

## Abstract

Apparel or clothing was the thing that used for cover the body of a human for a long time. In some societies, it's characteristic of region or nationality. Thobe is one of these and popular wear in Islamic country especially The Middle East and the ASEAN Community. Evolution of thobe has for beautiful colors, and design to be more modern. However, the need of consumer was one point that hard to find and respond. The sensory analysis is the one method that using for checking quality by using sensory of consumer and interpret the results with the criteria and sensory quality. Sensory Analysis of Thobe to meet the needs of the market and to make the results of the evaluation are reliably referenced, The standard assessment process is required. The evaluators should have tools for supporting evaluations to make the assessment accurate and trustworthy. The main goal of this project is to design and develop software systems for evaluating sensory satisfaction of Thai consumers about Thobe of SMEs group in Pattani to expand the market and meet the needs of the target group of consumers, increase competition And the potential for more distribution of products.

## CHAPTER 1

### INTRODUCTION

This chapter introduce the shift of development of sensory evaluation application to measuring consumer conception case study of apparel which refer to business organisation.

This chapter also identify the problem statement, purpose of study, limitation and delimitation, and significant of the study of this project.

#### Background

Apparel is un item that used to cover the human body part for a long time. In the four basic human needs is the most necessary thing that people needs, especially, clothing used to cover the body to be able to live safely from the weather, and to protect from any diseases. For these reasons, is important. Clothing styles are varies by location and culture. In some societies, clothing is an indication of the identity of peoples, religions, social status,

and also fashion tastes. Each country has their own unique clothing that represent the culture of their own. Anyway, in some religion, it defines the dress code implicitly. For instance, In Islamic rule, the dress of a Muslim man must emphasize neatness and conceals the body. The Malays dress is unique look, some of them wear Melayu style called “Terlo Blanga” and some of them wear a Sarong with a harmoniously integrated cap “Kapeeyoh”, long dress “Thobe”, and Saraban scarf. These costumes wear in religious activity and also in daily life.

Popular in malay archipelago.

The development of apparel design to be more colorful and modern suite in response to the multicultural marketing and competition along with the advanced technology that could manufacture more costume to match up with consumer needs. The behavior of current consumers have a high taste of fashion, bored easily and like to seek for something new. The factors influence consumers buying decision including quality, value, style, and color (Bangkok, 2553) there are the main factors influence purchase decision of product. Therefore, the first difficulties of marketing is finding out the consumers needs, and the second, how do we knows consumers needs, because consumers do not say straight-out their own needs. For the entrepreneur knowing a lot of consumer needs steps ahead before other, is more likely to meet the success in business than others.

Sensory Evaluation is quality testing of the products by using 5 senses of the tester, such as looking, listening, smelling, taste, and touch. The number of tester is required in order to process with statistical methods and interpreted the rules effectively. The quality sensory such as color, texture, feel, which can be evaluated with human organs. Therefore, these

criteria is an important factor of product quality. By having qualified sensory evaluation technique would benefit both manufacturer and consumer. Whether they are Quality Assurance, Quality Control, Consumer Analysis, Marketing Analysis, as well as taking data of the sensory qualities to make relation with data quality of the other side for helping to be more beneficial.

Evaluating product quality to meet market needs and apply the results, as reliably reference. Hence, the evaluation standard and tool is necessary to evaluate accurately, reliability, store,

and process, to get the result in the shortest amount of time. Hedonic Test can be a good standard of sensory evaluation. So calls the assessor that is Sensory assessor and calls the person who controls the assessment is Sensory controller. Nowadays, sensory evaluation there are many steps, the first step is to keep data from the tester, the second step is collected testing evaluation data by the controller, the third step is processing data with statistical methods. And lastly, all of those steps take a long time to process. The mistake from the controller may happen. Therefore, it necessary to develop software of sensory evaluation that applies to a computer for quality evaluation and more effective evaluation standards. Thus, the main purpose of research must design and develop a software application to use in sensory evaluation. Satisfaction of Thai consumers with apparel of entrepreneur group to expand the market, meet consumers needs, increase the competition capacity, production potential, and selling products of the entrepreneur.

## PROBLEM STATEMENT

### PURPOSE OF STUDY

1. To research and develop sensory application for measuring consumer perception.
2. To research the consumer cognitive Thai consumer in consumer purchase decision via sensory evaluation technique.
3. To publish the process and step of how to do evaluation using web application for entrepreneur and manufacturer.

### LIMITATION AND DELIMITATION

### SIGNIFICANT OF STUDY

## CHAPTER 2

### Literature review

#### 2.1 Related work

Sensory Evaluation is a scientific method because of analysis and interpretation of the responses from the product is a result of sensory perception (Sight, smell, touch, taste, and hearing) by having the decision relies on data analysis and interpretation (Stone and Sidel, 1993). To use the senses that is an essential tool to measure the characteristics and acceptance of the products by analyzing the character and quality class of product to be consistent with the consumer needs.

Hedonic Test is testing that use to measure the acceptability and preferences between products that responses given by testers. Reaction from testers who responded naturally to product preference or satisfaction in action that is the acceptability testing method in a product sample. The maximum number of products sample to be presented simultaneously to each consumer is 1 to 4 products per session. The testers will have to tick levels of preference for each sample. The testing form will have to explain the value of the preference score. This testing will get a reliable result if the testers decide immediately without giving much time to make decisions (ISO 6658:2017, 2017). The 9-Point Hedonic Scale is the consumer preferences are classifiable of the value of responding occur and acceptance evaluation of any products that not only food (ISO 11136:2014, 2014).

Sensory evaluation is an assessment process that focuses on the assessment of the food. The all most research is learning about the sensory evaluation of food, for example, (A-Nannanya et al., 2556) the sensory perception of Singaporean consumers of Thai restaurant and Background factors. The main purpose of this research project is to delineate the sensory perception of Singaporean customers of Thai restaurants in Singapore so as to better understand their implications for policy initiatives that could guide a more efficient operation of Thai restaurants abroad, especially in terms of brand loyalty building strategies. This research combines qualitative and quantitative methods such as Focus Group Interview and Survey Research. (Rati, 2557) studied the effect of the compound with sensory branding that affect consumer behavior Thai dessert of Japanese consumers in Tokyo, Japan. (Surachai, 2558) this research such as survey research, the main purpose of this research project is to study consumer acceptance and behavior on Thai herbal tea and to study the important factors that affect consumption, the sample groups are Thai consumers who drink healthy tea or

herbal tea by choosing the samples of each region of Thailand with Hedonic Scaling 9 point.

Marketers give the definition of consumer behavior differently. (Wutsukcharoen, 2555) It is a science closely from the theory of demand to understand consumer behavior depend on each age to catch up consumer needs. (Hoyer & Macinni, 2010) Consumer behavior is a reflection of consumer decision since the purchase, consumption, and disposal.

(Rati, 2556) This project to build a Human sensory evaluation system on a mobile platform that is a scientific method that applies principles of statistical analysis to the use of human sense for the purposes of evaluating consumer products. Sensory evaluation there is any methods to do. Such as record sensory evaluation data from testers, then sensory controller collect evaluation data, and lastly to use statistical analysis to interpret data. Therefore, these methods, when traditionally conducted by human, that take a long time consuming and error-prone. Hence, the aim of this system on a mobile platform will be applied in evaluation to make the data collect faster with more accuracy and efficiency. This system works with Android tablets that receive sensory evaluation data from tester and send this data to the local computer notebook. When the computer notebook connects to the Internet,