respondents were vegetarian and 78 per cent were non-vegetarian. From the result it was found that 38 per cent of the respondents using honey from less than six months followed by 18 per cent were using honey from 6 months to 1 year, 22 per cent were from 1 to 5 years, 12 per cent were from 5—10 years and remaining 10 per cent were using honey from more than 10 years in this study group (Table 2).

Various attributes which influence consumer preference for honey was assessed and the per cent weightage given by the consumers to the different attributes of honey was examined using tabular analy-

Table 2. Socioeconomic profiles of consumers.

Characte- ristics	Category	Respondents (N=100)	
Characte- ristics	Category	Num- ber	Per cent
Type of	Nuclear	50	50.0
family	Joint	50	50.0
Family in-	Below Rs 10,000	43	43.0
come/month	Rs 10,000-25,000	39	39.0
	Above Rs 25,000	18	18.0
Food habits	Vegetarian Non vege-	22	22.0
	tarian	78	78.0
Duration of	<6 months	38	38.0
honey used	6 months-lyear	18	18.0
	1—5 years	22	22.0
	5—10 years	12	12.0
	> 10 years	10	10.0

sis. The highest weightage of 76.0 per cent was given to health benefits followed by nutritive value of honey with 56.0 per cent (Table 3). Consumers weightage towards medical recommendation and taste was 37.0 and 31.0 per cent respectively.

Various parameters which influence consumers purchasing preference for honey was assessed and the per cent weightage given by the consumers to the different parameters of honey was examined. From the result, it can be seen that highest weightage of 74.0 per cent was given to taste followed by color of honey with 69.0 per cent. Consumers weightage given towards flavor and sweetness was 61.0 and 59.0 per cent respectively. The per cent weightage given to different attributes is depicted in Table 4.

Consumers preference for certified honey were studied and the results showed that 41 per cent, 7 per

Table 3. Weightage of attributes given by consumers for honey consumption.

Attributes	Per cent weightage (%) given by consumers
Nutritive value	56.0
Medical recommendation	37.0
Healthy	76.0
Taste	31.0
Sweetness	33.0
Others	4.0

Table 4. Parameters considered while purchasing honey.

Parameters	Per cent weightage (%) given by consumers	
Taste	74.0	
Color	63.0	
Consistency	38.0	
Flavor	61.0	
Sweetness	59.0	
Nutritious	26.0	
Medicinal	11.0	

cent, and 14 per cent of the respondents look for certified, graded and quality honey respectively. Whereas 9 per cent of the respondents were look for both certified and graded honey, 5 per cent of the respondents were look for graded and quality honey and 22 per cent of the respondents look for certified and quality honey as shown in Table 5.

The distribution of the consumers according to the age group was analyzed according to which 39.0 per cent of the respondent were in the age group of more or equal to 25 years of age, followed by 32.0 per cent found in the age of 25—35 years. Further 29.0 per cent of the respondents noticed were above 35 years of age. The result also indicates that majority of respondents (52.00 per cent) were male as compared to remaining 48.0 per cent were female respondents in the study group. Statistical analysis also showed significant association between the age group and gender with extent of awareness on honey. This reflects the fact that consumers of all age groups and both sexes covered under study are aware of honey.

The distribution of the sample according to the income group reveals that the highest number of consumers belonged to the middle income group rang-

Table 5. Consumers view for honey.

Consumer preference	Percentage (%)	
Certified honey	41.0	
Graded honey	7.0	
Quality honey	14.0	
Certified and graded	9.0	
Graded and quality	5.0	
Certified and		
quality	22.0	

ing between Rs 10,000 to 25,000 per month. Statistical analysis also showed significant association between the income groups and extent of awareness about honey. This shows that market for honey is a niche market, catering exclusively to the consumers of middle income groups. This is due to the fact that the price for honey is comparatively higher which is prohibitively expensive for consumers, most of the times quality of honey is not guaranteed by the consumers.

The distribution of the sample according to the literacy level, occupational groups and BMI status reveals that the highest number of consumers that is 68.9 per cent of the respondents belonging to post graduates, 70.0 per cent of the respondents belonging to obese and 69.3 per cent the respondents belonging to private employees found with full awareness on honey aspect. However statistical test showed nonsignificant association between income groups and extent of awareness on honey aspect. This is due to the fact that irrespective of their educational, occupational, and BMI status awareness of honey, may be due to its established usage from ancient days, as it is the first bee product used by humankind in ancient times. The history of the use of honey is parallel to the history of man and in virtually every culture evidence can be found of its use as a food source and as a symbol employed in religious, magic and therapeutic ceremonies.

It is observed that 38 per cent of the respondents are using honey for less than 6 months and 22 per cent of the respondents are using since 1—5 year. 18 per cent of the respondents are using honey for less than 1 year. This indicates that majority of the consumers have started using honey only since from less than 6 months which indicates awareness about health benefits of honey is new to consumers. It is also observed that there is increase in the number of honey consumers over years, which indicates that awareness on honey is increasing. Concerns about health are prompting a growing number of consumers to change dietary habits.

The per cent weightage given by the consumers

to different attributes of honey is depicted in Table 3. It can be seen that highest weightage of 76.0 per cent was given to the health benefits of honey followed by nutritival benefit of honey with 56.0 per cent. The reason could be that these consumers are knowledgeable about the health benefits of honey. Health related issues seems to assume greater importance than other concerns, and notions about nutritional information are fundamental for purchasing honey.

Consumers most prefered parameter while purchasing honey is taste as shown in Table 4. The reason behind this is organic foods have a distinct taste which is a major reason among the consumers for their preference. Earlier findings reported that taste had highest influence on consumer's overall judgment of the product [4]. Magnusson et al. [5] also reported that the most important purchase criteria were good taste, and the least important was organically produced.

Consumers especially educated, are becoming more conscious about what they purchase or eat. Since certification is of a major criteria for organic foods. Study on consumer's preference for certified honey revealed that 41 per cent of the respondents look for certified honey while purchasing and 14 per cent of the respondents sometimes look for the quality honey. Whereas, 22 per cent were look for both certified and quality honey. This shows that consumers are aware of certification of honey.

Conclusion

The distribution of the consumers according to the age group was analyzed according to which 39.0 per cent of the respondent were in the age of more or equal to 25 years of age, followed by 32.0 per cent found in the age of 25—35 years. The distribution of the sample according to the income group reveals that the highest number of consumers belonged to the middle income group ranging between Rs 10,000 to 25,000 per month. The distribution of the sample according to the literacy level, occupational groups and BMI status reveals that the highest number of

consumers that is 68.9 per cent of the respondents belonging to post graduates, 70.0 per cent of the respondents belonging to obese and 69.4 per cent the respondents belonging to private employees found with full awareness on honey aspect. Study on consumer's preference for certified honey revealed that 41 per cent of the respondents look for certified honey while purchasing and 14 per cent look for the quality honey. Whereas, 22 per cent of the respondents look for both certified and quality honey. Majority of the consumers have started using honey only since from less than 6 months which indicates awareness about health benefits of honey is new to consumers. It is also observed that there is increase in the number of honey consumers over years, which indicates that awareness on honey is increasing. Concerns about health are prompting a growing number of consumers to change dietary habits.

References

- Alislaah Publications (2004) Uses of honey. www.everymuslim.com.
- Almanary M, Belay T, Fetene D (2002) In vitro assessment of the antimicrobial potential of honey on common human pathogens. Ethiop J Hlth Dev 18: 107—111.
- 3. Kirk S, Sawyer M (1991) Effect of temperature and storage time on hydrogen peroxide content in honey of different biological origin. Biologia 25: 296—298.
- Huang CJ, Fuij (1995) Conjoint analysis of consumer preference and evaluation of processed meat. J Int Food and Agric Business Marketing 7: 35—53.
- Magnusson J, Arvane T, Vanyi K, Zsolt S, Csapo N (2001) Evaluation of honey consumption in the main cities of the North-Great Plain Region. Aspects and Visions of Appl Econ and Informatics 30: 456—463