

Development of Reference Sensory Profile for Uva Black Tea and 'House of Quality' for Uva Tea

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Introduction

Sensory Evaluation is a novel technique which is used to identify sensory attributes of food and beverages. Application of sensory evaluation techniques for tea industry is a current necessity to determine variations in sensory attributes associated with processing variables, geographical regions, types of tea grades *etc* and helps to resolve numerous other issues important to Tea industry. House of Quality is a systematic approach to fulfill the consumer needs and accurately relate with the technical design, production planning and production process. This study is an effort to identify reference sensory characteristics associated with Uva Region and provide proper guidance to enhance black tea quality in Uva region tea industry through House of Quality.

Methodology

Research was conducted at the Tea Department of John Keells PLC. Stratified Random Sampling Method was used to select the thirty tea factories and Simple Random Sampling Method was used to select five main grades (BOP, PEKOE, PEKOE1, FBOP, BOPF). Primary data were collected by Tasting and Evaluation of the selected Uva black tea. Recorded data were collected from the muster reports. Kruscal Wallis Test and Mann Whitney Test were used to analyze the data. Questionnaire was developed to identify buyer's satisfaction priority on Sri Lankan Black Tea. Eikernode Method (Ma'arif *et al.*, 2003) was used to rank the data.

Results and Discussion

The Results of Kruscal Wallis demonstrate that there was no significant difference between five grades considered and sensory attributes apart from the cleanliness. Results of Mann Whitney showed that there was no significant difference between sensory attributes with respect to Uva High and Uva Medium.

House of quality was developed following the method developed by Rohayati (2009) to fulfill the gap between Reference profile and the optimum profile (Figure 1.) and supported to the whole Sri Lankan Tea Manufacture, Tea Brokers and Tea Buyers to enhance the product quality.

Attribute priority of Sri Lankan tea buyers on Uva black tea is given in Table 1. Appearance of made tea, followed by type and price are the main attributes sought by buyers of uva province

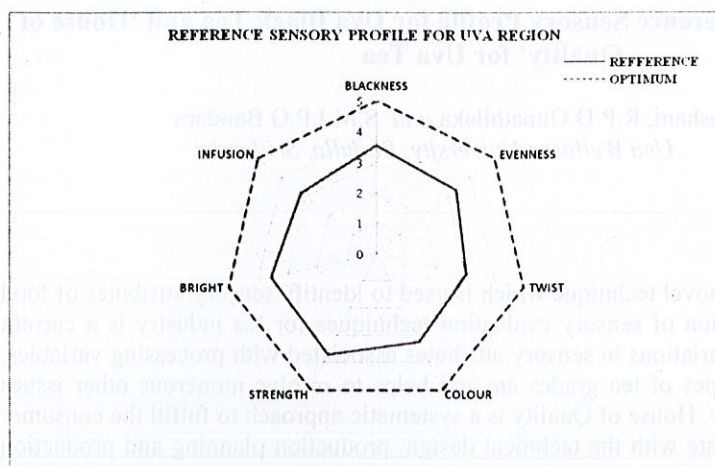


Figure 1: Reference Sensory Profile

Table 1: Attributes priority of Sri Lankan Tea Buyers on Uva Black Tea

Attribute	Percentage (%)	Weight	Rank
Type	13.9	223	2
Grade	10.47	177	5
Price	11.64	193	3
Appearance of Made Tea	14.86	236	1
Taste and flavor	10.76	162	4
Colour of Liquor	10.1	151	6
Infused Leaf	4.47	77	10
Personal Relationship with broker	5.12	78	9
Personal Relationship with Manufacturer	1.12	22	12
Convenience to finish a claim with Broker	6	91	8
Effectiveness of Warehouse	6.95	100	7
Delivery System	4.47	76	10

Conclusion

There is an average adoption level for sensory quality characteristics of reference sensory profile on Uva Region. All manufacture must pay their attention to improve sensory characteristics to maximum adaptation level. Appearance of made tea is most critical to enhance buyer's satisfaction and tea shoot quality is most critical to improve the black tea quality.

References

- Ma'arif, M.S. dan H. Tanjung, 2003. Manajemen Operasi., Grasindo, Jakarta.
- Rohayati, S. 2009. Application of quality function deployment in orthodox black tea industry in Indonesia. Indonesian Journal of Agriculture 2(1): 28-34.