THE IMPACT OF SOCIAL MEDIA ON CUSTOMER SATISFACTION USING

KANO'S MODEL

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Dedication

I dedicate my dissertation work to my family and my friend. A special feeling of gratitude goes to my loving parents, Abbas Kamali and Shirin Radfar, whose words of encouragement and push for tenacity resonate in my ears. My sisters Bahareh, Farinaz and my brother, Ali, have never left my side and are very special to me. I also dedicate this dissertation to my friend, Arash, who has supported me throughout the process.

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ABSTRACT

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One of the most critical determinants of success in any industry is customer satisfaction. Consequently, organizations focus adamantly on customer perception to improve customer satisfaction with their products. Although the Kano model has been widely applied to elicit customer service quality requirements and enhance customer satisfaction, its implementation in the social media field remains in its infancy, and ambiguity exists regarding customer needs related to technology domains. The purpose of this study is to gain a deeper understanding of how Kano's model can influence customer satisfaction in a digital context, which may lead to improved customer loyalty and brand differentiation in a competitive business environment. The study employs a mixed-methods (quantitative and qualitative) approach by applying a cross-sectional research design. This research is conducted through a random sampling of 400 social media users

from around the world, using online surveys from April to June 2025, yielding significant results. Three data instruments are applied to collect relevant data: a) surveying by applying an online questionnaire (quantitative) that covers perceptions of different features of social media and their effects on customer satisfaction, b) interviews with specialists in the social media industry (qualitative), and c) content analysis of secondary data (qualitative). The findings indicated that features like "prompt responsiveness" and "consistent posting," known as Must-Be features, and "genuine, personal responses" and "exclusive loyalty benefits" emerged as One-Dimensional features. Additionally, features like "customized content", "consistent brand visuals", "active hashtag monitoring", and "account security", known as Attractive features, resulted from carefully examining consumer behavior using the statistical model (SEM model) and Kano's model. Additionally, the findings indicate that organizations should invest in unique and specialized strategies and project control tips, as outlined in the model results presented in this dissertation, to enhance customer satisfaction. Moreover, the recommendation for future research is to focus on a specific company. Based on the survey findings from participants worldwide, future studies should examine cultural differences in customer perception to understand better how customer expectations vary across different geographical regions and demographics.

Keywords: Social media, Consumer satisfaction, Kano Model, SEM Model, Strategy

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CHAPTER I

INTRODUCTION

1.1. Introduction

All business entities can adopt the Kano model to categorize product features based on the value they provide to customers. In other words, the Kano model assists research and development teams focus on the essential features of a product and identify which features are unnecessary and hold no importance for the customer. This approach prevents undesirable allocation of funds, energy, and time while also enhancing customer satisfaction.

It is fair to say that over the last two decades, the application of this technology to determine how clients interact with businesses has improved significantly, with social media being the most notable advancement. Facebook, Instagram, LinkedIn, and even X (formerly Twitter) have evolved from social networking platforms into essential tools for customer relations and marketing management for businesses. These platforms allow business entities not to rely on the middleman or middleman tools, and get in touch with their customers directly, gather their feedback easily, which leads to harmony. "The traditional Commonwealth communications are shifted toward advanced models in real-time and two-way communications for expanding businesses" (Santini et al., 2020, P. 1220). For the last two decades, one of the main incentives in designing and implementing effective business strategies has been measuring customer satisfaction, which is defined as whether a particular product or service meets or exceeds customer expectations. In basic (face-to-face) or traditional business environments, satisfaction has been and is evaluated

according to a few material characteristics, such as product features, pricing, and service quality. Today, with advances made in the Internet, particularly through social media platforms, new dimensions have been introduced into the equation.

"Contemporary customers seek items that offer immediacy, customized interactions, and improved communication regarding their purchases and services" (Khashman, 2021, p. 210). Next to attracting and retaining customers, businesses must emphasize realizing their customers' needs. These days, Customers are equipped with a more demanding outlook, due to the competitive environment. This matter leads to higher expectations from businesses to respond swiftly and provide them with personalized solutions. " Meeting customer expectations initiates a positive customer experience and maintains a loyal customer base, which leads to a reputable brand or service image. Failing to meet these expectations would lead to possible dissatisfaction of the customers, which would promote criticism and negative publicity, thus harming the brand reputation, usually through social media" (Agnihotri et al., 2016, p. 175).

Though the businesses are widely applying social media tools, one of the greatest drawbacks is the absence of an established objective mechanism for assessing interaction metrics, analyses, and ranking customer satisfaction determinants. "To overcome these drawbacks, bridge the gap, the application of Kano's Model of Customer Satisfaction, where customer demands are categorized into must-be, one-dimensional, and attractive attribute categories, is of high essence" (Yunita et al., 2020, p. 45). The objective of this study is to enhance customer satisfaction by applying the Kano model in social media

platforms, enabling businesses to promote their perceptions of customers' needs in this digital age.

1.2. Background

Social media as platforms, containing critical tools for customer and relationship management, have caused a redefinition of the customer-business elements, which leads to a dynamic situation.Unlike the outdated communication tools, social media enables business entities to have a two-way relationship and real-time exchanges that promote customer satisfaction. "Customers expect brands to be highly responsive and initiate a demand for new management models to provide satisfaction in this digital environment" (Awad et al., 2022, p. 13624).

The shift of focus from product-attention to engagement–attention drivers of satisfaction is due to the international nature of social media. "Elements such as the tone of communication, response time, and content relevance have proven to be the key determinants in assessing customer experience and overall satisfaction" (Tontini et al., 2013, p. 1262). The vast visibility of interactions in social media provides a pledge for businesses, because it magnifies positive and negative experiences, thus attracting attention or no attention about this matter, influencing broader audience perceptions (Tontini et al., 2013). "Before this evolution in the business world, in many commercial outfits, a structured design and insight to assess the elements of these interactions and consequently, their influence on customer satisfaction were absent" (Rotar & Kozar, 2017, p. 339).

The gap of incorporation models like 1- SERVQUAL and 2-The Disconfirmation of Expectations Theory, constitute the current approaches to customer satisfaction, with a

focus on service quality indices, though the multidimensional aspects integral to the essence of social media are overlooked. These linear models do not consider the varying interaction elements, importance, and influence based on customer experiences. "In this context, according to Lin et al. (2017), though specific features like issue resolution are basic and expected, other features, like personalized engagement or proactive outreach, which have the potential to meet and provide a business entity with a competitive advantage, may be overlooked" (Lin et al., 2017, p. e0183888).

"To comprehend how certain variables affect customer satisfaction, a special structure for categorizing features based on their influence on satisfaction is introduced in Kano's Model. Categorizing a related group of features into one-dimensional, must-be, and attractive groups provides a more precise and accurate view of how these features impact customer satisfaction" (Xu et al., 2009, p. 99). Considering this point, it is important to recognize that Kano's Model has been and is being widely applied in common and traditional service industries, although its role effectiveness in the digital environment remains to be explored in more detail. "To bridge this gap attempt should be made to apply Kano's Model in confronting challenges in digital areas" (Bi et al., 2019, p 7070; Chen & Chuang, 2008, p. 674).

It can be deduced that applying Kano's Model in the digital arena is comprehensible, though there exists a considerable gap due to the lack of a systematic approach for applying this model. An attempt is made in this study to bridge the existing gap by applying Kano's Model, accompanied by the statistical model SEM, to analyze social media features quantitatively and realize how different factors of social media

influence customer satisfaction and the manner in which businesses can prioritize their resources; by doing so, a systematic approach will be established to optimize digital engagement. The combination of these two models is essential in today's business world. To date, there is no evidence of these two models being combined in the digital environment. Through this essential measure, customer loyalty and satisfaction regarding brands in the current competitive digital landscape will be assured. The theoretical perception and actionable insights are the outstanding points of this study concerning social media strategies enhancement to assure customer satisfaction.

1.3. Statement of the Problem

"Though the role of social media in marketing is assessed in many studies, its impact on customer satisfaction is yet to be understood by adopting the recognized theoretical frameworks like Kano's Model (Hudson et al., 2016, p. 30)". The need to systematically assess how social media features like 1) prompt answer to customers or 2) security and monitoring or etc, correspond with different categories of customer expectations, defined by Kano's Model, is mandatory. The objective here is to bridge the existing gap by analyzing how responsiveness, personalization, transparency, and interactive content, specific social media features, impact customer satisfaction. This objective will be accomplished by analyzing data obtained from questionnaires designed according to the Kano model and through a systematic view subject to SEM and Kano's models. This procedure is practical in today's competitive digital business world, where customer satisfaction is a mandatory and basic element in maintaining and deploying brand loyalty to assure reputation in today's business world for a successful business.

Though the introduction of digital business models is gaining momentum, business entities encounter continued and anti-profit challenges in enhancing and maintaining customer satisfaction concerning real-time interactions. "The continuously evolving social media factors(elements) initiate new challenges in comprehending customer satisfaction, where a structured approach and insight are necessary to track and classify these varying digital connection points" (Hudson et al., 2016, p. 30). "Social media topics introduce a new focus on immediacy and direct contact, which requires a new era of consideration of how customer satisfaction is realized" (Trainor et al., 2014, p. 1205). "Because customer satisfaction is subject to social media actions and reactions of different enterprises, businesses should add more advanced and complex static and linear measurement patterns in their existing policies to allow the application of multiple and sophisticated features related to the digital platforms" (Gamboa & Gonçalves, 2014, p. 712).

The available methods adopted in evaluating customer satisfaction in social media environments due not completely recognize the diverse needs and expectations of customers, thus a failure to determine the exact requirements for customer satisfaction. "Though the specific social media features (response time or content relevance) are analyzed in many studies, they are not classified in a detailed framework that differentiates their varying effects on customer satisfaction" (Agnihotri et al., 2016, p. 175). Most of the existing models do not provide detailed discussions of social media interactions, like standard responses to personalized engagements, thus offering companies limited insights and perspectives.

This drawback, due to a lack of attention to scientific methods, misleads business entities in prioritizing social media elements, which causes more customer dissatisfaction. "Business entities, by considering all interactions as equally important, despite notable differences in the influence of different social media attributes on customer satisfaction, may misallocate resources by adopting the existing methodologies" (Homburg et al., 2017, p. 380). "According to Kano's Model, customer expectations are categorized into must-be, one-dimensional, and attractive features, providing a practical framework for assessing satisfaction in social media interactions" (Violante, Vezzetti, & Nonis, 2020, p. 200). Despite Kano's model's extensive application in many service sectors, it has not been fully evaluated in real-time digital interactions, where customer expectations vary and are often influenced by platform-specific features (Zeng, Harncharnchai, & Saeheaw, 2021).

Customer interactions on social media can be influenced by basic/unexpected/ enjoyable responses. "Introducing a theoretical and practical framework based on Kano's Model by categorizing social media activities could be of high essence in businesses, due to its facilitating and expanding the comprehension through which interactions meet fundamental expectations, thus a direct influence on customer satisfaction, to promote loyalty through delight" (Awad, Ertugan, & Hyusein, 2022, p. 13624).

The lack of a systematic method for integrating Kano's categories into digital interactions reveals a lack of tools in overseeing customer satisfaction on social media. "Lack of a framework that categorizes attributes to address variability in customer expectations makes businesses gain only limited insights into the impact of digital interactions on customer satisfaction" (Shawky et al., 2020, p. 570). This phenomenon can

promote the inability to understand the elements that could act as competitive advantages in a business entity. This discrepancy may make the business entities, which excessively invest in measures that do not significantly contribute to customer satisfaction, or fail to invest in initiatives that could differentiate them from other business entities, face more customer dissatisfaction. "In this context, the absence of basic and essential features (rapid customer service response), influences and causes to decrease in satisfaction" (Maecker, Barrot, & Becker, 2016, p. 140).

Non-recognition and failure to invest in these differences would lead to applying resources ineffectively, which directly effects customer satisfaction levels and metrics."The rapid and public nature of social media platforms has customized customers' involvement patterns, which promotes direct response impact" (Chen, Harncharnchai, & Saeheaw, 2022, p. 70).

Unlike the earlier customer service communication methods, social media platforms allow customers to express their satisfaction or dissatisfaction publicly, which has a direct effect on a broader group of customers, their perceptions, and the brand's reputation. This essential issue puts known and unknown pressure on business entities to respond in an effective manner to the customer's diverse expectations. This measure makes the importance of recognizing which social media interactions are suitable and enough for distinct satisfaction categories outstanding.

A key challenge for business entities in today's market is how to become equipped with a different framework and the ability to respond to high-risk business environments in a strategic and scientific sense. Causing a reactive approach rather than a proactive one

in a digital environment is the result of ignoring this important issue. With this in mind, business entities must recognize the social media interaction features quickly to maintain and enhance their customer satisfaction, in accordance with Kano's Model (Zeng, Harncharnchai, & Saeheaw, 2021).

Determining customer satisfaction in a practical approach is an important matter because business entities can improve the effectiveness of their social media strategies by doing so (Awad, Ertugan, & Hyusein, 2022). An attempt is made in this study to develop a detailed structure for classifying social media features by understanding customer expectations, using a systematic and new approach where Kano's and the SEM models are integrated. The objective of this dissertation is to provide a general understanding of customer satisfaction and measure it in a digital environment, an essential measure for enhancing customer loyalty and differentiating the brand in today's competitive business environment. Applying this newly proposed combined model is highly contributive world, regarding digital environment.

1.4. Purpose of this Research

The purpose here is to reach a more comprehensive understanding of how Kano's model, which can affect customer satisfaction in a digital field, can lead to higher levels of customer satisfaction, which in turn causes customer loyalty and brand differentiation. An effort is made: 1) to identify the correlations between social media elements and customer satisfaction, by applying a quantitative approach subject to Kano's model, and 2) to classify and consider the social media features to define them into must-be, attractive, and one-dimensional categories of Kano's model, by analyzing new models which are presented in

this thesis. This matter is done by applying a structured model (integrating both SEM and Kano's model), providing the business entities with suitable and efficient social media strategies according to Kano's model attributes. The main attributes in this process, which help us to analyze the impact of the Kano Model on customer satisfaction, include:

1- The "Must-be" attribute

2- The "One-Dimensional" attribute

3- The "Attractive" attributes

4- Considering the "Must-Be", "One-Dimensional", and "Attractive" attributes overall.

1.5. Research Questions

This study will be guided by the following research questions:

RQ1: What is the impact of must-be attributes in social media interactions on customer satisfaction?

RQ2: How do one-dimensional attributes influence customer satisfaction in social media?

RQ3: How do attractive attributes influence customer satisfaction through social media engagement?

RQ4: How do attributes, must-be, one-dimensional, and attractive interrelate in shaping overall customer satisfaction?

1.6. Significance of Study

The findings of this dissertation contain applicable insights for both academic and practical aims. This endeavor contributes to the literature on customer satisfaction by integrating Kano's and the SEM models to analyze social media features to achieve more

customer satisfaction. Not enabling the realization of the impact of different social media features on customer satisfaction makes the adoption of Kano's model applicable in productive and interactive environments.

In this research, the practical insights express for business entities seeking to refine their social media strategies would allow them to allocate resources more effectively and meet customer expectations/satisfaction requirements through suitable strategies. This approach is essential in today's digital world. Identifying social media elements and prioritizing them, based on Kano's model, helps the business entities to have better resource allocation, which causes an increase in market share. The term market share refers to the percentage of total market sales (in terms of quantity sold) of a product within a specified period and geographical region. In this context, the market leader in a given industry is the business entity with the largest market share. By improving market share, inspired by customer loyalty and satisfaction, the subject entity can become the market leader by guiding the marketplace through its strategies. Promoting customer satisfaction is a must in today's competitive world.

1.7. Definition of Key Terms

Attractive Attributes: "Provide superior satisfaction when present, but they do not cause dissatisfaction if absent or insufficient" (Tontini et al., 2013, p. 1262).

Customer Satisfaction: "Today's customers' satisfaction is generally viewed as a psychological phenomenon resulting from having and experiencing an opinion about an interaction or a particular experience and comparing it to his/her expectations" (Lee et al., 2012, p. e0183888.).

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Kano's Model: "This model makes the different impacts of customer satisfaction attributes more comprehensible, next to enabling businesses to develop more effective engagement strategies "(Yang, 2005, p. 1132).

Must-be Attributes: "Although meeting customer satisfaction is a must, not meeting them does not necessarily lead to increased dissatisfaction" (Song, 2018, p. 25).

One-dimensional Attributes: "These refer to the features of a product that provide satisfaction when fulfilled or met, otherwise, dissatisfaction" (Mikulić & Prebežac, 2011, p. 45).

Social Media Attributes: "The specific features of social media interactions between customers and businesses consist of response time, tone, personalization, content relevance, and engagement quality" (Tontini et al., 2013, p. 1262).

1.8. Summary

The dimensions that impact social media in terms of customer satisfaction, establishing a systematic structure for determining its key elements and features, are emphasized in this chapter. The absence of an established mechanism for measuring customer satisfaction from a systematic perspective is evident. An attempt is made to apply Kano's Model combined with the SEM model to establish a new and promising approach to have a wider comprehension of the varying effects of social media interactions.

In this competitive world market, a leader is the one with the largest market share. By improving market share, inspired by customer satisfaction and related factors therein, any given business entity can become the market leader by guiding the marketplace through its strategic efforts. Promoting customer satisfaction is highly contributive in today's

competitive business world, which leads to a better market share; consequently, a stronger position in determining market strategies.

The lack of a comprehensive model and the absence of an accurate statistical model, especially in analyzing social media attributes through which the social media interactions and features regarding customer satisfaction are perceived, inspired the outline of this dissertation. The objective here is to obtain a general understanding of customer satisfaction and measure it in a digital environment by applying a combination of both the Kano's and the SEM models. Applying this combination with no preceding is a new and practical approach in today's business world.

CHAPTER II

REVIEW OF LITERATURE

2.1. Introduction

Customer satisfaction reflects his/her feelings and thoughts regarding their interaction with a product or service. This satisfaction embodies two aspects: first, the emotional response, and second, the assessment of the consumer's experiences related to the good or service. Customers have a specific mental range within which their expectations are met. It is known as a baseline for whether the expectations of customers are met or not.

Some of these mental ranges may include expectations, personal goals, and experiences with competing firms (Rotar & Kozar, 2017). The concept of customer satisfaction should be viewed as one of the main objectives of a business entity's management, thus, a source of competitive advantage. Meeting customer satisfaction is an investment that generates considerable returns. Managing customer satisfaction and monitoring factors therein are rational considerations.

The direct benefits of customer satisfaction for a business entity are: 1) increased consumption, 2) improvement of loyalty and having more loyal customers, 3) higher willingness to pay, and 4) favorable comments, which lead to positive advertising. Customer satisfaction has a significant effect on a business outfit's financial success. The positive effect of satisfaction on a company's return on investment and profitability is evident in many studies (Rotar & Kozar, 2017). In today's digital era, business entities need to interact with their users in different ways to have better connections with customers.

This approach necessitates having different frameworks for participation in social media. Relying heavily on social media sites like Facebook, X, Instagram, and LinkedIn to interact directly with their consumers is a common practice today; consequently, business entities must arrange their performance on these platforms to build brand loyalty. The correlations between social media features and customer satisfaction are highlighted in this chapter.

2.2. Documentation

A detailed and comprehensive search tool and search strategy, including high-quality sources, is reviewed to establish the foundation of this thesis. Scholarly articles, books, and presentations are extracted from academic databases: Research Gate and Google Scholar, published within (1970-2024). The main terms include phrases like "customer satisfaction", "Kano Model", "SEM", "social media searches", and " customer experience".

Numerous studies on customer satisfaction and Kano's Model are included to provide a valid theoretical foundation and roadmap for this research. Particular attention is given to studies exploring the intersection of digital communication, customer satisfaction, and quality frameworks. Table 2.1. shows nature and sources of references.

Table 2.1 The Nature and Sources of References

Author(s)	Nature of references	Sources
Agnihotri, Dingus, Hu, & Krush (2016)	Customer satisfaction in B2B sales using social media	Industrial Marketing Management
Schnabel et al. (2020)	Transparency and customer satisfaction	Behavior in Personalized Recommendation
Tontini et al. (2013)	Must-be Attributes and Customer Satisfaction	Total Quality Management & Business
Rotar & Kozar (2017)	One-dimensional Attributes and Customer Satisfaction	Enhance customer satisfaction
Chen & Chuang (2008)	Attractive Attributes and Customer Satisfaction	Production Economics

2.3. Customer satisfaction

In a sharply competitive environment, companies must be customer-oriented and personalized; thus, customer satisfaction represents a modern approach to quality in business that encourages the development of a truly customer-oriented culture in the management field. "The term "customer satisfaction" refers to a positive emotional state resulting from a favorable assessment of a consumer's experiences with a company" (Zhou et al., 2018, p. 525).

Modern management science emphasizes customer satisfaction as a crucial and fundamental standard of performance, as well as a potential ranking of excellence for any business firm. "To reinforce customer orientation on a daily basis, many companies select customer satisfaction as their primary performance index" (Kotler, 1997, p. 280).

2.3.1. Customer Satisfaction Indicators

Satisfaction is a positive feeling generated in each person who consumes a service or product. If the goods and services received by the customer meet their expectations, it leads to satisfaction. "If the level of service or product is lower than that of customer expectations, it results in displeasure and dissatisfaction" (Shahin et al., 2013, p. 350). Customer satisfaction and dissatisfaction mean, respectively, the positive or negative difference between customer expectations and the quality received. "In addition, the equation used to measure satisfaction is as follows: Customer Expectations - Customer Perception = Customer Satisfaction" (Shahin et al., 2013, p. 350). Besides the above equations, customer satisfaction can be attained through the following measures:

A. First, identify customer expectations.

B. Second, design goods and services according to customer needs and expectations.

C. Third, focus on production and delivery.

D. Fourth, manage customer expectations.

E. Fifth, calculate customer satisfaction.

 F. Sixth, work on managing customer complaint

2.3.2. Reasons for the Importance of Customer Satisfaction

Business entities must understand customer satisfaction as a basic idea in their approach to meeting customer needs and wants (Hamzah & Shamsudin, 2020). The effect of satisfied customers will have on:

i.   The organization, by satisfying its customers, gains trust.

ii.　After understanding this point (satisfying customers), the organization can achieve higher customer satisfaction, leading to better performance in the competitive market. In a strategic approach, an organization gains a competitive advantage over its competitors because of customer satisfaction.

iii.　Satisfying customers is essential for the organization in retaining customers during difficult situations" (Parasuraman et al., 1993, p. 145).

iv.　Customer satisfaction leads to having more market segments; realizing this point is essential for obtaining a bigger market share and being a market leader. Also, with more market share, more revenue is accessible" (Davras & Caber, 2019, p. 85; Gerdt et al., 2019, p. 160).

"Customer satisfaction, according to some researchers, is reflected in the repetition of purchases made by customers for goods, services, or products" (Razak & Shamsudin, 2020, p. 25). "Satisfied customers are loyal because they trust the organization" (Hasim et al., 2018, p. 300). "The consequences of satisfaction include customers being willing to pay more or at a premium price" (Shamsudin et al., 2019, p. 130). "They help acquire more customers by recommending the company's products and services to their family and friends" (Shamsudin et al., 2019, p. 130). "In its philosophical sense, customers are human and tend to emulate the actions of others" (Feng et al., 2019, p 115; Gligor et al., 2019, p. 85). "The key point is that a loyal customer influences the behavior of others, making customer satisfaction essential" (Hamzah & Shamsudin, 2020, p. 1).

In general, four main reasons indicate customer satisfaction is paramount, which can be briefly illustrated as follows (Rahman & Safeena, 2016):

1."An essential criterion for understanding user repurchase intentions and loyalty, where "Customer Satisfaction" is the best indicator of the potential purchase in the future. Asking customers to rate their satisfaction on a scale of 1 to 10 is a practical method for identifying their types. This is a good way to see if they will become repeat customers or even advocates. If customers rate their satisfaction on a scale of 9 or 10, they are potential customer advocates who can be leveraged to inspire and promote advertising. If customers rate their satisfaction scale 7 and above, they can be categorized as satisfied customers, thus, repeat customers. Scales of 6 and below indicate warning signs regarding dissatisfaction and the risk of no continuation, who should be placed on a customer watch list to allow the business entity to determine their cause of dissatisfaction. The satisfaction scale is one of the primary concepts applied by business entities to measure consumer repurchase intentions and loyalty" (Rahman & Safeena, 2016, p. 1).

2. A point of differentiation: the crucial point is that business entities successful in the competitive market are the ones that recognize customer satisfaction as an essential element in their business strategy.

3. Customer loss reduction: An assessment run by Accenture Global in 2008 revealed that price is not the primary reason for losing customers, but poor quality of customer service is. To establish better customer satisfaction, a given outfit must measure and track new processes to enhance the overall quality of customer service.

4. It increases revenue: Research conducted by "Info Quest" concluded that a 'delighted customer' generates 2.6 times more revenue than a 'somewhat satisfied customer.'

A comparison between satisfied and dissatisfied customers indicates that a 'delighted customer' generates 14 times more revenue than a 'somewhat dissatisfied customer'. Therefore, by increasing satisfaction, an essential role in today's competitive market, more revenues are assured. Successful businesses understand the importance of customer satisfaction.

Lack of negative word of mouth leads to repeat purchases and increased revenue, thus the results of customer satisfaction. Customer dissatisfaction hurts a business entity due to the negative of the world of mouth by an unhappy customer, thus clientele loss. The issue of customer satisfaction should be continuously measured to prevent negative word of mouth. Retaining customers is cheaper than acquiring new ones, a true fact in business. The available findings indicate that acquiring new customers costs six to seven times more than keeping existing ones. Many major retention strategies, like blogs, email, and customer satisfaction surveys, seek to satisfy customers by offering personalized experiences, thereby keeping existing customers active rather than acquiring new ones.

2.4. The Evolution of Social Media in Customer Engagement

Social media has shifted the conventional lifestyle and operation of customer-business relations by providing platforms that facilitate real-time communication and interaction. In today's market, business entities do not depend on non-digital media like they used to connect with their audiences; instead, they actively participate in a two-way dialogue with customers through social media platforms, because of immediate feedback,

complaint resolution, and personalized interactions. This matter has made social media an important component of customer experience management (Khashman, 2021). Besides the responding promptly feature of social media platforms, a new feature, due to its nature, added to social media is named "personalization," a main factor in customer engagement. "Personalized response feature, which is done by this process: 1) record customers' names, 2) reference previous interactions, 3) recognize their specific concerns and sharply increase satisfaction levels" (Santini et al., 2020, p. 1230). "Business entities that build their reputation with the brand in mind actively engage customers by conducting polls, quizzes, and user-generated campaigns, improve customer relationships, and enhance loyalty" (Farook & Abeysekara, 2016, p. 120).

"Not analyzing the above parameters and the lack of a systematic framework for prioritizing these interactions often lead to resource misallocation and wasting resources" (Shaykhzade & Alvandi, 2020, p. 265).

2.5. Traditional Theories of Customer Satisfaction

Customer satisfaction is one of the most widely discussed topics in today's field of investigation in marketing and service management, which, in many theoretical studies, has been consistently emphasized as essential. According to one of the fundamental theories, "the failure to meet expectations" (Oliver, 1980, p. 460), the discrepancy between consumer expectations and the actual performance of a service or good determines satisfaction. Customers will be satisfied if their performance either meets or exceeds expectations; otherwise, dissatisfaction results. In an ordinary workplace, this theory

provides a valuable framework through which one can view customer satisfaction (Hossain, 2019).

To measure customer satisfaction, the model called the "SERVQUAL Model" introduced a multidimensional method for assessing service quality (Parasuraman, Zeithaml, & Berry, 1988). SERVQUAL is another framework that is accepted and good, which introduces five factors to determine customer satisfaction as follows:

"Including reliability, responsiveness, assurance, empathy, and tangibles"(Parasuraman, Zeithaml, & Berry, 1988, p. 330). After measuring and analyzing the factors above, business entities can determine the areas where improvements are necessary (Ujakpa et al., 2017). "The SERVQUAL and similar linear models, which are primarily designed for traditional service contexts, like social media, overlook the dynamic and interactive nature of digital platforms" (Hasan et al., 2024, p. 990).

2.6. The Role of Social Media in Shaping Customer Satisfaction

Analyzing social media features is essential for customer satisfaction. Unlike traditional services, where customer interactions require face-to-face communication, in today's business world, with the appearance of social media platforms, which provide the business entity with innovative channels to communicate with customers, measuring customer satisfaction requires innovative measurement. By emphasizing and meeting more social media features, like immediacy, personalization, engagement quality, and transparency, any given business entity can increase customer satisfaction.

Responding on time, and in general, being on time, for actions and reactions in an online environment like social media platforms is a fundamental of a successful business

entity. The usual surveys (not studies) show that users are more pleased when faced with faster interaction, especially when they are complaining about something vital. Attention to the above matter is really essential for the company, as it provides satisfaction, while non-fulfillment may cause dissatisfaction, often revealed publicly on social media platforms. "Prompt responses are perceived as customer fulfillment needs, thus establishing a good reputation" (Chai, 2024, p. 1).

Being on time for actions and reactions is a fundamental aspect of successful social media interaction. Studies show that users are more pleased when faced with faster interaction, especially when they are complaining about something important. The above matters, and fulfilling them provides satisfaction, while non-fulfillment of these expectations may cause dissatisfaction, often revealed publicly on social media platforms. "Consistent prompt responses are perceived as dependable and customer-focused, thus establishing a good reputation" (Chai, 2024, p. 1).

In parallel to these collaborations, customization, which includes: 1) using customers' first and last names, 2) their previous interactions, can significantly improve satisfaction, and is an important factor in enhancing customer satisfaction. "Social media platforms are equipped with tools for analyzing their engagement, which offer management functionalities and help to implement customized strategies" (Santini et al., 2020, p. 1220). Meeting the above issue and providing the conditions to fulfill this matter is essential in influencing satisfaction in business entities. "Meeting the above factors contributes to enhancing strong customer relations" (Wang et al., 2023, p. 225). Today's customers like to interact with businesses that are transparent about what they do, thus the advantage of

transparency. "Consequently, more issues should be addressed to improve satisfaction and loyalty" (Schnabel et al., 2020, p. 995).

2.7. Service quality

The efforts to understand customer needs and requirements related to service quality has increased these days. One of the key strategies for reaching a competitive advantage and outpacing business competitors is to offer a higher standard of service quality. This strategy can be accomplished by effectively paying attention to customer expectations, which is related to the service quality. Customer satisfaction is the difference between the service provided and the receiver's expectations. Any service that exceeds customer expectations is regarded as exceptionally high quality, which meets the customer satisfaction criteria, and the opposite holds when customers' expectations are not met. "When the provided service is in accordance with customer expectations and meets the criteria for quality, it is assumed satisfactory" (Fitzsimmons & Fitzsimmons, 2006, p. 1).

In general, service quality, like customer satisfaction (which is related to perceptions and meeting the perceptions), is defined as the degree to which a service meets customers' needs or expectations. "If customer performance exceeds customer expectations, the quality of service is satisfactory, and if customer expectations exceed actual performance, the quality of service is not satisfactory" (Parasuraman et al., 1985, p. 45). The effects of service quality on customer behavior are assessed in many related studies. "The prevailing notion is the fact that improved service quality enhances customer satisfaction, leading to stronger, long-term relationships between service providers and consumers" (Shahin & Janatyan, 2015, p. 380).

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"Many studies have looked at the link between happy customers and them coming back to buy again. These studies and other related research have found that when customers are happy, they are more likely to intend to buy again. The researcher found that how satisfied a customer is with a product or service is closely connected to their plan to buy it again. Also, how strongly a customer feels about a brand affects their decision to buy again. This means that just buying something again doesn't always mean a customer is loyal. People who buy something again can be influenced by other competitors offering lower prices or better deals. So, how strong the connection is between a customer, and a brand plays a role in whether they recommend the business to others. When customers keep getting good service, they start to trust the company, feel satisfied, and get emotionally attached to it, which leads to more loyalty. When customers get quick and efficient service that meets or even exceeds their expectations, they are more satisfied with their overall experience. Satisfied customers not only buy again but also become loyal supporters who talk about the company to others. By always giving great service, a company builds a group of loyal customers. Relationship quality affects how loyal customers are" (singh, 2023, p. 3460).

2.7.1 Service Quality Objectives

Although customer service is a critical factor in maintaining strong customer relationships, service objectives need to be clearly defined and articulated. These objectives should: 1) communicate the given business entity's intentions, 2) show the differences between itself and its competitors, and 3) provide an understandable, beneficial, transparent, and valuable recovery process for customers.

2.7.2. Impact of service quality on customer satisfaction

There exist many studies on managing service quality and customer satisfaction (Chin Wei & Sri Ramalu, 2011); a positive correlation between service quality and customer satisfaction in the banking industry (Shanka, 2012); and identifying the following key factors in assessing customer satisfaction:

1) Product Quality: Customers become satisfied when the purchased product is of high quality.

2) Service Quality: Satisfaction is felt when receiving good or expected services.

3) Emotional Factors: A sense of pride and confidence is often associated with purchasing certain brands, thus customer satisfaction. Product quality and social status or self-esteem associated with the brand undoubtedly influence satisfaction.

4) Price: Products that offer similar quality at a lower price provide greater perceived value to customers.

5) Cost: Customers generally experience higher levels of satisfaction with a product or service when their expectations regarding value are met" (Bagoes & Rachmat, 2019, p. 210).

2.7.3. Service Quality Dimensions

"The SERVQUAL model is a popular way to measure service quality (Parasuraman et al., 1988). This approach looks at the difference between what customers expect from a service before they receive it and how they actually feel about the service they get. The model identifies five main areas that help measure service quality: tangibles, reliability,

responsiveness, assurance, and empathy. Later, Shahin (2007) added more dimensions to the model, making it even more complete. The updated list includes twelve dimensions:

1.Reliability: This means being able to deliver the promised service on time and in the way it was promised. For example, Royal Mail is reliable if it can deliver first-class mail the next day and keep the mail safe.

2.Responsiveness: This is about quickly solving problems and helping customers. For instance, a tour operator should fix accommodation issues immediately, and a car rental company should give a replacement car if there is a problem with the one they rented.

3.Security: This refers to making sure customers feel safe from risks, uncertainties, and dangers, whether physical, financial, or related to personal information.

4.Access: This means it should be easy for customers to reach and interact with the service. This includes having convenient hours, easy phone contact, and a location that is easy to get to.

5.Communication: This is about clear and active two-way communication between the service provider and the customer. For example, an airline should keep customers updated with accurate information if there are delays.

6.Understanding/Knowing the Customer: This involves knowing what customers need and offering personalized attention, which is especially important in services where there is a lot of direct contact.

7.Credibility: This refers to how trustworthy the service is based on its reputation and the behavior of the people working on the front line. An example is an insurance company known for being fair when settling claims.

8.Tangibles: This means the physical look of the service, such as the buildings, the appearance of the staff, and the equipment used. These are more noticeable in services that require a lot of direct contact, like traditional universities, rather than services that are done online, like the Open University.

9.Courtesy: This is about being polite, respectful, and friendly to customers. Staff should show care and consideration.

10.Price: This is the cost of the service or product, which customers consider when making a decision.

11.Competence: This means the staff must have the right skills, knowledge, and information to do their jobs well. For instance, an insurance broker should know their products well to give the best advice to customers.

12.Customization (Flexibility): This is the ability to adjust services according to customer needs and preferences. For example, a restaurant might serve dishes that are not on the menu, or a travel company might create a holiday package that fits a customer's specific wishes". (Shahin, 2007, P. 14).

2.8. Kano's Model of Customer Satisfaction

Kano's model, proposed in the 1980s, with the following three categories, provides a structural framework for determining customer needs and satisfaction:

"Must-be attributes constitute the minimum conditions of customer behavior on social media, per user expectation. Lack of these attributes leads to dissatisfaction; though not fulfilled customer expectations do not necessarily lead to satisfaction" (Song, 2018, p. 20).

"One-dimensional attributes constitute the features of a product that will deliver satisfaction when met, but dissatisfaction if not met" (Mikulić & Prebežac, 2011, p. 50). "These attributes include the professionalism and clarity of responses provided on social media" (Rotar & Kozar, 2017, p. 339).

"Attractive attributes constitute certain features that are appealing and interesting to customers, because they delight customers. Attractive attributes bring superior satisfaction if present, but they don't bring dissatisfaction if absent or insufficient" (Tontini et al., 2013, p. 1260). This model contributes to the understanding of the different effects on customer satisfaction attributes, enabling business entities to have an effective strategy accordingly (Yang, 2005). Though Kano's Model has been widely applied in customary service industries and non-digital environments, its contribution in the digital world, like social media, remains limited and needs more research and investigation (Al Rabaiei et al., 2021). The objective here is to bridge this gap by applying Kano's framework to classify social media attributes based on the model and attention to its effect on customer satisfaction.

The basic Kano model of customer satisfaction divides product attributes into three categories: 1) threshold or "must-be," 2) performance, and 3) excitement or "delighters". "It is essential to define segregation of needs. It is obvious that not all human needs are equal; any customer has their own priorities with specific meanings attached" (Rotar & Kozzar, 2017, p. 339). This model, in its graphic shape, exhibits a combination of two x and y-axis, where the first defines to what extent customers' needs are met

(product's performance or function), and the latter describes the level of customer emotional response to the product (delighted or disappointed).

The customer response and the level of meeting expectations are divided into three categories (Chen & Chuang, 2008):

• "Basic needs, or "must-be requirements," are essential, and when met, there is no special delight for the customer, because they perform quite neutrally; otherwise, if not met, customers feel disappointed, thus the low potential of the product to be sold.

• Performance needs are defined by customers and discussed by manufacturers or service providers. These needs are subject to the "more is better" rule. This category provides the differentiation between competitors. In this category, the product or service answers the questions: 1) What is the level of service? 2) What is the price-performance ratio? and 3) What features does the product have?

• Attractive (delight) needs mostly constitute the unspoken, undefined needs. These needs are not typically expected by the customer; if the product or service does not provide them, the customers remain neutral; otherwise, the customers become excited" (Chen & Chuang, 2008, p. 680).
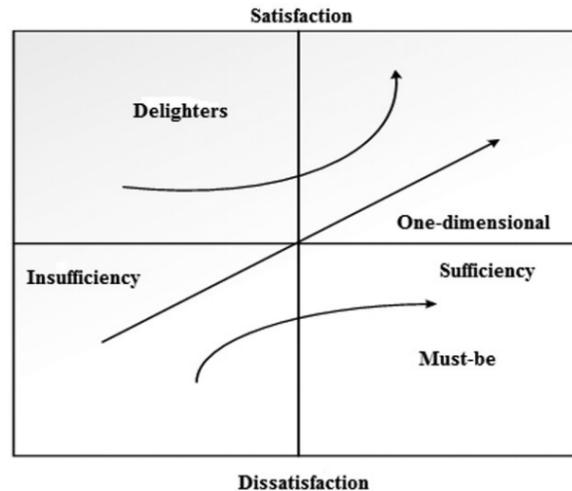
Figure 2.1 Kano's Model- (Must-be, One-dimensional and Attractive feature (Chen & Chuang, 2008).

The three main categories of Kano attributes, three types of attributes are proposed as well:

• Indifferent attributes constitute the aspects of a product/service that customers are indifferent to, and meeting or not meeting them does not increase or decrease their satisfaction.

• "Reverse requirements attributes constitute the customers' dislike of the presented good or service. An example of reverse requirements is a company retaining transaction data for customers to inquire about after goods are delivered" (Wang & Ji, 2010, p. 175; Chen et al., 2011, p. 70).

• "Questionable requirements are related to a case where there is a contradiction between customer responses to questions. For example, the customer provides a positive

response to both the presence and absence of an attribute. Such responses are not worth analyzing and should be ignored in the assessments" (Wang and Ji, 2010, p. 175).

"Based on the revised model, Fig (2), the features are categorized into more detailed categories, and the three groups of attractive and must-be features are distinguished more accurately" (Shahin et al., 2013, p. 350). In this model, the vertical curves A1, A2, and A3 represent less attractive, attractive, and highly attractive attributes, respectively, and Ma, Mb, and Mc represent less must-be, must-be, and highly must-be attributes, respectively.
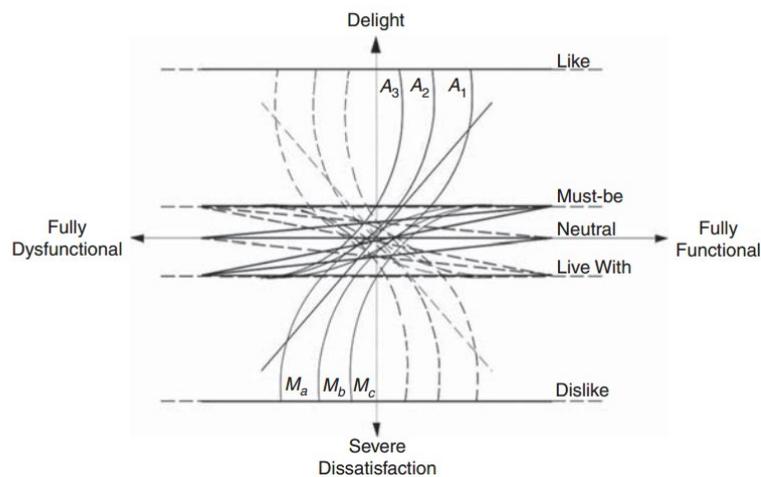
Figure 2.2 Revised Model- (revised model of Kano model- Shahin et al., 2013)

Thus, the explanations of three other features of the Kano model are as follows:
"1- Reverse characteristics: There are specific features in products that not only fail to meet customer expectations but also result in customer dissatisfaction.

2- Indifferent Quality Features: Some characteristics exist over a period that do not represent a quality need for the customer and do not affect their satisfaction. In other words,

whether these characteristics are present or absent does not change the level of customer satisfaction. These types of needs are referred to as indifferent quality.

3- Questionable Features: The customer expresses an opinion once about the presence of a service and once about the absence of a service, thereby establishing a dual, or, in other words, questionable state in the designer's mind. As a result, this feature becomes worthless from the questioner's perspective" (Chen et al., 2011, p. 400).

2.8.1 The advantages of classifying customer needs by means of the Kano methodology are as follows (Hinterhuber et al., 1997):

"The criteria with the most significant influence on customer satisfaction are identifiable. Classifying product and service needs into must-be, one-dimensional, and attractive attributes can contribute to developing priorities. Investing in improving must-be needs that are already at a satisfactory level is inappropriate; instead, investment should be on one-dimensional or attractive needs because they have a greater influence on perceived product and service quality, thus enhancing customers' levels of satisfaction.

Kano's method contributes to the product/service development stage trade-off. When two product/service needs are not met simultaneously, due to technical or financial reasons, the most influential criterion on customer satisfaction is selected. As a rule, must-be, one-dimensional, and attractive needs vary in the utility expectations of different customer segments; consequently, client-customized solutions for specific problems can be developed, which assures an optimal level of satisfaction. Kano's model establishes the importance of every product feature for customer satisfaction, thereby initiating the optimal

prerequisite for process-oriented product and service development activities" (Matzler &

Hinterhuber, 1998, p. 30).

Some applications of this model include (Brady & Robertson, 2001):

"- Customer satisfaction has the most significant correlation and dependence on this model

- This model holds the largest share of the market research budget

- It leads to increased growth in customer wants and needs

- It moderates competition among organizations" (Brady & Robertson, 2001, p. 55).

2.8.2 . Kano questionnaire

"In the Kano model, a simple method composed of two positive and negative

questions is used to identify quality attributes. For this purpose, a pair of questionnaires is

devised for each attribute of a product or service, allowing the customer to answer by

selecting one of five options. The first question (functional form) relates to the customer's

reaction if the attribute is offered, and the second question (dysfunctional form) pertains to

the customer's reaction if the attribute is not offered (Figure 3). Based on the responses

from customers to the two questions above, the attributes of the product/service are

classified into six groups: A (attractive), M (must-be), O (one-dimensional), I (indifferent),

R (reverse), and Q (questionable). The significant advantage of this approach is its

effectiveness compared to other customer satisfaction methods" (Shahin, 2004, p. 735).

First question (+)

What would you feel, if the quality attribute of the product and service is offered to you?

    Answer:

     1 I like it this way.

     2 It should be this way.

     3 It does not make any difference to me.

     4 I can live with it.

     5 I dislike it.

Second question (-)

What would you feel, if the quality attribute of the product and service is not offered to you?

    Answer:

     1 I like it this way.

     2 It should be this way.

     3 It does not make any difference to me.

     4 I can live with it.

     5 I dislike it.

Figure 2.3. Kano questionnaire (Dual questions of the Kano model; Shahin, 2004).

2.8.3. Kano Evaluation Table

"By using the Kano evaluation table (Figure 4), the type of the attribute can be identified from the customer's point of view" (Shahin, 2004, p. 735).

Functional questions \ Dysfunctional questions	1. I like it this way	2. It should be this way	3. It does not make any difference to me	4. I can live with it	5. I dislike it
1 I like it this way	Q	A	A	A	O
2 It should be this way	R	Q	I	I	M
3 It does not make any difference to me	R	I	I	I	M
4 I can live with it	R	I	I	Q	M
5 I dislike it	R	R	R	R	Q

Notes: A = attractive, O = one dimensional, M = must-be, I = indifferent, R = reverse, Q = questionable.

Figure 2.4 The Kano evaluation table- (Kano model- Shahin, 2004).

The Kano evaluation table (Figure 2.4) is later expanded by Shahin and colleagues, resulting in the following format (Shahin et al., 2013).

Customer needs	Dysfunctional form of the question				
	1. I like this feature omitted	2. I need this feature omitted	3. I am neutral about this feature	4. I can live with omitting this feature	5. I dislike omitting this feature
Functional form of the question					
1. I like this feature included	Q	A_3	A_2	A_1	O
2. I need this feature included	R_{A_3}	Q	I	I	M_a
3. I am neutral about this feature	R_{A_2}	I	I	I	M_b
4. I can live with including this feature	R_{A_1}	I	I	Q	M_c
5. I dislike including this feature	R_O	R_{M_a}	R_{M_b}	R_{M_c}	Q

Notes: A, attractive need; O, one-dimensional need; M, must-be need; I, indifferent; R, reverse; Q, questionable

Figure 2.5- Kano revised evaluation table – (Kano Model- Shahin et al.,2013)

2.8.4 Kano satisfaction and dissatisfaction ratios

"There is one index: customer satisfaction ratio, which is calculated as follows: the ratio of the sum of frequencies of one-dimensional and attractive attributes divided by the sum of frequencies of attractive, one-dimensional, must-be, and indifferent attributes. Customer dissatisfaction ratio is defined as follows: the frequency of the sum of frequencies of one-dimensional and must-be attributes is divided by the sum of frequencies of attractive, one-dimensional, must-be, and indifferent attributes. A negative sign is placed in front of the dissatisfaction ratio, indicating the negative impact on customer satisfaction. Additionally, the customer satisfaction ratio ranges from '0' to '1'; the closer this ratio is to '1,' the closer it is to customer satisfaction. Moreover, the customer dissatisfaction ratio ranges from '–1' to '0,' and the closer this ratio is to '–1,' the greater its impact on customer dissatisfaction" (Shahin & Shahiverdi, 2015, p. 860).

SI= A+O/A+O+M+I

DI= - (A+M)/(A+O+M+I)

2.8.5. Kano requirement type:

"In the basic Kano approach, the classification of product attributes is performed in the format of Kano quality categories based on the statistical methods and frequency of responses. This method is the simplest and the most usual method of Kano analysis model and it is also used in this research for data analysis. In this method, a new column is added at the end of the results matrix, and among the responses related to each attribute, the one which has the highest frequency is chosen"(Shahin & Ebrahimi, 2017, p. 351).

The results obtained from classifying design attributes can be observed in Figure 2.6 considering of the frequency of the responses.

No	Product design attributes	Frequency of responses					Requirement type
		M	O	A	I	Total	
1	User friendly	67	33	0	0	100	M
2	Resistance of product	22	78	0	0	100	O
3	Low weight	11	78	11	0	100	O
4	Stylish locating of belongings	0	38	0	62	100	I
5	Stylish package design	0	0	11	89	100	I
6	Using standard accessories and parts	78	0	22	0	100	M
7	Re-upgradable product	0	56	44	0	100	O
8	Type of product-base	0	33	0	67	100	I
9	Inputs and outputs of product	67	22	0	11	100	M
10	Type of remote control	10	0	80	10	100	A
11	Compatibility with peripheral devices	56	22	22	0	100	M
12	Adding hardware options	22	78	0	0	100	O
13	Adding software options	11	67	22	0	100	O
14	Changing image resolution	22	0	78	0	100	A
15	Making smart	0	0	67	33	100	A

Figure 2.6- Evaluation of the Kano questionnaire data - Requirement type-(Shahin & Ebrahimi, 2017)

2.9. Integration of Kano's Model with Social Media Attributes

Using Kano's Model on social media platforms provides a structured approach to analyzing and prioritizing the features that affect customer satisfaction. "The attributes must-be, like response time and issue-solving time, are elements of customer expectations on social media. Their absence leads to dissatisfaction, but their existence does not increase satisfaction" (Rozaq et al., 2019, p. 280).

"One-dimensional attributes: The mood, tone, relevance, quality of content, and service responses are one-dimensional attributes. These features are directly proportional to the quality of their performance, which in turn determines whether satisfaction or dissatisfaction is experienced. The relationship among these features affects customer satisfaction and has been studied linearly.

Attractive attributes: Examples of appealing attributes that can delight customers and foster loyalty include interaction, engaging moments, and customization. These unexpected features positively affect customers and increase satisfaction and loyalty beyond expectations" (Tontini et al., 2013, p. 1260).

"By classifying social media features according to Kano's Model and the above structure, business entities can prioritize their strategies and apply resources more effectively, to have more efficient resource utility. This approach not only leads to excellent use of resources but also increases customer engagement and causes satisfaction" (Al Rabaiei et al., 2021, p. 66).

2.10. Customer satisfaction in project management

"Project management uses various methods and resources to achieve specific, complex goals within set time, cost, and quality boundaries. Traditionally, this meant selecting tools and techniques for each phase, but definitions now also highlight meeting stakeholder needs and ensuring satisfaction" (Syamil et al., 2021, p. 5660).

"Achieving high customer satisfaction in project management affects both the chance of gaining future projects and the client's view of the current one" (Yang and Peng, 2008, p.460). "Delivering results on schedule and budget is essential for both company profitability and fulfilling customer expectations" (Fortune et al., 2011, p. 560)

"Customer satisfaction in project management is typically measured at the end of a project, after the customer has committed most of their money argue that measuring satisfaction only in the later stages of project management may result in the loss of important information. They contend that customer satisfaction should be measured not only during the early stages of project management but also at the end. This total measurement gives companies more knowledge regarding where they need to improve their customer' satisfaction. conclude that a customer survey conducted as mentioned would lead to improved customer satisfaction,as weaknesses in the company's project management process could be identified and immediately rectified. An increase of product quality translates into future projects for the company,which should lead to positive implications such as increased revenue and profit" (Haverila & Fehr, 2016, p.572).

2.11. AI and customer satisfaction

AI technologies such as machine learning, natural language processing, and generative models help companies create customer experiences that match each person's favorite attitude and necessarily. Tools like chatbots and virtual assistants in customer service are making responses faster and solving issues better, which leads to satisfied and more loyal customers. Companies can use AI to look at huge amounts of data in real time, helping them understand customers better and guess what they might need next. AI systems also help build brand loyalty by making interactions more personal and making customers feel appreciated. Generative AI models like ChatGPT are making customer conversations more engaging and smoother by giving responses that feel almost like a person is talking. AI tools that analyze customer feelings and feedback help businesses spot when customers might be unhappy before it's too late.

Along with personalization, AI is making loyalty programs more flexible and interesting. Businesses can find out which customers are most valuable, offer them personalized deals, and encourage them to come back. Even though there are many benefits, companies must also deal with issues like keeping customer data safe and how customers interact with AI. As AI customer service keeps changing, finding the right balance between automation and real human interaction is important" (Patil, 2024., p.1).

Customer loyalty plays a big role in making a business successful. AI helps improve loyalty by offering a more personal and satisfying experience for customers. Using AI, companies can better understand what customers like and how they behave, which lets them design more focused and effective loyalty programs. AI can also find out what makes

customers stay with a company and predict which customers might leave. This lets businesses take action early to fix problems and come up with ways to keep important customers. For example, AI can look at customer feedback and feelings to find out common problems and areas that need improvement. Fixing these issues makes customers happier and builds better relationships. Also, AI makes loyalty programs better by offering rewards and incentives that are tailored to each customer. By looking at customer data, AI can figure out which rewards are most likely to encourage each customer, making the program more effective. This makes customers feel appreciated and valued, which helps increase their loyalty" (Kumar et al., 2022. P.2).

2.12. SEM Model

Structural equation modeling (SEM) is a strong, multivariate technique widely applied in scientific assessments to test and evaluate multivariate causal relationships. SEMs differ from other modeling approaches because they test the direct and indirect effects on pre-assumed causal relationships.

The SEM method has existed for nearly a century as a statistical approach yet has evolved through three generations. The initial generation of SEMs established causal modeling principles via the path analysis (Wright, 1918). SEM has transformed during the social sciences (including factor analysis). SEM enhanced its capabilities with its second generation. The third generation of SEM started in 2000 at the hands of Judea Pearl who introduced the "structural causal model" (Lee, 2007) and Bayesian modeling integration (Neuberg, 2003). Ecologists have used SEM over the past 16 years to test different hypotheses with multiple variables and reached valuable results. Complex networks of

causal relationships in ecosystems can be analyzed through SEM (Shipley, 2016; Grace, 2006). A researcher (Chang, 1981) was one of the first ecologists to apply SEM to ecological research, clarifying logical and methodological relationships between correlation and causation, and published the first comprehensive book on SEM basics with key examples from a range of ecosystem studies. In the recent decade, a rapid increase in SEM in the ecological sciences is evident (Eisenhauer et al., 2015).

The two: 1) confirmatory factor analysis, which originated in psychometrics to estimate the latent psychological traits, like attitude and satisfaction (Galton, 1889), and 2) "path analysis, which began in biometrics to find the causal relationship among variables by initiating a path diagram" (Wright, 1918, p. 367), are combined through SEM. The path analysis in earlier econometrics is presented with simultaneous equations (Haavelmo, 1943).

2.13. Review of past studies to identify gaps in existing literature

A valuable overview of the literature related to social media, analyzing social media searches, which try to recognize the gaps in accordance with the literature review, is presented in this dissertation.

1. The study conducted by Dwivedi et al. (2023) determined that social media plays a significant and meaningful role in businesses' digital transformation. "This research undertakes a holistic and conceptual investigation into the use of social media by business-to-business (B2B) organizations. In this paper, we specifically consider the impact of social media, social media tools, the use of social media, the adoption of social media, its

constraints, the methods and techniques of social media use, and the assessment of the effectiveness of social media usage" (Dwivedi et al., 2023, p. 972)**.**

2. Researcher (Hanaysha, 2022) assessed the impact of social media platforms and tried to understand whether using these platforms as a marketing tool has an influence on customers' buying intentions in the fast-food industry and filled the gap to have better brand recognition.

"The data is gathered from the buyers of fast-food cafes in the UAE through an online survey. After obtaining the necessary responses, the data are analyzed by applying AMOS 21, which is used for statistical SEM mode. The result of AMOS-SPSS shows the significance of brand trust through the findings of this study. In general, the findings indicate that 3 factors have a heavily positive impact on buying decisions of customers, which are included: informativeness, perceived relevance, and interactivity. Moreover, it is found that in spite of the manager's point of view, the effect of excitement is insignificant" (Hanaysha, 2022, p. 100102).

3. Researchers (Zhang et al., 2022) found that business heavily depends on the following important issues: manufacturing, purchasing, selling items, and earning profit. "Analyzing social media data enables business entities to identify buyer preferences, enhance customer benefits, and make informed marketing decisions, which is related to the issue of "earning profit" (Zhang et al., 2022, p. 102762).

4. Researchers (Santhoshkumar et al., 2022) expanded the use of Kano's model in healthcare by closely assessing patient satisfaction. "They grouped hospital service qualities into Kano's five categories to identify which ones affect patient satisfaction

significantly. Cleanliness and staff responsiveness are considered essential, while additional amenities, like entertainment options, are viewed as potentially desirable. This detailed categorization enabled hospital management to focus on improvements that would most effectively enhance patient satisfaction. Kano's model and its potential to improve service quality across varying sectors are evident in this study" (Santhoshkumar et al., 2022, p. 11081)**.**

5. Researchers (Jamil et al., 2022) evaluated the effect of social media marketing elements on customer engagement in Pakistan. They used basic condition modeling to analyze data from 353 structured survey responses. "This research has led to the point that social media activities can effectively enhance customer engagement, leading to positive behavioral outcomes**"** (Jamil et al., 2022, p. 808525**)**.

6. The investigation conducted by Kohli and Singh (2021) found that the car industry plays a crucial role in the manufacturing sector of any country. The global market has witnessed lots of progress in innovative features for passenger cars. "Therefore, in this study, the researcher tries to pay attention to understand customer needs and examine different needs and new technologies, and prioritize these features according to the Kano model" **(**Kohli & Singh, 2021, p. 76).

7. The results of this study should contribute to the body of knowledge and will be significant for those companies interested in or using social media platforms for their marketing purposes. "A meta-analytic study by Santini et al. (2020) found that findings from 97 research studies, consisting of 161,059 participants, are cumulated and determined that Twitter outperforms other social media platforms by a factor of two in enhancing

business entity performance. This improvement is primarily due to elevated levels of customer engagement, satisfaction, emotional positivity, and trust. Integrating a social media marketing plan into business strategies yields significant long-term benefits. The findings of the study show that marketing with a focus on social media can lead to reaching the main purposes that enhance the profit of the business entity: these purposes are long-term relationships with clients, increasing customer satisfaction, and improving the overall performance of the business entity, which all have a direct impact on both the consumer and the business entity" (Santini et al., 2020, p. 1211)**.**

8. Researchers (Wang and Ji, 2010) presented a method for evaluating the complicated relationship between two parameters. 1) Customer satisfaction and 2) customer requirements through the Kano model structure. Researchers evaluated the relationship between customer satisfaction and requirements (CSR). "The findings of their study provide product designers with different features of the Kano model that generate customer satisfaction**"** (Wang & Ji, 2010, p. 173)**.**

9. In the electric industry, (Lin and Niu 2017) used Kano's model to assess customer satisfaction and provide the company with a structural understanding of the Kano model. "The researchers considered 20 quality features separately, providing the company with a full understanding of which quality features are matched to which Kano model category. By prioritizing these above features according to the Kano model, the business entity yields the ability to enhance overall customer satisfaction**"** (Lin & Niu, 2017, p. e0183888)**.**

2.14. Gaps in Existing Literature

The available studies in this context are insufficient; therefore, more research on customer satisfaction and social media is necessary. The critical gaps in this context that must be abridged are: 1) the lack of structures that integrate the lively, dynamic nature of social media with traditional satisfaction models, 2) no assessment of this phenomenon through the Kano's Model in a digital context, specifically in analyzing social media features that are currently underutilized, and 3) negligent on assessing social media features.

It is sought in this dissertation to address these gaps by providing a comprehensive framework that bridges traditional theories and modern digital environments. The objective here is to develop a detailed structure for social media features by systematically categorizing customer expectations in a new manner, by applying a statistical SEM model to gain a conceptual understanding of social media platforms, and Kano's model to explore social media features.

2.15. Summary

Despite the growing number of studies focusing on customer satisfaction and social media, a considerable gap remains evident. The gap lies in the fact that no attention has been paid to the simultaneous application of Kano's Model and the SEM model in the digital environment, particularly in relation to social media features. Focusing on and implementing the combination of these two models presents an opportunity for business entities to invest in targeted strategies and become market leaders.

CHAPTER III

METHODOLOGY

3.1. Introduction

In this chapter, the methodologies applied to assess the influence of social media attributes on customer satisfaction consist of Kano's Model and SEM. The developed methodological framework is specifically customized to address the research questions through structured, replicable, and academic processes. The research design is defined and elaborated based on population and sampling methods, which specify the data collection and analyses procedures. Additionally, it details the tools and criteria used to assure the reliability, validity, and ethical compliance of the study.

3.2 Overview of the Research Problem

There is no effective model that attempts to understand social media interactions and features in conjunction with traditional satisfaction models. An accurate statistical model, especially in analyzing social media attributes, has led to studies and research on this topic. Kano's model has been and continues to be applied with SEM in traditional customer satisfaction studies (Li et al., 2020). "SEM has been and is being widely applied to study customer satisfaction on social media platforms" (Li et al., 2020, p. 116352); to date, no study has combined Kano's model with SEM to measure customer satisfaction specifically in the context of social media platforms. This gap motivates the present research. This indicates a lack of a suitable structure that could employ two concepts to measure customer satisfaction: one using the SEM model structure and the other utilizing the Kano model.

The application of these two models (the Kano model+SEM statistical model) in measuring customer satisfaction on social media simultaneously enhances the accuracy of the measurement. This framework is practical and valuable in today's competitive world and provides both academic scientists and practical managers with valuable insight into enhancing customer satisfaction.

3.3. Research Methods and Design(s)

By applying a cross-sectional research design, a mixed-methods approach (quantitative and qualitative) is adopted here. The quantitative method **facilitates** the statistical analysis of predetermined variables and numerical assessment, while the qualitative method provides non-numeric information extracted from interviews with specialists in the social media industry and a content analysis of secondary data. The cross-sectional design **allows for the assessment of relationships without temporal variability by collecting data at a single point in time**.

Kano's Model **is applied** to categorize social media attributes into must-be, one-dimensional, and attractive classifications. The assessment of the correlations between these variables and customer satisfaction **is run** through SEM, which **allows for** direct, indirect, and mediating effects evaluation within a unified framework, enabling **the replication** of latent variables. The model validity is confirmed through the Comparative Fit Index (CFI > 0.9), the Tucker-Lewis Index (TLI > 0.9), and the Root Mean Square Error of Approximation (RMSEA < 0.08). The flowchart of conducting this study is presented below:

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│ variables, design and       │          │ design and distribute the   │
│ distribute the questionnaire│          │ questionnaire based on the  │
│ based on the Kano Model's-  │          │ Kano Model's second         │
│ first questionnaire.        │          │ questionnaire.              │
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                  │ applying the SEM method  │
                  │ through the existing data.│
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              │ parameters based on Questionnaire 1  │
              │ and Questionnaire 2.                 │
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     │ Measuring customer satisfaction according to the Kano │
     │ model formula based on Questionnaire 1 (if the        │
     │ correlation between variables is > 0.38).             │
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Figure 3.1 - Flowchart of the steps taken in research implementation

Figure 3.1 reflects the following:

A. To discover the observed variables, design and distribute the

questionnaire based on the Kano Model – Questionnaire 1 (Appendix 1).

At this stage, a questionnaire based on the Kano model is designed in two dimensions,

functional and dysfunctional, across seven categories. Each category contained two or three

subcategories to measure customer satisfaction according to the Kano formula, following

the confirmation that the correlation between the variables is greater than 0.38.

B. To measure social media, design and distribute the questionnaire based on the

Kano Model – Questionnaire 2 (Appendix 2):

At this stage, a questionnaire based on the Kano model, incorporating both functional and

dysfunctional dimensions, is designed and distributed to measure social media constructs

for structural equation modeling (SEM) analysis. The structural model for the SEM is

explained in the following section.
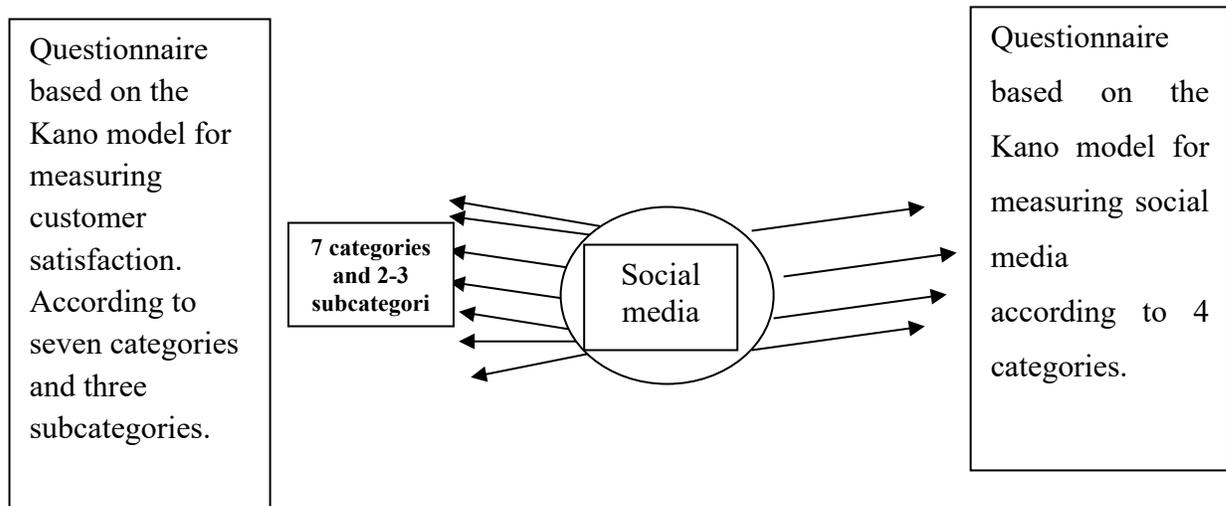
Figure 3.2- Explanation of the SEM structural model - Explanation

C. Collecting data and applying the SEM method using existing data.

In this stage, data **are collected** using questionnaires. The collected data **are analyzed using** statistical software (SPSS-AMOS) to accomplish two primary objectives. First, correlation analysis **is conducted** between variables to validate the use of the proposed categories. Second, the model's validity **is assessed** by examining key goodness-of-fit indices. The model **is considered** to have a strong fit based on the following established thresholds: Comparative Fit Index (CFI > 0.90), Tucker-Lewis Index (TLI > 0.90), and Root Mean Square Error of Approximation (RMSEA < 0.08).

D. Measuring the correlation between parameters based on Questionnaire One and social media categories.

The correlations between all category-subcategory pairs are calculated using statistical software. The predetermined criteria are as follows: subcategories with correlations exceeding 0.38 are retained for the customer satisfaction measurement, while those with correlations below 0.38 are excluded.

E. Measuring customer satisfaction according to the Kano model formula based on Questionnaire 1 (if the correlation between variables > 0.38):

The customer satisfaction formula from Chapter Two **is applied** exclusively to subcategories that **correlated** with their parent category at a level above 0.38. The formula is:

$SI = A + O / A + O + M + I$

$DI = -(A + M)/(A + O + M + I)$

Social media is defined as follows: This definition serves as the conceptual foundation for evaluating social media within the SEM framework in this study. The SEM framework is explained in the next chapter. For the qualitative data, content analysis of secondary data is performed.

3.4. The secondary data is defined as follows:

Social media measurement methods are relatively new but are gaining momentum. There exist many approaches to evaluating social media activities.

The following proposed framework is applied in evaluating social media index in SEM:

"1. User Analysis: Determining the users who will be listening to us

2. User-Generated Content Analysis: We must listen to the customers to understand the topics that attract their attention

3. Engagement Analysis: We must analyze the interactions on social media

4. Benchmarking: We must compare ourselves with our main competitors" (Cvijikj et al., 2013, pp. 10-12).

Data **are collected** through a two-stage questionnaire administered through the LinkedIn platform. Participants **are directed** to an external website containing Questionnaire 1, and upon its completion, the same respondents are given immediate access to Questionnaire 2.

3.5. Population

There exist two study populations: (a) individuals who interacted with brands on social media platforms, including Facebook, Instagram, X, and LinkedIn, and (b) specialists in the social media industry. Active interaction refers to direct communication

with brands, where the posting of inquiries, providing feedback, or participating in discussions initiated by the brand are of concern. Participants must be at least 18 years old to assure legal eligibility and the cognitive ability to have informed responses. This dissertation is limited to individuals who have interacted with brands on social media within the preceding six months. This process is run to assure the accuracy and relevance of the participants' experiences. Specialists in the social media industry are selected from telecommunications industry experts in Isfahan who have extensive knowledge of digital metrics and social media platforms.

3.6. Sample

This dissertation applies a mixed methods sampling approach to assess the impact of social media on customer satisfaction. The primary sample consists of social media users, recruited through a **purposive sampling method**. Targeted social media advertisements, which rely on specific demographic and behavioral criteria, are applied to access qualified participants. A screening questionnaire is administered to assure that respondents meet the study's core requirement, that is, having sufficient recent exposure to social media marketing.

The sample size for this study is 400 (N=400) participants. They are individuals who interact with brands on social media platforms based on the SEM requirements. A stratified sampling method is applied to proportionate the sample according to age, gender, and social media usage activity. This stratification helped decrease bias and increase the quality and validity of the results. The sample size of specialists in the social media industry

is (N=10), chosen based on their expertise in digital metrics and their knowledge on social media platforms.

3.7. Data Collection Processing and Analysis

3.7.1. Instrument Development

The relevant data is collected through a) a survey through an online questionnaire (quantitative) that covers the perception of different features of social media and their effect on customer satisfaction, b) interviews made with the specialists in the social media industry (qualitative), and c) content analysis of the secondary data (qualitative) instruments. The first instrument consists of: a) customer satisfaction, b) social media attributes, and c) demographic information (age, gender, education, and frequently applied social media platforms). The second instrument is based on a structured interview protocol.

Social media attributes are evaluated through Kano's Model categories, with items specifically designed to measure must-be, one-dimensional, and attractive qualities. Responses are recorded on a 5-point Likert scale, ranging from "Strongly Agree" to "Strongly Disagree." Validated scales for assessing customer satisfaction and perceptions of overall brand engagement quality are applied in the evaluation. According to the interview protocol, seven categories are compiled from questionnaire-based interviews, and each category has two or three subcategories.

1- Customer Engagement & Response Time

2- Content Relevance & Personalization

3- Content Quality & Consistency

4- Customer Feedback

5- Security & Trust

6- Customer Support & Issue Resolution

7- Community Engagement & Building Loyalty

Content analysis of secondary data is an instrument for collecting qualitative data from relevant literature, reports, and publicly available corporate documents.

3.7.2. Preliminary Assessment and Testing

Besides the SEM model and the Kano model, two essential tools for the assessment of questionnaires include:

1. Cronbach's alpha assesses internal consistency; values exceeding 0.7 signify acceptable reliability (Bujang, M. A et al., 2018). Cronbach's alpha is a measure of the internal consistency or reliability among several items, measurements, or ratings. In other words, it estimates the reliability of the responses to a questionnaire (or a domain of a questionnaire), an instrument, or a rating evaluated by subjects, indicating the stability of the tools. Alpha is developed by Cronbach and is applied initially in measuring the reliability of a psychometric instrument. The value of Cronbach's alpha ranges from zero to one, with higher values implying that the items are measuring the same dimension. In contrast, if the Cronbach's alpha value is low (near 0), it indicates that some or all of the items are not measuring the same dimension (Bujang et al., 2018). A Cronbach's alpha >0.7 is acceptable. The pre-test assures that survey items accurately represent the attributes outlined in Kano's Model and identify phrasing ambiguities. Modifications are implemented to enhance the survey tool before its release.

2. Content validity is defined as "the degree to which items in an instrument reflect the content universe to which the instrument will be generalized" (Straub, Boudreau et al., 2004). (Lawshe, 1975) claims that every evaluator should respond to each item with 1) essential, 2) helpful but not essential, and 3) not necessary. For each item, the response "essential" is fed into CVR, which is calculated through the following equation:

CVR = (ne - (N/2)) / (N/2)

where CVR is the content validity ratio, ne is the count of panel members indicating essential, and N is the total count of panel members. The final evaluation is based on the CVR, which depends on the count of panels. The CVR value is within the −1 to +1 range, where any value closer to +1 indicates a greater mutual agreement among experts on the respective item. A negative CVR value may be obtained when less than half of the experts value the item as "essential" (Cohen et al., 1996). Validity refers to how we can assure that the data collection tool accurately measures the concept of opinion, rather than something else. To this end, the CVR is calculated and reaches a value of 0.8. Considering that the number of experts is 10 individuals, the CVR value must be greater than 0.62, which confirms the model's validity. All the results are shown in the table below.

A total of 10 interviews, made both online and face-to-face, are organized over four weeks. The main categories of criteria used in the interviews with social media industry specialists are tabulated in Table 4.13, which is presented in chapter 4 of the thesis very precisely.

Table 3.1- Cronbach's alpha of the questionnaire and CVR- detailed Explanation

Accept or reject	Cronbach's alpha	Number of questions	Questionnaire
Accept	0.823	34	First questionnaire include 17 items
Accept	0.732	8	Second questionnaire include 4 items
Accept	0.8		CVR

Source: the author

3.7.3. Administration

The Qualtrics platform is applied to disseminate the survey and guarantee secure data collection through IP address monitoring, thereby minimizing duplicate responses. Targeted social media advertisements are applied to assist participant recruitment by providing the survey link. The survey is conducted over eight weeks to assure adequate participation. Eligibility is assessed through screening questions; individuals who do not meet the conditions are excluded from the analysis.

3.7.4. Data Analysis Techniques

Data cleansing is performed to address missing values and assure consistency throughout the dataset. Responses with more than 20% missing data are excluded, while isolated missing values are assigned through the mean of the corresponding items. Non-normal data are addressed through transformations, and variables with high variance inflation factors (VIF > 10) are removed to mitigate multicollinearity.

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Cronbach's alpha is recalculated for the final dataset to confirm internal consistency across all attributes, with a threshold ≥ 0.7. The CFA is conducted to assess construct validity, confirming that the observed variables correspond to their respective latent constructs. Model fit indices, including CFI, TLI, and RMSEA, are applied to evaluate the adequacy of the measurement model.

SEM is applied to assess and analyze the relationships among social media attributes and customer satisfaction. The analyses **are conducted** in two stages: 1) validation of the measurement model, and 2) path analysis of the structural model. Path coefficients (β) and their significance (p-values) are applied to determine the strength and direction of relationships.

The direct, indirect, and mediating effects of social media attributes on customer satisfaction are analyzed to address the research question of content richness. The detailed data analysis techniques are tabulated in Table 3.2:

Table 3.2 - Methods and Indices of Analysis - Detailed Explanation

The software used	Application	Analysis method
Excel	Determining Kano features	Kano evaluation table
Excel	Demographic analysis	Mean and frequency
Excel	Kano satisfaction and dissatisfaction ratio	Kano satisfaction and dissatisfaction
AMOS- SPSS	Review of the conceptual model	SEM analysis

3.8. Constraints

The cross-sectional design restricts the capacity to monitor fluctuations in customer satisfaction. Dependency on self-reported data introduces potential biases, including social desirability bias and recall bias. The purposive sampling method limits the generalizability of the results to the broader population. These constraints are mitigated through stringent instrument validation, stratified sampling, and precise data cleansing protocols.

3.9. Ethical Assurances

Respondents provide their informed consent before taking the survey, confirming their voluntary participation. No personally identifiable data will be disclosed. The data will be kept in encrypted storage, and only researchers with authorized permission will have access

3.10. Summary

The study adopted a mixed-method approach by applying **purposive sampling** and analyzing the data through SEM. This integrated methodology **is selected** to provide a robust and valid assessment of the research questions. This chapter also presents a research process flowchart, along with a full explanation. The flowchart explanation is based on using two models: 1) the SEM model and 2) the Kano model. The data relevant to the flowchart are gathered through 3 ways: a) a survey through an online questionnaire (quantitative) that covers the perception of different features of social media and their effect on customer satisfaction, b) interviews made with the specialists in the social media

industry (qualitative), and c) content analysis of the secondary data (qualitative) instruments. The questionnaire of this flowchart is rigorously assessed for quality. Reliability is confirmed using 1) **Cronbach's alpha** ($\alpha > 0.7$), and content validity is established using 2) **Content Validity Ratio (CVR)** to ensure the instrument accurately measures the target constructs, which are two tools for assessing the questionnaire. For the SEM analysis, model fit is evaluated using established indices— **CFI, TLI, and RMSEA**— to determine the adequacy of the measurement model.

CHAPTER IV

RESULTS

4.1- Introduction

Data analysis is an important element in assessing the accuracy of the research question. This dissertation relies on data collected from a survey. To run the analysis efficiently, the Microsoft Excel and IBM SPSS Amos software are used. A statistical analysis of the collected data, organized in two main parts, is presented in this chapter. The focus of the first part is on the demographic characteristics of the respondents, while the second part addresses the statistical analysis.

Descriptive statistics provide a summary of the main features of the collected data, offering an overview of the applicable samples. In this dissertation, descriptive analysis is performed, and the results are presented in tables and figures. The Kano questionnaires are distributed twice, in two formats, to the same group of respondents: first, with 34 items (functional and dysfunctional), and second, with 8 items (functional and dysfunctional) (appendix 1 and 2). Data was collected from April to June 2025 through a random sampling method. A total of 400 responses is subject to analysis. The subsequent sections outline the steps taken to complete the analysis and to gain a deeper understanding of the conceptual model applied in this study.

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│ To identify observed variables,│      │ For measuring social media, design│
│ design    and    distribute the│      │ and   distribute  the questionnaire│
│ questionnaire based on the Kano │      │ based on the Kano Model's second │
│ Model's-first questionnaire.    │      │ questionnaire.                   │
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                 │ through the existing data. │
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                 │ parameters based on Questionnaire 1│
                 │ and Questionnaire 2.               │
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         │ > 0.38).                                      │
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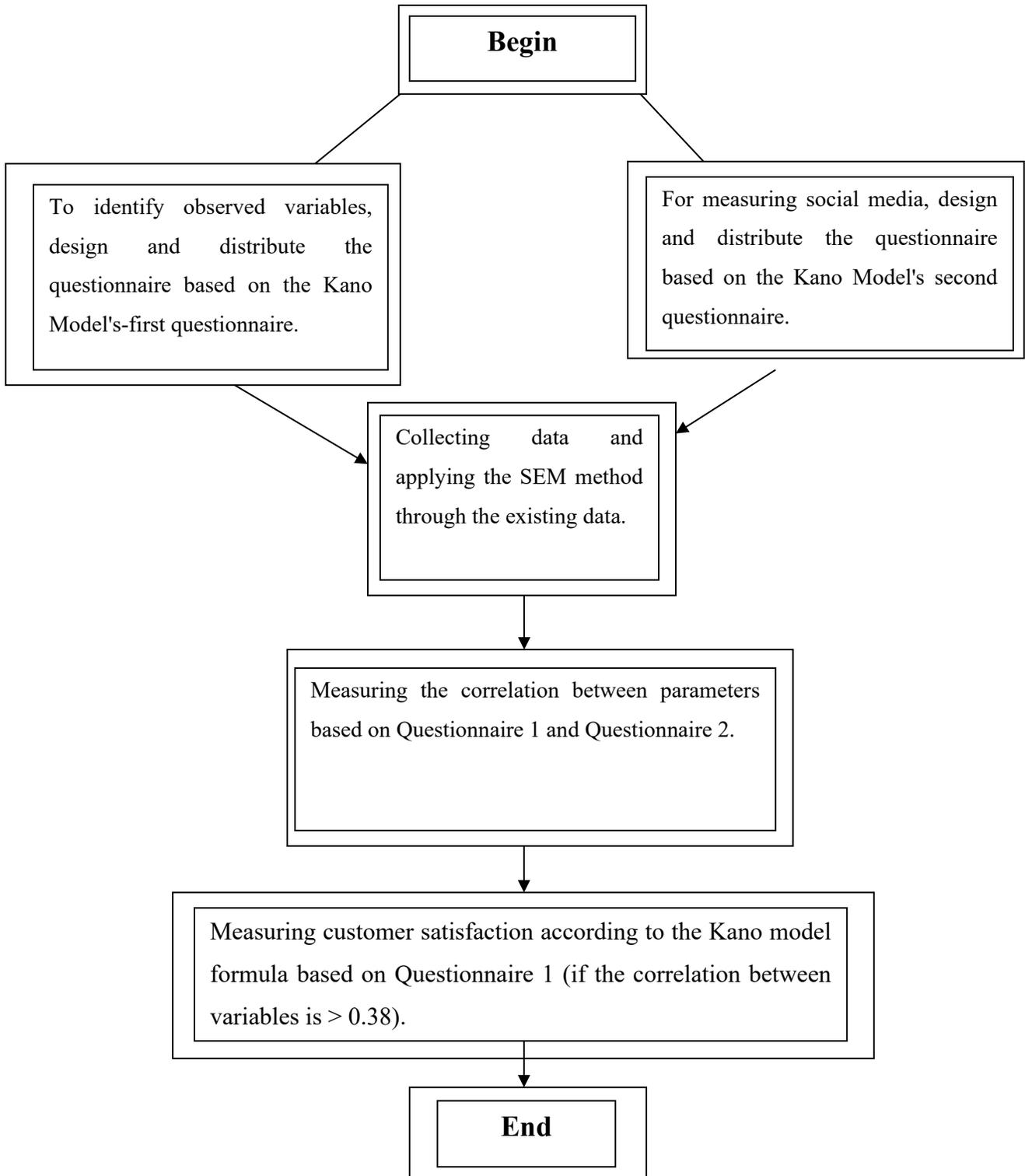
Figure 4.1 - Flowchart of Research Implementation: Steps for Completing the Project

4.2. Quantitative findings

Participants must be at least 18 years of age to assure both legal eligibility and sufficient cognitive ability to provide informed and accurate responses. The sample is limited to individuals who had interacted with brands on social media within the preceding six months. This criterion is applied to assure the relevance and accuracy of participants' experiences.

4.2.1. Demographic Findings

Demographic findings provide essential insights into the characteristics of the subject population, which are crucial for understanding trends and outcomes in research.

Gender Distribution

As observed in Fig. (4.2), in the 400 participants, 53% (n=212) are female and 47% (n=188) are male. This distribution reflects a relatively balanced gender composition between the participants.
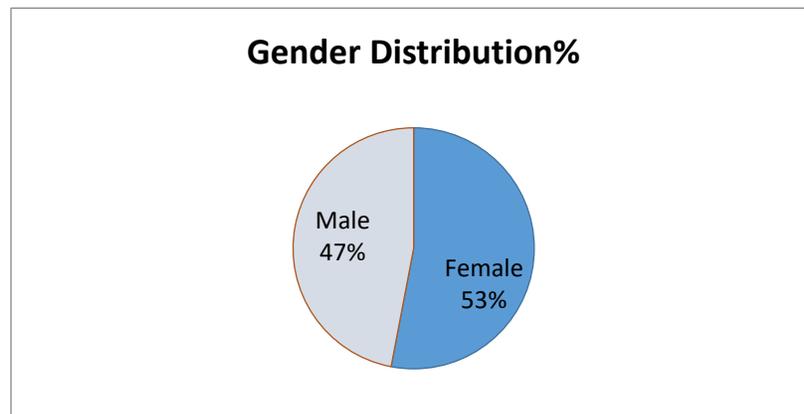
Figure 4.2. Demographic findings- Gender Distribution

Occupation Distribution

As observed in Fig. (4.3), the highest frequency is observed in the Worker/Employee community, 49.75%; followed by 14.75% as faculty members, 13% as freelancers, 11.25% as physicians, and others as 11.25%. This distribution highlights the significant presence of the Worker/Employee group among the surveyed population.
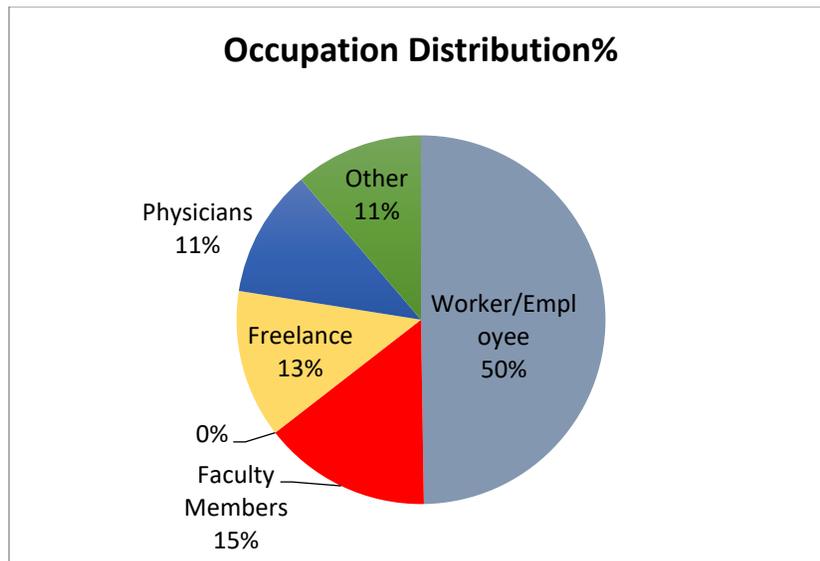
Figure 4.3- Demographic Findings, Occupation Distribution

Age Group Distribution

As observed in the pie chart below, the age distribution among the respondents is as follows: 18-30 age group, 129 respondents, 32.25%; 31-40 years age group, 82, 20.5%; 41-50 years age group, 102-, 25.5%-, and 51-60-years age group, 62, 15.5%. The participants in the over-60 age group, comprising 25 respondents, make up 6.25% of the total.
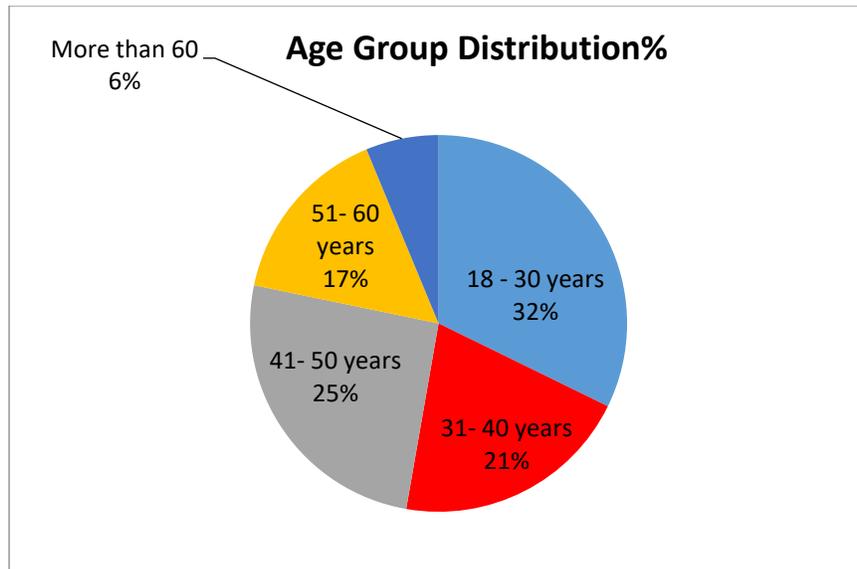
Figure 4.4 Demographic Findings, Age Group Distribution

Education Distribution

As observed in the following pie chart, the highest frequency is found among individuals with a bachelor's degree, 37.5% (n = 150), with a Master's degree 26.75% (n=107), an Undergraduate Diploma 16% (n=64), 10.75%, (n=43) High School Graduate, and 9%, (n=36), Doctorate Degree.
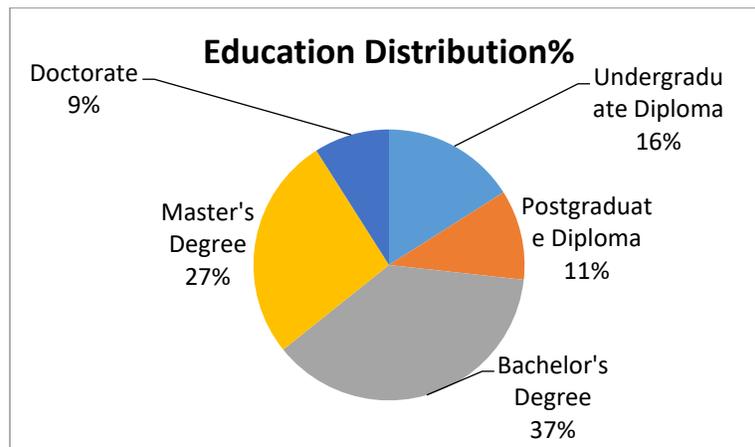
Figure 4.5- Demographic findings- Education Distribution

4.3. Findings: Research question results through the Kano model

To obtain a better understanding of how Kano's model influences customer satisfaction in a digital context, which may contribute to improved customer loyalty and brand differentiation in a competitive business world, the specific research questions are defined:

RQ1: What is the effect of must-be attributes in social media interactions on customer satisfaction?

RQ2: How do one-dimensional attributes influence customer satisfaction in social media contexts?

RQ3: What is the role of attractive attributes in driving customer satisfaction through social media engagement?

RQ4: How must-be, one-dimensional, and attractive attributes interrelate in shaping overall customer satisfaction?

4.3.1. Findings for RQ1. What is the impact of must-be attributes in social media interactions on customer satisfaction?

To answer the research questions, a practical method is applied, as detailed below. "According to Vaez Shahrestani et al. (2020), the focus is on the fact that each category with the highest counts of features indicates the priority of the question" (Vaez Shahrestani et al., 2020, p. 78). Similarly, the study conducted by Shahin and Ebrahimi (2017) with the title "Classifying and prioritizing TV design attributes by Kano model and quadrant analysis: with a case study in Entekhab Industrial Group" employed this method. For all

nine questions, their priorities are determined according to their highest frequencies, which

are listed below:

Table 4.1 - Question- Requirement type

Question	Requirement type	Attribute/Description
1	M	Must-be
2	O	One-dimensional
3	A	Attractive
4	I	Indifferent
5	A	Attractive
6	M	Must-be
7	A	Attractive
8	A	Attractive
9	O	one-dimensional

Source: the author

According to the table above, we consider the requirements of each question and

provide the firm with "**this insight and view,**" based on the "**type of requirement.**" This

means the firm should implement appropriate strategies customized to these requirements

in the **present moment** to enhance **customer satisfaction**.

The responses of 400 participants are analyzed through the Kano model to classify

the types of requirements. The content of Table 4.1 is evaluated to determine whether it

represents the must-be, one-dimensional, attractive, or indifferent attribute. The analysis,

Table 4.1, reveals that questions 1 and 6 are classified as "Must-be attributes." Failing to

meet these attributes results in dissatisfaction, but not meeting them does not necessarily lead to increased satisfaction. The subject business entity must exercise its related strategies for enhancing customer satisfaction in accordance with the "Must-be attribute."

4.3.2. Findings for RQ2. How do one-dimensional attributes influence customer satisfaction in social media contexts?

The responses of 400 participants are analyzed through the Kano model to classify the types of attributes. The content of Table 4.2 is evaluated to determine whether it represents a must-be, one-dimensional, attractive, or indifferent attribute. The analysis, Table 4.2, reveals that questions 2 and 9 are classified as "One-dimensional attributes," which refer to the characteristics of a product that provide satisfaction when fulfilled or met, but dissatisfaction when they are not met. The subject business entity must exercise its related strategies for enhancing customer satisfaction in accordance with the "One-dimensional attribute".

Table 4.2 - priority- "One-dimensional" priority

Question	Requirement type
2	O
9	O

Source: the author

4.3.3. Findings for RQ3. What is the role of attractive attributes in driving customer satisfaction through social media engagement?

The responses of 400 participants are analyzed using the Kano model to classify the types of attributes. The content of Table 4.3 is evaluated to determine whether it represented a must-be, one-dimensional, attractive, or indifferent attribute. The analysis,

Table 4.3, reveals that questions 3, 5, 7, and 8 are classified as "Attractive attributes," which means that these attributes are not explicitly demanded by customers, but when present, they significantly increase satisfaction, and the subject business entity must exercise its related strategies for enhancing customer satisfaction in accordance with the "Attractive attribute."

Table 4.3 - priority- "Attractive" priority

Question	Requirement type
3	A
5	A
7	A
8	A

Source: the author

4.3.4. Findings for RQ4. How do must-be, one-dimensional, and attractive attributes interrelate in shaping overall customer satisfaction?

As observed in Table 4.1, the responses of 400 participants are analyzed through the Kano model to classify the types of requirements. The content of Table 4.3 is evaluated to determine whether it represented a must-be, one-dimensional, attractive, or indifferent attribute. The analysis, Table 4.1, reveals that questions 3, 5, 7, and 8 are classified as "Attractive attributes," which means that these attributes are not explicitly demanded by customers, but when present, they significantly increase satisfaction. The analysis reveals that questions 2 and 9 are consistently classified as "one-dimensional attributes," which refer to the characteristics of a product that provide satisfaction when fulfilled or met, but dissatisfaction when they are not met. Questions 1 and 6 are classified as "Must-be

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attributes. The company must exercise its related strategies for enhancing customer satisfaction in accordance with the "Must-be attribute." Additionally, to understand the conceptual meaning of the three questions above, the "Kano Satisfaction Equation" is analyzed through the sensitivity analysis.

SI = Satisfaction Index= (A + O) / (A + O + M + I) = 50.92%

A = 721, I = 672, M = 662, O = 663, Q = 218, R = 664

The above findings are tabulated in Table 4.4:

Table 4.4. The effect of each feature- Kano satisfaction formula

Count of features	SI without feature
A = 721	33.2%
M = 662	67.32%
O = 663	35.01%

Source: the author

As observed in the table above, eliminating the count of each feature (A=0, M=0, or O=0) changes the "SI" value. From this perspective, the influence of each feature on customer satisfaction can be determined conceptually. This procedure can be considered a form of "**sensitivity analysis**."

4.4. Findings: Research question results obtained through the SEM model

In this research, Structural Equation Modeling (SEM) is employed, which comprises Confirmatory Factor Analysis (CFA) to examine correlations between variables, and Path Analysis, which includes indices like RMSEA, TLI, and CFI, to provide a

conceptual business model for understanding the variables and categories that impact customer satisfaction. Also, we applied the Kano satisfaction and dissatisfaction formula to calculate the customer satisfaction and dissatisfaction ratios, which are determined by using parameters and variables that are significant and have high correlations in the SEM model. Variables with high correlation and influence on social media are identified, followed by calculating these variables through the Kano Model equation to determine the customer satisfaction ratio. According to Figure 4.1, the data is collected in accordance with Steps 1 and 2 of the flowcharts.

1. To find the observed variables: Design and distribute the questionnaire based on the Kano Model - First questionnaire.

2. For measuring social media: Design and distribute the questionnaire based on the Kano Model - Second questionnaire.

3. Collecting data and applying the SEM method through existing data.

4. Measuring the correlation between parameters based on the two questionnaires.

4.4.1. Confirmatory Factor Analysis

The seven unobserved or latent variables are:

1- Customer Engagement & Response Time

2- Content Relevance & Personalization

3- Content Quality & Consistency

4- Customer Feedback

5- Security & Trust

6- Customer Support & Issue Resolution

7- Community Engagement & Building Loyalty

Each one of the above latent variables is calculated by one, two, or three observed variables.

The results of these observed variables are obtained from participants' responses to the questionnaire survey, based on the Kano model. For example, **"the first latent (unobserved) variable = Customer Engagement & Response Time" has two observed variables.** The results for each of these observed variables are obtained from the Kano questionnaire (Appendix 1), which consisted of one functional and one dysfunctional question from Questionnaire 1. If the correlation between the observed variable and the latent (unobserved) variable is greater than 0.38, the observed variable is considered an acceptable variable influencing the latent variable. Conversely, if the correlation value between the observed variable and the latent variable is less than 0.38, it is considered to have no significant relationship with the latent variable. Such observed variables are excluded from the equations representing the influence on the unobserved (latent) variable. It is notable that if the correlation between an observed variable and its latent variable is approximately 0.4, due to human factors like fatigue or a lack of motivation to respond, it is still considered acceptable. In such cases, the observed variable is considered to have a meaningful influence on the latent variable. If the correlation between the observed variable and the latent (unobserved) variable is greater than 0.38, the observed variable is classified as an acceptable variable influencing the latent variable.

Notably, all data are collected from respondents through online questionnaires designed in accordance with the Kano model. First, data for the left side of the SEM model are gathered using 17 questions in both functional and dysfunctional formats. Second, data

for the right side of the SEM model are collected using 4 questions in both functional and dysfunctional formats. The two questionnaires are provided in the Appendix section as Appendix 1 and Appendix 2.
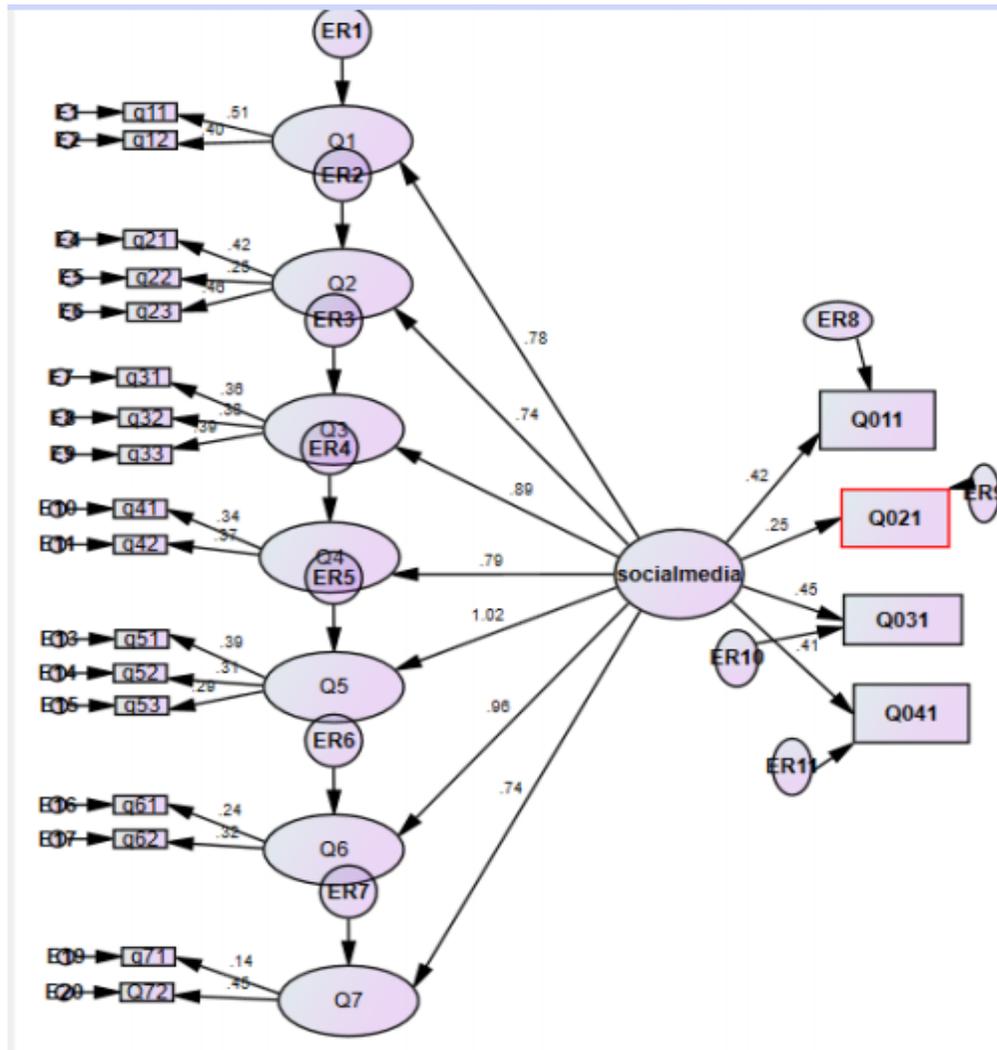
Figure 4.6- Running the SEM model- Confirmatory Factor Analysis

1-Analysis of the left side of the SEM Model

On the left side of Figure 4.6, there are seven latent categories, labeled (Q1-Q7):

1- Customer Engagement & Response Time

2- Content Relevance & Personalization

3- Content Quality & Consistency

4- Customer Feedback

5- Security & Trust

6- Customer Support & Issue Resolution

7- Community Engagement & Building Loyalty

Each of these latent categories is determined by two or three observed variables, denoted as (**q11-q12, q21-q22, …, q61-q62, q71-q72**). These observed variables are used to measure and represent the corresponding latent variables. The primary question is whether all observed variables are determined by their latent variables. This relationship is assessed through "**Confirmatory Factor Analysis.**" If the correlation between each observed variable and its latent variable is greater than 0.38, the answer is "YES"; it means the relationship is considered positive and meaningful.

This analysis represents one side of the SEM model (the left side). The SEM consists of three main sides that must be analyzed carefully:

Side one: The left side

Side two: The right side

Side three: The middle side

Confirmatory factor analysis is conducted for all three sides to determine whether the correlations between observed and latent variables exceeded the threshold of 0.38.

An analysis of the left side led to the conclusion that approximately eight relationships between the observed and latent variables are below 0.38. Therefore, these eight relationships are neglected as their correlations are below the threshold. Consequently, they are excluded from further analysis because their correlations are forceless to be considered significant.

*It should be noted that the data on the left side are acquired from Questionnaire 1, which is explained in detail in the previous section.

4.4.2. Considering side two: The right side

According to the searches and investigations, social media can be evaluated from multiple perspectives. One of the methods, which is acceptable, has four parameters for evaluating "Social Media", as outlined below:

"1. User Analysis. In this stage, we must determine who the users are who will be listening to us

2. User-Generated Content Analysis. We must listen to the audience to understand the topics that attract the attention of the customers

3. Engagement Analysis. We must analyze the actions taken on social media

4. Benchmarking. We must compare ourselves with our main competitors" (Cvijikj et al., 2013, pp. 10-12).

As illustrated above, social media is evaluated using four parameters, identified as Q011, Q021, Q031, and Q041 in Figure 4.6. Examining the values on the right side reveals that three of the four relationships have a ratio greater than 0.38. However, the correlation for one relationship (Q021 = 0.25) is less than 0.38. This indicates that the SEM

model is invalid at this stage due to its inability to accurately measure the social media construct. Consequently, the model does not provide a valid measurement for social media. Therefore, the data for the Q021 variable must be excluded, and the model must be rerun. The result of this modified model, run without the Q021 data, is presented in Figure 4.7.
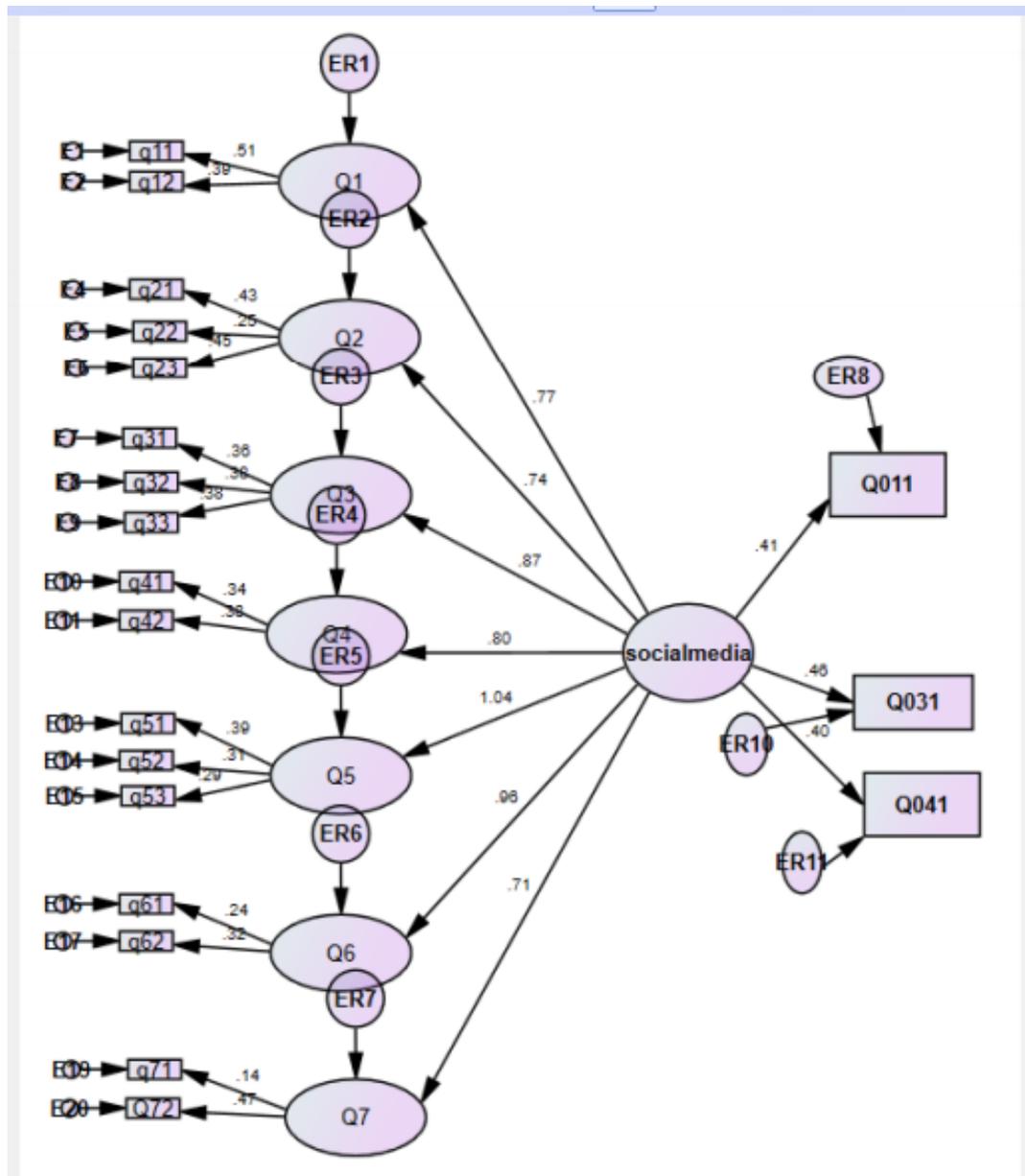

Figure 4.7- Running the SEM model- Confirmatory Factor Analysis

The three relationships on the right side of the SEM model exceed 0.38, indicating that these three variables (Q011, Q031, Q041) accurately evaluate social media according to the SEM model, as observed in Figure 4.7. Considering that, the right side of the SEM model is completed. Now, the middle side and then the left side are focused, as explained above.

4.4.3. Considering side three: The middle side

As you see in Figure 4.7, the relationships between the seven variables and social media are greater than 0.38. This means this side is considered acceptable.

4.4.4. Considering Side One: The left side

Table 4.5 evaluates the relationships (correlations) between variables to determine whether they should be accepted or rejected, as indicated in the "Accept or Reject" column. All accepted relationships are highlighted in yellow. Furthermore, an observed variable is considered a valid indicator of its latent variable if its correlation exceeds 0.38. Conversely, a correlation value below 0.38 indicates that there is no meaningful relationship between the observed and latent variables.

On the other hand, this observed variable is excluded from the equations of influence on the unobserved (latent) variable. It should be noted that if the correlation between the observed and latent variables is **around 0.4** (due to human errors resulting from fatigue, lack of motivation to respond, etc.), it can be concluded that this observed variable has an acceptable effect on the latent variable. In conclusion, this research suggests that if the correlation between the observed variable and the latent (unobserved) variable

exceeds 0.38, the observed variable is considered an acceptable predictor of the latent variable.

Table 4.5 - Considering Side One- relationships between variables

Relationship	Correlation	Significant /Above threshold (Greater than 0.38 or not)
Q1-q11	0.51	Accept
Q1-q12	0.39	Accept
Q2-q21	0.43	Accept
Q2-q22	0.25	Reject
Q2-q23	0.45	Accept
Q3-q31	0.36	Reject
Q3-q32	0.38	Accept
Q3-q33	0.38	Accept
Q4-q41	0.34	Reject
Q4-q42	0.38	Accept
Q5-q51	0.39	Accept
Q5-q52	0.31	Reject
Q5-q53	0.29	Reject
Q6-q61	0.24	Reject
Q6-q62	0.32	Reject
Q7-q71	0.14	Reject
Q7-q72	0.47	Accept

The nine relationships that exceed the correlation threshold indicate that these nine factors are significantly linked to latent variables influencing satisfaction in social media contexts. The accepted items are:

Q11: Prompt responses to comments, direct messages, and mentions (0.51)

Q12: Genuine and personal replies to comments/questions (0.39)

Q21: Content customized to user preferences (0.43)

Q23: Content addressing customer interests/needs (0.45)

Q32: Visuals aligned with brand style (0.38)

Q33: Consistent posting without overwhelming users (0.38)

Q42: Monitoring/responding to mentions or branded hashtags (0.38)

Q51: Secure and protected accounts (0.39)

Q72: Exclusive offers/early access for loyal customers (0.47)

In Table 4.6, the researcher identified which questions correspond to which categories:

Table 4.6 Strategies: Considering strategies and their categories

Question (strategy)	Category
Prompt responses to comments, direct messages, and mentions	Customer Engagement & Response Time includes
Genuine and personal replies to comments/questions	Customer Engagement & Response Time includes
Content customized to user preferences.	Content Relevance & Personalization

Content addressing customer interests/needs	Content Relevance & Personalization
Visuals aligned with brand style	Content Quality & Consistency
Consistent posting without overwhelming users	Content Quality & Consistency
Monitoring/responding to mentions or branded hashtags	Customer Feedback
Secure and protected accounts	Security & Trust
Exclusive offers/early access for loyal customers	Community Engagement & Building Loyalty

Source: The SEM model results and interview

In the previous section, we addressed a vital matter: which questions influence social media and, consequently, customer satisfaction. This is the conclusion of the **CFA** (Confirmatory Factor Analysis) of the SEM model.

4.4.5. Path Analysis.

By obtaining a report from AMOS-SPSS in the output section, we reach TLI, CFI, and RMSEA, which are discussed below: Table 4.7 shows fit indices for three models: Default, Saturated, and Independence, with the following metrics:

- NFI (Normed Fit Index)

- RFI (Relative Fit Index)

- IFI (Incremental Fit Index)

- TLI (Tucker–Lewis Index)

- CFI (Comparative Fit Index)

Table 4.7-Model fit indices - Checking TLI, CFI

Model	NFI Delta 1	RFI rho1	IFI Delta 2	TLI rho2	CFI
Default model	0.689	0.640	0.927	0.911	0.923
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000

Source: The AMOS-SPSS output

*It should be noted that, in this research, we checked the **CFI, TLI**, and **RMSEA**

for the **default model** according to the proposal statement.

- TLI = 0.911,

- CFI = 0.923 → These are above 0.90, indicating a good fit according to these

  indices.

By considering RMSEA for the default model, we have:

Table 4.8- Model fit indices - Checking RMSEA

Model	RMSEA	LO90	HI90	PCLOSE
Default model	0.023	0.007	0.034	1.000
Independence model	0.077	0.070	0.084	.000

Source: The AMOS-SPSS output

As seen above, TLI and CFI are greater than 0.9, so the model is valid based on

these two parameters. By checking RMSEA, we see that RMSEA is less than 0.08; thus,

the model's validity is confirmed by these three factors. Also, we check the p-value for the

validity of the model. By obtaining data from AMOS SPSS, we have the following results: Chi-square = 187, Degrees of freedom = 164. By checking these two parameters (Chi-square and Degrees of freedom) in the statistical table, we find a p-value of 0.1, indicating that the model is valid.

- It should be noted that the p-value must be greater than 0.05 for the model's validity. Overall, we have the table below that confirms our model is fit and valid.

Table 4.9 - Model Fit Checking- Path analysis and P-value

Factor-Check	Check
✓ TLI	0.911
✓ CFI	0.927
✓ RMSEA	0.023
✓ P-value	0.1

4.5. Cronbach's alpha (Reliability) and CVR (Content validity):

As explained previously, Cronbach's alpha values exceeding 0.70 are considered acceptable, indicating that the questionnaire possesses sufficient reliability. Therefore, the reliability of the questionnaire is confirmed, and the CVR is calculated, reaching a value of 0.8. Considering that the number of experts is 10 individuals, the CVR value must be greater than 0.62, which confirms the model's validity. All the results are shown in the table below.

Table 4.10-Cronbach's alpha of the questionnaire and CVR- detailed Explanation

Questionnaire	Number of Questions	Cronbach's Alpha	Reliability Accept?	CVR	CVR Accept?
First questionnaire (17 items)	34	0.823	Accept	–	–
Second questionnaire (4 items)	8	0.732	Accept	–	–
Model validity (overall CVR)	–	–	–	0.80	Accept

4.6. Applying Kano's Model in Measuring Customer Satisfaction

All the analyses presented above confirm two key findings: first, the SEM model is valid. Second, nine parameters (questions) from Questionnaire 1 have a significant influence on social media engagement, which in turn affects customer satisfaction. With these results, we have reached the **midpoint** of the study's focus: "*The Impact of Social Media on Customer Satisfaction through Kano's Model.*"

In the following section, we examine how these nine questions influence customer satisfaction. This significance arises from the "Kano satisfaction formula" and the "Kano requirement method," and we reach the **end** of the road of the title.

4.6.1. Customer satisfaction

As stated in Chapter 2, the two equations for assessing customer satisfaction and dissatisfaction are as follows:

$$SI = A + O / A + O + M + I$$

DI = -(A + M)/ (A + O + M + I)

Considering strategy 1 (Q11: Prompt responses to comments, direct messages, and mentions)

According to the data acquired from the customer survey, the counts of A-O-M-I attributes are as follows:

A=71, I=69, M=81, O=61, Q=38, R=80

According to the Kano satisfaction formula, the level of satisfaction for question 1 is as follows:

SI = A + O / A + O + M + I = (71+61) / (71+61+81+69)= 46.81

DI = - (A + M) / (A + O + M + I)= - (71+81) / (71+61+81+69)= -53.90

As mentioned earlier, the study conducted by Vaez Shahrestani et al. (2020), titled "Revising the Kano Model for Designing an Employee Compensation System by Developing One-Dimensional Attributes," emphasizes that each category with the **highest counts** of features represents the priority of the question. Therefore, the priority of this question lies in the "M" feature, meaning that experts should consider this question concerning the "M" attribute, rather than other features; consequently, business entities should develop and implement strategies in accordance with the "M" attribute.

What does the attribute "M" mean? "Must-be" attribute indicates that if it is absent or shows poor performance, customers will be highly dissatisfied; otherwise, satisfied. The existence of this feature is vital; thus, its absence results in customer dissatisfaction. The question is, "How would one feel if the business entity responds promptly to the comments, direct messages, and mentions?"

The company should provide its related strategies for enhancing customer satisfaction at present in accordance with the "**Must-be feature**".

According to the above explanations, we can implement the following strategies based on the "M" attribute:

1. Provide centers and personnel to respond promptly.

2. Monitor the existing centers and personnel to respond promptly to customers.

3. Eliminate processes that cause delays in responding to customers.

4. Initiate incentives for the clerks (respondents) to respond promptly.

Considering question 2

According to the data acquired from the customer survey, the counts of A-O-M-I attributes are as follows:

A=78, I=69, M=69, O=80, Q=38, R=66

We calculate customer satisfaction according to the Kano satisfaction formula. For question 2, it is as follows:

SI = A + O / A + O + M + I = (78+80) / (78+80+69+69) = 53.38

DI = - (A + M)/ (A + O + M + I) = -(78+69) / (78+80+69+69) = - 49.67

For question 2, the count of the "O feature" is the most significant. Therefore, the priority of this question is the "O" feature. This means that experts should consider this question as belonging to the "O" attribute, rather than other features; consequently, companies or firms must implement strategies in accordance with the "O" attribute.

What does the "O" attribute exactly mean? This attribute corresponds to one-dimensional characteristics of a product that will deliver satisfaction when met but will cause

dissatisfaction when not met. The question is, "How do you feel if we respond genuinely and personally to your comments and questions?"

The company should provide its related strategies for enhancing customer satisfaction at this time, in accordance with the "**one-dimensional feature**".

The strategies applicable in achieving greater customer satisfaction, based on the "O" attribute:

1. Providing safe pages for responding to customers personally and genuinely

2. Eliminating processes that cause delays in responding to customers genuinely and personally

3. Providing surveys to assure that the firm responds genuinely to customers and their questions to provide more satisfaction

4. Introducing incentives for the clerks (respondents) to respond genuinely

Considering question 3

According to the data obtained from the customer survey, the counts of A-O-M-I attributes are as follows:

A=86, I=68, M=74, O=67, Q=22, R=83

Regarding the above data, customer satisfaction and dissatisfaction are calculated, and the results are as follows:

SI= 51.86

DI= -54.24

For question 3, the count of the "A" feature is the most significant. Therefore, the priority of this question is the "A" feature. This means that experts should consider this question

as belonging to the "A" attribute, and consequently, companies or firms must implement strategies in accordance with the "A" attribute.

What does the "A" attribute mean? This attribute corresponds to the "Attractive" attribute. It means a company yields superior satisfaction if this attribute is present, but does not bring dissatisfaction if absent or insufficient (Tontini et al., 2013). The question is, "How do you feel if content is customized to your preferences based on audience insights?"

The company should provide its related strategies for enhancing customer satisfaction at this time, in accordance with the "**Attractive feature**."

The strategies applicable in achieving greater customer satisfaction, based on the "A" attribute:

Obtaining a budget from the company to work on the above question according to the sub-strategies below:

1. Providing page content customized for customer preferences according to audience insights, based on a specific timeframe, and consistently

2. Designing surveys to understand the preferences of customers

Considering question 4

Also, according to the data obtained from the customer survey, the counts of A-O-M-I attributes are as follows:

A=78, I=89, M=72, O=71, Q=25, R=65

Regarding the above data, customer satisfaction and dissatisfaction are calculated, and the results are as follows:

SI= 48.06

DI= -48.39

For question 4, the count of the "I" feature is the most significant. Therefore, the priority of this question is the "I" feature. This means that experts should consider this question as belonging to the "I" attribute, and consequently, companies or firms must implement strategies in accordance with the "I" attribute.

What does the "I" attribute exactly mean? This attribute corresponds to the "Indifferent" attribute. It means that company meetings or not meeting them does not result in any increase or decrease in customer satisfaction. The question is, "How do you feel if content addresses your interests and needs (e.g., product tips, behind-the-scenes)?"

The strategies applicable in achieving greater customer satisfaction, based on the "I" attribute, are of no value because implementing or not implementing these strategies will not make any difference for the commercial organization.

Considering question 5:

Based on the data obtained from the customer survey, the counts of A-O-M-I attributes are as follows:

A=104, I=91, M=68, O=73, Q=1, R=63

Regarding the above data, customer satisfaction and dissatisfaction are calculated, and the results are as follows:

SI= 52.68

DI= -51.19

For question 5, the count of the "A" feature is the most significant. Therefore, the priority of this question is the "A" feature. This means that experts should consider this question as belonging to the "A" attribute, and consequently, companies or firms should implement strategies in accordance with the "A" attribute. What does the "A" attribute mean? This attribute corresponds to the "Attractive" attribute. It means a company yields superior satisfaction if this attribute is present, but does not bring dissatisfaction if absent or insufficient (Tontini et al., 2013). The question is" How do you feel if visuals align with our brand's aesthetic and style (like color palette, logo usage, etc.)?" The company should provide its related strategies for enhancing customer satisfaction at this time, in accordance with the "**Attractive feature**."

The strategies applicable in achieving greater customer satisfaction, based on the "A" attribute:

Obtaining a budget from the company to work on the above question according to the sub-strategies below:

 1. Providing pages aligned with the brand aesthetic and style (like color palette, logo usage, etc.)

 2. Designing surveys to understand customers' preferences

Considering question 6:

Based on the data obtained from the customer survey, the counts of A-O-M-I attributes are as follows:

A=67, I=72, M=79, O=70, Q=35, R=77

Regarding the above data, customer satisfaction and dissatisfaction are calculated, and the results are as follows:

SI= 47.57

DI= -50.70

For question 6, the count of the "M" feature is the most significant. Therefore, the priority of this question is the "M" feature. This means that experts should consider this question as belonging to the "M" attribute, rather than other features, and consequently, companies or firms must implement strategies in accordance with the "M" attribute.

What does the "M" attribute mean? This attribute corresponds to the "Must-Be" attribute. It means that if it is absent or performs poorly, customers will be highly dissatisfied. Conversely, if it is present or performs sufficiently, it will not lead to satisfaction. The question is," How do you feel if content is posted consistently, overwhelming you?"

The company should provide its related strategies for enhancing customer satisfaction at the present time in accordance with the "**Must-Be feature**".

The strategies applicable in achieving greater customer satisfaction, based on the "M" attribute:

1. Survey to understand the requirements of customers

2. Providing the content of the pages according to the surveys, and posting the content consistently to impress customers

3. Repeating the survey to assess if the above content meets the customers' criteria; if not, reassess the customers' needs with another survey

4. After understanding the customers' needs from step 3, post the content that impresses customers repeatedly according to step 3

Said otherwise, the PDCA cycle (Plan-Do-Check-Action) is assessed to enhance customer satisfaction.

Considering question 7

Based on the data obtained from the customer survey, the counts of A-O-M-I attributes are as follows:

A=93, I=71, M=74, O=75, Q=11, R=76

Regarding the above data, customer satisfaction and dissatisfaction are calculated, and the results are as follows:

SI= 53.67

DI= -53.34

For question 7, the count of the "A" feature is the most significant. Therefore, the priority of this question is the "A" feature. This means that experts should consider this question as belonging to the "A" attribute, rather than other features; consequently, companies or firms should implement strategies based on the "A" attribute.

What does the "A" attribute mean? This attribute corresponds to the "Attractive" attribute. It means a company yields superior satisfaction if this attribute is present, but does not bring dissatisfaction if absent or insufficient (Tontini et al., 2013). The question is, "How do you feel if we monitor and respond to mentions or branded hashtags?"

The company should provide its related strategies for enhancing customer satisfaction at this time, in accordance with the "**Attractive feature.**"

The strategies applicable in achieving greater customer satisfaction, based on the "A" attribute:

Provide support–centers to check if clerks monitor and respond to mentions precisely, and check these three sub-strategies:

1. Introducing motivations and incentives for the company's clerks to monitor and respond to mentions or branded hashtags

2. Checking the clerks to assure they respond and monitor mentions and hashtags.

3. Fining clerks who do not monitor or respond to mentions

Considering question 8

Based on the data obtained from the customer survey, the counts of A-O-M-I attributes are as follows:

A=76, I=74, M=69, O=69, Q=40, R=72

Regarding the above data, customer satisfaction and dissatisfaction are calculated, and the results are as follows:

SI= 50.34

DI= -50.34

For question 8, the count of the "A" feature is the most significant. Therefore, the priority of this question is the "A" feature. This means that experts should consider this question as belonging to the "A" attribute, rather than other features; consequently, companies or firms must implement strategies based on the "A" attribute. What does the "A" attribute mean? This attribute corresponds to the "Attractive" attribute. It means a company yields

superior satisfaction if this attribute is present, but does not bring dissatisfaction if absent or insufficient (Tontini et al., 2013). The question is, "How do you feel about our social media accounts being secure and protected?"

The company should provide its related strategies for enhancing customer satisfaction at this time, in accordance with the "**Attractive feature**".

The strategies applicable in achieving greater customer satisfaction, based on the "A" attribute:

1. Providing safe pages with or without contracting experts from social media platforms to secure the pages

2. Assessing the security of pages regularly

Considering Question 9

Based on the data obtained from the customer survey, the count of A-O-M-I attributes is as follows:

A=68, I=69, M=76, O=97, Q=8, R=82

Regarding the above data, customer satisfaction and dissatisfaction are calculated, and the results are as follows:

SI= 53.22   DI= -46.45

For question 9, the count of the "O" feature is the most significant. Therefore, the priority of this question is the "O" feature. This means that experts should consider this question as belonging to the "O" attribute, rather than other features; consequently, companies or firms must implement strategies in accordance with the "O" attribute.

What does the "O" attribute mean? This attribute corresponds to the "One-dimensional" This attribute corresponds to the "one –dimensional" attributes that refer to the characteristics of a product that will deliver satisfaction when fulfilled or met, but dissatisfaction when they are not met (Mikulić & Prebežac, 2011). The question is," How do you feel if you receive exclusive offers or early access as a loyal customer?"

The company should provide its related strategies for enhancing customer satisfaction at this time, in accordance with the "**One-dimensional feature**".

The strategies applicable in achieving greater customer satisfaction, based on the "O" attribute:

1. Informing customers about promotions and exclusive offers

2. Providing promotions for VIP and loyal customers to receive exclusive offers or early access

3. Checking the promotions and determining whether the company provides valuable offers based on customer feedback

4. Implementing customer feedback from step three to introduce better offers and enhance customer satisfaction

In addition to the above analysis, this section provides essential tips, discusses Porter's generic strategies, and assesses project control as a strategic approach. These concepts will be explained in detail in the following section.

4.7. Porter's generic strategy

In this dissertation, strategies are provided for enhancing customer satisfaction in response to each question. This is one side to enhance customer satisfaction, but it is not

enough. For having a comprehensive and detailed strategy that covers **the whole project (not considering each question),** we need a structured strategy that covers the whole project. In this view, firstly, we will review brief definitions of Porter's strategies. Secondly, we will discuss which category of Porter's strategies is suitable for "**the whole project of this research.**" **Porter's generic strategies** outline how companies can gain a competitive advantage within an industry. The three main strategies are cost leadership, differentiation, and focus (which can be further divided into cost focus and differentiation focus). These strategies enable companies to make informed decisions about how they will compete in the marketplace (Porter, 1997).

1. **Cost Leadership**: focuses on becoming the lowest-cost producer in an industry. By achieving economies of scale, streamlining operations, and implementing effective cost management, a company can offer products or services at lower prices than competitors.

2. **Differentiation**: emphasizes initiating a unique and distinctive product or service. That is valued by customers. Differentiation can be achieved through different means, including superior quality, unique features, innovative design, strong branding, and exceptional customer service.

3. **Focus**: involves concentrating on a specific market segment or niche. Instead of trying to serve the entire market, a company using a focus strategy aims to cater to the unique needs of a particular group of customers. This can be achieved through either cost focus (lowering costs within the niche) or differentiation focus (offering unique value within the niche).

But how can this be achieved? It can be achieved through means like **superior quality of the platform**, **unique features** (e.g., high responsiveness, personalized interactions, and prompt replies), **innovative design** (e.g., user-friendly design of the platform, etc.), strong branding, and exceptional customer service, a company **can strengthen its position** in today's competitive world. This strategy, "**differentiation strategy," leads to a** "**framework**" that enables the firm to gain a competitive advantage and helps the firm to choose the most effective path to outperform competitors and achieve long-term success.

It is essential to note that this strategy enables the company to achieve a higher level of competitive advantage.

Henry Mintzberg, a renowned business theorist, argues that cost leadership is essentially a form of differentiation, achieved by offering a lower price as a means of differentiation (Datta, 2010). The sustainability and success of a given business entity are subject to the "**differentiation strategy.**"

4.8. Project control issue as a tip

Project control involves comparing a baseline with the actual project results to identify deviations (Acebes et al., 2014). In many managerial sections, the positive correlation between project control and customer satisfaction is highlighted:

1- **Scope Management,**

2- **Cost Management,**

3- **Quality Management,**

4- Schedule Management:

Managing the project timeline effectively assures the timely delivery of the project and avoids delays that can hurt customer satisfaction.

In this dissertation, the focus is on "**Schedule Management.**" For instance, assume that the business entity faces the question "How does one feel if the business entity responds promptly to their comments, direct messages, and mentions?" through surveys. To answer this question, the business entity must reclassify **must-be priority** to a **one-dimensional priority**. This reclassification requires a proper redesign of the process corresponding to adjustments in operations. To assure the effective implementation of this adjustment and the development of appropriate methods, a well-defined timeline based on **schedule management** is essential.

Effective schedule management has a direct impact on customer satisfaction, while the lack of it, especially the absence of a clear timeline, can negatively affect customer satisfaction levels. Notably, understanding the above explanation involves a form of conceptual understanding. The conceptual framework supporting the above explanation is illustrated below.

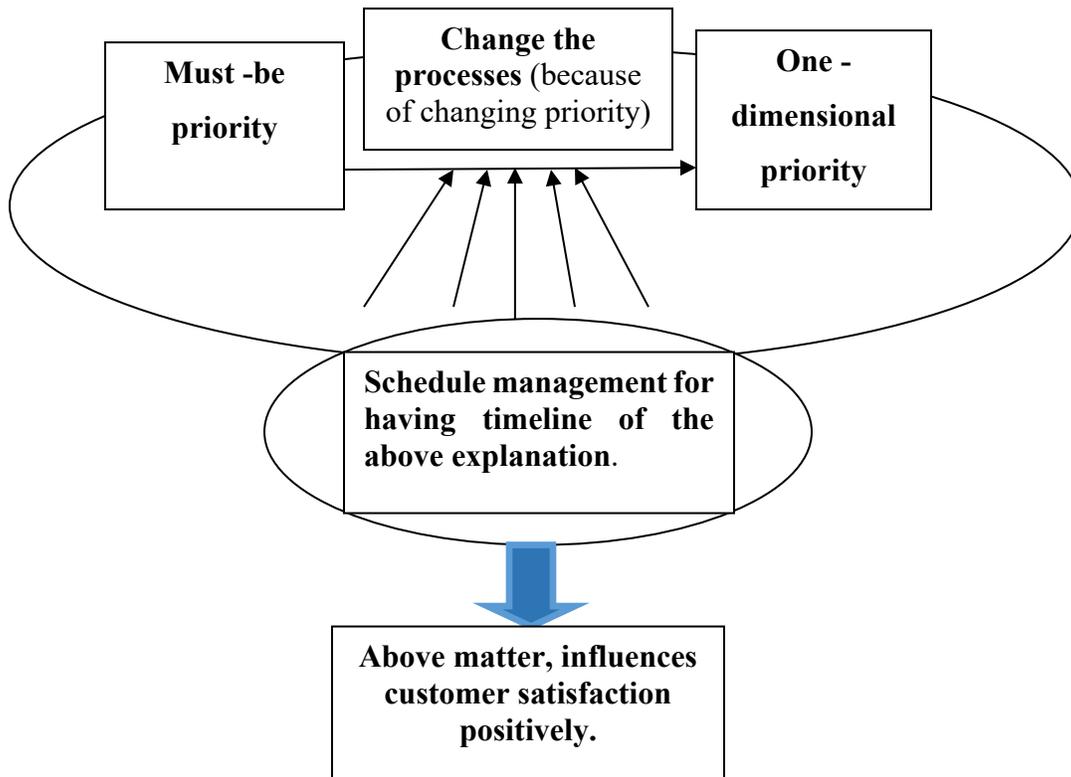Figure 4.8. Schedule management importance- conceptual framework

4.8.1. Implementing project control

To effectively implement project control in practice, the project must be broken down into specific activities that provide a clear understanding of how project control can be carried out in detail". How the company can implement project control systematically is outlined in this framework.

Table 4.11- Project control issue- Activities

Questions	Activities
1)How do you feel if we respond promptly to your comments, direct messages, and mentions?	1-1- Provide a team to respond promptly. (Team A) 1-2- Provide a team to monitor the matter above. (Team B)
2) How do you feel if we respond genuinely and personally to your comments and questions?	2-1-Provide an expert team to respond genuinely and personally. (Team A) 2-2- Provide a team to monitor the matter above. (Team B)
3) How do you feel if content is customized for your preferences based on audience insights?	3-1- Provide an expert team to respond, customized. (Team A) 3-2- Provide a team to monitor the matter above. (Team B)
4) How do you feel if content addresses your interests and needs (e.g., product tips, behind-the-scenes)?	4-1. Provide an expert team to respond to customers according to their interests and needs. (Team A) 4-2- Provide a team to monitor the matter above. (Team B)
5) How do you feel if visuals align with our brand's aesthetic and style (like color palette, logo usage, etc.)?	5-1- Provide or instruct the expert team for addressing customer preferences. (Team A) 5-2- Provide a team to monitor the matter above. (Team B)
6) How do you feel if content is posted consistently, overwhelming you?	6-1- Provide robots or a team for consistent posting. (Team A1) 6-2- Provide a team to monitor the matter above. (Team B)
7) How do you feel if we monitor and respond to mentions or branded hashtags?	7-1- Provide robots or an expert team for monitoring and responding to mentions or branded hashtags. (Team A) 7-2- Provide a team to monitor the matter above. (Team B)
8) How do you feel about our social media accounts being secure and protected?	8-1- Provide a team or robots for ensuring social media security and protection. (Team A2) 8-2- Provide a team to monitor the matter above. (Team B1)
9) How do you feel if you receive exclusive offers or early access as a loyal customer?	9-1- Provide a team or robots for analyzing customer needs. (Team A3) 9-2- Provide a team to monitor the matter above. (Team B2)

Source: (Acebes et al., 2014)

4.9. Artificial Intelligence as a Tip

AI can serve as a practical bridge between theoretical models, like Kano and SEM, and actionable strategies for enhancing customer satisfaction. By analyzing real-time social media data, AI can identify which one of the attributes has the greatest impact on satisfaction, based on:

1. Analyzing the data of the survey of social media, **moment by moment**

2. Determining Kano model categories **moment by moment**

3. Specifying the requirements of each question according to the Kano model, **moment by moment**

AI supports continuous improvement through PDCA cycles and project management tools, by providing automated feedback and guiding resource allocation and task prioritization. AI enables business entities to continuously enhance customer satisfaction in an intelligent and **efficient manner** by interpreting theoretical insights into practical outcomes.

4.10 Calculating customer complete satisfaction and dissatisfaction

Customer satisfaction and customer dissatisfaction are calculated as follows, and the findings are tabulated in Table 4.12:

SI = A + O / A + O + M + I = (721+663) / (721+663+662+672) = 50.92%

DI = - A + M / A + O + M + I= -(721+662) / (721+663+662+672) = - 50.88%

Table 4.12- Features: Counts of the Kano model's features

Feature	Count
A	721
I	672
M	662
O	663
Q	218
R	664

According to the above results, the dissatisfaction index is as important as the satisfaction index, which requires the firm to pay attention to two points separately:

1 - increasing customer satisfaction

2 - simultaneously decreasing customer dissatisfaction.

4.11. Analysis and results

4.11.1. Analysis

If we focus on the figure below, customer satisfaction for all nine questions is as follows:

By analyzing the figure below, you can see that questions 2, 5, 7, and 9 are ranked highest on the customers' satisfaction index. To enhance customer satisfaction, the company should invest in addressing the low customer satisfaction index questions (questions 1, 4, and 6) and provide a roadmap to focus on these areas more. This roadmap can concentrate on 1) As mentioned earlier, initiating proper strategies for each question, 2) Pay attention to the Kano satisfaction formula and identifying the impact of each attribute on the Kano satisfaction formula, and 3) Generating benchmarks to understand which importance or strategies must be applied for "low CS index questions ": 1, 4, or 6 according to high CS index questions (2, 5, 7, and 9).

Figure 4.9- Customer satisfaction- Considering each question

The company can implement the "**Porter's strategy**" or "**control project timeline**" to have more customer satisfaction.

4.11.2. Results

Features like customized content, consistent brand visuals, active hashtag monitoring, and account security significantly promote customer satisfaction, though their absence does not necessarily produce dissatisfaction (an attractive attribute). Both genuine, personal responses and exclusive loyalty benefits emerge as pivotal features: their presence significantly enhances satisfaction, while their absence triggers dissatisfaction (One-dimensional attribute). Meanwhile, prompt responsiveness and consistent posting practices are non-negotiable expectations: customers react negatively when these elements are

absent, but they do not express notable satisfaction when they are fulfilled (must-be attribute).

4.12. Qualitative findings

Qualitative findings are related to interviews and content analysis of the secondary data.

4.12.1. Interviews with the specialists

A total of 10 interviews, made both online and face-to-face, are organized over four weeks. The main categories of criteria used in the interviews with social media industry specialists are tabulated in Table 4.13.

Table 4.13-interview- Categories of criteria for specialists in the social media industry

Job Similarity	Demographic Similarity	Job position in Telecommunications
*Social Media Strategy Expert	Male, Age:41, Master	Strategy Expert
*Customer Experience Expert	Female, Age:35, Master	Customer Experience Expert
*Digital Marketing Expert	Female, Age:32, Bachelor	Marketing & Communications Expert
*Customer Insights Expert	Male, Age:48, Master	Customer Satisfaction Expert

*Data Analytics Expert	Female, Age:44, Phd	Customer Insights Expert
*Digital Transformation Expert	Male, Age:54, bachelor	Digital Transformation Expert
*Sales & Engagement Expert	Female, Age:34, Phd	Customer Engagement Expert
*Call Center Quality Expert	Male, Age:37, bachelor	Service Quality Expert
*Public Relations & Branding Expert *Data Analytics Expert	Male, Age:39, Master Female, Age:34, Master	Corporate Communications Expert

4.12.2. Coding and Thematic Analysis

The purpose of the qualitative coding activities is to reduce the collected data (Yin, 2009). Additionally, it supports the conversion of social media with seven categories. Each category has two or three subcategories.

1- Customer Engagement & Response Time

2- Content Relevance & Personalization

3- Content Quality & Consistency

4- Customer Feedback

5- Security & Trust

6- Customer Support & Issue Resolution

7- Community Engagement & Building Loyalty

RQ1. What is the impact of must-be attributes in social media interactions on customer satisfaction?

Table 4.14. Codes and themes for RQ1 from the perspectives of Internal Stakeholders

Sub-question(s)	Code(s)	Description	Theme(s)
Prompt responses to comments, direct messages, and mentions	M	Must-Be	Customer Engagement & Response Time
Consistent posting without overwhelming users	M	Must-Be	Content Quality & Consistency

RQ2. What is the impact of one-dimensional attributes in social media interactions on customer satisfaction?

Table 4.15. Codes and themes for RQ2 from the perspectives of Internal Stakeholders

Sub-question(s)	Code(s)	Description	Theme(s)
Genuine and personal replies to comments/questions	O	One-dimensional	Customer Engagement & Response Time includes

Exclusive offers/early access for loyal customers	O	One-dimensional	Community Engagement & Building Loyalty

RQ3. What is the impact of Attractive attributes in social media interactions on customer satisfaction?

Table 4.16. Codes and themes for RQ3 from the perspectives of Internal Stakeholders

Sub-question(s)	Code(s)	Description	Theme(s)
Content customized for user preferences	A	Attractive	Content Relevance & Personalization.
Visuals aligned with brand style	A	Attractive	Content Quality & Consistency
Monitoring/responding to mentions or branded hashtags	A	Attractive	Customer Feedback
Secure and protected accounts	A	Attractive	Security & Trust

RQ4: How do must-be, one-dimensional and attractive attributes interrelate in shaping overall customer satisfaction?

Table 4.17. Codes and themes for RQ4 from the perspectives of Internal Stakeholders

Sub-question(s)	Code(s)	Description	Theme(s)
Genuine and personal replies to comments/questions	O	One-dimensional	Customer Engagement & Response Time includes
Exclusive offers/early access for loyal customers	O	One-dimensional	Community Engagement & Building Loyalty
Content customized for user preferences	A	Attractive	Content Relevance & Personalization.
Visuals aligned with brand style	A	Attractive	Content Quality & Consistency
Monitoring/responding to mentions or branded hashtags	A	Attractive	Customer Feedback
Secure and protected accounts	A	Attractive	Security & Trust
Prompt responses to comments, direct messages, and mentions	M	Must-Be	Customer Engagement & Response Time
Consistent posting without overwhelming users	M	Must-Be	Content Quality & Consistency

4.12.3. Content analysis of the secondary data

A qualitative content analysis of secondary data sources involved coding and categorizing textual data from 2 social media industry sources. The data sources are tabulated in Table 4.18.

Table 4.18. Data sources applied in the content analysis of secondary data.

Data Sources	Data type	Description
Google scholar	Academic articles	Scholarly publications from universities
Research gate	Academic research papers	A network where researchers publish their work

The data from the secondary sources are processed to examine the level of alignment with the primary sources. For each research question, relevant data categories are assessed and emergent themes extrapolated.

RQ1. What is the impact of Must-be attributes in social media interactions on customer satisfaction?

The findings of the data content analysis of RQ1 are tabulated in Table 4.19.

Table 4.19. Content analysis of secondary data for RQ1

Data category	Code	Emergent theme	Description	Freq. count
Social-media evolution method	SM-01	User Analysis	Identify the users who will be listening to us.	40
Social-media evolution method	SM-02	User-Generated Content Analysis	Listen to the audience to understand the topics that attract the attention of the customers	17
Social-media evolution method	SM-03	Engagement Analysis	Analyze the actions taken on social media.	42
Social-media evolution method	SM-04	Benchmarking	Compare ourselves with our main competitors	35

Note. N = 400

RQ2. What is the impact of one-dimensional attributes in social media interactions on customer satisfaction?

The findings of the data content analysis of RQ2 are tabulated in Table 4.20.

Table 4.20. Content analysis of secondary data for RQ2

Data category	Code	Emergent theme	Description	Freq. count
Social-media evolution method	SM-01	User Analysis	Identify the users who will be listening to us.	30
Social-media evolution method	SM-02	User-Generated Content Analysis	Listen to the audience to understand the topics that attract the attention of the customers	12
Social-media evolution method	SM-03	Engagement Analysis	Analyze the actions taken on social media.	35
Social-media evolution method	SM-04	Benchmarking	Compare ourselves with our main competitors	42

RQ3. What is the impact of Attractive attributes in social media interactions on customer satisfaction?

The findings of the data content analysis of RQ3 are tabulated in Table 4.21.

Table 4.21. Content analysis of secondary data for RQ3

Data category	Code	Emergent theme	Description	Freq. count
Social-media evolution method	SM-01	User Analysis	Identify the users who will be listening to us.	32
Social-media evolution method	SM-02	User-Generated Content Analysis	Listen to the audience to understand the topics that attract the attention of the customers	19
Social-media evolution method	SM-03	Engagement Analysis	Analyze the actions taken on social media.	18

Data category	Code	Emergent theme	Description	Freq. count
Social-media evolution method	SM-04	Benchmarking	Compare ourselves with our main competitors	28

RQ4: How do must-be, one-dimensional, and attractive attributes interrelate in shaping overall customer satisfaction?

The findings of the data content analysis of RQ4 are tabulated in Table 4.22.

Table 4.22. Content analysis of secondary data for RQ4

Data category	Code	Emergent theme	Description	Freq. count
Social-media evolution method	SM-01	User Analysis	Identify the users who will be listening to us.	102
Social-media evolution method	SM-02	User-Generated Content Analysis	Listen to the audience to understand the topics that attract the attention of the customers	48
Social-media evolution method	SM-03	Engagement Analysis	Analyze the actions taken on social media.	95
Social-media evolution method	SM-04	Benchmarking	Compare ourselves with our main competitors	105

4.13. Summary

This research is both **scholarly and practical** in nature, aiming to enhance customer satisfaction through the application of a statistical model (SEM model) and an analytical method (Kano's model). The tools mentioned above are applied precisely and, accordingly, in developing strategies for each question to achieve higher customer satisfaction. The business entity should implement the following strategies to enhance customer satisfaction:

1. Identify appropriate strategies by analyzing the responses to each question

2. Implementing the strategies customized for each question

3. Applying Porter's strategy model

4. Emphasizing the project control as a tip

5. Applying AI as a tip

CHAPTER V

DISCUSSION, IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

5.1. Introduction

In any dissertation, the researcher tries to obtain practical results, which provide suitable instructions and guidelines for the organization to make more progress. In this chapter, which is based on the statistical surveys and analyses of Chapter 4, efforts are made to answer the main research questions, discuss the recommendations for future research, implications, and conclusions, which will be helpful for any business entity.

The findings presented in this chapter regarding the impact of Kano model attributes on customer satisfaction in social media are discussed. The focus of the analysis is on the Kano model's three attributes and their influence on customer satisfaction and dissatisfaction indices.

First, it examines the impact of must-be attributes, highlighting features whose absence leads to significant dissatisfaction. Next, it explores one-dimensional attributes, which demonstrate a proportional effect on satisfaction when fulfilled and dissatisfaction when unmet. Subsequently, attractive attributes are analyzed, showing features that enhance satisfaction when present but do not cause dissatisfaction when absent. Finally, the chapter synthesizes the results to illustrate how these three attribute types interact to shape overall customer satisfaction in social media engagement.

5.2. Discussion of results

To be successful, a business entity must primarily focus on collecting, understanding, and meeting the needs of all customers (current and potential), analyzing data acquired from customer needs to understand their expectations. After analyzing the customer needs, the product/service that more or less meets these requirements and needs, the subject entity should: 1) determine and apply the most appropriate techniques for assessing the satisfaction of their clients, 2) to assure loyalty, an improved internal and external relational aspect, and 3) to establish and maintain partnership relations with loyal customers and enhance customer satisfaction.

The impact of each Kano model feature on customer satisfaction, as indicated by the results in Chapter 4, is discussed here.

RQ1. What is the impact of "Must-be" attributes in social media interactions on customer satisfaction?

The analysis revealed that two questions out of 9 questions determined by the SEM, represented by Questions 1 and 6, are classified as must-be requirements in accordance with the Kano framework. Regarding Q1, respond promptly to the customer comments, direct messages, and mentions, categorized as the must-be attribute. The satisfaction index (SI) is 46.81, while the dissatisfaction index (DI) is -53.90. These results suggest that prompt responsiveness is a baseline expectation, without which customers express dissatisfaction. The presence of prompt responsiveness is viewed as a minimum requirement rather than a source of satisfaction. Regarding Q6, which considers whether customers are satisfied when content is posted without being overwhelming, it is classified

as a must-be attribute. The SI here is 47.57, and the DI is –50.70, which suggests that this question is an important factor, and not being able to meet this requirement leads to high dissatisfaction. As analyzed before, we reach the point that features like prompt responsiveness and consistent posting practices are red-line expectations that customers react negatively when these features are absent, but they do not express their satisfaction at their presence for the business entities.

RQ2. How do one-dimensional attributes influence customer satisfaction in social media contexts?

The analysis of the previous chapter revealed that the two attributes, Qus. 2 and 9, are recognized as one-dimensional requirements in the Kano framework. Regarding Q2, the classification of this question is a "One-dimensional" feature. The satisfaction index, which is a criterion of measurement of customer satisfaction in the Kano formula, is calculated at 53.38, and the dissatisfaction index is –49.67. These values show that when responsiveness and genuineness are present, satisfaction rises, but in their absence, dissatisfaction emerges (one-dimensional definition). Regarding Q9, customer perceptions of exclusive offers or early access provided to loyal customers are classified as a one-dimensional attribute that is assessed. The result is as follows:

SI= 53.22,

DI=–46.45,

This result indicates that loyalty-based privileges are perceived as expected aspects of social media engagement with business entities and are highly contributive in shaping customer satisfaction outcomes. Both genuine, personal responses and exclusive

loyalty benefits emerge as one-dimensional. These results indicate that business entities must treat these attributes as not optional enhancements, but as essential aspects of their customer interaction strategies.

RQ3. What is the role of attractive attributes in driving customer satisfaction through social media engagement?

The Qus. 3, 5, 7, and 8 are related to attractive attributes. Their asymmetric nature and impact in the Kano model do not lead to customer dissatisfaction. Regarding Q3, attribution "A" is dominant, which means it causes intense satisfaction when implemented; The satisfaction index (SI) is 51.86, and the dissatisfaction index (DI) is –54.24. The outcome indicates that the personalization of content is an attractive attribute. Regarding Q5, which asks about the alignment of visuals with the brand's aesthetic and style, it is classified as an attractive attribute. The SI is 52.68, and the DI is –51.19. Regarding Q7, the attractive classification is dominant. The SI is 53.67, and the DI is -53.34. These findings indicate that proactive monitoring and engagement with branded conversations is known as an attractive attribute. Regarding Q8, security and protection are classified as attractive attributes of the business entity. The SI index of the Kano model formula is 50.34, and the DI is –50.34, which means that by providing this attribute, business entities have high satisfaction. The findings of research question 3 confirm that features like customized content, consistent brand visuals, active hashtag monitoring, and account security are known as attractive attributes.

RQ4. How do must-be one-dimensional and attractive attributes interrelate in shaping overall customer satisfaction?

The analysis of statistical data of chapter 4 and survey responses reveals that customer satisfaction in social media is shaped by a combination of must-be, one-dimensional, and attractive attributes, each contributing differently to determine customer satisfaction. The results show that must-be attributes (Questions 1 and 6), one-dimensional attributes (Questions 2 and 9), and attractive attributes (Questions 3, 5, 7, and 8) shape customer satisfaction based on their categories. The interrelation of these attributes concentrates on the importance of considering all three simultaneously when evaluating customer perceptions.

5.3. Implications

5.3.1. Theoretical implications

The findings of the analyses reveal how these attributes influence customer satisfaction and dissatisfaction separately, and by providing new suggestions and advice for the development of theory in online platforms and **digital service contexts** like social media, try to enhance customer satisfaction systematically.

Implication of RQ1: What is the effect of the must-be attribute in social media interactions on customer satisfaction?

According to the obtained data, questions 1 and 6 are related to the must-be attribute, where both have high negative dissatisfaction indices (–50.70 to –53.90) and moderate satisfaction indices (≈47%). This finding corresponds with what Kano theory predicts for the must-be attribute as follows:

Absence → dissatisfaction, presence → neutral or no added satisfaction. According to the existing theory (Kano model), must-be attribute is consistently observed in the traditional service contexts (e.g., hotels, airlines, restaurants), where basic requirements (cleanliness or safety) prevent dissatisfaction but do not necessarily promote customer satisfaction. By demonstrating that the same pattern occurs in digital contexts (like social media interactions), our findings extend the theoretical concept from **offline services to online customer engagement**. In conclusion, because the results for social media interactions behave similarly to must-be attributes in traditional services, it can be said that the study extends and confirms Kano's theoretical framework in digital engagement environments.

Implications for research question 2: How do one-dimensional attributes influence customer satisfaction in social media contexts?

Q2 and Q9 are classified as one-dimensional attributes, both with relatively high Satisfaction Indices (≈53%) and negative Dissatisfaction Indices (≈ -46 to -50). **In Questions 2 (genuine/personal responses) and 9 (exclusive offers/early access), satisfaction increased when the attribute is fulfilled; however, dissatisfaction also increased when it is not**. According to the above data and "What Kano Theory Says," One-dimensional attributes follow a linear pattern: more performance → more satisfaction—less performance → more dissatisfaction.

In traditional service contexts, delivery time and price fairness are the primary elements for improving satisfaction. The findings here indicate that the same linear relationship holds in **social media engagement**: personalized, genuine responses and

exclusive offers both directly increase satisfaction when delivered but cause dissatisfaction when absent. This means the study **confirms and extends** Kano's performance attribute theory into the digital domain.

Implications of R3: What is the role of the attractive attribute in causing customer satisfaction through social media engagement?

Questions 3, 5, 7, and 8 are classified as attractive attributes.

Q3: Customized content based on audience insights

Q5: Visuals corresponding to brand aesthetics

Q7: Monitoring/responding to branded hashtags

Q8: Secure/protected social media accounts

The (SI ≈ 50–54%) are consistently positive, while (DI ≈ –50 to –54%) **reveales that that their absence does not cause dissatisfaction**. According to Kano Theory, the "Attractive attribute":

If present → delight/satisfaction, and if absent → no dissatisfaction.

Kano Theory in the past focused on product features (e.g., free upgrades in hotels, surprise gifts in services), while the focus here is on social media engagement, and attractive attributes which behave as predicted by the Kano Theory:

Customers are delighted when these features are present, but not disappointed when they are absent. This provides empirical support for the influence of attractive attributes in digital interactions.

Implications of RQ 4: How do must-be, one-dimensional, and attractive attributes interrelate in shaping overall customer satisfaction?

1. Must-be attributes: Q1 (prompt responses), Q6 (consistent posting).

2. One-dimensional attributes: Q2 (personalized responses), Q9 (exclusive offers).

3. Attractive attributes: Q3, Q5, Q7, Q8 (customized content, visuals, monitoring, security).

Total Kano Satisfaction and Dissatisfaction Indices: SI = 50.92%, DI = –50.88%

Overall satisfaction in social media is shaped by "Must-Be," "One-dimensional", and "attractive" attributes. The Kano model treats these attributes as distinct categories, each contributing differently to satisfaction. At the beginning, the focus of most studies was on each question above individually with no concern on their interrelationship. One-dimensional attributes provide adequate gains or losses. Attractive attributes promote satisfaction without risking dissatisfaction.

5.4. Recommendations

5.4.1. Recommendations for Practical Application

The findings here provide insights that can guide business entities in managing social media engagement to enhance customer satisfaction through the following recommendations:

1- Focus on must-be attributes: Business entities should ensure that baseline expectations, like prompt responses to customer comments and consistent posting practices, are consistently met.

2- Applying one-dimensional attributes correctly: features like personalized responses and loyalty-based benefits should be emphasized.

3- Try to use attractive attributes: features like customized content, brand-consistent visuals, proactive monitoring of branded hashtags, and secure social media accounts can

significantly promote satisfaction. Business entities can prioritize these attributes to be different from their counterparts and introduce positive engagement experiences.

5.4.2. Recommendations for Future Research

First, as mentioned in Chapter Two, **the "Q" feature is worthless**. We have 218 respondents who answered the survey and selected the "Q" attribute, which is a high number. The recommendation for future research is to set limitations for the "Q" attribute; for example, this feature should have fewer than 100 or 150 respondents. This matter arises from repeating the survey to reach this point.

Second, this research is conducted through random sampling of social media users from around the world using online surveys from April to June 2025. Future research can conduct this survey at another time.

Third, the findings of this study are not limited to any specific firm or company; therefore, they can be generalized to different fields of study in this context.

Fourth, because the survey includes international participants, future studies could assess cultural differences in attribute perception to better understand how customer expectations vary throughout different demographics.

5.5. Conclusion

In conclusion, this study has successfully achieved its aim of addressing gaps in the existing literature:

First, no prior research has combined the Kano model with SEM analysis to measure customer satisfaction, particularly within the context of social media.

Second, the Kano's theoretical framework in digital engagement environments is confirmed here. The results expand the theoretical concept from offline services to online customer engagement. Despite its constraints, this dissertation presents a meaningful and practical procedure to the academic discourse on the impact of social media on customer satisfaction, by adopting the Kano model. **It is anticipated that this dissertation will provide a foundation for future** scholarly inquiry and practical applications in this field.

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Questionnaire 1

Dear respondents, please answer the following questions titled "THE IMPACT OF SOCIAL MEDIA ON CUSTOMER SATISFACTION USING KANO'S MODEL". This information will only be used for research purposes and can remain anonymous. Please indicate your opinion by placing an * in the relevant option field.

Gender: Male   Female

Occupation: Worker, Employee, Physician, Freelance, Faculty Member, Other

Age: 18-30   31-40   41-50   51-60

Education: Undergraduate   Diploma, Postgraduate Diploma, Bachelor's Degree, Master's Degree, Doctorate

Kano Model Questionnaire	Functional dimension				
	I like it this way	It should be this way	It does not make any difference to me	I can live with it	I dislike it
1) How do you feel if we respond promptly to your comments, direct messages, and mentions?					
2) How do you feel if we respond genuinely and personally to your comments and questions?					
3) How do you feel if content is customized to your preferences based on audience insights?					
4) How do you feel if the content includes current or relevant trending topics?					
5) How do you feel if content addresses your interests and needs (e.g., product tips, behind-the-scenes)?					

6) How do you feel if the content is variant (e.g., educational, promotional, user-generated)?					
7) How do you feel if visuals are aligned with our brand's aesthetic and style (like color palette, logo usage, etc.)?					
8) How do you feel if content is posted consistently, overwhelming you?					
9) How do you feel about us regularly using surveys or polls to gather your feedback?					
10) How do you feel if we monitor and respond to mentions or branded hashtags?					
11) How do you feel about our social media accounts being secure and protected?					
12) How do you feel if we monitor and act vs. fake accounts or scams?					
13) How do you feel if we are transparent in how your data is used and protected?					
14) How do you feel if we track and respond to your service-related inquiries on social media?					
15) How do you feel if your problems are resolved quickly and efficiently?					
16) How do you feel if we engage with influencers or brand partners corresponding with our values?					
17) How do you feel if you receive exclusive offers or early access as a loyal customer?					

Kano Model Questionnaire	Dysfunctional dimension				
	I like it this way	It should be this way	It does not make any difference to me	I can live with it	I dislike it
1) How do you feel if we do not respond promptly to your comments, direct messages, and mentions?					
2) How do you feel if we respond generically or personally to your comments and questions?					
3) How do you feel if the content is not customized and ignores your preferences?					
4) How do you feel if the content does not include current or trending topics?					
5) How do you feel if content ignores your interests and needs?					
6) How do you feel if the content is repetitive and lacks variety?					
7) How do you feel if visuals are inconsistent and off-brand (like color palette, logo usage, etc.)?					
8) How do you feel if content is posted inconsistently without overwhelming?					
9) How would you feel if we never asked for your feedback through surveys or polls?					
10) How do you feel if we ignore mentions or branded hashtags?					
11) How do you feel if our social media accounts are not secure or vulnerable?					
12) How do you feel if we do not monitor or take action vs. fake accounts or scams?					
13) How do you feel if we are unclear about how your data is used or not transparent?					

14) How do you feel if we do not track or respond to your service-related inquiries?					
15) How do you feel if your problems are not resolved in a timely or efficient manner?					
16) How do you feel if we do not engage with any influencers or brand partners?					
17) How do you feel if you do not receive any exclusive offers or loyalty rewards?					

APPENDIX B: QUESTIONNAIRE 2

Questionnaire 2

Dear respondents, this is the second Questionnaire. Please answer the following questions titled "THE IMPACT OF SOCIAL MEDIA ON CUSTOMER SATISFACTION USING KANO'S MODEL". This information will only be used for research purposes and can remain anonymous. Please indicate your opinion by placing an * in the relevant option field.

Kano Model Questionnaire	**Functional dimension**				
	I like it this way	It should be this way	It does not make any difference to me	I can live with it	I dislike it
1) How do you feel if we determine who the users are that will be listening to us?					

2) How do you feel if we listen to the audience to understand the topics that attract their attention?					
3) How do you feel if we analyze the actions taken on social media?					
4) How do you feel if we compare ourselves with our main competitors?					

Kano Model Questionnaire	Dysfunctional dimension				
	I like it this way	It should be this way	It does not make any difference to me	I can live with it	I dislike it
1) How do you feel if we do not determine who the users are that will be listening to us?					
2) How do you feel if we do not listen to the audience to understand the topics that attract their attention?					
3) How do you feel if we do not analyze the actions taken on social media?					
4) How do you feel if we do not compare ourselves with our main competitors?					