

APPLICATION OF KANO MODEL IN PRIORITIZING THE THEATER CUSTOMER REQUIREMENT

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ABSTRACT

India is viewed as one of the biggest film centre points on the earth. The Indian film industry is famous for its marvelousness, energy and show. India has been on a steady growth curve in terms of the number of feature films produced and distributed in a year. Value of the Film Industry in India is 183.2 bn INR. So it's important to find out the customer requirements and classify them in to different category. To estimate the satisfaction of theater viewers in Pune, Kano model is used. Three approaches to Kano model are used to categorize theater services as must-be quality (M), one-dimensional quality (O), attractive quality(A), indifferent quality(I) and reverse quality(R). Theater operators need to analyse the factors which affect satisfaction or dissatisfaction of the viewer's and should prioritise the attributes based on the rule (M>O>A>I) to improve satisfaction as well as to reduce dissatisfaction and loss of resources.

Keywords: Kano Model, Classification, Customer Requirements, Theater, India.

INTRODUCTION

India is viewed as one of the biggest film centre points on the earth. The Indian film industry is famous for its marvelousness, energy and show. The city of Mumbai is especially considered to be the birthplace of Bollywood. In terms of net worth, Bollywood cinema rules the nation. Collectively, India has been on a consistent growth curve in terms of the number of feature films produced and distributed in a year. There were over 1,800 digital feature films released across the country in 2018 alone. The growth is high because of readily available market. Theater is crowded by Indian movie-goers be it single screen theaters or the modernized multiplexes Basuroy (2021). Majority of the Indian movie fans prefer watching movie in the theater as compared to other options like streaming Berger et al. (1993). Although the numbers have started to diminish over the years, India still houses over 6,600 single screen theaters Bilgili et al. (2011). This also makes the advertisers an ideal medium to target Indian cinema lovers. As of 2019, in-cinema advertisements generated over eleven billion rupees Chen & Chuang (2008). Value of the Film Industry in India is 183.2 bn INR. It's very difficult to ascertain customers' ideas about quality and is often confused and difficult to get clarity. Marketers have to put lot of effort to satisfy the customer needs while planning a product or service Hill & Alexander (2006). A specific list of customers' need is a determining factor. The model developed by Professor Noriaki Kano of Tokyo University and his colleagues is as follows.

A. It is really difficult for customers to express their requirements clearly Kano et al. (1984). After getting different idea, Professor Kano and his colleagues, have classified the attributes into six different categories Figure 1.

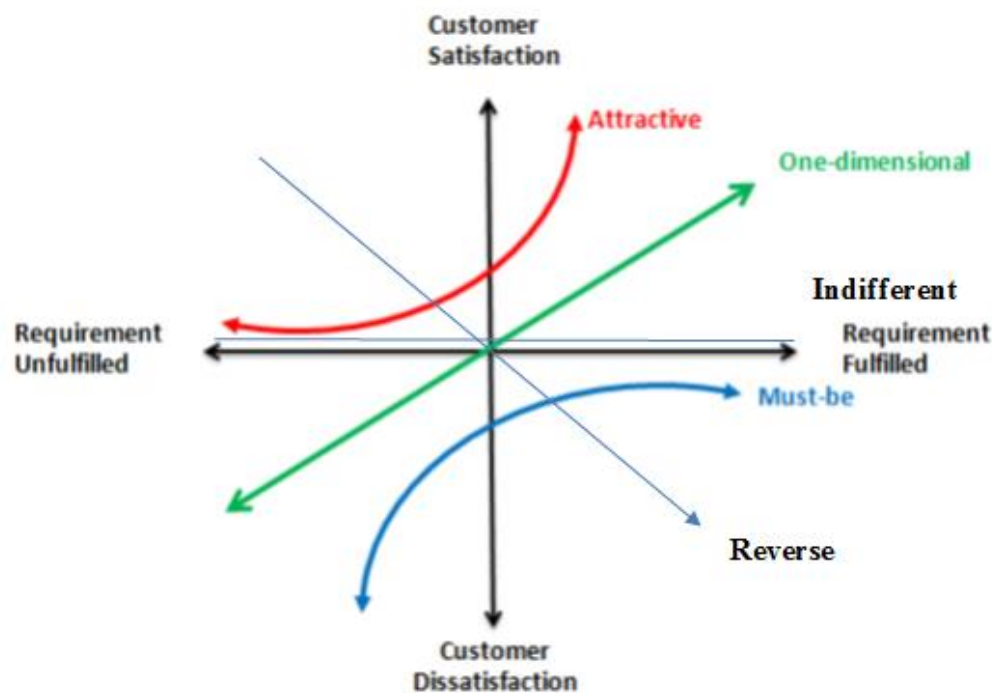


FIGURE 1
KANO MODEL

Source: (Kano et al., 1984).

B. Category

Kano model classify the product attributes into six category based on customers' requirements.

Must-be attribute (M): These are essential attributes. If it is not fulfilled, customs will be highly dissatisfied and will defect the product. But if it is fulfilled, the satisfaction of the customers may not be improved. Therefor these attributes are given the first priority Lee & Newcomb (1997).

One-dimensional attribute (O). These are the attributes where customers are satisfied on its availability and dissatisfied on its non-availability Mckay et al. (2001). Therefore lot of importance are given to these attributes while designing product and service. Performance of attributes is directly proportional to customer satisfaction.

Attractive attribute (A): Availability of these attributes result in increased customer satisfaction but non availability will not do not cause any dissatisfaction. These attributes delight the customer unexpectedly and cause lot of satisfaction. These attributes can often stratify their latent needs. These are the attributes on which product is truly differentiated from competitors Munagavalasa (2014).

Indifferent attribute (I): These are the attributes which does not have any significant influence on the customer satisfaction or dissatisfaction. Customers are indifferent to these type of attributes. As availability of these attributes are not going to impact on satisfaction or dissatisfaction, these attributes should be avoided or minimized to the extent possible as it is going to incur cost Oliver (1993).

Reverse attribute (R): These attributes are never expected by the customers. Presence of these attributes cause customer dissatisfaction and absence of these attributes increases customer satisfaction. These attributes may not be very common in product or service.

Questionable attribute (Q): Contradictory responses are given for this type of attributes.by the respondents Table 1.

<p>Table 1 HOW MUCH SHOULD BE DONE BY THEATER SERVICE PROVIDER</p>
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Attributes	Degree of Offering	Customer Satisfaction	Degree of Implementation
Must Be	More	Neutral	Never do less.
	Less	Dissatisfied	
One-Dimensional	More	Satisfied	Do more
	Less	Dissatisfied	
Attractive	More	Satisfied	To be done for differentiation
	Less	Neutral	
Indifferent	More	Neutral	Do less or Avoid
	Less	Neutral	
Reverse	More	Dissatisfied	Avoid
	Less	Satisfied	

C. Customers' requirement are classified by Questionnaires. Product attributes can be classified into six categories like Must-be, One-dimensional, Attractive, Indifferent, Reverse and Questionable through a questionnaire.

RESEARCH METHODOLOGY

Step-I: Customer Satisfaction is affected by lots of attributes. It is essential to distinguish the vital attributes of Theater. 14 attributes are included in the questionnaire which are collected and summarized from different literatures Parasurama et al. (1997).

Step-II: Surveying of respondents is done through questionnaire. Functional and Dysfunctional questions are asked in pair. Asking question in a Positive way is considered as Function Question whereas asking question in a negative way is considered as Dysfunctional Question. Five Choices for each Functional and Dysfunctional question have given to respondents, out of that the respondent has to choose one each. In this case, a total of 14 questions regarding three dimensions of Theater was asked to 200 students who regularly visit theater Richins (1983).

An example of Kano model question used in the questionnaire is presented below.

Functional Question

1a. Viewing Quality of Theater is good

1. Like
2. Must be
3. Neutral
4. Live With
5. Dislike

Dysfunctional Question

1b. Viewing Quality of Theater is not good

1. Like
2. Must be
3. Neutral
4. Live with
5. Dislike

Step-III: Intension of the respondents are obtained by using Kano Evaluation Table (Tables 2 and 3).

Table 2 KANO EVALUATION TABLE						
	Attributes	Dysfunctional				
		Like	Must Be	Neutral	Live With	Dislike
Functional	Like	Questionable	Attractive	Attractive	Attractive	One-Dimensional
	Must Be	Reverse	Indifferent	Indifferent	Indifferent	Must Be
	Neutral	Reverse	Indifferent	Indifferent	Indifferent	Must Be
	Live With	Reverse	Indifferent	Indifferent	Indifferent	Must Be
	Dislike	Reverse	Reverse	Reverse	Reverse	Questionable

Table 3 DESCRIPTION OF KANO EVALUATION TABLE		
Response on Functional Question	Response on Dysfunctional Question	Classification of Attribute
Must Be or Neutral or Live With	Dislike	Must Be
Like	Dislike	One -Dimensional
Like	Must Be or Neutral or Live With	Attractive
Must Be or Neutral or Live With	Must Be or Neutral or Live With	Indifferent
Must Be or Neutral or Live With or Dislike	Like	Reverse
Dislike	Like or Must Be or Neutral or Live With	Reverse
Like	Like	Questionable
Dislike	Dislike	Questionable

Step-IV: Analysis of results by three methods based on the data collected from the questionnaire is as follows.

1. Frequency-based attributes Category- Category is based on the on the maximum frequency of response. Out of the quality M,O,A,I,R,Q, the quality having highest number is going to be considered.
2. Comparison-based attributes Category- All the quality are considered as indifferent. Hence, if, (M+O+A) is greater than (I+R+Q), the maximum value among (M,O,A) should be considered. If, (I+R+Q) is greater than (M+O+A), the maximum value among (I,R,Q) should be considered. If (M+O+A) is equal to (I+R+Q), the category should be considered based on the priority, i.e M>O>A>I.
3. Index-based attribute Category- This method suggests two indexes namely Satisfaction Index (SI) and Dissatisfaction Index(DI) to define the classification as follows Table 4.

$$\text{Satisfaction Index (SI)} = (A+O) / (A+O+M+I)$$

$$\text{Dissatisfaction Index (DI)} = (M+O) / (A+O+M+I) * (-1)$$

Satisfaction Index (SI) ranges from 0 to 1. Higher the value, higher the impact on customer satisfaction. Dissatisfaction Index (DI) ranges from 0 to -1. Higher the value, higher the impact on customer dissatisfaction.

Table 4 SATISFACTION INDEX AND DISSATISFACTION INDEX		
Satisfaction Index	Dissatisfaction Index	Attribute
< 0.5	≥ 0.5	Must-Be
≥ 0.5	≥ 0.5	One-Dimensional
≥ 0.5	< 0.5	Attractive
< 0.5	< 0.5	Indifferent

Theater

It is important to research the attributes with respect to the customer satisfaction for Theater. By summarizing a large number of relevant literatures and considering realities in the Theater, 14 attributes of Theater are identified as shown in Table 5.

Table 5 KANO MODEL QUESTIONNAIRE RESULT									
Dimension	Attribute	Description of the Attribute	M	O	A	I	R	Q	Total
Quality	A 1	Viewing Quality	29	55	112	4	0	0	200
	A 2	Sound Quality	38	44	113	5	0	0	200
	A 3	3 D Quality	52	82	42	24	0	0	200
	A 4	Micro display Chip	10	10	12	168	0	0	200
Service	A 5	Ambience	23	37	101	39	0	0	200
	A 6	Sitting Arrangement	31	49	85	35	0	0	200
	A 7	Temperature Control	36	44	98	22	0	0	200
	A 8	Behavior of the Staff	23	94	12	71	0	0	200
	A 9	Provide Ticket Discount for Children and Senior Citizen	85	15	17	83	0	0	200
	A 10	Free Soft Drink with Popcorn	73	59	40	28	0	0	200
	A 11	Quality Food	11	29	26	134	0		200
Facility	A 12	Theater App	7	1	7	17	168	0	200
	A 13	Toilet	29	92	25	54	0	0	200
	A 14	Parking	32	21	132	15	0	0	200

The Customer Satisfaction and Dissatisfaction Index for Theater is calculated in Table 6.

Table 6 CUSTOMER SATISFACTION & DISSATISFACTION INDEX										
Dimension	Attribute	Description of the Attribute	M	O	A	I	R	Q	SI	DI
Quality	A 1	Viewing Quality	29	55	112	4	0	0	0.42	-0.835
	A 2	Sound Quality	38	44	113	5	0	0	0.41	-0.785
	A 3	3 D Quality	52	82	42	24	0	0	0.67	-0.62
	A 4	Micro display Chip	10	10	12	168	0	0	0.1	-0.11
Service	A 5	Ambience	23	37	101	39	0	0	0.3	-0.69
	A 6	Sitting Arrangement	31	49	85	35	0	0	0.4	-0.67
	A 7	Temperature Control	36	44	98	22	0	0	0.4	-0.71
	A 8	Behavior of the Staff	23	94	12	71	0	0	0.585	-0.53
	A 9	Provide Ticket Discount for Children and Senior Citizen	85	15	17	83	0	0	0.5	-0.16
	A 10	Free Soft Drink with Popcorn	73	59	40	28	0	0	0.66	-0.495
	A 11	Quality Food	11	29	26	134	0		0.2	-0.275

	A 12	Theater App	7	1	7	17	168	0	0.25	-0.25
Facility	A 13	Toilet	29	92	25	54	0	0	0.605	-0.585
	A 14	Parking	32	21	132	15	0	0	0.265	-0.765

After the data were collected, three Kano methods can be used to process and analyse the customer requirements of Theater Xu et al. (2016). With the principle of frequency-based and comparison-based category, we can get the classification of the attributes, which is shown in Columns 3-4 of Table 6. By using the index-based method, classifications of the attributes are shown in Column 5 of Table 6. To get the end result, we choose to compare the results of three methods and use the "majority rule" to obtain the final categorizations of the Theater attributes, which is given in Column 6 of Table 7.

Table 7 KANO CATEGORIZATION OF THEATER BASED ON THREE METHODS					
Attribute	Description of the Attribute	Frequency-Based	Comparison-Based	Index-Based	Category
A1	Viewing Quality	M	M	M	M
A2	Sound Quality	M	M	M	M
A3	3 D Quality	O	O	O	O
A4	Micro display Chip	I	I	I	I
A5	Ambience	M	M	M	M
A6	Sitting Arrangement	M	M	M	M
A7	Temperature Control	M	M	M	M
A8	Behavior of the Staff	O	O	O	O
A9	Provide Ticket Discount for Children and Senior Citizen	A	A	A	A
A10	Free Soft Drink with Popcorn	A	A	A	A
A11	Quality Food	I	I	I	I
A12	Theater App	R	R	I	R
A13	Toilet	O	O	O	O
A14	Parking	M	M	M	M

The attributes "Viewing Quality", "Sound Quality", "Ambience", "Sitting Arrangement". "Temperature Control" and "Parking" are categorized as must-be (M) requirements. Presence of these attributes hardly contributes towards customer satisfaction but absence will lead to customer dissatisfaction. The attributes "3D Quality", "Behaviour of the Staff" and Toilet are categorized as One-dimensional (O) requirements. Theater with these attributes will improve customer satisfaction; by contrast, Theater which do not have or have little of these attributes will reduce customers' satisfaction.

The attributes "Provide Ticket Discount for Children and Senior Citizen" and "Free Soft Drink with Popcorn" categorized as Attractive (A) requirements. Presence of these attributes will give satisfaction to customers and absence of these attributes will give dissatisfaction to customers.

The attributes "Micro display Chip" and "Quality Food" are categorized as Indifferent (I) requirements. These attributes have no influence on customer's satisfaction or dissatisfaction. Theater service provider now doesn't need to focus more on these attributes. The attribute "Theater App" is categorized Reserve(R) attribute. Customers are thinking in the reverse way as compared to the Theater service provider. The customers may find it

difficult to install and use in finding the location of their seat. Though it's technologically advanced feature but may puzzle the customers.

So the Theater service provider should take lot of care to implement must-be attributes, without which customers can be extremely dissatisfied with Theater service provider. The Theater service provider should pay more attention on One-dimensional attributes to improve customer satisfaction. Attractive attributes should be included as much as possible to be more competitive. Indifferent and reverse attributes should be avoided.

CONCLUSION

This study was undertaken to classify the customer requirements of Theater at Pune. 200 respondents were administered with questionnaire. Kano classification and analysis was done. From this, I got 14 attribute which are classified them into six categories 6 of which are Must-be, 3 are One-dimensional, 2 are Attractive, 2 are Indifferent and 1 is Reverse type of attribute. The Theater service providers should prioritise and implement the findings accordingly.

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