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SWOT analysis for alternate forms of sugar in Tamil Nadu

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Abstract

Sugar is an essential commodity which is present in every cuisine. Sweetener requirement gets huger demand day by day. Every consumer had preferring different kinds of sweets with different varieties and different taste. This study depicts about the sample producers took from different forms of sugar like Jaggery and Khandsari sugar, coconut sugar and palm sugar. Mainly these sugars were traditional forms and its consumption got reduced last few years. However, demand for these sugars gets huge market potential due to various reasons. So, this study concluded about strength, weakness, opportunities for future and its threats in entry and exit in the market.

Keywords: SWOT, jaggery, khandsari sugar, palm sugar and coconut sugar

Introduction

Science knowledge curriculum is develop from local culture and grows strong nationalism attitude. Local culture exploration is important to understand local knowledge that is integrated in the school, so cross culture approaching is used if science knowledge in the school can be balanced between western science (modern science) and traditional science (indigenous science). The most popular sweetener in the world, sugar, was invented in India. There is reference to sugarcane cultivation and the preparation of sugar in an Indian religious text, the Atharva Veda. The word Sugar is a derivative of "Sakara", meaning gravel in Sanskrit. Sugar became known to the world when the army of Alexander the Great came to India in 327 BC. Interestingly, they were surprised to see another alternative to honey to sweeten food, and described it as a "reed that gives honey without bees". (Nation Federation of cooperative sugar fact). Processing industry had a role in economic growth of the region through marketing needs in domestically and abroad (Rejekiningsih *et al.* 2011) [5]. Traditionally any occasion in India is celebrated with intake of sweets. Also it is customary to "sweeten the mouth" after every meal, any joyous occasion, religious festival, social gathering, etc. It is considered mandatory to offer sweets to the gods on every religion occasion (e.g.: it is believed Lord Ganesha, who is worshiped first in all religious occasions, is fond of ladoos (made by frying a batter of gram flour & ghee in small pearl-size drops and then mixing with sugar syrup, this mixture is given a round shape). Sugar is not only of the world's key food commodities but also one whose appearance and sensation on the palate have long been subject to radical change. "Sugar" as we know it – a relatively stable, storable and tradable commodity made from boiling down the sweet juices of grass-originated canes was invented in Asia and subsequently made its way westward, via the Levant and the Mediterranean, into the Atlantic world.

Objective of the study

To discuss the strength, weakness, opportunities and threats in the market for alternate forms of sugar

Review of Literature

Tauro *et al.* (2018) [4] revealed that pellets not yet developed but had strong market potential. The potential for pellets in the market which required energy from forest and agricultural residue were readily available. This potential could replace natural gas (NG) demand and LPG demand for residential and commercial heating. Further, pellet production and its use impacted with environment on comparison to fossil fuels needed to be considered.

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Aliudin *et al.* (2019) ^[1] stated that internal factor provided a response to palm sugar craft business was product quality whereas external factor was population growth. Strategies should be formed based on maintenance and development which focused on improving and maintaining product quality by making labelling details. These details would be promoted by making regulations from village level to district level. Finally research needs to be reinforcement by the study from upstream to the downstream to farmer and processing technology assessment and also product packaging. Mohan and Agarwal (2020) ^[3] revealed about sugarcane based industry which played a vigorous role in reinforcement the agricultural sector. To develop the rural economy, as an unorganized sector offered enormous possible of product innovative, technological upgradation and value addition, such options would be helpful in adoption to provide jaggery in a good quality with enriched shelf life. Theolier *et al* (2021) ^[5] revealed that consumers' knowledge about the concept of food fraud is limited, and their understanding of the associated risks is built on incomplete information. Besides, consumers seem to apply an incorrect risk analysis methodology. However, consumers, either favouring or reducing the weight of data, are influenced by psychosocial effects and biased information. Communication and education regarding management of food fraud and

detection of food fraud are needed from a consumer standpoint. Furthermore, actions have to be undertaken on a local level, as it appears that “consumers” is not a homogenous cluster

Hebbar *et al.* (2022) ^[2] compared coconut sugar as a healthy sweetener compared to other forms of sugar. Since, the production cost was high compared with cane sugar, due to its nutritive value and low glycemic index (GI) value. However, peoples were prepared to pay high price due to its lack of awareness about its health benefits is a bottleneck. Therefore, it realized that adoption of automation practices like Artificial Intelligence, deep learning, IoT and wireless communication may substitute for human labor and reduce production cost

Research Methodology

SWOT Analysis revealed about external analysis determine about opportunities and threats whereas internal analysis determine strength and weakness of the firms. Through primary survey from each sugar producers (30 of each) and their suggestion were discussed in the paper.

Results and Discussion

SWOT analysis helped the producers to know about their current status of the firms and demand of their product in the market. The following were discussed and presented.

Table 1: SWOT Analysis for Jaggery and Khandsari sugar

<p style="text-align: center;">Strength</p> <ul style="list-style-type: none"> • Leading commodity • Preferred and used by every consumer • Immediate substitute of refined sugar • More awareness from the people • Wider availability equal to refined sugar • Raw material availability • Family labor utilization • Traditional knowledge 	<p style="text-align: center;">Weakness</p> <ul style="list-style-type: none"> • Individual Management • Improper brand name • Lower level of promotion • Loan availability is also poor • Limited information from the market • Improper storage facilities • Sufficient equipment shortage • Chemical usage is high
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Huge market demand • Substitute for sugar • High additional value with respect to its products • Good prospect of the product • Increasing demand for organic jaggery • International market demand • Sugarcane varieties cultivation fit for jaggery production 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Fluctuation of price • Lacking in research • Demand for export standardization • Credit facility shortage • Marketing facility shortage

(Observed from the primary survey)

It could be observed from Table 1 that, there were stronger market demand for jaggery and khandsari sugar and leading commodity among the consumers. Acted as an immediate substitute of every in every cuisines. This sugar was

consumed before two decades by every people. However, SWOT analysis helps the marketers and producers to have better knowledge in sustaining the product.

Table 2: SWOT Analysis of Palm Sugar

<p style="text-align: center;">Strength</p> <ul style="list-style-type: none"> • One of the leading commodity • Preferred by every consumer • Immediate substitute of refined sugar • Good for diabetic people consumption • Demand in chocolate based products • Industry developed with local culture 	<p style="text-align: center;">Weakness</p> <ul style="list-style-type: none"> • Individual Management • Improper brand name • Seasonal production • Lower level of promotion • Traditional process • Limited information from the market
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Higher market demand • Substitute of sugar for diabetic patients • High additional value with respect to its products • Creation of brand name • Loyalty of consumers 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Poor network of market • Competition with other forms of sugar • Modern agroindustry with cultural values and beliefs • Innovation of sucrose based alternate sweeteners

<ul style="list-style-type: none"> • Advancement of processing technology • Good prospect of the product 	
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(Observed from the primary survey)

It could be observed from Table 2 that, palm sugar acted as substitute of sugar for diabetic patients. But the main problem was seasonal production so that sugar production in seasons would be taste but in off season its taste would be low than in

on season. There would be a higher demand and good prospect of the product. This type of sugar had lower level of promotion and creation of no brand. Palm sugar was one of the important constituents for tobacco preservation.

Table 3: SWOT Analysis of Coconut sugar

<p style="text-align: center;">Strength</p> <ul style="list-style-type: none"> • One of the emerging commodity • High nutritive value • Low GI value • Good for diabetic people consumption • Industry developed with local culture • Widely availability of raw materials 	<p style="text-align: center;">Weakness</p> <ul style="list-style-type: none"> • Individual Management • Improper brand name • High production cost • Lack of common facility centers • Lack of support for packaging • Lack of marketing facilities • Large number of human labor
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Emerging market demand • Better quality improvement of product • Substitute of sugar for diabetic patients • Creation of brand name • Larger requirement in tobacco preservation • Advancement of processing technology • Good prospect of the product • Introduction of dwarf varieties to easy for tapping 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Poor network of market • Competition with other forms of sugar • Modern agroindustry with cultural values and beliefs • Other sweeteners came with competitive prices

(Observed from the primary survey)

It could be inferred from Table 3 that among alternate forms of sugar discussed coconut sugar had low GI value. This type sugar will be processed all over the seasons. Compared to palm sugar it yield high production and also generate profits. However, both sugar exhibits same market, and its value chain intermediaries were same. Introduction of dwarf varieties would help in reduction of tapping cost and also easy to monitor the sap juice production in trees.

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Conclusion

The above discussed helped the products to know current status of the product that they produce. They had high knowledge of production in terms of traditional aspects. However, they were lack in adopting new technologies. The study helped to identify the new opportunities and easy to identify threats to their firms in entry and exit off the market. It helps to identify the various marketing opportunities for various forms of sugar.

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