

# **Evaluation of the Effective Factors on Customers' Satisfaction Using INDSAT Model; Case Study: Household Appliances' Customers of Mobarakeh Steel Company**

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## **Abstract**

Customers and consumers are always looking for suppliers who offer better products or services to their clients. Lots of documents show that in today's competitive world, exploring and meeting customers' needs and requirements before other competitors, is the essential condition for companies to be successful. vices provided by organizations is the assessment of customer satisfaction. this study deals with identification and investigation of factors affecting industrial customer's satisfaction at Mobarake Steel Company of Esfahan.

Statistical population included 125 company of the Household Appliances' Customers of Mobarakeh Steel Company. Field methods and questionnaire were used to gather essential information. In this study, 161 questionnaires were randomly distributed to Customers. Eventually 117 questionnaires were returned. SPSS and Amos were used to analyze data descriptively, assess the credibility of the model and test hypotheses. Results indicated that all satisfaction factors (product- sales people- product-related information- order handling- technical services- interaction with supplier's internal staff- complaint handling) as the aspects of have positive effects on overall customer satisfaction. Also, all of these factors are not of the same preference to the customers; sales staff and product satisfactions the scored highest and complaint handling the lowest.

**Keywords:** Customers' Satisfaction - Industrial Marketing -Organizational Customer – market segmentation

## **Introduction**

Marketing is a social process through which organizations and individuals attain what they want and meet their needs by establishing and exchanging values with others. Marketing indicates that industry is the process of customer satisfaction not the process of production. Instead of patent, raw material and selling skills, an industry starts with customer and its needs. An organization survives only when it meets the needs and demands of the customer through a good and comprehensive understanding of other party (customer), which shows the importance of studying Customer Behavior. During the past ten year many organizations, small or big, have realized the importance of customer's satisfaction. Everybody believes that retaining current customers is less expensive than attracting new customers. Thus, there's a strong relationship among customer satisfaction, customer retention and profitability. Without true and precise examination of customer satisfaction there is a little chance for the management to make correct decisions in order to make increasing improvements in retaining customers. The best reason behind any action in business is the fact that this action would lead to profitability. Measuring customer's satisfaction and applying appropriate action in relation to its results would lead to increase in profitability (Hill, 1996: 15-30).

Organizations are attached to their customers, thus they should be able to understand present and future needs of their customer, meet their needs and works towards promoting customer's expectations (ISO 9001, ed. 2008). One of the elements in prosperity of an organization is the customer satisfaction and organizations are responsible to monitor and measure it, and consider the customer as the main beneficiary. Hence, organizations and business firms are trying to get a privileged position compared to other competitors by achieving unique advantages. One of the most common ways of defining the level of satisfaction of needs and demands through products and services provided by organizations is the assessment of customer satisfaction.

## **Statement Of The Problem**

The main index of managing a successful relation is customer satisfaction (Schurr and oh. 1987; Ganesan, 1994). One of the main motivations for great attention to customer satisfaction is that high level of customer satisfaction results in a powerful competitive position in gaining profit and a high level of market share (Fornell, 1992). Generally, customer satisfaction is an important index for repeating purchase. Advertising by word of mouth is positive and considered the royalty of customer (Beardon & Teel, 1993; Fornell, et al. 1996). High levels of customer satisfaction is important for marketers as two Defensive and offensive instruments and sustainable competitive advantage. Satisfied customers suggest a concept that produces sustainable advantage in a competitive environment. Pattterson, Johnson and Spreng, in 1997 found that there's a strong relation between customer satisfaction and intention to buy again which 78% of satisfaction explains the intention for second purchase (Patterson and Spreng, 1997). High levels of customer satisfaction would result in increase in a positive word of mouth advertising, increase in readiness in accepting other products of that

production line, and increase in loyalty to brand and repeated purchase (Rogress and Bad, 1992; Grewal and Sharma, 1991). Those organizations that are active in presenting value to their customers would have higher customer satisfaction levels and this is more likely to become a competitive position. Thus, one of the most common ways of defining the level of satisfaction of needs and requirements through products and services provided by organizations is the assessment of customer satisfaction. Nevertheless, in relation to marketing literature of consumer products, industrial marketing literature has not significantly developed for some reasons including big and developing environment and complexity and turmoil of the market, and there's little in the literature about this. Thus, nowadays there's a need for a more comprehensive understanding of the industrial marketing management (Moris, 1988). Historically, customer satisfaction is one of the main areas of marketing management at academic and business levels. Customer satisfaction in consumer goods marketing and ordinary consumer related studies is defined as "a level at which customer's expectations are met by the purchased product", and one of the reasons of the promoted position of customer satisfaction is that satisfied customer can become a powerful competitive advantage through which market share and profitability will increase. In industrial marketing, customer satisfaction is related to fundamental results and elements of "the process of Inter-organizational exchange". However, this process was traditionally looked at as a short term interactive process and economic exchange between exchange parties in industrial market (Tikkanen, 2002). Customer satisfaction plays a major role in marketing, and researchers consider it as a powerful determinant of behavioral variables including *repeat purchase intentions*, word of mouth advertising and loyalty (Eggert and Ulaga, 2002:108).

Customer dissatisfaction is one of the main reasons for decreasing customers in an organization. But to find out that what causes this dissatisfaction, a great number of researches have been conducted which indicates that the gap between customer's expectation of services and the real services they have received is the source of this dissatisfaction (Hill, 2000).

Measuring and assessing the customer satisfaction is an important instrument by which marketers assess the health of their relations with customers. Extensive researches in marketing journals have been devoted to this issue in past decades, nevertheless, few articles have been conducted in the area of customer satisfaction in industrial marketing or B2B; academic researchers pointed out that the major focus on measuring consumer satisfaction has significantly disregarded the study and research on customer satisfaction among businesses (Swan and Trawick, 1993; Moore and schlegelmilch, 1994; Swon et al. 1995; Patterson et al., 1997; Morris and Davis, 1999; Homburg and schlegelmilch, 2001). Therefore, favorable performance in this area can result in Ultimate customer satisfaction which is the basis for a long term relation with them.

### **Conceptual Development**

Every scientific and systematic research needs a theoretical and scientific framework which is called conceptual model. In this research conceptual model is defined as follow:

All variables which are used in this model are being explained here.

**Product:** refers to functional properties and is assessed with parameters such as quality, reliability, cost efficiency, purchased product packaging.

**Sales people:** deals with the relationship and interaction of customers with company staff and is assessed with parameters such as friendliness of relation, knowledge and expertise, reliability, support of suppliers  
**Product-related information:** refers to the ease of access to the written and technical documents related to products supplied. And is assessed with parameters such as the diversity of these documents and their applicability

**Order handling:** refers to the period between the time of order and the time of confirmation of purchase. And is assessed with parameters such as on-time delivery and process reliability

**Technical service:** refers to technical suppliers and is assessed with parameters such as cost and quality of the technical services of supplier

**Interaction with the supplier's internal staff:** deals with the relation and interaction of customers with staff and managers of the company and is assessed with factors such as Response rate of sales staff to the telephone and written demands of customers

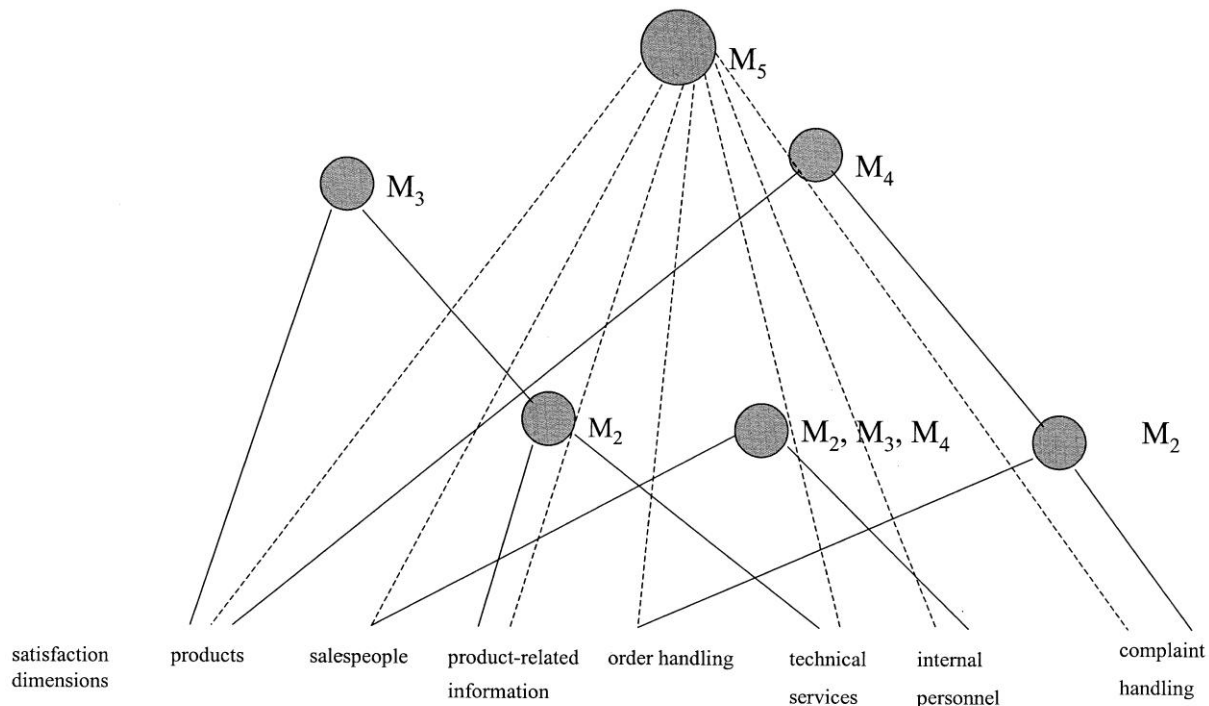


Fig. 1. Combinations of satisfaction dimensions in alternative models (M2, M3, M4, M5).

**Complaint handling:** refers to the approach of the company in responding to customers complaints and criticism of the company and its products and is assessed with factors such as

company measures in warranty (Guarantee) period and after guarantee periods regarding complaints

**Industrial customers' satisfaction:** an internal state that comes from assessment of all communicative aspects of a company with another company.

**Market segmentation:** market segmentation is the process in which potential market is divided into subcategories of customers and one or more areas are selected as target market and for each section there's a different marketing.

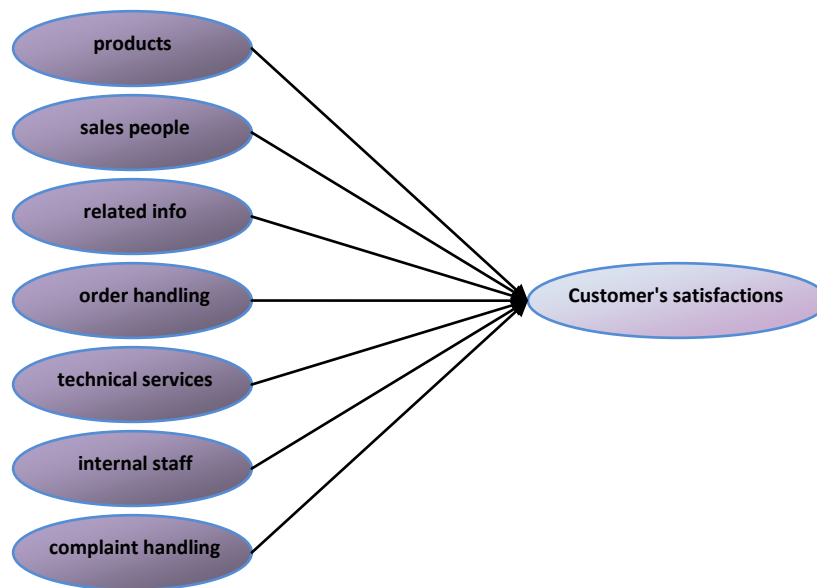


Figure 2. Conceptual model (Homburg and Rudolph ; 2001)

### Hypotheses

The research consists seven of hypothesis that Based on conceptual model, the hypothesis is:

- 1) Product satisfaction has a positive impact on customer's satisfaction.
- 2) Sales staff satisfaction have a positive impact on customer's satisfaction.
- 3) product-related information has a positive impact on customer's satisfaction.
- 4) order handling has a positive impact on customer's satisfaction.
- 5) technical services has a positive impact on customer's satisfaction.
- 6) interaction with supplier's internal staff have a positive impact on customer's satisfaction.
- 7) complaint handling has a positive impact on customer's satisfaction.

### Methodology

In general, methods in behavioral sciences are divided according to two criteria: (a) the aim of research, (b) the way of data collection. Current study is descriptive-survey based on methodology and research- applied based on the goal. Since this study examines the impact of

satisfaction factors on staff happiness, it is practical based on the goal. Descriptive statistics was used for analyzing descriptive data and structural equations model was used for testing hypotheses with the help of SPSS and Amos software.

To collect literatures, English and Persian papers, journals and available books were used. Questionnaire was used to collect data. It should be noted that a standard questionnaire of Homburg and Rodolph (2001) was used to measure organizational customer satisfaction components. All questions were classified on a scale range of five-option Likert (from completely disagree = 1 to completely agree = 5). The questionnaire had two parts of demographic questions including age, gender, education, and the Experience. Also it included seven main questions related to satisfaction factors and customer's satisfaction. Data collection focused on 125 Company of Household Appliances' Customers of Mobarakeh Steel Company who buy on a regular basis. Respondents were selected on basis of a stratified sampling to ensure variance.. Furthermore, in the current study, a stratified random sampling was used proportional to Sample`s size.

### **Validity and Reliability**

The concept of validity answers to this question that to what extent measuring instrument gauges the desired option. Data accuracy cannot be reliable without knowledge of the validity of measuring instruments. There were several methods such as content validity method for validation. If questions represent special characteristics and skills which a researcher wants to measure, the test will have content validity. In this stage, the necessary corrections about the research made during different interviews with experts and professors; therefore, it ensured that questionnaire measure the desired option.

Reliability is one of technical features of measuring instruments. This shows that measuring instruments to what extent obtains the identical results in the same situation. To determine the validity of the test, Cronbach's alpha was used. It is used to calculate the internal coordinating of measuring instrument that measure different feature. Therefore, reliability coefficient with Cronbach's alpha was calculated using data Obtained from questionnaires and SPSS software. Cronbach's alpha coefficient of overall satisfaction (0.95), product(0.78), sales people (0.75), product-related information (0.88), order handling (0.88), technical services (0.75) , interaction with supplier's internal staff (0.80),and complaint handling(0.83) were obtained. These numbers indicates that the questionnaire had reliability.

**Table 1: Cronbach Alpha amounts of variables**

<b>variable</b>	<b>Number of items</b>	<b>Cronbach's <math>\alpha</math></b>
product	4	0.78
sales people	6	0.75
product-related information	4	0.88

order handling	6	0.88
technical services	3	0.75
interaction with supplier's internal staff	3	0.80
complaint handling	3	0.83
overall satisfaction	1	0.95

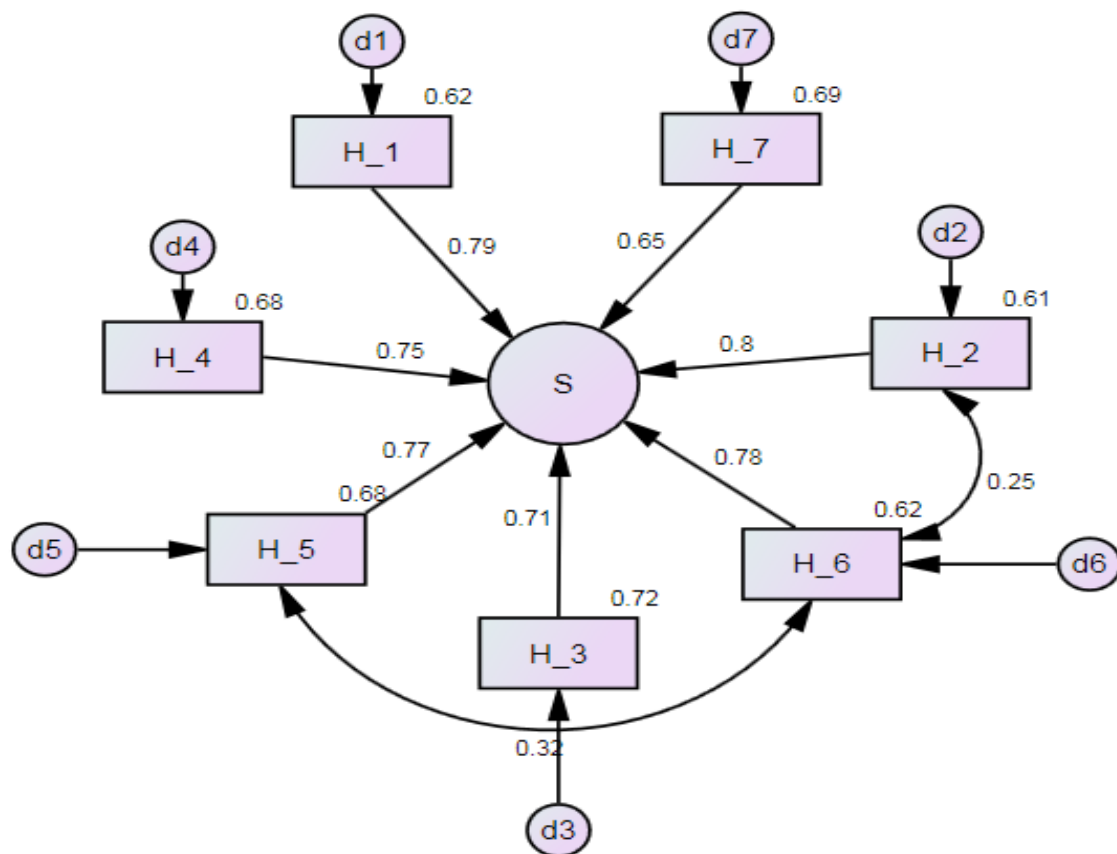
## Hypotheses Testing

A structural equation modeling (SEM) using AMOS 18.0 tested the model presented in Figure 3. The estimated model includes two second-order exogenous measurement models and one endogenous measurement models and paths among latent constructs. The proposed model fit showed that all goodness-of-fit indices such as, the ratio  $\chi^2/df=1.398$ , CFI=0.97, TLI=0.96, and RMSEA=0.036, met the generally recommended threshold levels suggested that the proposal model fitted the data well and the hypothesized relationships were tested. The results revealed that all standardized factor loadings were statistically significant at  $p<0.000$ . Table 1 shows the estimated path coefficients of the model and the standardized regressions for dependent latent constructs, which provide an estimate of variance explained. Hypothesis H1 Product will positively contribute to customer satisfaction. is significantly supported with estimated standardized path coefficients 0.79 ( $p<0.000$ ) Hypothesis H2 Salespeople will positively contribute to trust. The results show that the standardized path coefficient were 0.8 ( $p<0.01$ ). Hypothesis H3 product-related information will positively contribute to customer satisfaction. The results show that the standardized path coefficient were 0.71 ( $p<0.05$ ). Hypothesis H4 order Handling will positively contribute to trust. The results show that the standardized path coefficient were 0.75( $p<0.01$ ), Hypothesis H5 technical services will positively contribute to customer satisfaction. The results show that the standardized path coefficient were 0.77 ( $p<0.05$ ). Hypothesis H6 interaction with the supplier's internal staff. will positively contribute to trust. . The results show that the standardized path coefficient were 0.78 ( $p<0.05$ ). Hypothesis H7 complaint handling will positively contribute to customer satisfaction. The results show that the standardized path coefficient were 0.65 ( $p<0.05$ ).this results indicates that five hypothesis of Seven where supported. this factors were availability, fulfillment and contact.

**Table 2: Hypotheses testing results**

Hypothesis	Variable	Path	Variable	Estimate	C.R.	P	Result
H1	Product	→	Satisfaction	.796	5.7	0.001	Support
H2	Salespeople	→	Satisfaction	.800	5.8	0	Support
H3	product-related information	→	Satisfaction	.714	5.4	0.	Support
H4	order Handling	→	Satisfaction	.750	5.5	0.001	Support
H5	technical services	→	Satisfaction	.770	5.6	0	Support
H6	interaction with the supplier's internal staff.	→	Satisfaction	.780	5.6	0.003	Support
H7	complaint handling	→	Satisfaction	.654	4.9	0.001	Support

Note: Significant at  $p < 0.05$





**Figure 3: structural equation modeling**

Indices Name	$\chi^2/df$	GFI	AGF	NFI	CFI	IFI	RMSEA
study model	.33	0.95	0.93	0.92	0.96	0.91	0.024
Recommended value	3>	>%.90	>%.9	>%.9	>%.90	>%.90	<10%

Table 3: Results of Goodness of Fit Test

### Conclusion

For organizations that are producer goods and providing services, utilizing instruments such as Benchmarking in relation to other competitors is essential. In order to utilize appropriate competitive strategies, it is essential to compare customer satisfaction levels not only between competitors but among different industries and organizations. As mentioned, doing so and collecting information is very expensive for a company alone. Therefore, in different countries, customer satisfaction indices, whether in production section or in service section, are being assessed and measured at national level. In this study factors influencing industrial customer's satisfaction in steel industry has been investigated. Results indicate that from among component factors of satisfaction, sales people satisfaction and product satisfaction with factor loading of 0.80 and 0.79 ranked as first and second place, satisfaction with Interaction with the supplier's internal staff with factor loading of 0.78 as the third place, satisfaction with technical services with factor loading of 0.77 as the fourth, order handling satisfaction with factor loading of 0.75 as the fifth, satisfaction with product-related information with factor loading of 0.71 as the sixth, and complaints handling satisfaction with factor loading of 0.65 as the seventh place. Also, those customers who were examined had high levels of satisfaction with the study variables and this indicates the effectiveness of research variables on total satisfaction of customers.

Results obtained from this study show that there's an unfavorable level of satisfaction with factors including complaints handling, product-related information, and order handling. And these factors have a high factor loading in satisfaction level. According to the above mentioned issues, and analyses of the data, the following are suggested:

- a. since the lowest level of satisfaction is related to the calculation method and determining the damage (claim) with a meaningful difference, a review in the formulation of determining the damage needs to be considered.
- b. to reduce the time of complaint handling and payment to customers for each stage of this process, there should be determined period of time and those sections with the highest deviation should be identified and modified in different intervals.
- c. in order to deal with general complaints of customers, in addition to create direct communicational channels with sales managers and senior managers, it is recommended to hold seasonal or annual joint meetings with customers in separate areas of activity.

d. since the satisfaction with product-related information is at a low level, providing written documents such as bulletin and booklet and CD's containing information about different areas related to the product, and uploading these materials on the company's website could be beneficial.

e. since the highest proportion of dissatisfaction is related to Failure to on-time delivery, creating and increasing required infrastructures to use railway transportation should have priority.

### **Recommendation**

The principle of marketing indicates that Economic and social justification for each organization to exist, is customer satisfaction and this way attaining to organizational objective is possible. Customer satisfaction is regarded as an organizational culture in pioneer organizations of the world that is the concept which senior managers, share holder and key elements of the business believe in and insist on its spread and implementation it in their organization. All of the organization's staff, from top to bottom, contribute to the provision of customer satisfaction.

### **References**

- Aaker, D. A., (1995), Strategic Market Management. 4th ed., New York, John Wiley
- Anderson, E. W., & Fornell, C. A.,(1994) customer satisfaction research prospectus, in Rust, R.T
- Anderson, H. & Jacobsen P. N.( 2000), creating Loyalty: Its Strategic Importance n Your Customer Strategy. In S. . grown, ed., Customer Relationship management, Ontario, John Wiley, PP. 55-67.,
- Alderman, N., Maffin, D., Thwaites, A., Vaughan, R., Braiden, P.M., Hills, W,(1997). Providing Customer Value: A Business Process Analysis APProach; Managing Enterprises—Stakeholders, Engineering, Logistics and Achievement. Mechanical Engineering Publications Ltd., Bury St. Edmunds, PP. 203–209.
- Auh, S. and Johnson, M.D. (2005), "Compatibility Effects in evaluations of Satisfaction and Loyalty", Journal of Economic Psychology, Vol. 26, PP. 35-57.
- Bond, E.U. and Fink, R.L. (2003), "Customer satisfaction and the marketing- quality interface", Journal of Business and Industrial Marketing, Vol. 18 No. 3, PP. 204-18.
- Blakwoill, R.D., Minrord, P.W. and Engel, J.F. (2001), Consumer Behavior, 9th ed., Mike Roche, Grove City, OH.
- Bloemer, J.M., Brijs, T., Vanhoof, K. and Swinnen, G. (2003), "Comparing complete and partial classification for identifying customers at risk", International Journal of Research in Marketing, Vol. 20, PP. 117-31.
- Boejgaard, J. and Ellegaard, c.R. (2010) , "Unfolding implementation in industrial market segmentation", [Industrial Marketing Management](#), Vol. 39, PP. 1291–1299
- Bolton, R.N., Kannam, P.K. and Bramlett, M.D. (2000). "Implications of Loyalty program membership and Service experiences for costumer retention and value", journal of Academy of marketing Scince, Vol. 28 No.1, PP. 95-108.

- Braiden, P.M., Alderman, N., Thwaites, A.T., (1993). Engineering design and product development and its relationship to manufacturing: A programme of case study research in British companies. *International Journal of Production Economics*, PP.30–31, 265–272
- Bruhn, M and Grund, M.A. (2000), theory, development and implementation of national customer satisfaction indices: the Swiss index of customer satisfaction", *total quality management*, Vol.11 No7. PP. S1017-28
- B. Shapiro and T. Bonoma (1984), "How to Segment Industrial Markets", *Harvard Business Review*, PP. 104-110.
- Cordero, R., Walsh, S.T., Kirchhoff, B.A., (2005). Motivating performance in innovative Manufacturing plants. *The Journal of High Technology Management Research*, Vol.16, PP.89–99.
- Cravens, D.W., Holland, C.W., Lamb, C.W. Jr and Moncrief, W.C. III (1988), "Marketing's role in product and service quality", *Industrial Marketing Management*, Vol. 17, PP. 285-384.
- Carolyn, Folkman Curasi, (2002). "From Pisoners to Apostiles: A typology of repeat buyers and Loyal Customers in Business, *Journal of Service Marketing*, Vol. 16, No. 4, PP. 322-341.
- Coldwell, J., (2001), Characteristics of a Good Customer Satisfaction Survey. In J. N. Sheth, A. Parvatiyar & G. Shainesh, eds., *Customer Relationship Management*, New Delhi, Tata McGraw-Hill, 2001, PP. 193-199. .
- Dodds, W.R., Monroe, K.B. and Grewal, D. (1991) "Effects of Price, brand and store information on buyers' product evaluations", *Journal of Marketing Research*, Nol. 28 No 5, PP. 307-319.
- Edwards, D et al (1994). Typical definition of "satisfaction" is too limited. *Marketing news* 28 (12, jun 6), H17-H18, ISSN 0025-3790
- Espejel, J., Fanlos, C. and Flavian, C. (2008). "The role of intrinsic and extrinsic Quality attributes on Consumer behavior for traditional food products". *Managing Service Quality*, Vol. 17 No. 6. PP. 681-701.
- Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J. and Bryant, B.E. (1996), "The American customer satisfaction index: nature, purpose, and findings" *Journal of marketing*, Vol. 60 No. 4, PP. 7-18
- Fornell, C. A (1992), National Customer Satisfaction Barometer, the Swedish Experience, *Journal of Marketing*, Vol 56, PP 6-21
- Goutam Chakraborty, (2007), "Are drivers of customer satisfaction different for buyers/users from different functional areas?" *Journal of Business & Industrial Emerald Group Marketing* Vol 22. No, PP. 20–28
- Goutam Chakraborty, Prashant Srivastava (2007) "Are drivers of customer satisfaction different?" and Fred Marshall. *Journal of Business & Industrial Marketing* Vol 22 · No 1 · PP. 20–28 26