

**THE DEVELOPMENT OF INTERNAL SENSORY  
PANEL TO ASSESS THE SENSORY QUALITIES  
OF PROCESSED MEAT PRODUCTS**

A dissertation submitted to the  
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by

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## ABSTRACT

In the food industry sensory evaluation has become a standard tool used in the development of new products and the checking the quality of the existing products. Unless the food products meet the desired standards of taste, flavor, texture, etc., the consumer will not accept the products. Before the product goes in to the market from the industry, product's sensory quality must be checked with the help of sensory evaluators. Establishment, training and performance evaluation of sensory panel is the main objective of the study.

The testing instrument for sensory analysis is the panel of human judges who have been recruited and trained to carry out specific tasks of sensory evaluation. Recruiting panelists, training them, monitoring their performance, providing leadership and motivation are the basic steps of establishing sensory panel. Recruitment of the panel was done in 3 steps. First pre screening was done by distributing a questionnaire among all possible members in the industry. Date was evaluated using maximum score method.

Second screening was done in three steps, Meat type identification test; Minced Chicken, Beef, Mutton, Pork, and fish were mixed with minimum amounts of salt. 10g balls were steam cooked and stored at -22°C for 42 hours. Five samples were served in five plates for the potential panelists. Taste type identification test; Chicken samples were made with 0.5% salt, 3% vinegar, 0.2% spice. Potential panelists were asked to identify the taste type. Different threshold level test; Chicken meat samples with each taste (salt, spice, sour) with different intensities were given to potential members. Three samples from each taste will be given to potential panelists and ask them to rank according to low, medium, high levels. 15 panelists were selected by sorting the success ratio.

Training and performance evaluation was done for the selected panelists by giving two sets of three samples including one reference sample (company standard sample) with changes in salt level and spice level. Data were analyzed using Kruskal-wallis test test. A triangle test was done with meatball samples having one with 1.5% vinegar. Results of the statistical analysis proved that there is no significant different between panelists and their judgment can make significant different in the test statistics.

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