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"STUDY OF THE SCOPE OF A NEW ENTREPRENEURIAL VENTURE"

BY:

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Abstract

Entering a new venture as an entrepreneur is always challenging in India. There are several steps needed for such venture as such constraints are equally many in numbers so are the remedies. With a new brand entering the market every other day the competition in the Indian artificial sweetener market has subsequently risen leading to an alarming situation on the market share of the existing brands. The purchasing behavior of artificial sweeteners can be understood in a better way and the factors effecting the sale of artificial sweeteners can be found out. These areas can be improved upon to gain an edge over the competitors. The gap areas so analyzed may be sufficed by research backup and new offers and products can be developed. Main objectives were to study and analyze the major factors affecting the sale of artificial sweeteners in the market and to find out their buying behaviour and to analyse the awareness amongst the consumers about artificial sweeteners.

Key words: Artificial sweeteners, entrepreneurship, new venture

INTRODUCTION

Artificial sweeteners, also called sugar substitutes, are substances that are used instead of sucrose (table sugar) to sweeten foods and beverages. The Government of India's Food Safety And Standards Authority Of India has allowed the use of artificial sweeteners in around 25 food items. The items include carbonated water, soft drink

concentrate, sugar/sugar free confectionery, chewing gums, biscuits, breads, cakes and pastries and some traditional sweets. While the country's sugar confectionery market is estimated to be on the higher side of a whopping Rs 2,200 crore, the size of the sugar substitute category, as per ORG retail audit, is merely half a percent of thisclose to `110 crore, limited largely to urban centers. The Indian diabetes market, pegged at \$440 million.

The diabetes atlas 2007 projected that India has 40.9 million diabetics. The Indian diabetes market is expected to be \$880 million by 2019. As projected by the world atlas 2007 India would have reached the 70 million diabetic mark by 2025, but now it is feared that it will reach the figure by 2015. The sugar substitute industry is expected to be around Rs 230 crores by 2015.

This study would enable us to know how health conscious Indians have become and about the increasing use of sugar free substitutes in the country. It would help to know the purchasing behavior of sugar free substitutes and analyze the increasing demand for it for a new entrepreneurship venture.

REVIEW OF THE LITERATURE

Albert Zumbe \hat{A} , Adam Lee and David Storey, UK (2001), discussed in his research paper that polyol containing confectionary are advantageous than the traditional sucrose based confectionery in terms of reduced energy content and reduced carcinogenicity.. The main factors for its diminished usage are food legislation and ingredient pricing issues which need to be addressed to deliver a better product.

Mary An Godshall, Sugar Processing Research Institute, Inc., New Orleans, LA, USA (Jan, 2007), conducted study on the expanding world of nutritive and non-nutritive sweeteners and found out how the sweetener market is increasing, The latest trend being the use of a mixture of non-nutritive and nutritive sugars to maintain its taste.

Emily E. Ventura1, Jaimie N. Davis1 and Michael I. Goran, (Oct, 2010), conducted a research on the sugar content of popular sweetened beverages based on objective laboratory analysis and found out that the consumption of fructose, largely in the form of high fructose corn syrup (HFCS), has risen over the past several decades which contributes negatively to the metabolic health.

Lauro Luís Martins Medeiros De Melo, (July, 2008),. The results showed that sugarfree and reduced calorie milk chocolates prepared with high-intensity sweeteners, Sucralose and Stevia, with partial fat replacement with whey protein concentrate had a similar storage time behaviour as compared with regular chocolates.

Professor Philip M. Parker, *Professor of Management Science INSEAD (Singapore and Fontainebleau, France)* (2008), conducted a study on the outlook for sugarfree gums in India by 2014 and found out the latent demand outlook for sugar-free gum across the states, union territories and cities of India

Preety H Vyas, *Indian Institute of Management, Ahmedabad (Guj.)* (March,2011), The major factors deciding the consumer purchase were price and sweetness. Respondents were more loyal towards a single brand and rarely shifted to other brands.

Aptico's consulatancy (August, 2010) designed a layout for the sugar sweetner Aspartame production in India. India consumes 180 lac tonnes of sugar every year and the sweetener industry is pegged at Rs 180 crores. The technology would be used from china. Raw materials in the form of acids and solvents are easily available. The location would be Vizag near Pharma city. A plant of production capacity 600 tonnes per year can be set up for Rs 30 crores and the turnover achieved can be Rs 120 crores per annum

It can be concluded that the practical aspects of producing non-sugar sweeteners have not been talked about.Less research have been done on the Indian soil for these non-sugar sweeteners. No research has been done on the buying behavior of non-sugar sweetened products.

RESEARCH METHODS

Descriptive research. Both primary and secondary data are included in the study.

Primary data is collected by questionnaire (survey method) and the secondary data is collected from the research papers.

Objectives;-

i) To find out the Current trends of consumption of sugar free products.

- ii) To find out the potential of the sugar free product industry.
- iii) Comparative analysis of the various sugar free products in the market.

Statistical Tools: Simple percentage method is used as a statistical tool. SPSS (17.0 version) and Microsoft excel are used as analysis tools for the project.

DATA ANALYSIS AND FINDINGS

Q1. What is your gender?

Table 1:

Gender of respondent?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|-----------------------|
| Valid | Male | 45 | 45.0 | 45.0 | 45.0 |
| | Female | 55 | 55.0 | 55.0 | 100.0 |
| | Total | 100 | 100.0 | 100.0 | |

Figure 1: Gender of respondent

- 45 % of the consumers surveyed were male.
- 55% of the consumers surveyed were female.
- Q2. Do you Consume artificial sweetener?

Table 2:

Do you consume artificial sweetener

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|-----------------------|
| Valid | Yes | 55 | 55.0 | 55.0 | 55.0 |
| | No | 45 | 45.0 | 45.0 | 100.0 |
| | Total | 100 | 100.0 | 100.0 | |

Table.2: Do you consume artificial sweetener

- 55 % of the consumers surveyed used artificial sweetener.
- 45 % of the consumers surveyed did not use artificial sweetener..

Q3. Why don't you consume artificial sweetener?

Table 3:

Why don't you consume artificial sweetener?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------------------------------|-----------|---------|---------------|-----------------------|
| Valid | Not Aware | 47 | 47.0 | 47.0 | 47.0 |
| | Don't think as a healthy option | 11 | 11.0 | 11.0 | 58.0 |
| | Expensive | 15 | 15.0 | 15.0 | 73.0 |
| | Reluctant to change | 27 | 27.0 | 27.0 | 100.0 |
| | Total | 100 | 100.0 | 100.0 | |

Figure 3: Why don't you consume artificial consumer

Interpretation

- 47 % of the respondents were not aware about artificial sweetener.
- 11 % respondents don't think artificial sweeteners as a healthy option.
- 15 % respondents consider it to be expensive.
- 27 % respondents do not use artificial sweetener as they are reluctant to change.

Q4. Which brand of artificial sweetener do you use?

Table 4 :

Which brand do you use?

| ï | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|-----------|---------|---------------|-----------------------|
| Valid | SugarFree | 65 | 65.0 | 65.0 | 65.0 |

| Zero | 19 | 19.0 | 19.0 | 84.0 |
|------------|-----|-------|-------|-------|
| Equal | 11 | 11.0 | 11.0 | 95.0 |
| Nutrasweet | 5 | 5.0 | 5.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |

Figure 4: Brand of artificial sweetener used

- 65 % of the respondents use SugarFree.
- 19 % of the respondents use Zero.
- 11 % of the respondents use Equal.
- 5 % of the respondents use Nutrasweet.

Q5. Where do you use the sweetener?

Table 5:

Where do you use the sweetener?

| | , | | | | | | | |
|-------|-----------|-----------|---------|---------------|-----------------------|--|--|--|
| | | Frequency | Percent | Valid Percent | Cumulative Percent | | | |
| Valid | Beverages | 56 | 56.0 | 56.0 | 56.0 | | | |
| | Desserts | 29 | 29.0 | 29.0 | 85.0 | | | |
| | Cooking | 15 | 15.0 | 15.0 | 100.0 | | | |
| | Total | 100 | 100.0 | 100.0 | | | | |

Table 5: Where do you use the sweetener

- 56 % respondents use artificial sweeteners in beverages.
- 29 % respondents use artificial sweeteners in desserts.
- 15 % respondents use artificial sweeteners in cooking.

Q6. Why do you use artificial sweetener?

Table 6:

Why do you use artificial sweetener?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------------------|-----------|---------|---------------|-----------------------|
| Valid | Healthy lifestyle | 8 | 8.0 | 8.0 | 8.0 |
| | Figure conscious | 42 | 42.0 | 42.0 | 50.0 |
| | Diabetes & sugar level control | 50 | 50.0 | 50.0 | 100.0 |
| | Total | 100 | 100.0 | 100.0 | |

Table6: Why do you use artificial sweetener

Interpretation

- 8 % respondents use artificial sweeteners for healthy lifestyle.
- 42 % respondents use artificial sweeteners for Figure consciousness.
- 50 % respondents use artificial sweeteners for diabetes & sugar level control.

Q7. Are you aware of the health concerns caused by prolonged usage of artificial sweetener?

Table 7:

Are you aware of the health issues with the use of artificial sweetener

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|-----------------------|
| Valid | Yes | 16 | 16.0 | 16.0 | 16.0 |
| | No | 84 | 84.0 | 84.0 | 100.0 |
| | Total | 100 | 100.0 | 100.0 | |

Figure 7:Awareness about health issues related with artificial sweeteners

- 16% of respondents know about the health issues related with artificial sweeteners.
- 84 % of respondents do not know about the health issues related with artificial sweeteners.

Q8. Rate the following on sweetness?

Table 8:

| | SugarFree | Zero | Equal | Nutrasweet |
|--------|-----------|------|-------|------------|
| Good | 77 | 53 | 64 | 26 |
| Averge | 23 | 36 | 29 | 51 |
| Poor | 0 | 11 | 7 | 23 |

Table8: Rating of brands on sweetness

Interpretation

- 77%, 23% & 0% consumers rated Sugarfree as good, average and poor respectively in sweetness.
- 53%, 36% & 11% consumers rated Zero as good, average and poor respectively in sweetness.
- 64%, 29% & 7% consumers rated Equal as good, average and poor respectively in sweetness.
- 26%, 51% & 23% consumers rated Nutrasweet as good, average and poor respectively in sweetness.

Q9. Rate the following on price?

Table 9:

| | SugarFree | Zero | Equal | Nutrasweet |
|------|-----------|------|-------|------------|
| Good | 59 | 20 | 51 | 10 |

| Averge | 36 | 64 | 39 | 48 |
|--------|----|----|----|----|
| Poor | 5 | 16 | 10 | 42 |

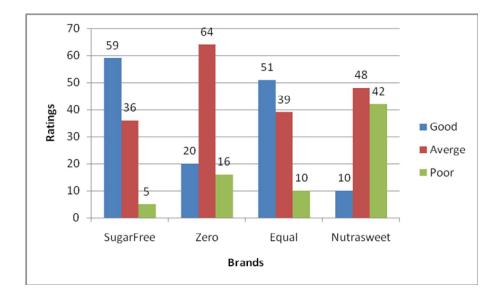


Figure 4.9:Rating of brands on price

- 59%, 36% & 5% consumers rated Sugarfree as high, medium and low in price.
- 20%, 64% & 16% consumers rated Zero as high, medium and low in price.
- 51%, 39% & 10% consumers rated Equal as high, medium and low in price.
- 10%, 42% & 42% consumers rated Nutrasweet as high, medium and low in price.

Q10. Sex of respondent * Do you consume artificial sweetener?

Table .10:

Sex of respondent? * Do you consume artificial sweetener Crosstabulation

Count

| | | Do you cons swee | | |
|--------------------|--------|---------------------|----|-------|
| | | Yes | No | Total |
| Sex of respondent? | male | 20 | 25 | 45 |
| | female | 35 | 20 | 55 |
| Total | | 55 | 45 | 100 |

Table 10: Sex of respondent * consumption of artificial sweetener

Interpretation

- 44 % of the male respondents use artificial sweeteners.
- 63.6 % of the female respondent use artificial sweeteners.

Q11. What is your age * Do you consume artificial sweetener cross tabulation

Table .11:

What is your age? * Do you consume artificial sweetener Crosstabulation

Count

| | | Do you consume a | | |
|-------------------|-------|------------------|----|-------|
| | | Yes | No | Total |
| What is your age? | 19-25 | 3 | 17 | 20 |
| | 26-32 | 9 | 12 | 21 |
| | 33-38 | 17 | 9 | 26 |
| | 39-45 | 26 | 7 | 33 |
| Total | | 55 | 45 | 100 |

Table11:Customer feedback for Castrol

- 26 % of consumers are in the age band of 39-45
- 17% of consumers are in the age band of 33-38

- 12% of consumers are in the age band of 26-32.
- 17% of consumers are int age band of 19-25.

Q12. What type of demand do you think is there for artificial sweeteners?

Table 12: Demand of artificial sweeteners

Whay type of demand do you think is there for artificial sweeteners?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|-----------------------|
| Valid | High | 12 | 24.0 | 24.0 | 24.0 |
| | Medium | 22 | 44.0 | 44.0 | 68.0 |
| | Low | 16 | 32.0 | 32.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

table: Demand of artificial sweetener

Interpretation

- 24% retailers estimate a high demand for artificial sweeteners.
- 44% retailers estimate a medium demand for artificial sweeteners.
- 32% retailers estimate a low demand for artificial sweeteners.

Q13. Which Brands of artificial sweetener do you keep?

Table 13

Which brands do you keep?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|-----------|---------|---------------|-----------------------|
| Valid | Sugarfree | 28 | 56.0 | 56.0 | 56.0 |
| | Zero | 7 | 14.0 | 14.0 | 70.0 |
| | Equal | 11 | 22.0 | 22.0 | 92.0 |

| Nutrasweet | 4 | 8.0 | 8.0 | 100.0 |
|------------|----|-------|-------|-------|
| Total | 50 | 100.0 | 100.0 | |

table13:Brands retailers keep in their shop

- 56 % retailers keep sugarfree in their shop.
- 14 % retailers keep Zero in their shop.
- 22 % retailers keep Equal in their shop.
- 8 % retailers keep Nutrasweet in their shop.

Q14. Which pack sells the most?

Table 14:

Which pack Sells the most?

| | | | | | Cumulative |
|-------|-------------|-----------|---------|---------------|------------|
| | | Frequency | Percent | Valid Percent | Percent |
| Valid | sachet | 24 | 48.0 | 48.0 | 48.0 |
| | 100 Pellets | 11 | 22.0 | 22.0 | 70.0 |
| | 300 Pellets | 9 | 18.0 | 18.0 | 88.0 |
| | 500 Pellets | 6 | 12.0 | 12.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

Figure 14: Which pack sells the most

Interpretation

- 48 % retailers say sachets are the most sold pack.
- 22 % retailers say 100 Pellets are the most sold pack.
- 18 % retailers say 300 Pellets are the most sold pack.
- 12 % retailers say 500 Pellets are the most sold pack.

Q15. Reliability analysis?

Table 15:

Reliability Statistics

| Cronbach's | |
|------------|------------|
| Alpha | N of Items |
| .935 | 16 |

Interpretation:Cronbach's Alpha is 0.935 for the 16 questions analysed.

CONCLUSIONS AND RECOMMENDATIONS

Nearly half of the respondents used artificial sweeteners. Most respondents who did not use the artificial sweetener because they were not aware of the benefits of the product and they did not know the harm caused by table sugar. SugarFree was the most preferred brand of artificial sweetener followed by Zero then Equal and Nutrasweet.Most of the consumers used the artificial sweeteners in beverages, followed by desserts and very less consumers used it in cooking. Most of the consumers used artificial sweeteners for diabetes and sugar level control, followed by figure consciousness and very few used it for a healthy lifestyle. Very few consumers using artificial sweeteners knew about the health concerns related with the prolonged use of artificial sweeteners. Most of the consumers rated SugarFree as the sweetest artificial sweetener and Nutrasweet was rated as the least sweet brand.SugarFree is the Highest priced brand in the product range, whereas Nutrasweet was rated as the lowest priced artificial sugar and Equal and Zero were rated as economic by most of consumers.More females use artificial sweetener than their the counterparts. Most of the retailers think that there is a moderate demand for the artificial sweeteners whereas few think that the demand is low and few think it is high.Most of the shops have SugarFree available with them as an artificial sweetener followed by Equal whereas few shops had Zero and Nutrasweet available. The sachets are the most sold packs whereas the 500 pellet pack is the least sold pack of the product.

Recommendations

An entrepreneurship venture in the industry must work on the awareness of the consumer regarding the ill effects caused by sugar to promote the industry and their brands. Should make the consumer understand that it is not only a product for those

who are suffering with diabetes but it is for a healthy lifestyle. Also must come up with youth campaigns as it is the age group which has the least consumption of artificial sweetner. A new product may be introduced which has taste equivalent to sugar and is used in equal amount as the people are very reluctant to change. A venture must make the consumers aware about the health concerns associated with the prolonged usage of artificial sweeteners as a part of their corporate social responsibility to earn a good will in the market. A venture must come up with some type of sachets which are low priced as the sachets are the most selling packs sold.

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