

Quality and Customer Satisfaction: Relationship and Customer Behavior. A Case Study

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Abstract: *If one of the aims of TQM is customer satisfaction, we can affirm that with dissatisfied customer quality does not exist, but the positive perception of a product/service cannot ignore quality. It is quality that generates customer satisfaction that leads to a competitive position (Reed et. al, 2000). This research aims to demonstrate how to identify the different cluster of customers relatively to quality. Satisfaction also depends on the quality of the product or service. We use a methodological statistical approach; an empirical survey was carried out with a research questionnaire to collect data and a descriptive and multivariate statistical processing was performed. The research has proved quality and satisfaction are linked and different groups of consumers are related to quality dimension. The research needs to be carried out in other shopping centers to validate the outcome. The paper demonstrates that a construct combining quality and customer satisfaction exists, related to specific service sector, though debated in the scientific community.*

Keywords: *Quality, customer satisfaction, hypermarket, consumer segmentation, cluster, factor analysis*

1. INTRODUCTION

The increasing competition, the market globalization and the technological innovations make it very difficult for the firm to know what buyers want (Busacca, 2000, 2003; Costabile 2001, Kotler & Keller 2007; Pride & Ferrell, 2008; Kerin, Hartley & Rudelius, W., 2010;). In a dynamic context the skill to anticipate customers' needs and to interact with clients is a key point (Guatri, 1991; Webster, 1994; Valdani 1995; Kerin et al., 2010; Paschal, 2011). The *customer based view* tunes the business to customer needs (Aaker 1991, 1996; Keller, 1993; Vicari, 1995; Schmitt, 1999; Chaudhuri & Holbrook 2001; Delgado-Ballester, Munuera-Aleman & Yague-Guillen, 2003; Keller & Lehmann, 2003; Kapferer, 2004; Kainth & Verma, 2012; Barat & Spillan, 2012). Hence customers become central: listening to them, satisfying their expectations, orienting firm's strategies and enhancing the level of customer loyalty represent crucial actions (Yi, 1990; Iacobucci, Ostrom & Grayson, 1995; Oliver, 1999; Agustin & Singh, 2002; Lemon, White & Winer, 2002, Ling & de Run, 2009; Mohsan, Musarrat, Sarfraz Khan, Zeeshan & Numan 2011). In order to set efficient business objectives and implement strategies, the firm must know its customers' characteristics, needs and behaviors. They are typified by greater or minor heterogeneity; company needs to adopt different strategies to target each group of consumers (Howard & Sheth 1969, Bearden & Teel 1983; Fornell, 1992, Dabholkar & Thorpe, 1994; Hofstede, 1999; Molteni & Troilo, 2007 Bracalente, Cossignani & Mulas 2009, Srivastava & Rai, 2013). By means of market segmentation the demand can be divided into different groups of customers, characterized internally by a strong homogeneity and externally by a high heterogeneity. This requisite is vital because affects supply differentiation strategies and effectiveness (East, 1993, 2003; Peter & Olson, 2004; Yu-Jing, Chiu Hsiao-Chi Chen, Gwo-Hsiung Tzeng, Joseph & Shyu 2006; Petruzzellis, 2010; Bachi, 2011). With consumer segmentation analysis, companies can study customers and know their socio-demographic and behavioral characteristics.

2. THEORY

Nowadays the concept that Quality is not just a product feature is quite consolidated (Dahlggaard-Park, 2011; Dahlggaard-Park et al., 2013; Hing et al., 2013; Al-Omiri, 2012)

The great development in producing mass goods and services with competitive features at competitive prices have increased the consumer's and the market's opportunity to select, grow and diversify. The "customer" *wants* and tries to have his exigencies answered.

For a company this means changing the way of working and approaching the market. Business strategies do not pursue "absolute" quality, but the quality expected by customer to create economic value for all the organizations the company interacts with (Busacca, 2003; Bonechi, Carmignani & Mirandola, 2004; Reid, Brown, Case, Tabibzadeh, & Elbert, 2011).

The aim is acquiring customer satisfaction by offering high quality products/services. Quality is the antecedent of customer satisfaction and leads to an increased competitive position (Ishikawa 1985, Juran 1986; Feigenbaum 1991, Reed, Lemak, & Mero, 2000; Tehran Sarfarazi, & Behboodi, 2012).

According to Kotler and Keller (2007) a quality company is able to satisfy customers' most needs over time. Satisfaction is the base to judge a quality product or service; with customer satisfaction we generally refer to a complex state of perception, related to the expectations of the client, determined both by "objective" quality factors and by subjective interactions that mark the customer's (buyer's or end user's) memory with the experience of purchasing or using. In quantifying the level of customer satisfaction the components connected are the relationship and transaction, the choice of accounting procedures together with pre and post-sales assistance are key quality components. Customer satisfaction is measured by the correspondence between perceived and expected quality (Oliver, 1980, 1997; Westbrook, 1981, Cadotte, Woodruff & Jenkins, 1987; Hoyer & MacInnis, 2001; Kotler & Keller, 2007; Angelova & Zekiri, 2011; Rahman, Kalam, Rahman & Abdulla 2012). A company offers quality when its products/services fulfill or exceed customers' expectations. (Kotler & Keller, 2007). Over the years quality is more and more identified with customer satisfaction, although they differ conceptually. Quality and customer satisfaction are integrated. If in a quality-oriented approach customer satisfaction is pursued, the chances of making the customer satisfied raise. Customer satisfaction derives from comparing the performances of the purchased product and the expectations customer had before (confirmation-disconfirmation model) (Cardozo, 1965; Hunt, 1977; Olson & Dover, 1979, Oliver, 1980, 1997, Westbrook, 1981, Hoyer & MacInnis, 2001; Kotler & Keller, 2007). Generally, satisfaction – or dissatisfaction – is a feeling of delight or disappointment deriving from comparing product's obtained performance to personal expectations. Only very satisfied customers show high repurchase intention and positive word-of-mouth (Oliver, 1999; Anderson & Narus, 1990; Agustin & Singh, 2002; Lemon, White, & Winer., 2002; Reichheld, 2006). Fully satisfied customers, instead, become "promoters" of the company and contribute to good profits (Yi, 1990; Iacobucci et al., 1995; Reichheld & Cook, 1996; Oliver 1999; Costabile, 2001; Agustin & Singh, 2002; Lemon et al. 2002, Reichheld, 2006; Stephen, Nagao, Yi He & Morgan., 2007; Mohsan et al. 2011). These are generated from creating value for the customer and from his satisfaction. A company has profits when its customers are so satisfied as to repurchase new products or services, advising friends and relatives. In their behavior dissatisfied customers are the opposite. If particularly disappointed, they become "detractors" and contribute to bad profits. Whenever a customer feels deceived or mistreated, the profits are bad and they arise when company saves money by delivering poor customer experience. The "detractors" are customers who feel badly treated and reduce their purchases choosing a competitor (if possible), warning others to avoid that company. The "detractors" do not show up on its balance sheet, but they cost a company more than the liabilities tallied. Dissatisfied customers damage company reputation and prevent best employees from being hired to attract new customers (Dick & Basu, 1994; Hallowell, 1996; Reichheld & Cook, 1996; Andreassen & Lindestad, 1998; Gronholdt, Martensen & Kristensen, 2000; Reichheld, 2006; Kotler & Keller, 2007; Pan, Sheng, & Xie, 2011). Nowadays negative word-of-mouth is spread up to global communication: beforehand an unhappy customer could tell ten friends, now an unhappy customer can tell thousands "internet friends" (Anderson & Srinivasan, 2003; Reichheld, 2006; Shu-Ching Chen, 2012). Bad profits and detractors strangle a company's growth.

3. METHODOLOGY

The analyzing model is based on the hypothesis that quality-oriented approaches make the customer satisfied. A questionnaire has been created to investigate the relation between quality and customer satisfaction. The aim is to demonstrate how to identify different cluster of customers relatively to quality. The research, developed over the 2010s, was carried out at a large retail hypermarket in Viterbo, Italy. The difficulty in identifying the customers of the hypermarket led to adopt a sampling scheme of accidental type, widely used in market research. The respondents were 512 individuals for each year. The data collection was carried out by means of the questionnaires, inside the hypermarket, and it was either self-compiled or with direct interview. The data were collected inside the hypermarket, during a week and in different time slots so to ensure a uniform condition of data collection and a high representation of hypermarket customers. The questionnaires was either self-compiled or interviewed. The following three main areas of analysis were identified:

- (1) Customer profile containing information on socio-demographic and customer behaviour necessary to identify personal characteristics;
- (2) Quality perceived by customers in relation to services offered by the hypermarket;
- (3) Customer Satisfaction concerning the satisfaction both in relation to the three quality factors (structure, services, products) and the relationship established by the customer with the hypermarket.

The answers related to the customer perception of quality have been structured on the Likert-type measurement scale, with a score between 1 and 6, where 6 is fully satisfied and 1 very little satisfied. It was also decided to use an even scale since the objective was to sharply identify the satisfied (ie the 4, 5 and 6) from the not satisfied (the 1, 2 and 3), avoiding the respondent to set on a central value that usually identifies those indifferent to the item (Bernués, Ripoll, G. & Panea, 2013). Regarding the perceived quality concerning the structure, some characteristic aspects of a large retail hypermarket have been investigated, such as the logistics, referred to as the customer ease to identify the products and the cleaning of single departments.

For the survey carried out in 2010 the questionnaire is made up of 9 closed-ended questions, in addition to the 4 questions related to the profile of the customer, with a Likert type measuring scale from 1 to 6, covering the three variables of the quality, and specifically three for the structure area, three for the service area and three for the product area. For the customer satisfaction the questionnaire includes 7 closed questions with Likert-type measuring scale from 1 to 6, three related to satisfaction for the perceived quality, two on satisfaction with regard to the relationship with the hypermarket and two on the loyalty behaviour. To avoid central tendency bias of responses, a 6-point Likert scale ranging from "not at all" (1) to "very much" (6).

The data processing was carried out with a descriptive purpose, by using statistical position and variability indicators, and successively, by means of multivariate tool analysis and multiple linear regression models. The different elaborations were performed by the "STATA Statistics/Data Analysis."

In order to define business goals and prepare strategies, each company must know the characteristics, needs and probable customer behaviour. Since characteristics and behaviours are generally marked by more or less heterogeneity, different strategies will be required to address different customers. (Bracalente et al., 2009).

The analysis wants to identify the socio-demographic and behavioural characteristics of satisfied and dissatisfied customers, to verify if quality and customer satisfaction are related. To the first aim the *a posteriori* segmentation process with cluster analysis, preceded by factor analysis, has been used, to synthesize the variables observed in macro choice elements. For the second aim the Multiple linear regression model has been applied. Through the analysis by main components the dimensionality of the information from variables has been reduced. In market research based on consumer surveys, information regarding various characteristics of a product/service, are often collected with tens of variables; they concern different topics but are related and overlapping; variables providing information are included in other variables and have only partial original contribution. That is why the factor analysis is of great help in these cases.

Once the explanatory quality variable have been summarized in macro elements, the cluster analysis allows studying customer behaviour, segmenting satisfied and dissatisfied. The cluster analysis allows grouping similar individuals with certain characteristics, so as to form homogeneous groups or segments. The cluster analysis has allowed to identify different customer groups based on their satisfaction/dissatisfaction level that has been studied in relation to quality variable. When studying the behaviour and socio-demographic characteristics of customers, the research has hypothesized the existence of a linear function relation between satisfaction and quality variables. The multiple regression analysis has allowed to whether or not validate the hypothesis.

Factor analysis

Within the demand segmentation, the factor analysis is used to synthesize a series of evaluations provided on some characteristics of the product/service studied, to identify the milestone of customer opinions. The factor analysis is useful to provide an explanation of all the relationships identified through market investigation, namely when it is necessary to "condense" and "reduce" the data, trying to lose the least information. The variable quality of the hypermarket have been identified on the basis studies of Dabholkar et.al (1996), who found, in the service of retail, five quality dimensions: (1) Physical Aspects; (2) Reliability; (3) Personal Interactions; (4) Problem Solving; (5) Policy. These five dimensions have been summarized in three main dimensions: (1) Structure; (2) Services; (3) Product. (table 1).

Table 1. *Quality variable of hypermarket – 2010*

Variable Dabholkar et.al (1996),	Variable Case study	Sub-variables case study	Items
Physical aspects	Structure	Logistics	Ease at finding products
			Ease at finding special price products
		Department cleaning	Fruit and vegetables
			Meat
			Fish
			Grocery
			House/person care
Technology			
Reliability Personal Interactions Problem Solving	Services	Staff	Professional
			Courteous
			Helpful
			Quick in answering
			Capable of solving problems
		Checkout	Wait at the checkout
			Dedicated checkout lanes efficiency
Policy	Products	Products	Brand
			Price
			Origin
			Assortment
Customer satisfaction		Customer satisfaction	Relationship with the hypermarket

Source: elaborations on direct survey

The correlation between single variables has proved a strong link between variables and therefore a problem of multicollinearity.

Through factor analysis, the number of variables in the regression model were reduced from 20 to 6. The new variables, main components, are uncorrelated with each other, then carrying different content. They are the most relevant to represent the phenomenon since they are able to "explain" the variance (or the information content) of the variables themselves.

Table 2. *The new variables – 2010*

THE NEW VARIABLES		
STRUCTURE	PC - 1	DEPARTMENT/ CLEANING
	PC - 2	LOGISTICS
SERVICES	PC - 3	PERSONNEL
	PC - 4	CHECKOUTS
PRODUCTS	PC - 5	QUALITY
	PC-6	PRICE/BREND

Source: elaborations on direct survey

Cluster analysis

With factor analysis the cornerstones of the segmentation are determined, ie the macro-benefits. The next step consists in studying the cluster analysis that actually groups individuals in segments, according to their homogeneity. For research purposes the hierarchical method of Ward (Fabbris, 1997;Keen, Wetzelsb, de Ruyterc, & Feinberg, 2004) has been used and the number of groups was determined by inspecting the dendrogram.

The Ward method splits the total deviance within and among groups. At each iteration the union of pairs of groups is considered; the couple causing the smaller variance is merged. The dendrogram illustrates the merging process, a graph with the units participating in the merger process on the not quantitative horizontal axis, and the vertical axis plots the distance level when the different groups forming successive agglomerations merge. This method is used for market analysis, in particular for those areas, in the hypermarket, where to identify a small number of customer groups to be targeted by marketing actions. The study of the dendrogram allows detecting the macro-groups which undergo specific strategies.

In the first stage, hierarchical clustering is used to determine the number of clusters and, in the second stage, nonhierarchical is used to “fine-tune” the results. (Keen et al., 2004).The socio-demographic behavioural variable were: gender, age, occupation and frequency at the hypermarket.

4. RESULTS

Before segmentation, the sample’s behaviour in relation to socio-demographic variables and behavioural choice for the cluster have been analysed.

In 2010 the sample is fairly homogeneous in relation to gender variable: women are 51% while men are 49%. Most respondents were between 18-25 (17.2%) followed by 42-49 (15.8%) and ≥58 (15.6%). Even for the age the sample is homogenous.

Table 3. *Frequency Socio-demographic variables*

Socio-demographic variables	2010	
	Frequency (n)	Square (%)
<i>Gender</i>		
M	249	48.5%
W	264	51.5%
	513	100.0%
<i>Age</i>		
≤18	47	9.2%
18-25	88	17.2%

26-33	73	14.2%
34-41	72	14.0%
42-49	81	15.8%
50-57	72	14.0%
≥58	80	15.6%
	513	100.0%
<i>Professional</i>		
Student	121	23.6%
Employee	90	17.5%
Worker	52	10.1%
Housekeeper	69	13.5%
Entrepreneur	22	4.3%
Craftsman	10	1.9%
Unemployed	23	4.5%
Pensioners	69	13.5%
Other	57	11.1%
	513	100.0%
<i>Frequency at the hypermarket</i>		
Daily	47	9.2%
4-3 times/wk	105	20.5%
1-2 times/wk	201	39.2%
2-3 times/month	68	13.3%
1/month	52	10.1%
rarely	38	7.4%
only for special prices	2	0.4%
	513	100.0%

Source: elaborations on direct survey

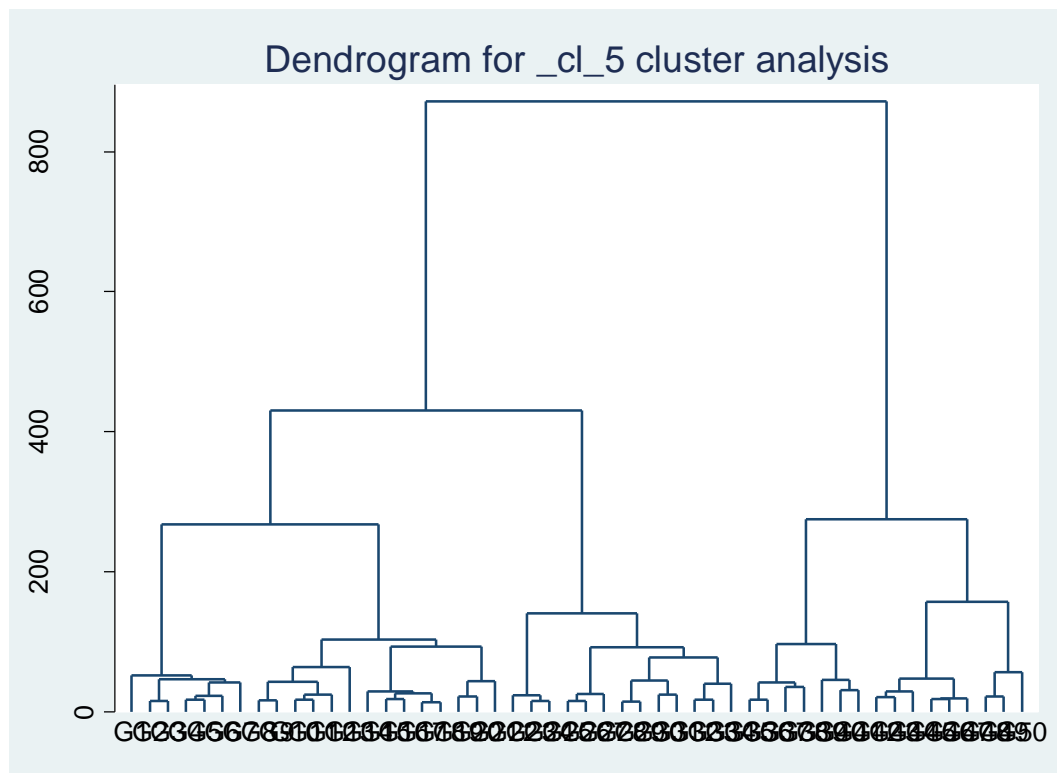
From table 3 it can be said that 23.6% are students (confirming the data according to which 17.2% of respondents were 18-25) and 17% by employees, followed by 13.5% housekeepers and 13.5% pensioners, which gathers all categories or jobs not identifiable as professionals and teachers. Finally, the 39.2% goes shopping 1-2 times per week while 20.5% nearly every day or 3-4 times per week.

Figure 1 shows the dendrogram of the 2010 sample. Using the information of the Calinski/Harabasz indicator together with the dendrogram analysis, three groups can be clearly identified.

Results showed that there were three clusters: one for satisfied consumer and two for dissatisfied consumers. In the second stage, the K-means procedure with Euclidian distances was employed to “fine-tune” the results, as iterative or nonhierarchical clustering methods are superior to hierarchical clustering (Keen et al., 2004). After examining the results, it was found that three clusters, one for the consumer satisfied and two clusters (for the consumers dissatisfied) were appropriate for the data.

After three clusters were chosen, additional analysis was to determine the defining characteristics of the segments in the individual clusters.

By examining the graph, table 4 analyses three clusters relating to the quality variables; on the base of the correlation link it is possible to define one group of satisfied and two groups of dissatisfied called A and B.



Source: elaborations on direct survey

Figure 1. Dendrogram 2010

Table 4. Cluster analysis in relation to quality variables – 2010

Quality Factors	Importance score (%)				One-way ANOVA	
	UnsatisfiedA n= 143	UnsatisfiedB n=81	Satisfied n= 231	Total n=437	F	P value
pc1 - Departments	-0.980	0.181	0.542	-0.023	2.02	<.000
pc2 - Logistics	0.118	-1.270	0.373	-0.015	2.02	<.000
pc3 - Personnel	-0.868	0.013	0.584	0.003	2.43	<.000
pc4 - Checkouts	0.021	-0.247	0.014	-0.032	2.43	<.000
pc5 - Quality	-0.403	-0.493	0.444	-0.007	2.11	<.000
pc6 - Price/Brende	0.271	0.100	-0.164	0.027	2.11	<.000

Source: elaborations on direct survey

The F test should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters

When looking at table 4 it can be seen how for satisfied customer both the personnel and the hypermarket structure are really important, followed by product quality. For dissatisfied A, prices the keyfactorwhile for dissatisfied B isthe structure of the hypermarket.

Looking at table 4 the largest group is not satisfied, 42%, followed by 23% satisfied and finally the passive 35%.

Table 4 also shows the ANOVA test that shows which variables contributed most to the identification of clusters. The analysis shows that all five dimensions of quality are significantly associated with clusters (Keen et al. 2004).

Once defined the clusters, the socio-demographic and behavioural characteristics of individuals have been studied. The questions related to sex, age, occupation and frequency of the hypermarket were considered.

Table 5. Cluster profile - 2010

Socio-demographic variables	UnsatisfiedA n= 143		UnsatisfiedB n=81		Satisfied n= 231		P value
	Frequency (n)	Square (%)	Frequency (n)	Square (%)	Frequency (n)	Square (%)	
<i>Gender</i>							<.003
M	74	51.7%	51	63.0%	88	41.3%	
W	69	48.3%	30	37.0%	125	58.7%	
	143	100.0%	81	100.0%	213	100.0%	
<i>Age</i>							
≤18	13	9.1%	10	12.3%	11	5.2%	<.153
18-25	24	16.8%	20	24.7%	33	15.5%	
26-33	20	14.0%	12	14.8%	30	14.1%	
34-41	18	12.6%	8	9.9%	38	17.8%	
42-49	27	18.9%	8	9.9%	37	17.4%	
50-57	24	16.8%	10	12.3%	28	13.1%	
≥58	17	11.9%	13	16.0%	36	16.9%	
	143	100.0%	81	100.0%	213	100.0%	
<i>Professional</i>							
Student	36	25.2%	26	32.1%	35	16.4%	<.098
Employee	24	16.8%	13	16.0%	47	22.1%	
Worker	16	11.2%	6	7.4%	23	10.8%	
Housekeeper	20	14.0%	5	6.2%	33	15.5%	
Entrepreneur	12	8.4%	4	4.9%	3	1.4%	
Craftsman	1	0.7%	3	3.7%	5	2.3%	
Unemployed	12	8.4%	5	6.2%	4	1.9%	
Pensioners	15	10.5%	13	16.0%	29	13.6%	
Other	7	4.9%	6	7.4%	34	16.0%	
	143	100.0%	81	100.0%	213	100.0%	
<i>Frequency at the hypermarket</i>							
Daily	7	4.9%	7	8.6%	24	11.3%	<.001
4-3 times/wk	31	21.7%	12	14.8%	47	22.1%	
1-2 times/wk	55	38.5%	28	34.6%	91	42.7%	
2-3 times/month	18	12.6%	14	17.3%	24	11.3%	
1/month	14	9.8%	10	12.3%	19	8.9%	
rarely	16	11.2%	9	11.1%	8	3.8%	
only for special prices	2	1.4%	1	1.2%	0	0.0%	
	143	100.0%	81	100.0%	213	100.0%	

Source: elaborations on direct survey

Analysing the groups it can be noted that any year the most dissatisfied are students who go to the hypermarket 1-2 times a week. Their dissatisfaction is caused by low disposable income, and this leads them to formulate a negative opinion. The regular attendance might seem like a contradiction but the hypermarket is located near the University Campus. The location can explain high frequency of students, also because it is placed inside Tuscia shopping centre. However, their dissatisfaction is also determined by the lack of products tailored to their needs (eg lack of space to eat ready meals or even the reduced selection of ready dishes for their lunch). The hypermarket should try to understand and meet their needs; despite not fully satisfied, students represent a large part of regular visitors.

The clusters of satisfied, however, is mostly made up of housekeepers, pensioners, professionals, teachers, and the age ranges from 34-57 and even over 58. The segment identified by the cluster is very vast but it captures those who attend hypermarkets more than others. Women are usually destined to this activity and most of the marketing strategies are focused on them. In this case the data demonstrate the ability of the hypermarket to ensure quality and efficiency in the services meeting different customer categories, actually different in their requirements (table 5).

5. CONCLUSION

The customer satisfaction is the primary goal of every organization working in competitive situation; a company survives and is successful when people willingly purchase its products/services. In order to satisfy customers, it is necessary to know their needs, trying to provide goods which differ from others on the market, offering something extra and which can guarantee customer loyalty. It represents the last goal; once customer satisfaction is obtained, customer loyalty cannot be taken for granted by the company.

The relationship between quality and customer satisfaction is under a strong conceptual and management evolution. On the one hand quality is one of the antecedents of customer satisfaction, on the other hand, it is more and more frequently identified with the customer satisfaction itself, although a conceptual difference still remains. Quality would not exist without satisfied customers.

We should start considering, as empirically happened in this work, an absolute integrated relationship. If customer satisfaction is mostly pursued within a quality-oriented approach, the chances to have a satisfied customer are greater.

Through a *posteriori* classic segmentation process the first phase of the research has identified the socio-behavioural characteristics of satisfied and dissatisfied customers.

The analysis showed that students are the most dissatisfied group of customer.

The limited economic availability partly alter their quality perception, or better the quality/price ratio is judged too high. However, their dissatisfaction can also be determined by the lack of products tailored to their needs. Since they represent a large part of customers, the hypermarket should try to understand their needs and invest more.

The category of satisfied customers is very wide, including groups made up of individuals differing for occupation and age. The datum is positive because it demonstrates the capacity of the hypermarket to timely meet different needs. The expectations of a housekeeper, an employee or a pensioner differ from others', given the different age and social status. The shopping time can be as diverse as their needs, in terms of product variety, and this implies a remarkable ability and commitment by the hypermarket to offer customers a wide choice, always guaranteeing the quality of its services and products.

The study and the analysis of a link between customer satisfaction and quality variables, in particular it was possible to define three different groups of consumers according to satisfaction level. The research shows that satisfaction can be relevant to understand the consumers and that quality factors affect positive opinions.

It is the quality system that determines customer satisfaction; and it should be searched and found in any business management because that is the only way to achieve excellence and total customer satisfaction/loyalty.

Research has shown that customer satisfaction is determined not by a single variable, but rather by a set of explanatory quality variables; linked together they positively and crucially impact on satisfaction.

The study also based its analysis on the perceived quality. The judgments of the surveyed consumers express personal assessments made after direct experience and on the basis of how the service rendered by the hypermarket is perceived as matching need and expectations, directly related to the value of the characteristics possessed by the product/service. The perceived quality depends directly on the producer's ability to identify the expected quality, to transfer it properly through the various design, development, production and delivery processes of the

product/service, but is also strongly related to the communication campaign. The perceived quality may, therefore, differ from the offered quality and the empirical research has highlighted how it can play a decisive role on customer satisfaction.

6. IMPLICATION AND LIMITED

A company should develop such analysis to know who belongs to different groups and work on each group in order to improve the level of satisfaction and implement group specific strategies.

To capture the market a company must aim at customer satisfaction and preserve this satisfaction for long time.

The empirical results confirm this theory because it comes out that the supplied quality is positively perceived. The satisfaction level are quite high. Research has shown that a corporate strategy customer quality oriented is winning and quality plays a fundamental role because there is no customer satisfaction without quality.

However, the study is limited. Primarily, the results should be validated with repeating the research over several years in other similar hypermarket, located elsewhere, so that a temporal and geographical comparison can be developed. If customers behave differently according to their level of satisfaction, it would be appropriate to repeat the study introducing specific questions about behavior. It would be possible to verify the presence of aspects such as the repurchase of products or not, or the positive/negative word-of-mouth. Finally, it would be necessary to divide the sample in more than 3 clusters in order to obtain more information about the two biggest groups, the dissatisfied and the satisfied, trying to identify the factors that more than others affect satisfaction or dissatisfaction. This analysis would provide a series of added information useful for a correct customers profiling and for more effective marketing strategies. The study demonstrates that quality is a factor able to create satisfaction and in relation to quality it is possible to identify different groups of customers, validating several researches gathered in literature.

REFERENCES

- Aaker, D. A. (1991). *Managing brand equity*. Ontario: The Free Press.
- Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review*, 38(3), 102-120.
- Agustin, C. & Singh, J. (2002). Satisfaction, trust, value and customer loyalty: curvilinearities in relationship dynamics competitive. Paper presentato in occasione della 31^a Conferenza EMAC, 28-31 Maggio 2002, Braga, Portogallo;
- Anderson, J. C. & Narus, J. A. (1990). A model of distributor firm and manufacturer firm working partnership. *Journal of Marketing*, 54(1), 42-58. doi: 10.2307/1252172
- Anderson, R.E. & Srinivasan, S.S. (2003). *E-satisfaction and e-loyalty: a contingency framework*. *Psychology & Marketing*, 20 (2), 123-138.
- Andreassen, T.W. & Lindestad, B. (1998). Customer loyalty and complex services: The impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise. *International Journal of Service Industry Management*, 9 (1), 7-23
- Angelova, B. & Zekiri, J. (2011). Measuring Customer Satisfaction with Service Quality Using American Customer Satisfaction Model (ACSI Model). *International Journal of Academic Research in Business and Social Sciences*, 1(3), 232-258
- Annunziata, A. & Vecchio, R. (2013). Consumer perception of functional foods: A conjoint analysis with probiotics. *Food Quality and Preference*, 28, 348-355
- Bachi, I. (2011). *Cause related marketing e comportamento del consumatore*. Milano, Italy: FrancoAngeli
- Bearden, W.O. & Teel, J.N. (1983). Selected Determinants of Customer Satisfaction and Complaint Reports. *Journal of Marketing Research*. 24 (20), 21-8.

- Bernués, A.; Ripoll, G. & Panea, B. (2013). Consumer segmentation based on convenience orientation and attitudes towards quality attributes of lamb meat. *Food Quality and Preference*, 26, 211-220
- Bonechi L., Carmignani G. & Mirandola R. (2004). *La gestione della Qualità nelle Organizzazioni*. Pisa, Italy: Edizioni Plus.
- Bracalente, B., Cossignani M. & Mulas A. (2009). *Statistica aziendale*, Milano, Italy: McGraw-Hill,
- Busacca, B. (2000). *Il valore della marca tra postfordismo ed economia digitale*. Milano, Italy: Egea
- Busacca, B. (2003). Brand Equity : un modello evolutivo. *Finanza Marketing e Produzione*, 1: 90-123
- Cadotte, E. R., Woodruff, R. B. & Jenkins, R. L. (1987). Expectations and norms in models of consumer satisfaction. *Journal of Marketing Research*. 24(3), 305-314.
- Cardozo, R. (1965). An experimental study of customer effort, expectation, and satisfaction. *Journal of Marketing Research*, 2(8), 244-249. doi: 10.2307/3150182
- Chaudhuri, A. & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*, 65(2), 81-93.
- Costabile, M. (2001). *Il capitale relazionale dell'impresa. Gestione delle relazioni e della customer loyalty*. Milano, Italy: McGraw Hill.
- Dabholkar, P.A. & Thorpe, D.I. (1994). Does Customer Satisfaction predict shopper intentions?. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 7, 161-171
- Dabholkar, P.A.; Thrope, D.I and Rentz, J.O (1996). A Measure of Service Quality for Retail Stores: Scale Development and Validation. *Journal of Academy of Marketing Sciences*, 24(1), 3-16.
- Dahlgaard-Park, S.M. (2011). The quality movement: where are you going?. *Total Quality Management*, 22(5), 493-516
- Dahlgaard-Park, S.M.; Chen, C-K; Jang, J-J & Dahlgaard J. (2013). Diagnosing and prognosticating the quality movement-a review on 25 years quality literature (1987-2011). *Total quality Management*, 24(1), 1-18
- Delgado-Ballester, E., Munuera-Aleman J. L. & Yague-Guillen, M. J. (2003). Development and validation of a brand trust scale. *International Journal of Marketing Research*, 45(1), 35-53.
- Dick, A. S. & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22, 99 - 113.
- East, R. (1993). Investment decisions and the theory of planned behaviour. *Journal of Economic Psychology*, 14(2), 337-375
- East, R. (2003). *Comportamento del consumatore*. Milano, Italy: Apogeo Editore
- Fabbris, L. (1997). *Statistica multivariata*. Milano, Italy: Ed. McGraw-Hill.
- Feigenbaum, Armand V. (1991). *Total Quality Control. 4th ed* New York, NY: McGraw-Hill
- Fornell, C. (1992). A National Customer Satisfaction Barometer: the Swedish Experience. *Journal of Marketing*, 55, 6-21
- Girish K Nair, Harish K Nair. (2013). An analysis on customer perception towards service quality variables in selected organized retail outlets. *International Journal of Management and Social Sciences Research*. 2(1) 56-61
- Gronholdt L., Martensen A. & Kristensen, K. (2000). The relationship between customer satisfaction and loyalty: Cross-industry differences. *Total Quality Management*, 11 (4-6) 509-514
- Grönroos, C. (1994). From Marketing Mix to Relationship Marketing: Towards a Paradigm Shift in Marketing. *Management Decision*, 32(2), 4-20;
- Grönroos, C. (2002). *Management e marketing dei servizi. Un approccio al management dei rapporti con la clientela. 2th ed.* Torino, Italy : ISEDI

- Guatri, L. (1991). *La teoria di creazione del valore. Una via europea*. Milano, Italy: Egea.
- Hallowell, R. (1996). The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study, *International Journal of Service Industry Management*, 7(4), 27 – 42
- Hazlett S., McAdam, R., & Murray, L. (2007). From quality management to socially responsible organizations: the case for CSR. *International Journal of Quality & Reliability Management*, 24 (7), 669-682
- Hofstede, G. (1999). The universal and the specific in 21st-century global management. *Organizational Dynamics*, 28(1), 34–43.
- Howard, J.A. & Sheth, J.N. (1969). *The Theory of Buyer Behavior*. New York, NY: Wiley
- Hoyer, W.D. & MacInnis D.J. (2001). *Consumer Behaviour. 2th ed.* Boston, MA: Houghton Mifflin Company.
- Hunt, H.K. (1977). *CS/D--Overview and Future Research Direction. in Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction*. H. Keith Hunt. Cambridge, MA: Marketing Science Institute.
- Iacobucci, D., Ostrom A. & Grayson, K. (1995). Distinguishing service quality and customer satisfaction: the voice of the consumer. *Journal of consumer psychology*, 4(3), 277-303.
- Ishikawa, K. (1985). *What is Total Quality Control?. London: The Japanese Way*. Prentice Hall.
- Juran, J.M. (1986). Quality Trilogy. *Quality Progress*. 14-24
- Jyoti Sikka Kainth, Harsh V. Verma (2012). Development of a 'Consumer Perceived Value Scale' (SPERVAL Scale) in the Context of Services Industry. *International Journal of Customer Relationship Marketing and Management*, 3(1)18-42
- Kapferer, J.N. (2004). *Strategic the new strategic brand management. Creating and sustaining brand equity long term. 3th ed*, London, UK: Kogan Page.
- Keena, C., Wetzelsb, M., de Ruyterc, K. & Feinberg, R. (2004). E-tailers versus retailers Which factors determine consumer preferences. *Journal of Business Research* 57, 685– 695
- Keller, K. L. 1993. "Conceptualizing, measuring and managing customer-based brand equity." *Journal of Marketing*, 57(1), 1-22.
- Keller, K.L. & Lehmann, D.R. 2003. How brands create value? *Marketing Management*. 12, 26-31.
- Kerin, R., Hartley, S. & Rudelius, W. (2011). *Marketing 10th edition*. New York, NY: McGraw-Hill Irwin.
- Kohli A.K. & Jaworski B.J. (1989). Market orientation: the construct, research propositions, and managerial implications. *Journal of Marketing*. 54: 1– 18
- Kotler, P. & Keller K.L (2007). *Marketing Management*. New York: Pearson.
- Lemon, K.N., White, T.B. & Winer, R.S. (2002). Dynamic customer relationship management: incorporating future considerations into service retention decision. *Journal of Marketing*, 66(1), 1-14.
- Ling C. & de Run E.C. (2009). Satisfaction and Loyalty: Customer Perceptions of Malaysian Telecommunication Service Providers. The Icfai University *Journal of Services Marketing*, 7(1), 6-18
- Medha Srivastava, Alok Kumar Rai. (2013). An Investigation of Mediating and Moderating Variables in Service Quality – Customer Loyalty Relationship: A Research Agenda. *International Journal of Customer Relationship Marketing and Management*, 4(3), 20-43
- Mohammed Al-Omiri. (2012). The Factors Influencing the Adoption of Total Quality Management with Emphasis on Innovative/Strategic Management Accounting Techniques: Evidence from Saudi Arabia. 3(3), 33-54
- Mohsan F.M., Musarrat M., M. Sarfraz Khan, Zeeshan S. & Numan A. (2011). Impact of Customer Satisfaction on Customer Loyalty and Intentions to Switch: Evidence from Banking Sector of Pakistan. *International Journal of Business and Social Science*, 2(16):263-270
- Molteni, L. & Troilo, G. (2007). *Ricerche di marketing*. Milano, Italy: Ed. McGraw-Hill

- Oliver, R.L. (1980a). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460-469.
- Oliver, R.L. (1997). *Satisfaction: A Behavioral Perspective on the Consumer*. New York, NY: The McGraw-Hill Companies, Inc.
- Oliver, R.L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63,33-44.
- Olson, J. & Dover, P. (1979). Disconfirmation of consumer expectations through product trial. *Journal of Applied Psychology*, 64(2), 179-189. doi: 10.1037/0021-9010.64.2.179
- Pan, Y., Sheng, S. & Xie, F.T. (2012). Antecedents of customer loyalty: An empirical synthesis and reexamination. *Journal of Retailing and Consumer Services*, 19 (1), 150–158
- Paschal, S.W. (2011). The Status of Service Delivery in the Health and Fitness Centres in Uganda. *International Journal of Business and Social Science*, 2(20), 156-168
- Pei PeiHing, Mum Wai Yip, Dominic Lau (2013). An Investigation into Critical Success Factors of Knowledge Management Implementation in TQM Organizations in Malaysia. *International Journal of Customer Relationship Marketing and Management*, 4(1), 41-52
- Peter J.P. & Olson J.C. (2004). *Consumer behavior and marketing strategy*. 7th ed., Irwin/McGraw-Hill.
- Petruzzellis, L. & Chebat, J-C (2010). *Comportamento del consumatore*. Milano, Italy: Prentice Hall, Pearson Education Italia
- Pride, W.M. & Ferrell O.C. (2008). *Marketing 2010*. South-Western Pub.
- Rahman, A.; Kalam, A.; Rahman M. & Abdulla (2012). The Influence of Service Quality and Price on Customer Satisfaction: An Empirical Study on Restaurant Services in Khulna Division. *Research Journal of Finance and Accounting*, 3(4), 8-15
- Reed, R.; Lemak, D.J. & Mero, N. P. (2000). Total Quality Management and sustainable competitive advantage. *Journal of Quality Management*, 5:5-26.
- Reichheld, F. & Cook, S. (1990). *The quest for loyalty: Creating value through partnership*. Boston: Harvard Business School Press.
- Reichheld, F. (2006). *Buoni e cattiviprofitti. Il cliente come promotore dell'impresa*. Firenze, Italy: Etas
- Reid, M., Brown, S., Case, M., Tabibzadeh, K., & Elbert, N. (2011). Quality Management in Kentucky 2009, *Academy of Strategic Management Journal*, 1, (Special Issue), 47-61
- Schmitt, B. (1999). *Experiential Marketing*. New York, NY: The Free Press.
- Shu-Ching Chen (2012). The customer satisfaction–loyalty relation in an interactive e-service setting: The mediators. *Journal of Retailing and Consumer Services*, 19,202–210
- Somjit Barat, John E. Spillan. (2012). An Exploratory Study of Customer Satisfaction in a Community Bank. *International Journal of Customer Relationship Marketing and Management*, 3(3), 15-32
- Stephen L. V., Nagao, K., Yi He & Morgan F.W. (2007). Satisfiers, Dissatisfiers, Criticals, and Neutrals: A Review of Their Relative Effects on Customer (Dis)Satisfaction, *Academy of Marketing Science Review*, 11(2)
- Tehran, G.M.; Sarfarazi, M. & Behboodi, M.H. (2012). An investigation of Establishing the Total Quality Management (TQM) System and its role in improving satisfaction in the Fars Pegah Dairy Corporation. *Journal of American Science*, 8(9), 772-778
- Valdani, E. (1995). *Marketing strategico. Un'impresa proattiva per sviluppare capacità market driving e valore*. Milano, Italy: Etaslibri.
- Vicari, S. (1995). *Brand equity: il potenziale generativo di fiducia*. Milano, Italy: Egea.
- Webster Jr. F. E. (1994). *Market-Driven Management*. New York, NY: John Wiley & Sons.
- Westbrook R. A. (1981). Sources of consumer satisfaction with retail outlets. *Journal of Retailing*, 57(3): 68-85.
- Yi, Y. (1990). A critical review of consumer satisfaction. *In Review of marketing* edited by Valerie Zeithaml pp. 68-123. Chicago, Illinois: American Marketing Association

Yu-Jing Chiu, Hsiao-Chi Chen, Gwo-HshiungTzeng&Joseph Z. Shyu (2006).Marketing strategy based on customer behaviour for the LCD-TV. *International Journal of Management and Decision Making*,7(2-3),143-165

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