

## EMPLOYEES' JOB SATISFACTION IN PUBLIC HEALTH INSTITUTIONS WITH IMPLEMENTED QUALITY MANAGEMENT SYSTEM

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*Date of defense* 15 May 2020

### SUMMARY

#### **Purpose**

In today's global market, organizations are faced with competition, regardless the sector in which they operate. Following the above, it is necessary to state that neither the health sector is spared in that way. Many researchers claim that quality is a competitive advantage because implementation of one of the quality management standards increases efficiency of business processes, increases the satisfaction level of all interested parties (including users/patients and employees), reduces costs and complaints and consequently improves the position of an organization and its competitiveness on the market.

Quality is defined in many somewhat different ways. As stated by American Society for Quality (2018), quality is “a subjective term for which each person or sector has its own definition. In technical usage, quality can have two meanings: 1) the characteristics of a product or service that bear on its ability to satisfy stated or implied needs; and 2) a product or service free of deficiencies.” Furthermore, according to one of the quality gurus, Juran, quality is a “fitness for use” (1999: 4), while to another, Crosby, “quality is free” (1996: 9). Even though these are only some of the definitions and they slightly differ, they all have one goal in common, to meet and exceed customer/patient expectations. When talking about quality in healthcare sector, the focus is on meeting and exceeding patients' expectations to get the best possible care with minimal risk to his/her health and well-being.

Although at its very beginnings quality was mainly focused on products and manufacturing, in the last few decades services and service industry became equally important and represented when it comes to the quality of a product or a service offered to users. So in regards to health industry, especially public health, it is more than obvious that activities and programs carried out are crucial for the general health of society seeing that they represent the essence of preventive health care activities. As stated by Winslow (1920: 30), public health is *“the science and art of preventing disease, prolonging life and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health”*. Therefore, the quality of services provided by the Institutes of public health that represent holders of preventive healthcare activities in the Republic of Croatia is pivotal and the best foundation for the increase of quality level lays in application of total quality management (TQM) principles.

Croatian Institutes of public health, as stated before, are major institutionalized providers and coordinators of activities aimed at preserving and improving population health in Croatia. There are 21 county public health institutes that together with the national carrier - Croatian Institute of Public Health, form a Network of Public Health Institutes. Public health institutes cover various areas of preventive healthcare: epidemiology, microbiology, environmental health, school health, mental health and addiction prevention, and public health (Škarica and Vrtodušić Hrgović, 2018).

Preventive measurements are also supported by different laws in Croatia that require implementation of quality standards, to be more precise, accreditation of testing laboratories for testing food, waters, air, object of common use, waste eluates etc., according to standard ISO/IEC 17025:2017.

In order to develop and strengthen its competitive advantages, application of quality management system and its principles becomes a necessity; among which, employee engagement has a significant role. Stated was confirmed by many standards as well as the standard ISO 9001:2015 whose one of the seven principles include Engagement of people, which implies focus on employees. Competent, educated, empowered and engaged people within organization are essential to provide needed value and quality of service to the customers/patients and other stakeholders. Employee significance is further emphasized by an ISO 10018:2012 standard focused on achieving organizational results through people and quality. Having in mind the role and importance that employees have in achievement of quality, there was a need for conducting a research about the level of employee satisfaction in organizations that apply quality management systems, with particular application in public health sector.

Employee satisfaction can be defined as “all the feelings that a given individual has about his/her job and its various aspects” (Spector 1997: 2) or “a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences” (Locke 1976: 1300). From the above mentioned, it can be concluded that employee satisfaction is also

a source of competitive advantage and of vital importance for the organization and its success, as well as the quality. It is necessary to emphasize that quality gurus such as Deming, Juran, Feigenbaum and others, had also put the accent on employee satisfaction and motivation, as well as the necessity of their education.

The connection between quality and human resource management has been the subject of many researches for the past decades, particularly with regard to their potential impact on the range of desired outcomes for organizations, since it tends to achieve productivity, profitability, customer satisfaction and motivated employees within company, and in recent times have the organizations recognized the human resources as a source of competitive advantages. So, it can be concluded that one of the basic aims of every modern organization is to employ and retain the best and most competent employees, which is an integral part of human resources management, but also quality management systems in accordance with ISO 9001, which is based, inter alia, on the efficient use of appropriate resources. Thereby, standard ISO 9001 has identified people, along with other key resources in organization – financial, material and other necessary resources, as a precondition for successful business.

Therefore, the conducted research for the purpose of this doctoral thesis analysed the importance and role of employees in quality management system implementation, maintenance and improvement, and assessed to what extent the application of quality management system principles in the organization contributes to employee job satisfaction.

Presented issue is even more significant because of the fact that stated research has not been done in Croatia so far.

### **Methodology**

The research was carried out on a sample of 710 employees of Institutes of Public Health in the Republic of Croatia that have implemented and certified standard ISO 9001. Adjusted questionnaire was used for the research purposes and was compound of several already structured questionnaires and surveys from previous research (Kanji, 2002; Pupavac, Lipovača and Sečen, 2012; Bolfek, Milković and Lukavac, 2017; Lutilsky et al., 2017; Matthies-Baraibar et al., 2014; Brnad, Stilin and Tomljenović, 2016; Prajogo, Cooper, 2010; Chang e al., 2017; Vukajlović, Stamatović and Urošević, 2012; Verhofstadt, Omev, 2003; SO GO SURVEY, Employee satisfaction survey, 2009) . The questionnaire was consisted of two parts – one regarding TQM principles application and the other regarding the employee job satisfaction and was submitted to all employees, including managers, in stated Institutes. The process of data collection was composed of two phases. The first phase included conducting a pilot study in order to assess what changes need to be made within questionnaire before conducting a main study, and it lasted from the 10<sup>th</sup> to the 12<sup>th</sup> of April 2019. Afterwards, the second phase that involved conducting a main study lasted from the 15<sup>th</sup> of April to the 3<sup>rd</sup> of June 2019. The response rate was 40% (281 respondents).

## Findings

Cronbach alpha coefficient was above 0.90 for the overall reliability of two constructs – employee job satisfaction and TQM principles, while the values for individual dimensions were above 0.70, thereby demonstrating the satisfactory level of validity and internal consistency of the modified questionnaire.

Collected primary data were analysed using the univariate, bivariate and multivariate methods.

Namely, the t-test results showed that there is no statistical difference in perception of observed dimensions of job satisfaction and TQM principles considering gender, while the results of ANOVA test for employees age showed that there is a statistically significant difference in results for salaries, relationship with colleagues, relationship with superior, job characteristics, advancement opportunities, recognition, working condition, education, general job satisfaction, leadership, people involvement, focus on processes and customers, improvement, and overall TQM principles.

ANOVA results for education level demonstrated statistically significant difference in results for salaries, relationship with superior, job characteristics, advancement opportunities, recognition, working condition, education, general job satisfaction, overall job satisfaction, leadership, people involvement, focus on processes and customers, improvement, and overall TQM principles, while years of working experience showed that there is a statistically significant difference in results for salaries, relationship with colleagues, relationship with superior, job characteristics, advancement opportunities, recognition, working condition, education, general job satisfaction, overall job satisfaction, leadership, people involvement, focus on processes and customers, improvement, and overall TQM principles.

Position in the workplace was also tested with ANOVA test and it showed that there is a statistically significant difference in results for advancement opportunities, recognition, working condition, education, overall job satisfaction, people involvement, focus on processes and customers, improvement, and overall TQM principles.

Pearson correlation was conducted for testing four sub-hypotheses. Given results clarified that correlation levels between TQM principles (leadership, improvement, focus on processes and customers, people involvement) and employee job satisfaction range from 0.584 to 0.913 which is considered to be correlation of medium and high intensity, therefore, it can be concluded that the sub-hypotheses are confirmed.

Finally, according to the multivariate regression output obtained, the value of the correlation coefficient R is 0.874, which indicates that there is a strong and positive connection between TQM principles and job satisfaction. Furthermore, there are three significant relationships in the regression model (regarding leadership, people involvement and promotion), meaning that they significantly contribute to the overall job satisfaction.

Based on the conducted research about the level of employee job satisfaction within the public health institutes that apply quality management systems, it can be concluded according to the results of conducted tests that the main hypothesis as well as the sub-hypotheses are confirmed, that there is a significant relationship between level of application of quality management system principles and employees' job satisfaction in public health institutions with implemented quality management system.

### **Originality of the research**

The scientific contribution of the doctoral thesis can be observed in theoretical, empirical and applicative terms.

In terms of theoretical research, the doctoral thesis contributes through presentation of basic principles and requirements of a quality system adjusted to the specifics of public health, methodology review of conceptual and empirical research conducted so far on the concept of employee job satisfaction, defining a strategy to raise the quality level in public health institutions with implemented quality system, and creating a new concept for measuring employee job satisfaction within implemented quality system in public health. In terms of the empirical part of the research, the doctoral thesis contributes through application of multivariate statistical analysis method regarding impact of quality management system principles' application on the overall employee job satisfaction, as well as on the satisfaction with its individual dimensions, and examining the significance of differences in the perception of job satisfaction dimensions and quality system principles' application with regard to age, gender, years of working experience, education level and position at workplace. In terms of the applicative part of the doctoral thesis, the scientific contribution is reflected in the application of methodology for measuring employee job satisfaction in public health institutions with an implemented quality management system, with the aim of improving all public health services to customers, expanding knowledge about the dimensions of employee job satisfaction and defining specific recommendations arising from research, aimed at employee job satisfaction in public health institutions with implemented quality management system.

**Keywords** management system, job satisfaction, employees, TQM, public health

Citation: Škarica, I. (2020), Employees' job satisfaction in public health institutions with implemented quality management system, Doctoral Dissertation Summary, *Tourism and Hospitality Management*, Vol. 26, No. 1, pp. 253-257.