

Evaluation of Customer Satisfaction towards the Hospitality Industry: Using Kano Model

Umamaheswararao Gobbilla

Associate Professor,
CMR Institute of Technology, Hyderabad
umamaheswar222@gmail.com

Dr. A Bhavani Shree

Associate Professor,
Vidyavardhaka College of Engineering, Mysore
bhavani@vvce.ac.in

Abstract—This paper aims primarily at customer loyalty and quality of service, and at related factors of customer satisfaction using the Kano model in the hospitality industry. At marketplace, customers are king. Modern marketing is oriented towards consumers nowadays. Studying customer satisfaction has different factors. Such factors range from physical to psychological and from negative to constructive. Nonetheless, in most cases the study is based on two constructs as consumer experience pre, post services and the subjective evaluation of post-performance. Over the years, technology has developed and helped track customer satisfaction data for the management of the hotel industry. This study uses various dimensions of the quality of service to understand customer satisfaction to identify the relevant drivers of customer satisfaction with the help of Kano model.

Index Terms—Customer satisfaction, Consumer experience, Service performance.

I. INTRODUCTION.

A. The Kano Model

FOR THIS research, we are applying the Kano model that Noriaki Kano introduced in 1984. The Kano model allows assessment and estimation of the degree of consumer service arising from the constructive correlation among perceived quality and anticipating quality. Kano offers realistic, effective approach to distinguish company and product characteristics based on the customer loyalty impacts.

The key distinctions between the Kano model and the other consumer service methods commonly used in the literature such as SERVQUAL and those of the Kano model

Kano divided product and service characteristics according to their effect on customer loyalty.

B. Kano Diagram

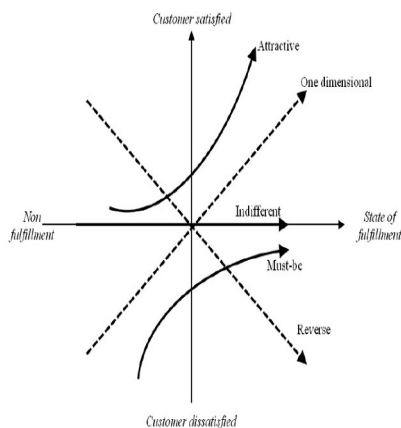


Figure No 1: Kano Diagram

II. LITERATURE REVIEW

With increasing pressure on hotel sales and profits, hotels have to adopt creative strategies to increase guest satisfaction which will achieve the best possible results. Satisfaction of customers is the crucial factor in the hotels, so we have to take a firm step in relation to how to ensure customer satisfaction [3]. This article draws the inferences that, the first and most important task of any hotels or resorts are to ensure a valuable commitment for the guest satisfaction. And the next commitment should be that they must establish a culture that says “satisfying the customers is their number one job”.

The main purpose of this paper is to develop and test a conceptual model of the relationship between service qualities constructs, behavioral intent, and emotional satisfaction within the hospitality industry. This research uses an analysis of the literature to suggest a statistical model that indicates that: quality of service is positively correlated with the emotions and behavioral intentions of the consumer; and emotions of the consumers are positively correlated with behavioral intentions. This model is validated as an observational analysis that incorporates the data available from a survey of 100 clients [6].

This paper suggests a service management system for the study of strategic advantages in Casino, considering the global increase in the popularity of sports. An exploratory case study on business environment and customer loyalty is addressed using the data obtained from 100 clients at an Australian casino hotel. These findings suggest that while the quality of service is highly correlated with customer satisfaction, internal dynamics lead to differences in the perceptions of casino customers versus non-casino customers, highlighting the need for strategies for different customer types [7].

III. RESEARCH GAP

The customer loyalty is an important part of a productive sector like the hospitality industry hotel and resorts. In that respect, any company should aim to have a good relationship with its customers in order to improve its loyalty and thereby increase its competitiveness within the sector. Most hotel and resorts owners, though, face challenges trying to please their clients and end up suffering a high degree of consumer unhappiness. This analysis void looks further into different ways to improve customer loyalty.

CONCEPTUAL FRAMEWORK DIAGRAM

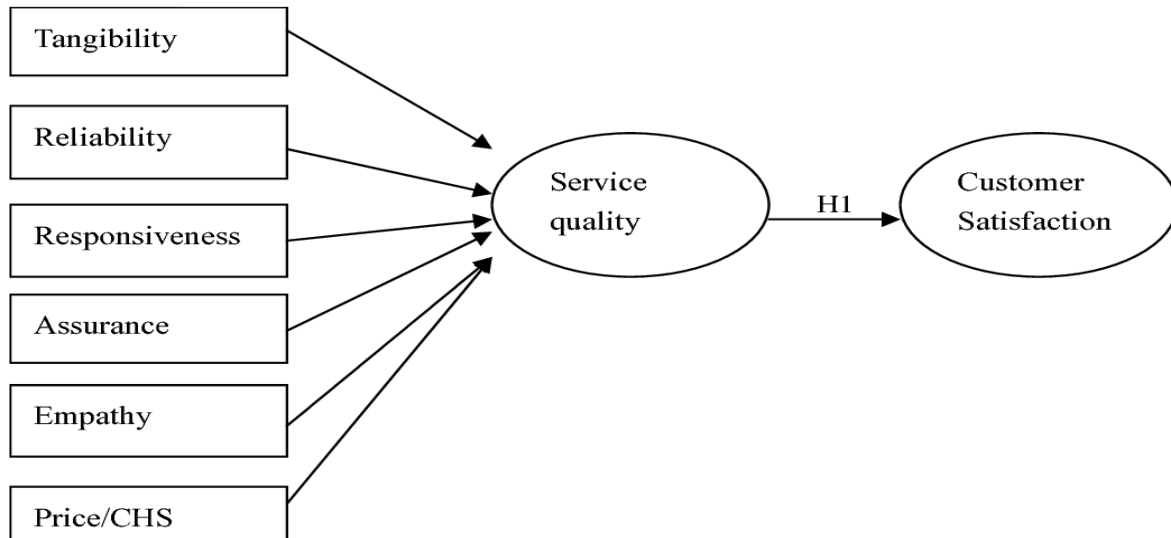


Figure No: 2 Conceptual Framework Diagram

IV. RESEARCH DESIGN

A. Statement of Problem

High-profile resorts as taken for study in Mysore region. The resorts wants to meet the customer's desires, its rivals give consumers more options at that level. Competitor offers many options to customers which make it difficult for a resorts to retain its customers. The resorts cannot therefore ensure that its customers are retained because many customers need to explore other alternatives and experience different environment. Therefore, resorts customer satisfaction is very important to retain customers. The factors considered here include the awareness and timely fulfillment of customer needs and wants to retain the customers back to the resorts, awareness of problem the customers are facing, various methods inhaled to satisfy the customers.

B. Objectives

- To implement the key attributes of Kano model to satisfy the customers.
- To investigate the outcome of customer's quality of service on customer delight.
- To examine the connection between customer service quality and customer delight.

C. Research Methodology

Descriptive Research: This study is conducted using descriptive research to describe the information and to obtain precise and relevant information about the customer satisfaction. It also delineates how customer's satisfaction is varied from each other in providing services at hospitality industry. The technique of non-probability sampling is followed since it does not involve random selection of respondents. For non-likelihood the population that is included is not known. The Sampling Technique taken for the study is Convenience sampling technique is practiced from that section of the population nearby. The Sample size taken for the study is 200 respondents chosen for the study. The tool used

in this study to collect data is questionnaire. The statistical tool used for the study is Correlation, Regression, and Kano calculations. The 100 respondents selected. Of which males are 150 percent and females are 100.

D. Hypothesis

- H0:** There is no positive relationship among service quality and customer satisfaction
- H1:** There is a positive relationship among service quality and customer satisfaction.
- H0:** There is no effect of service quality on customer satisfaction.
- H2:** There is an effect of service quality on customer satisfaction.
- H0:** There is no implement of the key attributes of Kano model to satisfy the customers.
- H3:** There is an implement of the key attributes of Kano model to satisfy the customers.

V. ANALYSIS: APPLICATION OF THE KANO MODEL



A. Questionnaire

The 7 resorts are taken for the study where customers are offered the services. The Kano model was extended to the following measures listed below in order to assess which category of service has a greater impact on customer satisfaction:

Step 1:

Step 1 includes surveying customers through questionnaire, a pair of questions (functional and dysfunctional) about the services offered at the resorts. Functional questions are answered in a constructive manner and negative questions are placed. For every question, the respondents are asked to select from within five options. 100 respondents were asked a total of 13 questions about four dimensions of the facilities and amenities. Here is an example of a Kano model used in the questionnaire:

TABLE I. KANO EVALUATION TABLE

 Customer Requirements	 Dysfunctional					
Functional		I Like It	I Expect It	I Am Neutral	I Can Tolerate It	I Dislike It
		1	2	3	4	5
I Like It	1	Q	A	A	A	O
I Expect It	2	R	I	I	I	M
I Am Neutral	3	R	I	I	I	M
I Can Tolerate It	4	R	I	I	I	M
I Dislike It	5	R	R	R	R	Q

Kano Evaluation. Customer Requirements: A: attractive, O: one-dimensional, M: must-be, Q: questionable result, R: reverse, and I: indifferent

Functional Question: “If there is always an immediate response from the resorts staff, how do you feel?”

Alternatives: I like it that way/ It must be that way/ I am Neutral/ I can live with it that way/ I dislike it that way

Dysfunctional Question: “If there is not always an immediate response from the resorts staff, how do you feel?”

Alternatives: I like it that way/ It must be that way/ I am Neutral/ I can live with it that way/ I dislike it that way

Step 2:

Phase 2 is to use the appraisal table (figure) to count the tests and summarize them. The abbreviations used in the table of evaluations represent one-dimensional requirements (O), attractive requirements (A), must-be requirements (M), indifferent requirements (I), questionable requirements (Q), reverse requirements (I). For example, if one respondent selected “I like it that way” for a functional question and replied “I can live it that way” for a dysfunctional question, it would identify the tested service functionality as an attractive requirement (A). For indifferent requirements (I), whether the operation or procedure is defective or completely functioning in respect of the particular feature, the customer is neither pleased nor dissatisfied. Questionable requirements (Q) reflect findings which show contradictory responses. Opposite specifications I think consumers don’t want service functionality and highly expect the opposite. In the Kano model study, one-dimensional, must-be and attractive requirements along with indifferent requirements are mainly what we are examining.

Step 3:

Stage 3 includes assessing the type of the utility functionality measured according to the response level. The tests are usually analyzed and translated according to the specificity of the responses. When the questions are in-depth or comprehensive, through the answers can be spread out. Therefore, it is proposed that the maximal value of (O, A, M) will be followed if (O+A+M) > (I+R+Q). Otherwise we would use the limit of (I, R, Q). Additionally, the type that should have the biggest effect on the goods or service will be selected because the tests have the same two frequency criteria. M > O > A > I will follow the target order.

B. Customer Satisfaction Dimensions

The basic concept of must-be > one-dimensional > attractive > indifferent can be followed when setting goals in making the business growth decisions. Must-be requirements should be met first. Otherwise, the disappointment would be considerable. Staff Dimension, Service Dimension, Accommodation Dimension, Food and Dining Dimension.

C. Customer Satisfaction Coefficient

The coefficient of customer satisfaction shows how much satisfaction increases if a service requirement is fulfilled or to what extent satisfaction declines if a service requirement is not met. Understanding the mean effect of a company provision on customer loyalty is useful. The coefficients is determined as follows:

$$A+O$$

$$\text{Enhanced Satisfaction Coefficients} = \frac{A+O}{A+O+M+I}$$

$$A+O+M+I$$

$$O+M$$

$$\text{Reduced Dissatisfaction Coefficients} = \frac{O+M}{A+O+M+I}$$

$$A+O+M+I$$

A positive coefficient of customer satisfaction varies in magnitude from zero to one; the lower the value is, the greater the effect on customer loyalty. Negative customer satisfaction is similar. A value of zero means this function does not cause unhappiness if it is not reached. In this way all characteristics evaluated can be visually represented in a diagram. Knowing their effect on customer loyalty and setting goals at service planning is beneficial. The coefficients for resorts customer service are seen below in table.

The coefficients for customer service are shown in the figure below. The diagram can be divided into four criteria, roughly. From the diagram it is clear that much of the personnel features and service features are between one-dimensional and attractive specifications in the field. Therefore, resorts will pay more attention to these kind of needs. There is no reason to concentrate on functionality found in the indifferent category for the other three application forms. Health and dining criteria are found in the middle of the at-

TABLE NO. 2. SUMMARY OF KANO MODEL QUESTIONNAIRE RESULTS

DIMENSIONS	ASSESSED CHARACTERISTICS	A	M	R	O	I	Q	Total	Category
STAFF	There is always an immediate response from the resorts staff.	66	40	16	34	44	0	200	A
	Staff at the resorts is very attentive for service delivery	36	40	2	42	56	4	200	I
	Is the relationship between you and the resorts staff is very good	92	16	4	28	60	0	200	A
SERVICES	The resorts has very good facilities that complement their core room service	92	12	4	26	66	0	200	A
	Resorts must always ensure good standard of service every time	70	18	4	30	78	0	200	I
	Overall impression about a resorts' operation is very strong	62	22	2	36	78	0	200	I
	Fully satisfied by the services the resorts provides	84	30	2	16	68	0	200	A
ACCOMMODATION	Ambience of the resorts is excellent	108	4	4	10	74	0	200	A
	The resorts provides space for relaxation and exercise	68	24	0	8	98	2	200	I
	Resorts checks, informs and gets approval for any changes that happen during your stay	82	24	4	28	62	0	200	A
FOOD AND DINING	Food rated very well in the resorts	130	0	2	4	64	0	200	A
	Food and dining staff are polite and respectful	60	10	4	14	104	8	200	I
	Food quality is good at the resorts	78	32	6	8	76	0	200	A

TABLE NO 3: CUSTOMER SATISFACTION COEFFICIENTS

Dimensions	Assessed Characteristics	Category	(A+O)/	(O+M)/ (A+O+M+I)
			(A+O+M+I)	
STAFF	There is always an immediate response from the resorts staff.	A	0.54	-0.4
	Staff at the resorts is very attentive for service delivery	I	0.51	-0.42
	Is the relationship between you and the resorts staff is very good	A	0.61	-0.22
SERVICES	The resorts has very good facilities that complement their core room services	A	0.6	-0.19
	Resorts must always ensure good standard of service every time	I	0.51	-0.24
	Overall impression about a resorts' operation is very strong	I	0.49	-0.29
ACCOMMODATION	Fully satisfied by the services the resorts provides	A	0.51	-0.23
	Ambience of the resorts is excellent	A	0.6	-0.02
	The resorts provide space for relaxation and exercise	I	0.39	-0.15
	Resorts checks, informs and gets approval for any changes that happen during your stay	A	0.56	-0.27
FOOD AND DINING	Food rated very well in the resorts	A	0.68	-0.02
	Food and dining staff are polite and respectful	I	0.39	-0.13
	Food quality is good at the resorts	A	0.44	-0.21

tractive and indifferent criteria. Two of those criteria tend to be of no interest towards resorts customers. Nevertheless, the "Holds special events festival" provision has a greater impact on contentment. Furthermore, it is evident that "late-evening games organized in the lawn" obviously has a small impact on customer service.

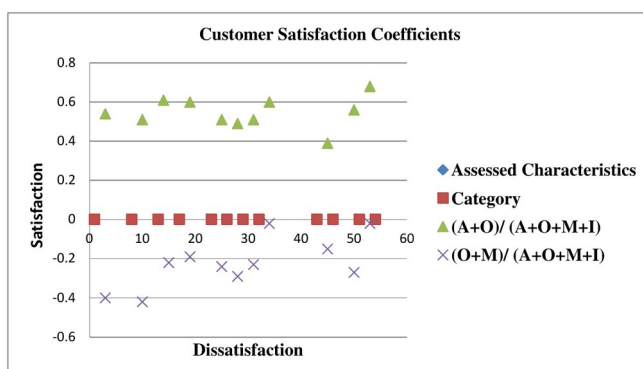


Chart No: 1 Graph Customer Satisfaction Coefficients

D. Reliability Test

The test of reliability refers to the degree to which a measurement is reliable and well balanced when measuring what is supposed to be measured. Very simply put, a test is accurate if it is consistent over time and within itself. A calculation is said to be highly accurate if, under stable conditions, it yields comparable results. We have seen from the above table that reliability checking was performed using Cronbach's Alpha. The Cronbach's Alpha is 0.922 in quality of service and customer satisfaction, which means that the data is reliable to the extent of 92.2 percent which is the extremely good sign of the study area.

E. Regression. Multiple Regressions

TABLE NO 4: MULTIPLE REGRESSIONS

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.878 ^a	0.771	0.759	0.449

The column ‘R’ represents the R value, the various coefficients for correlation. R can be viewed as one indicator of the accuracy of the dependent variable’s estimation; the table above shows a strong R-value prediction rating of 0.878.

The column ‘R Square’ represents the magnitude of the R Square, which is the proportion of the variance which can be described by the independent variables. The meaning 0.771 is the independent variable that accounts for 71.1 percent of our dependent variable volatility. And the modified value for the R Square is 0.759.

TABLE No 5: ANOVA TEST

	Anova				
	Sum of Squares	df	Mean Square	F	Sig.
Regression	63.825	5	12.765	63.402	.000 ^b
Residual	18.925	94	0.201		
Total	82.75	99			

The Anova table check F ratio indicates whether the overall regression model is a good match for the results. The table reveals that statistically substantially the independent variable affects the dependent variable, $F(4,145) = 63.402$, $P < 0.05$ i.e. the regression model is good for results.

TABLE No 6: COEFFICIENTS

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.201	0.275		0.731	0.466
Assurance	0.035	0.06	0.04	0.58	0.563
Reliability	0.055	0.093	0.056	0.596	0.553
Empathy	0.946	0.094	0.868	10.017	0
Tangibility	0.221	0.09	0.203	2.439	0.016
Reassurance	0.077	0.084	0.062	0.919	0.361

F. Regression Formula

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4$$

$$\text{Customer Satisfaction} = 0.201 + (0.035 \times \text{assurance}) + (0.055 \times \text{reliability}) + (0.946 \times \text{empathy}) + (0.221 \times \text{tangibility}) + (0.077 \times \text{reassurance})$$

Unstandardized variance shows how often the dependent variable is kept constant from an independent variable. Unit guarantee value is 0.035. It means that assurance has a larger effect on consumer service. This is the statistical significance test for each of the independent variables. This test examines whether the unstandardized coefficients and standardized coefficients within the population are equal to 0 (zero). If $P < 0.05$, we can assume that the coefficients vary statistically from 0 (zero). The t-value and related p-value are respectively found in column ‘t’ and ‘sig’. Through ‘sig’, column we can see that all independent variable coefficients vary statistically substantially through 0 (zero). While the intercept, B_0 , is checked for statistical significance, this result is never important or relevant

G. Correlation

Correlation approximates the power of linear variable interaction. Coefficients of association range from -1.0 (the perfect negative association) to positive 1.0 (a perfect positive correlation). The closer coefficients of correlation attain -1.0 or 1.0, the stronger correlation. The closer a coefficient of regression gets to zero, the lower the association between the two variables.

The association coefficient of tangibility is 0.748. This type of data is relatively broad for survey size. In the survey the number of respondents answering all the questions is 100. P-value for this coefficient of differentiation is to be .000. With this P-value the predictive check of hypothesis is:

HO: There’s no major association between customer loyalty and level of service.

H1: There is a statistically major association between customer loyalty and level of service.

Therefore $P < .05$ denies the null hypothesis and supports the alternate hypothesis.

TABLE No 7: CORRELATION

		Correlation					
		Customer Satisfaction	Assurance	Reliability	Empathy	Tangibility	Reassurance
Customer Satisfaction	Person Correlation	1					
Assurance	Person Correlation	.391**	1				
Reliability	Person Correlation	.533**	.686**	1			
Empathy	Person Correlation	.561**	.564**	.785**	1		
Tangibility	Person Correlation	.748**	.529**	.702**	.719**	1	
Reassurance	Person Correlation	.547**	.430**	.515**	.556**	.666**	1.653

VI. SUMMARY OF FINDINGS: KANO MODEL

Kano model has been applied in this study to the resorts and Mysore region. A positive coefficient of customer satisfaction varies in magnitude from zero to one; the lower the value is, the greater the effect of customer loyalty. Negative customer satisfaction is similar. A value of zero means this function doesn't cause unhappiness if it's not reached. Therefore, if resorts want to change the overall services, it is necessary first to consider customer's expectations and desires in relation to the services offered by the resorts. Based on the analysis of the Kano model, resorts should first prioritize the basic customer requirements, such as staff features and service features in the area between one-dimensional and attractive needs. Providing facilities for all accommodations in every aspect. If it is not met, the resorts will dissatisfy the customers very much. Next, attractive requirements such as holding special events on various occasions and treating clients with smile and identifying each client with their names and greeting them by staff should always be done with a smile. Complying with these kinds of needs can help resorts distinguish itself from other resorts competitors. Therefore, consumers find certain types of services desirable. If resorts provide these services, the chances of differentiating itself from other resorts will be greater. There are 2 coefficients used in the Kano calculation they are "enhanced satisfaction coefficients" and "reduced dissatisfaction coefficients". Where in the above calculations, enhanced satisfaction coefficients showed positive results and reduced dissatisfaction coefficients showed negative results which were lower compared to the positive values of enhanced satisfaction. The questionnaires in the above two dimensions have fall in the category of Attractive requirements (A), which have shown enhanced satisfaction with a higher positive results such as (0.54, 0.61, 0.60, 0.51). Eventually, it is necessary to be careful not to spot too much of the resorts, as most people see this feature as an indifferent necessity.

A. Regression Test

Study of regression is a mathematical approach used to estimates value of a dependent variable based on two or more independent variables. It also assumes variance of the errors is constant and the mean of the error is nil. R can be considered as one indicator of the consistency of dependent variable prediction. The R is 0.878. The value 0.771 is the independent variable that accounts for 77.1 percent of our dependent variable. And the modified value for the R square is 0.759.

B. Correlation Test

Customer satisfaction and the quality of service have a statistically important linear relationship ($p < .001$). Relationship orientation is constructive (i.e. consumer loyalty and level of service are favorably correlated), which means that both factors continue to improve together (i.e. greater customer happiness is linked with better service efficiency). The association's magnitude or strength is roughly moderate.

VII. CONCLUSION

This research has a good attempt in identifying the customer satisfaction in the resorts service and how the customers are satisfied at resorts. The results are significant and the customers are satisfied as well as not satisfied with the services and the accommodations and benefits provided by the resorts. A study on customer satisfaction towards services at resorts and spa in Mysuru region consist of practical study and reveals that communication, analysis, interpretation and evaluation of results has a major factor which influences the management to take inventiveness towards customer delight in the resorts. In every service organization customer satisfaction is very precious as it makes the customer loyal. Customer satisfaction for every service sector is a very crucial factor. Only when there is positive correlation of expectations is said to satisfy clients/customers. In many cases, however, the level of customer satisfaction between different clients is different. There are many variations among them because they each possess their own personal needs, demands and experiences.

VIII. SUGGESTIONS

Customer satisfaction should be the primary focus of any service sector, particularly the hospitality industry. It will lead to customer satisfaction leading to increased productivity and development of the resorts in question. The resorts should prepare its employees for satisfying behavior. This will build a positive impression about the resorts among customers and they can suggest their families and friends in addition. If the facilities given, do not draw and meet the needs of the client it would be necessary to invest a lot to advertise the resorts facilities. Customer friendly paperwork should be carried out i.e. testing check in and check out should be made smoother and quicker. If necessary, the resorts should invest in ads and spend money on hoardings so that it can raise visibility of its numerous lesser-known resorts facilities.

REFERENCES

- [1] G. Dominici and F. Palumbo (2013), "The drivers of customer satisfaction in the hospitality industry: applying the Kano model to Sicilian hotels". January 2013. International Journal of Leisure and Tourism Marketing 3(3):215-236.
- [2] Klaus Solberg Soilen (2017), "How to improve customer satisfaction in luxury hotel industry: based on the Kano model".
- [3] Kirwin Paul (1992), "Increasing Sales and Profits through Guest Satisfaction". Volume 33, Issue 5, October 1992, Pages 32-40.
- [4] Rebekah Bennett (2004), "Customer satisfaction should not be the only goal". December 2004. Article (PDF Available), in Journal of Services Marketing 187 (7).
- [5] Jackie L. M. Tam (2008), "The Effects of Service Quality, Perceived Value and Customer Satisfaction on Behavioral Intentions". October 2008.
- [6] Riadh Ladhari (2009), "Service quality, emotional satisfaction, and behavioral intentions: A study in the hotel industry". Publication date: 15 May 2009, Managing service quality: An International journal, ISSN: 0960-4529.
- [7] Anna Kralj, David Solnet (2010), "Service climate and customer satisfaction in a casino hotel: An exploratory case study". International journal of hospitality management 29 (4) 711-71.