



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

**A STUDY ON PROFILE DESIGN USING KANO-AHP APPROACH
FOR BAJU MUSLIMAH PRODUCT**

This report submitted in accordance with requirement of the Universiti Teknikal Malaysia Melaka (UTeM) for the Bachelor Degree of Manufacturing Engineering (Manufacturing Design) (Hons.)

By

UMI NURAJEHA BINTI TORMUDZI

B051310307

941027045298

FACULTY OF MANUFACTURING ENGINEERING

2017

BORANG PENGESAHAN STATUS LAPORAN PROJEK SARJANA MUDA

TAJUK: A study on profile design using Kano-AHP approach for Baju Muslimah product

SESI PENGAJIAN: 2016/17 Semester 2

Saya **UMI NURNAJEHA BINTI TORMUDZI**

mengaku membenarkan Laporan PSM ini disimpan di Perpustakaan Universiti Teknikal Malaysia Melaka (UTeM) dengan syarat-syarat kegunaan seperti berikut:

1. Laporan PSM adalah hak milik Universiti Teknikal Malaysia Melaka dan penulis.
2. Perpustakaan Universiti Teknikal Malaysia Melaka dibenarkan membuat salinan untuk tujuan pengajian sahaja dengan izin penulis.
3. Perpustakaan dibenarkan membuat salinan laporan PSM ini sebagai bahan pertukaran antara institusi pengajian tinggi.
4. **Sila tandakan (√)

SULIT

(Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysiasebagaimana yang termaktub dalam AKTA RAHSIA RASMI 1972)

TERHAD

(Mengandungi maklumat TERHAD yang telah ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)

TIDAK TERHAD

Disahkan oleh:

Alamat Tetap:

Cop Rasmi:

KM 16 KAMPUNG BUKIT DURIAN

75460 AYER MOLEK

MELAKA

Tarikh: _____

** Jika Laporan PSM ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa/organisasi berkenaan dengan menyatakan sekali sebab dan tempoh laporan PSM ini perlu dikelaskan sebagai SULIT atau TERHAD.

DECLARATION

I hereby, declared this report entitled “A study on profile design using Kano-AHP approach for Baju Muslimah product” is the results of my own research except as cited in references.

Signature :
Author's Name : UMI NURNAJEHA BINTI TORMUDZI
Date : 31st May 2017

APPROVAL

This report is submitted to the Faculty of Manufacturing Engineering of UTeM as a partial fulfillment of the requirements for the degree of Bachelor of Manufacturing Engineering (Manufacturing Design) (Hons.). The member of the supervisory is as follow:

.....
(Dr. Suriati Binti Akmal)
(FYP Supervisor)

ABSTRAK

Kertas kerja ini adalah satu kajian mengenai reka bentuk profil menggunakan pendekatan Kano-AHP untuk Baju Muslimah. Dalam kajian ini, pendekatan yang menyeluruh antara reka bentuk produk dan pelanggan perlu dilakukan untuk memenuhi keperluan pelanggan. Kaedah kajian yang digunakan adalah soal selidik yang dilakukan dalam dua jenis soal selidik (kaedah Kano dan Rekabentuk Produk). Terdapat 500 responden terlibat bagi menjawab soalan kajian. Soal selidik termasuk 16 reka bentuk baju muslimah semasa, bahan dan reka bentuk pertimbangan, motivasi pelanggan, Kano model (berfungsi dan tidak berfungsi), dan enam perkataan yang mewakili emosi pelanggan terhadap produk baju muslimah. Hasil daripada kajian, terdapat tiga reka bentuk yang dipilih oleh responden iaitu *Design 14*, *Design 7* dan *Design 6*. Semua reka bentuk pilihan digambarkan sebagai 'Up to Date' reka bentuk oleh responden. Terdapat tujuh Kano model yang dipilih oleh responden (berfungsi dan tidak berfungsi). Terdapat tiga ciri-ciri yang dipilih oleh responden daripada soal selidik yang mana ciri-ciri 'must-be' sebagai perkara penting yang perlu ada didalam reka bentuk baju muslimah, diikuti oleh ciri-ciri 'attractive' dan sifat 'one-dimensional'. Sebagai kesimpulan, dengan menggunakan kaedah Kano dan analisis Ahp Reka bentuk profil yang sesuai dan unsur estetik yang boleh baik reka bentuk tersebut dikenalpasti.

ABSTRACT

This paper is a study on profile design using Kano-AHP approach for Baju Muslimah. In this study, a comprehensive approach between a product design and customer need that can fulfill the requirement can be developed. The survey method used is a questionnaire which is performed in two types of questionnaire (Kano method and Product Design). There were 500 respondents involved to complete the questionnaires. The questionnaires included 16 current *baju muslimah* designs, material and design consideration, customer motivation, Kano attributes questions (Functional and Dysfunctional), and the six words that represent the emotional of customer toward product *baju muslimah*. According to the result, there are three designs that the respondents preferred which are Design 14, Design 7 and Design 6. All of the preferred design is described as 'Up to Date' design by the respondents. Also, seven Kano attributes that respondents choose from the Kano attributes question (Functional and Dysfunctional). There are three attributes that respondent choose from the questionnaires which are 'must-be' attribute as the important to have in the design of baju muslimah, followed by 'attractive' attribute and 'one-dimensional' attribute. In a conclusion, by using Kano method and AHP analysis a suitable attribute and aesthetic element that can improved the design is identified.

DEDICATION

To

My beloved father and mother, Mr. Tormudzi Bin Sumeri and Mrs. Noridah Binti Astar

My adored sisters, Intan Rahayu, Intan Farawani, Intan Norzira, Intan Nazlia, Intan Nazrifa, Intan Nadiya, Intan Norziyani and Noramirah Ammarah

My nieces, Nur Masyitah

For helping and giving me moral support, money cooperation, encouragement and also understanding

To my supervisor

It is with my deepest gratitude and warmest affection that I dedicate this thesis to Dr. Suriati Binti Akmal who has been a constant source of knowledge and inspiration.

Thank you so Much & Love you all Forever

ACKNOWLEDGEMENT

Alhamdulillah and thank to Allah S.W.T with all gracious and merciful for giving me strength, good health and ability to accomplish this project research successfully I wish to express my sincere thanks to Dr. Suriati Binti Akmal, my supervisor, for providing me with all the necessary facilities for the research and I am extremely thankful and indebted to her for sharing expertise, and sincere and valuable guidance and encouragement extended to me. I also thank my parents for the unceasing encouragement, support and attention. I am also grateful to my friends who supported me through this venture.

TABLE OF CONTENT

| | |
|--|-------------|
| ABSTRAK | i |
| ABSTRACT | ii |
| DEDICATION | iii |
| ACKNOWLEDGEMENT | iv |
| TABLE OF CONTENT | v |
| LIST OF TABLES | ix |
| LIST OF FIGURE | xi |
| LIST OF ABBREVIATIONS, SYMBOLS AND NOMENCLATURE | xiii |
| | |
| CHAPTER 1: INTRODUCTION | |
| 1.1 Project Background | 1 |
| 1.2 Problem statement. | 3 |
| 1.3 Objectives | 5 |
| 1.4 Scope | 5 |
| | |
| CHAPTER 2: LITERATURE REVIEW | |
| 2.1 Kano Method | 6 |
| 2.1.1 Introduction | 7 |
| 2.1.2 Kano's Category | 7 |
| 2.1.3 Traditional Kano's method | 9 |
| 2.1.4 Advantage of Kano Model | 11 |
| 2.1.5 Kano Model Approach | 12 |
| 2.2 Analytical Hierarchy Process (AHP) | 12 |
| | v |

| | |
|---|----|
| 2.2.1 Introduction of AHP | 12 |
| 2.2.2 Implementation of the AHP | 14 |
| 2.2.3 Hierarchy | 17 |
| 2.2.4 Logical consistency | 18 |
| 2.2.5 Pairwise comparison matrix | 19 |
| 2.2.6 Methodology | 20 |
| 2.2.7 Limitation | 22 |
| 2.2.8 Priority setting of the criteria by pair wise comparison (weighing & scoring) | 23 |
| 2.2.9 Advantage of AHP | 24 |
| 2.3 Summary | 25 |

CHAPTER 3: METHODOLOGY

| | |
|---------------------------------|----|
| 3.1 Planning of study | 26 |
| 3.2 Research process flowchart | 27 |
| 3.3 Data Collection Methodology | 27 |
| 3.3.1 Construct survey | 27 |
| 3.3.2 Questionnaire | 28 |
| 3.4 Preliminary study | 28 |
| 3.5 Reliability test | 29 |
| 3.6 Data processing | 29 |
| 3.7 Expected result | 31 |
| 3.8 Gantt chart | 32 |
| 3.9 Summary | 32 |

CHAPTER 4: RESULT AND DISCUSSION

| | |
|-------------------------------------|----|
| 4.1 Preliminary Test | 33 |
| 4.1.1 Characteristic of Respondents | 34 |

| | |
|--|----|
| 4.1.2 Material and Design Properties Preference | 37 |
| 4.1.3 Kansei Words as Articulation of the Emotional /Affective Design | 40 |
| 4.1.4 The Baju Muslimah Design (Current Product of Baju Muslimah Design) | 41 |
| 4.2 Data Analysis | 42 |
| 4.2.1 Kano model | 42 |
| 4.3. Analysis of Design by AHP Method and Expert Choice Analysis | 48 |
| 4.3.1 Design 1 | 48 |
| 4.3.2 Design 2 | 49 |
| 4.3.3 Design 3 | 50 |
| 4.3.4 Design 4 | 52 |
| 4.3.5 Design 5 | 53 |
| 4.3.6 Design 6 | 54 |
| 4.3.7 Design 7 | 55 |
| 4.3.8 Design 8 | 56 |
| 4.3.9 Design 9 | 58 |
| 4.3.10 Design 10 | 59 |
| 4.3.11 Design 11 | 60 |
| 4.3.12 Design 12 | 61 |
| 4.3.13 Design 13 | 62 |
| 4.3.14 Design 14 | 63 |
| 4.3.15 Design 15 | 64 |
| 4.3.16 Design 16 | 66 |
| 4.3.17 Design Preference | 67 |
| 4.4 Summary | 70 |
| | |
| CHAPTER 5: CONCLUSION | |
| 5.1 Conclusion | 71 |

| | |
|--------------------|-----------|
| 5.2 Recommendation | 72 |
| 5.3 Sustainability | 73 |
| REFERENCES | 74 |
| APPENDICES | |
| Appendix A | 78 |
| Appendix B | 83 |
| Appendix C | 88 |
| Appendix D | 89 |

LIST OF TABLES

| | |
|---|----|
| 2. 1: Kano Evaluation Table (Bailom, 1996) | 12 |
| 2. 2: Table of relatives' scores | 15 |
| 2. 3: The fundamental scale (Saaty, 2008) | 24 |
| 4. 1: Gender of Respondents | 34 |
| 4. 2: Age of Respondent | 34 |
| 4. 3: Occupation of Respondents | 35 |
| 4. 4: Material of Baju Muslimah | 37 |
| 4. 5: Type of Baju Muslimah | 38 |
| 4. 6: Price of Baju Muslimah | 38 |
| 4. 7: Characteristic of Baju Muslimah | 39 |
| 4. 8: Meaning of Emotional Word | 40 |
| 4. 9: Selected Baju Muslimah | 42 |
| 4. 10: Reliability test | 42 |
| 4. 11: Quality Attributes Result Based On Kano Method | 43 |
| 4. 12: Coefficient Strength | 46 |
| 4. 13: Kano (CR) Correlation | 47 |
| 4. 14: Analysis Result of Design 1 | 48 |
| 4. 15: Analysis Result of Design 2 | 50 |
| 4. 16: Analysis Result of Design 3 | 51 |
| 4. 17: Analysis Result of Design 4 | 52 |
| 4. 18: Analysis Result of Design 5 | 53 |
| 4. 19: Analysis Result of Design 6 | 54 |
| 4. 20: Analysis Result of Design 7 | 56 |
| 4. 21: Analysis Result of Design 8 | 57 |
| 4. 22: Analysis Result of Design 9 | 58 |
| 4. 23: Analysis Result of Design 10 | 59 |
| 4. 24: Analysis Result of Design 11 | 60 |
| 4. 25: Analysis Result of Design 12 | 62 |
| 4. 26: Analysis Result of Design 13 | 63 |

| | |
|---|----|
| 4. 27: Analysis Result of Design 14 | 64 |
| 4. 28: Analysis Result of Design 15 | 65 |
| 4. 29: Analysis Result of Design 16 | 66 |
| 4. 30: Analysis of Preference Design | 67 |
| 4. 31: Oerall Baju Muslimah design Normal average | 69 |
| 4. 32: Overall Baju Muslimah design Normal AHP | 69 |

LIST OF FIGURE

| | |
|--|----|
| 2. 1: Kano's model of customer satisfaction (Berger <i>et al.</i> , 1993) | 8 |
| 2. 2: The analytical Kano model (Lee <i>et al.</i> , 2011) | 10 |
| 2. 3: Ahp hierarchical structure model (Xi Xi & Qiuli Qin, 2013) | 18 |
| 3. 1: Process flowchart | 27 |
| 3. 2: Functional and dysfunctional question in the Kano questionnaire (Sauerwein <i>et al.</i> , 1996) | 30 |
| 4. 1: Age of Respondent | 35 |
| 4. 2: Occupation of Respondents | 36 |
| 4. 3: Number of Respondents | 36 |
| 4. 4: Material of Baju Muslimah | 37 |
| 4. 5: Type of Baju Muslimah | 38 |
| 4. 6: price of Baju Muslimah | 39 |
| 4. 7: Characteristic of Baju Muslimah | 40 |
| 4. 8: Emotional toward Baju Muslimah product | 41 |
| 4. 9: Kano Model of Respondent Satisfaction | 44 |
| 4. 10: (a) Normal Ahp (b) Normal Average | 49 |
| 4. 11: Expert Choice Result of Design 1 | 49 |
| 4. 12:(a) Normal Ahp (b) Normal Average | 50 |
| 4. 13: Expert Choice Result of Design 2 | 50 |
| 4. 14: (a) Normal AHP (b) Normal Average | 51 |
| 4. 15: Expert Choice Result of Design 3 | 51 |
| 4. 16: (a) Normal AHP (a) Normal Average | 52 |
| 4. 17: Expert Choice Result of Design 4 | 52 |
| 4. 18: (a) Normal AHP (a) Normal Average | 53 |
| 4. 19: Expert Choice Result of Design 5 | 54 |
| 4. 20: (a) Normal AHP (a) Normal Average | 55 |
| 4. 21: Expert Choice Result of Design 6 | 55 |

| | |
|--|----|
| 4. 22: (a) Normal AHP (a) Normal Average | 56 |
| 4. 23: Expert Choice Result of Design 7 | 56 |
| 4. 24: (a) Normal AHP (a) Normal Average | 57 |
| 4. 25: Expert Choice Result of Design 8 | 57 |
| 4. 26: (a) Normal AHP (a) Normal Average | 58 |
| 4. 27: Expert Choice Result of Design 10 | 58 |
| 4. 28: (a) Normal AHP (a) Normal Average | 59 |
| 4. 29: Expert Choice Result of Design 10 | 60 |
| 4. 30: (a) Normal AHP (a) Normal Average | 61 |
| 4. 31: Expert Choice Result of Design 11 | 61 |
| 4. 32: (a) Normal AHP (a) Normal Average | 62 |
| 4. 33: Expert Choice Result of Design 12 | 62 |
| 4. 34: (a) Normal AHP (b) Normal Average | 63 |
| 4. 35: Expert Choice Result of Design 13 | 63 |
| 4. 36: (a) Normal AHP, (b) Normal Average | 64 |
| 4. 37: Expert Choice Result of Design 14 | 64 |
| 4. 38: (a) Normal AHP, (b) Normal Average | 65 |
| 4. 39: Expert Choice Result of Design 15 | 65 |
| 4. 40: (a) Normal AHP (b) Normal Average | 66 |
| 4. 41: Expert Choice Result of Design 16 | 66 |
| 4. 42: (a) Normal AHP (b) Normal Average | 68 |
| 4.43: Expert Choice Result of Design preferences | 68 |

LIST OF ABBREVIATIONS, SYMBOLS AND NOMENCLATURE

| | | |
|------|---|-------------------------------------|
| UTeM | - | Universiti Teknikal Malaysia Melaka |
| SL | - | Simple |
| DU | - | Durable |
| ST | - | Stylish |
| UP | - | Up-to-Date |
| MRN | - | Modern |
| UQ | - | Unique |
| AHP | - | Analytical Hierarchy Process |
| CR | - | Customer Requirement |

CHAPTER 1

INTRODUCTION

1.1 Project Background

Today's globalization pushes many companies to face a challenge such as to fulfill customer need while producing their product. One of the efforts that can be taken to deal with the emphasizing sharp competition is through the product design. Also, companies are required to provide a unique value or characteristic of the product / service compared to win competitive advantage and to increase the customer satisfaction (Azliaa *et al.*, 2015).

However, fulfillment of customer's needs through producing ordinary products to obtain a competitive advantage is not sufficient. Therefore, a product designer needs to thoroughly understand and able to forecast the customer's need and expectations of a developed product as they are dynamically changing. Hosna, 2016 studied that there are several factors that influence the changes such as of the trend of a product, cost of the product and the value of aesthetic of the product. As the customer need or expect of ware administrations is not generally high so quality development don't prompt to clients fulfillment (Hosna, 2016).

For instance, Apple's iMac was proclaimed as a "stylish insurgency in processing". This shows that the visual feel of PCs has turned into a calculate customer buying preferences (Postrel, 2001). Experimentally and capably enhancing the style nature of item configuration can be picking up by measuring customer reactions to item feel and relating these recognitions to shape components (Fonseca, 2009).

Recently, a set of customer requirement (CRs) for new product development have been studied in literature for enhancing the customer satisfaction. To take a full advantage of

customer satisfaction, a number of design requirement (DRs) that affect customer satisfaction are also identified. However, the relationship between customer satisfaction and design requirements and relationship between design requirements between themselves are often ambiguously identified by the engineers. There will be a problem to customer to make a decision if the design requirement is vague. When it comes to human judgment, the results are subjective and it is not easy for the decision maker to decide the preferences. Human is influenced by surroundings and feelings, which implies that it will usually be vague. Imprecise and vague information in the prioritizing process makes it difficult to determine the final importance ratings.

To make a consistent judgment a right tool is needed to solve the problem of vague judgment. The analytic hierarchy process (AHP) is a mathematical tool that can derive a priority vector from a consistent matrix which contains pairwise comparison of the requirements (Mastura *et al.*, 2015). For example, in the telecommunication industry, AHP is used in ranking of factors influencing customer satisfaction among customer of telecommunication industry. After gathering the data, it shows the criteria of the product which satisfy customer satisfaction such as product quality, customer relationship, and flexibility and post sales services. Every criterion and index is compared in a pairwise manner. A pairwise comparison is developed for every criterion and related indices, and to acquire the weight, the AHP, total row method is employed (Farzad and Masoumeh, 2015). Under electronic commerce, how to raise the customers' degree of satisfaction has become the key factor relating with whether e-commerce enterprise can survive. AHP is proposing to evaluate on customer satisfaction and to meet demand of enterprise under e-commerce (Minghe *et al.*, 2007)

Customer satisfaction can be experienced in a variety of situations and connected to both goods and services. It is a highly personal assessment that is greatly affected by customer expectations. Influenced from customer expectation and meeting the demand for customer satisfaction is very important for them in this competitive environment. Every organization must be defining customer satisfaction based on the market. Some definitions are based on the observation that customer satisfaction or dissatisfaction results from either the confirmation or disconfirmation of individual expectations regarding a service or product (Emrah, 2010). Emotional response from the customer gives effect from the comparison of products for some of the standard before purchasing (Halstead, 1994). If the manufacture can understand the consumers' psychological feelings towards a product, the product design

will be transformed from a traditional one-way communication. Therefore, it is a must for a; designers to produce that meet the needs of customer (Shieh *et al.*, 2011).

To determine the influence of the criteria of products and services have on customer satisfaction; Kano model can be used as the tool to identify the customer expectation and meeting the demand for customer satisfaction. (Kano, 1984) distinguishes between three types of product requirements which influence customer satisfaction in different ways when met which are must-be requirements, one-dimensional requirements and attractive requirements. For example, by integrating the Kano model into a robust design approach to enhance customer satisfaction with product design. The aesthetic qualities of products are critical factors in achieving higher customer satisfaction. To obtain the optimal combination of design form elements, Kano model is approach. Based on Kano model analysis, a weight adjustment process determines the weight of each product criterion for achieving the desired customer satisfaction performance (Chen and Chuang, 2008). Other than that, most of the previous studies on new service creation NSC have been conceptual and focused on the traditional services. In response, this study suggests a new systematic approach to new mobile service creation. The Kano model is applied to evaluate the requirement type of alternatives; it can generate and evaluate the service concepts systematically. The key idea of the Kano model is that a specification of customer's need in requirement or attribute about product or service is different according to the way of satisfaction. In this study, the Kano model is employed to evaluate the types of requirements of the promising alternatives derived and prioritize those (Chulyun *et al.*, 2008).

In this study, a comprehensive approach between a product design and customer need that can fulfill the requirement is developed.

1.2 Problem statement.

Why to study profile design? Designer of Baju muslimah create the design of the clothes for product lines using their knowledge of fashion and design aesthetic. The design of Baju muslimah needs to consider syari' apply. The profile is the foundation of designing muslimah clothing and its characteristic influences the appearance of the clothes. In this

study, some parameters of profile design influenced by the friendliness of the clothes such as wudhu' and breast feeding friendly. It also can influence by the style and the motives in the clothes.

Appropriate garments oblige one to wear free garments keeping in mind the end goal to abstain from "appearing" those wonderful bends. Practically every lady bought apparel on motivation. The aesthetic value also is the consideration when purchasing. There are a great deal of reasons that pretty pullover or dress may appear like a decent buy and wind up getting to be something that is pushed into the back of the storeroom. The problem is to make the clothes that have been bought is worth it and not end up shoved in the closet. It is shows the need to identify about customer needs, in order to improve the design of the Baju Muslimah (Jubah, Blouse & etc) or clothe.

The main study was to identify the customer satisfaction of profile design Baju Muslimah (Jubah, Blouse & etc) using the Kano model method and Analytical hierarchy process (AHP). Usually, the traditional method is only using survey without any other method make designer difficult to know the element that can increase customer satisfaction. To fulfill customer requirement the design need to list out the value in the Muslimah clothing. Therefore, in this paper, Kano model analysis and AHP is used to support the data. By using Kano model and AHP the designer can know the most features or element that can increase customer satisfaction. The paper of research chose to focus on the citizens that love to wear Baju Muslimah (Jubah, Blouse & etc). It involves the Industrial design with human function and psychology technology (trend). The aesthetic qualities of products are critical factors in achieving higher customer satisfaction. Designing clothe that have an aesthetic value can satisfied customer need and at the same time fulfill syari'ah Islam. A designer need to study about aesthetic value based on customer expectations, in order to improve the design.

1.3 Objectives

This study investigates the use of profile design using Kano-AHP approach for product. The Baju Muslimah (Jubah, Blouse & etc) product needs to achieve the customer satisfaction to be designed as the real product. The objective of the study is as follow:

1. To identify the suitable attribute for Baju Muslimah by using Kano method and AHP
2. To study about aesthetic value based on customer expectations, in order to improve the design.

1.4 Scope

The scope of this project will involve Kano method and AHP as the method to measure customer satisfaction and the importance of each attribute. It also uses a literature review of customer satisfaction toward the profile design of the Baju Muslimah. A survey is used to collect data and get the requirement of level satisfaction from the customer regarding the profile design of the Baju Muslimah. This study is focusing on the customer of muslimah clothing at the varied age range. The result after conducting a survey is analyzed using the SPSS tool and the excel software is used. In this study, the type of Baju Muslimah is limited to Jubah, Baju Kurung, long cardigan and Blouse.

CHAPTER 2

LITERATURE REVIEW

This section contains the writing survey of this review which identifies with the extent of the review. The research also being conduct based on the journal and the other sources. Every journal that has been selected is related to the aim of the study. This chapter also includes Kano Method and AHP for further study on customer satisfaction and profile design. At the end of this chapter, the summary of the journals are narrowed down to the work measurement method used for the study.

2.1 Kano Method

Kano method is utilized to accomplish the target of this study. While numerous past studies concentrate on quality research – particularly utilizing 'Kano's model', little is thought about the flood of 'Kano's model'. The Kano show has been observed to be a helpful device to build up the relationship between execution criteria and customer satisfaction. From the article of prioritization of tasteful quality of auto profile, the reasonability and accomplishment of an item in the market relies on upon its aesthetic outline (Yadav, 2016). There is a requirement to using the Kano model which it need the three attributes (performance, threshold and excitement). From what has been research, to obtain the optimal combination visual shape parameters and aesthetic Kano model is well approach.

2.1.1 Introduction

The Kano model was created by Dr Noriaki Kano, a Japanese teacher at Tokyo Rika University and International specialist. In the late 1970s and mid 1980s he proposed the establishment for an approach for 'appealing quality creation' which regularly alluded to Kano show. Dr Kano tested the customary thought on consumer loyalty that 'all the more better'. He additionally contended that the execution on item or administration characteristics is not equivalent according to clients. A set up model to arranged client characteristics of an item or administration in light of how well they can fulfill client needs thusly lays in the execution certain classes alluded traits levels of fulfillment than other (Kano *et al.*, 1984). Kano generally utilized as a part of consumer loyalty. Kano's model of customer satisfaction to sort item properties in light of how they are seen and their impact on customer satisfaction (Brady *et al.*, 2002).

2.1.2 Kano's Category

In his model, (Kano, 1984) recognizes three sorts of item necessities which impact consumer loyalty in various ways when met:

2.1.2.1 Must-be requirements

On the off chance that these necessities are not satisfied, the customer will be to a great degree disappointed. Then again, the customer satisfaction won't expand their fulfillment if the customer underestimates these necessities. The must-be prerequisites are essential criteria of an item. Satisfying the must-be prerequisites will just prompt to a condition of "not dissatisfied".