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STUDY ON EMPLOYEES' SATISFACTION IN THE TOTAL QUALITY MANAGEMENT CONTEXT. EVIDENCE FROM ROMANIAN METAL INDUSTRY

Abstract:

The present paper aims to present a model for evaluating and analysing the employees' satisfaction, seen as internal customers, from the Romanian metallic confections industry. This study is part of a more complex research whose objective was to develop a diagnostic model for implementation and development of total quality management system. In this sense, this paper focuses on the employees' satisfaction analysis as a measure of leadership effectiveness, as an important component of total quality management system. Regarding the research methodology, the study was based on an exploratory and explanatory research type, being conducted on a representative sample of 14 companies from the Romanian metallic confections industry, therefore, the research sample consisted of 388 employees within those companies. Regarding the research tools, as methods of data collection was used a survey based on questionnaire and a semi-structured interview with the firms sampled employees. The questionnaire was composed of 112 items divided into a number of 7 variables, which evaluate and analyse the employees' satisfaction, in this respect, a number of 500 questionnaires was distributed which were collected and validated 388 which means a response rate of 77.6% which is considered good. Also, within the qualitative research was used a semi-structured interview with the managers of firms sampled. The results of the study are intended to ensure and strengthen the competitive advantage of analysed firms and industry.

Keywords:

employees' satisfaction, Total Quality Management, TQM, Romanian metallic confections industry.

JEL Classification: M10, M16, M19

Introduction

Quality is ahead of most of priorities within an organization and its improvement is the goal that we must follow everyone. As we mentioned in other works (Sălăgean, 2014), to face the challenges of increasingly fierce market economy companies need to understand that quality has become one of the main criteria in purchasing decisions of consumers. Moreover, not only providing a quality product/service is important, but giving the customer a "total quality" that exceeds the customer satisfaction towards customer delight.

In this paper we try to present a very important aspect of Total Quality Management (TQM) philosophy, namely employees satisfaction. In this sense, we present in the following a few basic elements of TQM.

As we mentioned in a book (Ilies, 2011), TQM is to create conditions for work to be carried out well for the first time and every time, we specify:
- customers satisfaction;
- employees' satisfaction;
- highlighting the costs of poor quality;
- analysis of activities and processes;
- correcting and adjusting activities and processes

Some authors (Dahlgaard, et al., 2007:16) argue that TQM is a vision which the firm can only achieve through long-term planning, by drawing up and implementing annual quality plans which gradually lead the firm towards the fulfilment of the vision, i.e. to the point where the following definition of TQM becomes a reality. Quality is a part of this definition in that TQM can be said to be the culmination of a hierarchy of quality definitions:
- Quality — is to continuously satisfy customers' expectations.
- Total quality — is to achieve quality at low cost.
- Total Quality Management — is to achieve total quality through everybody's participation

The ISO 9000 standard defines Total Quality Management as "a way of managing an organization focused on quality and based on the participation of all its members, aiming at long-term success through customer satisfaction, providing opportunities for all members of the organization". The standard meant by "all members" the staff at all organizational levels, emphasizes the strong involvement of top managers and permanent training of all members of the organization.

In one study McKinsey and Company (Dale, 2003:36), reporting on a survey of CEOs in the top 500 European corporations discover these important issues related to TQM:
- top management attention: 95 per cent agreement
- people development: 85 per cent agreement
- corporate team spirit: 82 per cent agreement
- quality performance information: 73 per cent agreement

- top management capability-building: 70 per cent agreement
- sense of urgency: 60 per cent agreement

Thus, one can see the importance of involvement and satisfaction of employees. Moreover, employees satisfaction and employees engagement is one of the underlying principles of TQM. In this regard, TQM philosophy sees employees as "internal customers", so these findings lies in this perspective: to see employees as "internal customers" supposed to meet the customer internal needs, to be concerned about internal customer satisfaction, which will have an impact on its level of motivation. Another consequence of employees seen as internal customers approach is that it will raise awareness of the quality of its work - employee becomes aware that the outcome of the whole organization depends on how he performs his work; it creates a type of relationship "supplier-client" between employees; each employee gets a double stance: to provide the other fellow's his work products (supplier) and receive his colleagues work products (client), so every employee in the organization is aware of the importance of the quality of his work.

In this regard, we make the following observations regarding the satisfaction of the employees within TQM context. First of all the company efficiency and effectiveness in achieving total quality depends on both the satisfaction of external and internal customers. To establish internal customer requirements requires removing functional barriers. Employees like internal customers must quantify the quality of the products they want from their suppliers, ie from colleagues in other departments of the company or other execution phases of the product to meet the requirements external clients.

The involvement of all employees in the process of continuous quality improvement is the element that distinguishes clearly TQM from other quality systems. Quality commitment from all members of an organization should be based on the responsibility for their own performance at all hierarchical levels of the organization and the promoting of quality awareness. Employees provide quality work if it corresponds to their own system of values, attitudes and mentality and if they are sufficiently motivated.

Recognition and reward are two distinct concepts. Reward refers to the benefits, the financial advantages. Recognition of achievements is a way to encourage individuals and groups. Recognition and rewards are a powerful motivator in the process of obtaining quality as recognize the importance of individual performance. Promoting the involvement of employees can only be made by top management. Aspects to be considered are the following (Ilies, 2003):
- to ensure that subordinates have the necessary skills to succeed;
- to exercise patience with subordinates, to teach them how to participate;
- provides direction which runs participation process;
- to provide training in specific methods and techniques;
- to measure progress and to recognize the results

Methodology

This study is part of a more complex research whose objective was to develop a diagnostic model for implementation and development of total quality management system. So in this study we tried to analyze the employee satisfaction in the metallic confections industry from the northwest region of Romania.

The research was based on an exploratory and explanatory research type, being conducted on a representative sample of 14 companies from the Romanian metallic confections industry that have implemented or are in the process of implementing quality management systems or ISO standards certification and have a strong position on the market. Depending on the number of employees (size companies) the sampled companies are:

- Small and Medium Business (between 50 and 250 employees) - 10 companies (70%)
- Large Enterprises:
  - between 250 and 500 employees - 2 companies (15%)
  - companies with over 500 employees - 2 companies (15%)

According to a study conducted by the European Commission (European Commission, 2010) metalworking industry is dominated by SMEs acting as sub-suppliers for various industries such as automotive, aerospace, automotive industry, transport, construction and food industry. The metalworking sector is the fundamental link in the EU supply chain, located between its suppliers (the steel industry and non-ferrous) and its clients (a wide range of manufacturing sectors). Metal industry is a significant force in the EU economy and one of the main employers, in this industry there are about 4.2 million workers. Metalworking sector has a larger number of enterprises than any other engineering and manufacturing sector. The metalworking industry represents 20% of EU manufacturing industry, while electrical engineering accounts for 9% and basic metals just 0.5%.

In this respect, it seemed appropriate for us to explore the possibilities of improvement of total quality management system implementation within this industry.

As a method of data collection was used the questionnaire-based survey. The questionnaire was composed of 112 items describing the factors considered important in research, in determining the level of employees satisfaction in the quality management system. For the evaluation of these factors have been used in sets of simple questions on a Likert-type scale from 1 to 5 where 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; 5 = strongly agree, which evaluated and analyzed employee satisfaction. In this respect, we distributed a total of 500 questionnaires, which were collected and validated 388, which is a response rate of 77.6%.
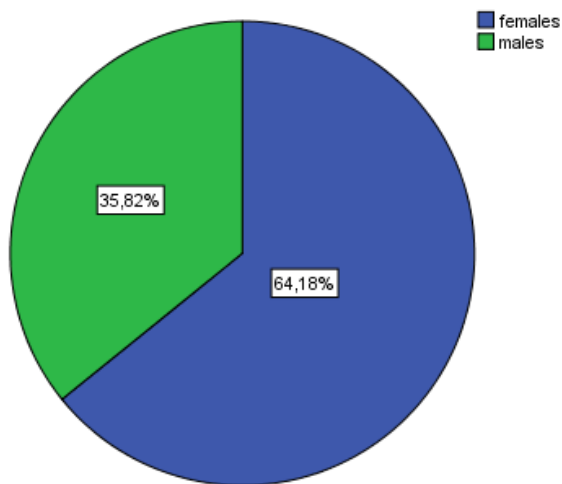
Findings

In the following we want to present the model applied by us in order to investigate employees satisfaction. In this regard, the variable "employees' satisfaction" was

composed by seven dimensions, and in the following we want to present their characteristics.

Regarding the investigated sample structure, we mention that the sample was composed by 249 (64.2%) women and 139 (35.8%) men. It can be seen in figure 1 that the research sample is dominated by women, a very plausible explanation is that within the sample has been taken into account both direct productive staff and indirect productive staff.
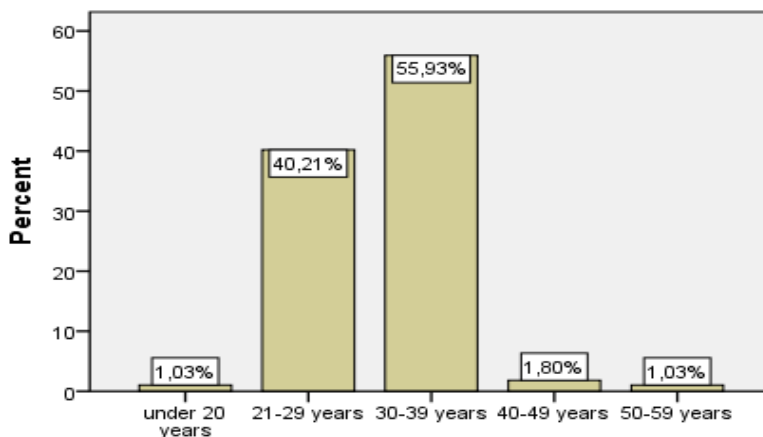
Figure 1: Investigated sample structure

Source: Own research

Regarding the sample distribution by age can be seen from Figure 2 that the main age categories that dominate the sample are 30-39 years (55.93%) and 21-29 years (40.21%), therefore investigated population is mostly young, fact it can be explained, once that this segment is part of the active population, and on the other hand, due to the engineering degree of the industry.
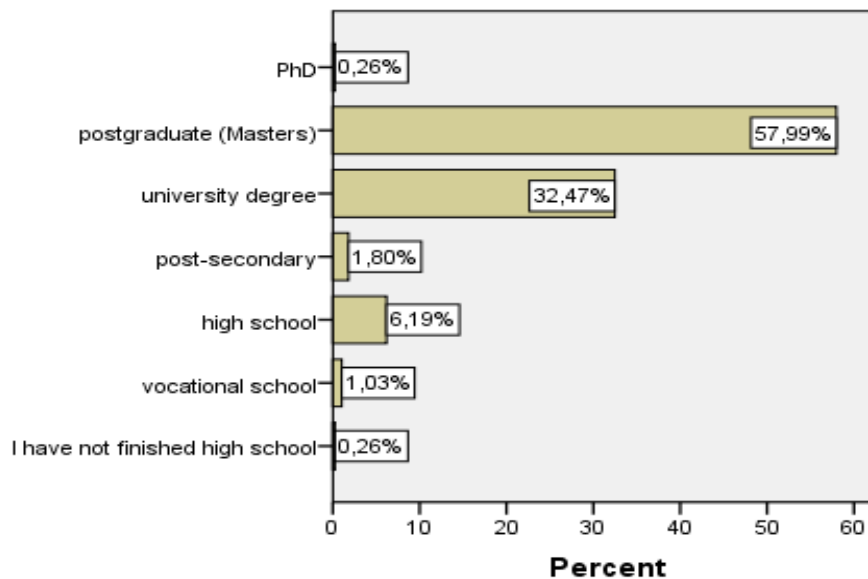
Figure 2: Sample distribution by age

Source: Own research

Regarding the sample distribution by level of education can be seen from Figure 3 that in the companies' sampled prevail employees with higher education, approximately 60% postgraduates and 32.47% employees with university degree. This is due to the characteristics of firms that have educated and trained employees, due to the competitiveness in the metal industry which is increasingly high. It should also be noted that the structure of the sample were included employees from the production line, and indirectly productive employees, including those of quality departments.

Figure 3: Sample distribution by level of education
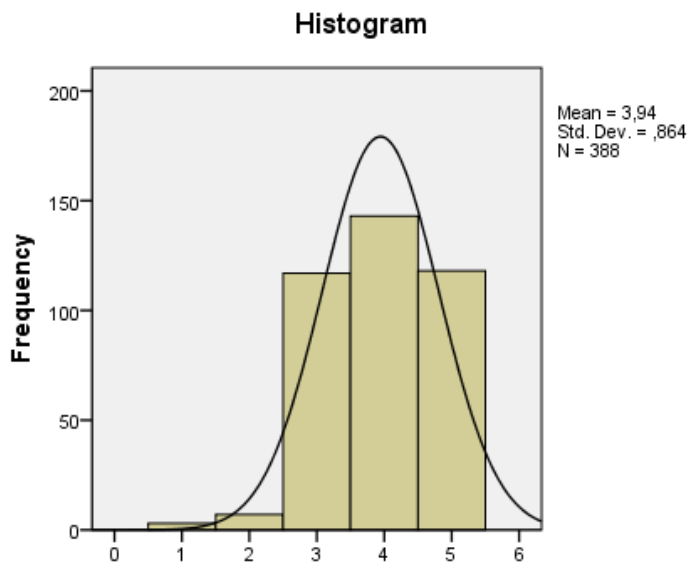

Source: Own research

In the following we present the items that compose the variable "employees' satisfaction ".

The first dimension analyzed, the first item, refers to the degree of employees contentment regarding the work performed. As can be seen from Figure 4, the mean is 3.94 a relatively high value. In other words, employees are satisfied, by work they performed in the organization. Thus, 36.9% of employees agrees on the fact that they are satisfied with the work performed, 30.4% are totally agree, 30.2% are undecided, and 1.8% are disagrees, respectively 0.8% are totally disagrees on the fact that they are contentment with the work they performed at the workplace. Standard deviation is 0.864 which is a small value, and shows that there is a strong grouping of responses thus the perception of employees contentment at the workplace is a similar one.

The second dimension analyzed, refers to degree in which work performed is considered interesting. As can be seen from Figure 5, the mean is 4.2 which is a high value, therefore employees considers that their work is interesting. 63.4% of employees agree with the statement that the work performed is an interesting one, while 29.9% are totally agree with this statement. Standard deviation is 0.669 which is
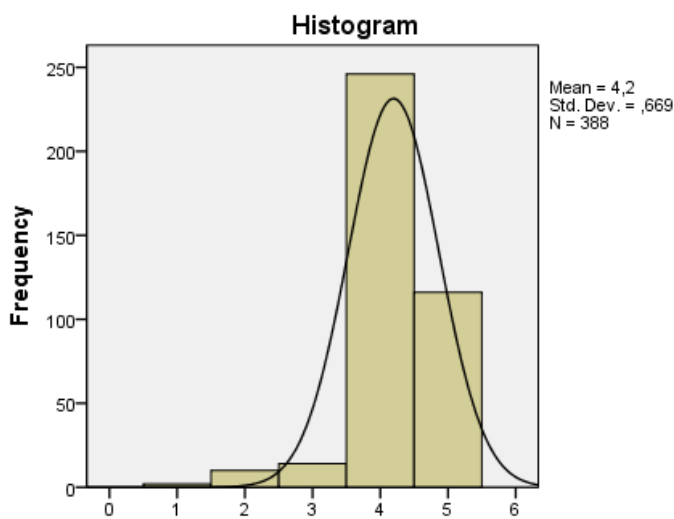
a small value, and shows that the employee's perceptions about the work they perform is a similar one.

Figure 4: Employees contentment regarding the work performed

Source: Own research

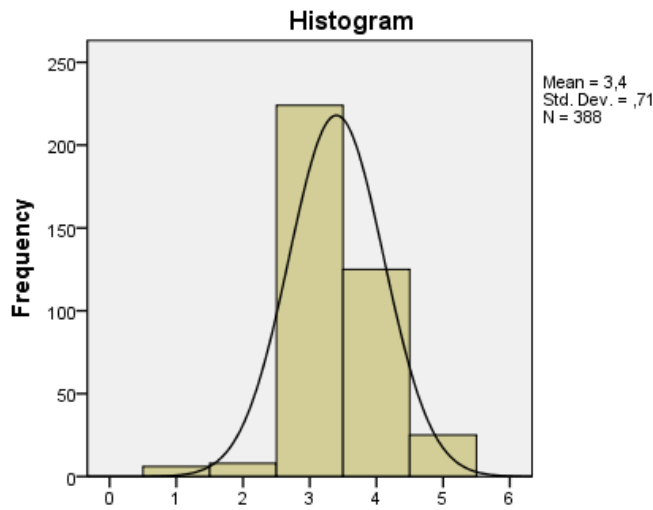**Figure 5: Work performed is considered interesting**

Source: Own research

The third dimension refers to learning and personal development opportunities that it offers by the company. As can be seen from Figure 6, the mean is 3.4 which is a value that tends toward the theoretical average, therefore employees are relatively moderate about the learning and development opportunities that it offers by the company's, in this sense 32.2% of employees say that they agree with the statement that their company provides learning and development opportunities, and 57.7% of employees are positioned as indecisive regarding this dimension. Standard deviation is 0.71

which is a small value, and shows that the employee's perceptions about the learning and development opportunities offers by the company is quite similar.
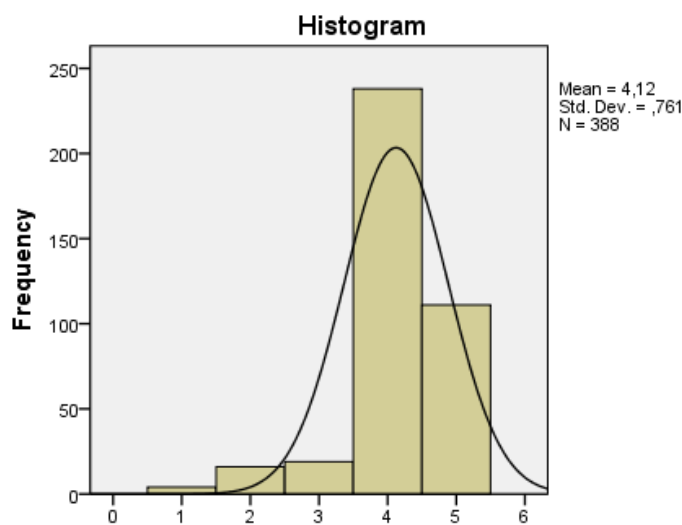
Figure 6: Opportunities for learning and personal development

Source: Own research

The fourth dimension refers to degree in which employees believe that they are treated fairly at the workplace. As can be seen from Figure 7, the mean is 4.12 a high value. In other words, employees are satisfied by the way they are treated at the workplace, therefore 61.3% agree that they are treated fairly by the company, and 28.6% are in entirely agree with this dimension. Standard deviation is 0.761 which is a small value, and shows that there is a strong grouping of responses on the employee's perception regarding the fact that they are treated fairly by the company.
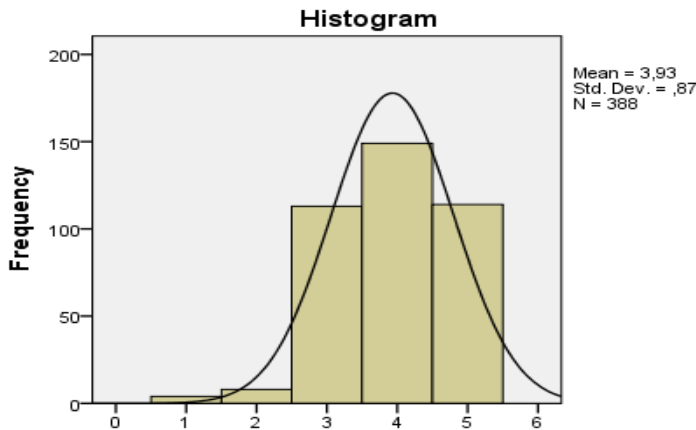
Figure 7: The degree to which employees believe that they are treated fairly

Source: Own research

The fifth dimension refers to the existing balance between work and private life. As can be seen from Figure 8, the mean is 3.93 which is a high value, in this sense, 38.4% of employees claim that manage to create a balance between work and personal life, while 29.4% are in entirely agree, and 29.1% are undecided in report this dimension. Standard deviation is 0.87 which is a small value, and shows that there is a strong grouping of responses and show that the assumption is quite similar within the sample.
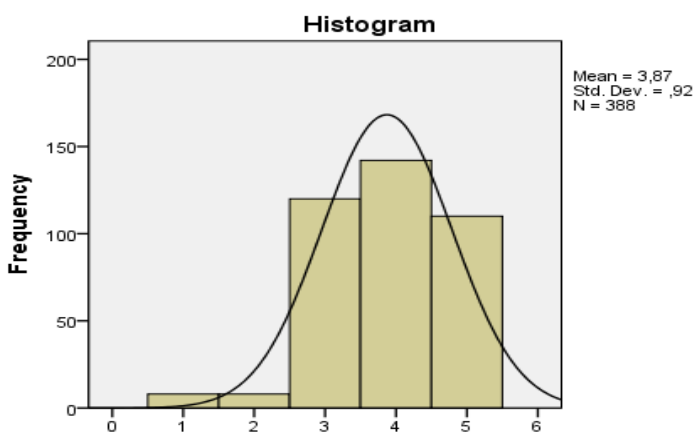
Figure 8: The balance between work and private life

Source: Own research

The sixth dimension illustrates employees opinion about their view related to their future in the company, namely, if they considers that will have a good future in the company. As can be seen from Figure 9, the mean is 3.87 which is a high value in this regard 36.6% of employees believe that they will have a good future in the company, 28.4% are in entirely agree, respectively 30.9% are undecided about their future in the company. Standard deviation is 0.92 which is a value slightly raised, which means that employees responses regarding the future in the company is not as strong as in the other dimensions, which means that the perception of employees about their future in the company in which they currently working, is not very similar.
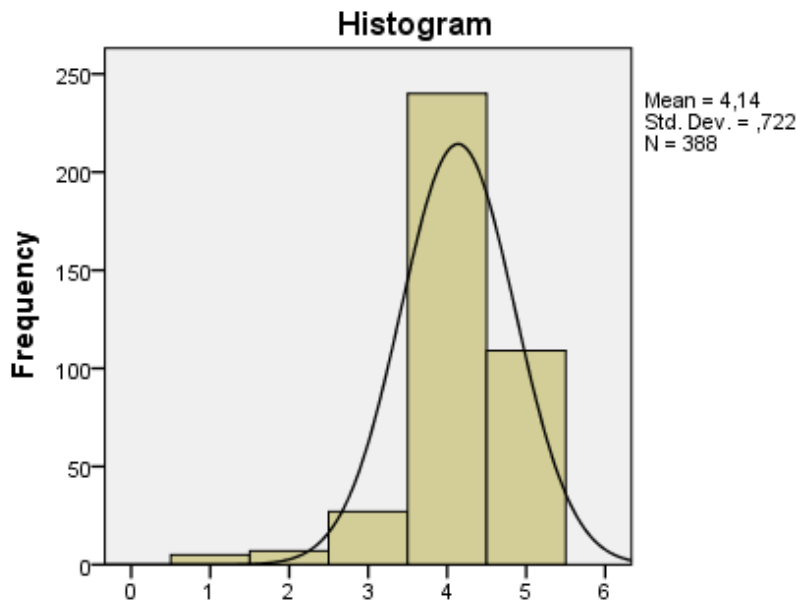
Figure 9: I think I have a good future in this company

Source: Own research

The seventh dimension reveals the extent to which employees feel satisfied by the company they work for. As can be seen from Figure 10, the mean is 4.14 which is a very high value. In this regard 61.9% of employees are considered satisfied by company they work for and 28.1% mentions that are totally satisfied by the company they work for. The standard deviation is 0.722 which is a low value, which means that employees responses are strongly grouped, which means that the view that employees are satisfied with the company they work is similar.

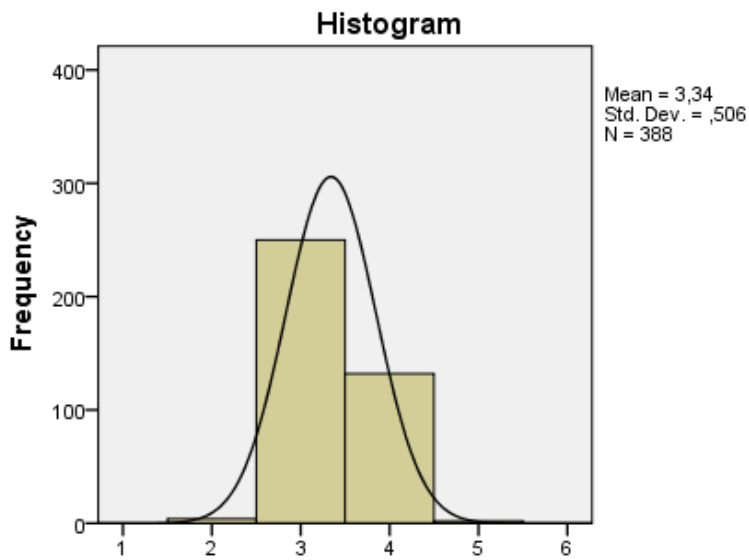**Figure 10: I am very satisfied by the company where I work**

Source: Own research

The variable "employees' satisfaction" was composed by summing the means of the seven dimensions, respectively we grouped the scores obtained in five classes of satisfaction: "1 - very low satisfaction", "2 - low satisfaction", "3 - average satisfaction", "4 - high satisfaction" and "5 - very high satisfaction".

We obtained the following results on employee's satisfaction: a very high satisfaction at a rate of 0.5%, a high satisfaction at a rate of 34%, an average satisfaction at a rate of 64.4% and a low satisfaction at a rate of 1%. In Figure 11 we can see the variable histogram, thus the mean is 3.34 which is a value that tends toward the theoretical mean (3.00), and therefore the employee's satisfaction is relatively average.

This is consistent with our classification, where the average satisfaction gained the highest score (64.4%). Also, the standard deviation is very small 0.506 which means that employees responses are strongly grouped, their views are very similar, which once again confirms our assumptions above.

Figure 11: The variable "employees' satisfaction"

Source: Own research

In the following we want to make some correlations between the studied variable and structure variables like gender, age and education level.

Regarding the relationship between the variable "employees satisfaction" and gender women were declared satisfied at a rate of 64.2% and men declared themselves satisfied with a rate of 35.8%. In Table 1 it can be seen that the two variables are not significantly, strongly correlated. Correlation value is small (-0.375) indicating a weak relationship between variables, which is absolutely normal, employees gender should not influence in large extent job satisfaction.

Table 1: Correlations between employee satisfaction and gender

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Interval by Interval	Pearson's R	-,375	,040	-7,956	,000
N of Valid Cases		388			

Source: Own research

Regarding the relationship between the variable "employees satisfaction" and age we mention that employees under 20 years have reported satisfaction in a proportion of 1%; those from group 21-29 years were reported satisfaction rate of 40.2%; in those from group 30-39 years said that they were satisfied in proportion of 55.9%; those from group 40-49 years were reported satisfaction at a rate of 1.8%; and those in the age group 50-59 years were reported satisfaction in a 1%. So notice that groups of young workers 21-39 years reported the highest levels of satisfaction, which probably caused by dynamism and concerns for the stability of a career, higher than in other age groups.

In Table 2 it can be seen that the two variables are significantly correlated. Correlation value is relatively higher than gender (0,288) indicating an relationship between

variables. Which is normal that job satisfaction to be determined in some wise by age, younger age groups are mainly concerned with career development, promotion, personal development etc. as increasing age makes these motivations to be achieved, so that once job satisfaction beeing touched tends to decrease.

Table 2: Correlations between employee satisfaction and age

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Interval by Interval	Pearson's R	,288	,048	5,916	,000
N of Valid Cases		388			

Source: Own research

Regarding the relationship between the variable "employees satisfaction" and education level we mention that the highest rates of satisfaction were achieved by employees with university studies 32.5% and 58% postgraduates, which is normal, because with the increasing the level of employee's education increases the benefits obtained. In Table 3 it can be seen that the two variables are not significantly, strongly correlated. Correlation value is small (-0.415) indicating a weak relationship between variables, which is normal, the level of education cannot largely influence job satisfaction because even employees who not have university studies are satisfied by their work.

Table 3: Correlations between employee satisfaction and education level

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Interval by Interval	Pearson's R	-,415	,053	-8,965	,000
N of Valid Cases		388			

Source: Own research

Conclusions

To face the challenges of increasingly fierce market economy companies need to understand that quality has become one of the main criteria in purchasing decisions of consumers. Moreover, not only providing a quality product/service is important, but giving the customer a "total quality" that exceeds the customer satisfaction towards customer delight.

TQM is to create conditions for work to be carried out well for the first time and every time. TQM involve customers satisfaction, employees' satisfaction, highlighting the costs of poor quality, analysis of activities and processes, correcting and adjusting activities and processes.
Thus, one can see the importance of involvement and satisfaction of employees. Moreover, employees satisfaction and employees engagement is one of the underlying principles of TQM. In this regard, TQM philosophy sees employees as "internal customers", so these findings lies in this perspective: to see employees as "internal customers" supposed to meet the needs of internal customer, to be

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Another consequence of employees seen as internal customers approach is that it will raise awareness of the quality of its work - employee becomes aware that the outcome of the whole organization depends on how he performs his work; it creates a type of relationship "supplier-client" between employees; each employee gets a double stance: to provide the other fellow's his work products (supplier) and receive his colleagues work products (client), so every employee in the organization is aware of the importance of the quality of his work.

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The variable "employees' satisfaction" was composed by summing the means of the seven dimensions: the first dimension analyzed refers to the degree of employees contentment regarding the work performed; the second dimension refers to degree in which work performed is considered interesting; the third dimension refers to learning and personal development opportunities that it offers by the company's; the fourth dimension refers to degree in which employees believe that they are treated fairly at the workplace; the fifth dimension refers to the existing balance between work and private life; the sixth dimension illustrates employees opinion about their view related to their future in the company; the seventh dimension that compose the variable reveals the extent to which employees feel satisfied by the company they work for. In this context we found that the employee's satisfaction of surveyed companies that are part of the Romanian metallic confections industry is relatively average.

Acknowledgment

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