

CONSIDER OF RELATION BETWEEN 5S WITH QUALITY OF WORK LIFE AND QUALITY OF SERVICE IN PRIVATE HOSPITALS IN THE GORGAN CITY

Mehdi Vakili¹, Dr.Mohammad Bagher Gorji²

¹Department of Public Management, Faculty of Management and Accounting, Aliabad Katoul Branch, Islamic Azad University, Aliabad Katoul, Iran

²Assistant Professor, Department of Public Management, Faculty of Management and Accounting, Aliabad Katoul Branch, Islamic Azad University, Aliabad Katoul, Iran

Abstract

The purpose of this research was to consider of relation between 5S with Quality of work life and quality of service in Private hospitals in the city of Gorgan. This research is a descriptive one of correlation kind. And because the researcher attends in real situation of an organization, it can be in field study category as well. The time covers the 1389. Statistic population in this research is Staff and Nurses in private hospitals in Gorgan (hospitals Masoud, Mousavi and Capri) (except Physicians) that its size including 217 person and Patients in private hospitals in Gorgan (hospitals Masoud, Mousavi and Capri) That is about 1,700 people. So using the table of Krejcie and Morgan the sample size for Staff and Nurses is 140 person and Patients is 313 person. In this paper, first Measurement model of research is fitted and then study the original model. Finally, the research hypotheses are tested. To investigate the relationships between the main variables used from the goodness of fit index (GFI) and Adjusted goodness of fit index (AGFI) and for determine the relationship between Secondary variables used from Pearson correlation. To do Factor analysis of secondary research hypotheses used from SPSS Software and to conduct a confirmatory factor analysis and for consider and analysis of the principal assumptions used from structural equation modeling using Lisrel8.8 software. The results of testing hypothesis show that all assumptions have been confirmed; namely between 5S and objective and subjective aspects of quality of work life, there is a significant relationship. Also between all cases of 5S (appropriate sort, order, optimal cleanliness, standardization and Self- discipline) and service quality there is a significant relationship. And at the end between the objective and subjective aspects of quality of work life and quality services, there is a significant relationship.

Keywords: Adornment system, 5S, Quality of work, Service quality

Introduction

The increasing competition and rapid changes in technology fields are the definite and integral features of the modern world and this has forced all the organizations in general and progressive ones in particular, to devote special attentions towards achieving a sustainable competitive advantage. Undoubtedly, being rich in resources like capital, equipments, primary sources such as mines and even modern technology play an important role in the creating and shaping the competitive advantage of one or more products, but what will make this advantage stable is the utilization of an enormous trained and skilled human capital without which the organization cycle will be short and limited like a candle.

Access to quality and increased productivity in organizations is one of the major challenges for organization managers. To achieve the goals and ideals, one should initially provide the necessary context and conditions for it. The establishment of optimum conditions in the environment of work life has also different steps that must be identified and studied and then start the operational activities by observing the requirements and planning an accurate schedule. Creating an appropriate atmosphere in the workplace is possible by the implementation of 5S techniques and principles (sorting, order, cleanliness, standardization and self-discipline). 5S is an intellectual and operational system which is designed with the aim of productivity improvement, quality enhancement and resource waste prevention. This system is an organized effort for carrying out gradual and ongoing reforms that will increase the efficiency and effectiveness of the organization.

Problem Statement

In this era, successful managers are those who pay special attention to their employees' quality of work life together with providing services or producing quality products and creating change and innovation in their organization. Staff and subsets expect managers to make an attempt in maintaining the quality level and its promotion for the purpose of a proper introduction of their organization. The quality of work life (QWL) which is among the issues discussed and studied from various aspects for many years and still there are much controversy about its obvious evidences, is a process by which all the members of an organization will have a kind of involvement in decision-makings that affect their job in particular and their workplace in general, through open and appropriate communication channels created for this purpose; as a result their participation and job satisfaction will increase and their work-related stress will decrease (Kazempour, Robabeh, 2004). Richard Walton has divided the QWL to both objective and subjective aspects as follows: (French & H.Bell, 2002:260) the objective aspects of QWL are: salaries & benefits, welfare facilities, health & safety, participation in decision-making, training courses, delegation of authority, providing a context for job promotion and performance appraisal based on standards; the subjective aspects of QWL are: providing a context for the use of individual's learned skill, considering the viewpoints of individuals, providing a context for establishing creativity and innovation in employees, standard work hours, use of advanced technology, selection and appointment of competent managers, job security, early retirement of individuals, job planning and giving importance to the health and life insurance of employees.

In organizations that provide health services the issue of quality is of particular importance, because the solemn duty and responsibility of health maintenance and community life protection rests on this sector. Meanwhile, medical centers are the integral parts of the health system which provide care services. Although these centers form a small part of the health system, but actually are its most crucial elements; since a major share of health sector expenditures are allocated to it (Jackson S, 2001:63). Parasuraman (1991) has defined service quality as stable compatibility with customer expectations and recognizing the customer expectations from services. The most common model for service quality measurement is the SERVQUAL scale which has been built upon a gap model by Parasuraman, Zeithaml and Berry in 1988. In this model, the service quality assessment is based on the customers' real

understanding of provided quality services compared to an ideal situation from their point of view. Based on this model, the measurement of customers' expectations and perceptions about quality service dimensions is possible using the five dimensions of concrete cases, trustworthiness, reliability/assurance, empathy and accountability.

Since the private hospitals in Gorgan with their various specialty and subspecialty sectors are responsible for a major part of health care services in the Province, the optimal implementation of its quality management can lead to favorable effects. These centers which are of particular importance in terms of services extension and specialty and subspecialty referrals of patients, must review their staff QWL and the quality of health care services and its comparison with their own quality of health care services in various sectors on the basis of Organizational Adornment System impact assessment; and may be considered as important centers in the health system of the Province and Country by modeling the system of customer-orientation. Hence, this research project seeks to answer this question: Is there any relationship between 5S and QWL and service quality of Gorgan private hospitals?

The significance of the study

The first contents about organization 5S were published in 1986. Since then, many companies have focused on the importance and effectiveness of 5S. By the application of 5S, the efficiency power of small companies whose workplace was not very disciplined showed that this method can prepare the existing conditions of companies for productivity improvement through the organization of workplace (Aghayi & Aghayi, 2010:83)

In Japanese terms, 5S is the brief form of 5 words which are indicator of good concepts and include: sorting, order, cleanliness, standardization and self-discipline (Aurel Titu, Oprean and Grecu, 2010: 2). It is believed in the Adornment System that productivity is achieved via the elimination of losses and wastes and it's necessary to eliminate the root of the problems not only their effects and signs; meanwhile everyone's participation is essential for success (Akhavan, 2009:84).

Determination of QWL level provides information by which organization will be able to take steps in the improvement of performance, productivity of human resources and finally QWL by adopting appropriate policies and using optimal strategies. Because most of services are provided to customers by employees, good employees are the key to success of an organization. A good employee can cause the attraction of customers to the organization and a poor employee may waste all the efforts of the organization. Since the nature of humans does not change, so much attention must be paid to the factors of selection hiring such as the training and motivation of employees (Bazaz Jazayeri & Pardakhtchi, 2007:123).

The role of service quality in organizations like hospitals, medical centers, Welfare and other institutions which are associated with the physical and mental health of patients is of particular importance; since a healthy mind is in a healthy body and having a healthy society requires special services for the physical as well as mental health of patients. We have frequently seen some behaviors such as altruism, generosity and humility in hospitals, health care centers etc. at the time of Imposed war, earthquakes, floods and other times, because these behaviors are the features of Islamic society. But today, under normal circumstances and with this attitude that nurses are working as a set of individuals in the society, having a suitable workplace, decision right, health, safety, welfare services and having optimal

conditions for doing the task are considered as their rights (Seyed Javadein & Keymasi, 2010:16).

Objectives of the study

The first main objective:

Determining the existence of a significant relationship between 5S and QWL

The first secondary objective: Determining the existence of a significant relationship between 5S and objective aspects of QWL.

The second secondary objective: Determining the existence of a significant relationship between 5S and subjective aspects of QWL.

The second main objective:

Determining the existence of a significant relationship between 5S and service quality.

The third secondary objective: Determining the existence of a significant relationship between proper sorting and service quality.

The fourth secondary objective: Determining the existence of a significant relationship between order and service quality.

The fifth secondary objective: Determining the existence of a significant relationship between optimal cleanliness and service quality.

The sixth secondary objective: Determining the existence of a significant relationship between standardization and service quality.

The seventh secondary objective: Determining the existence of a significant relationship between self-discipline and service quality.

The third main objective:

Determining the existence of a significant relationship between QWL and service quality.

The eighth secondary objective: Determining the existence of a significant relationship between the objective aspects of QWL and service quality.

The ninth secondary objective: Determining the existence of a significant relationship between the subjective aspects of QWL and service quality.

Research Hypotheses

The first main hypothesis:

There is a significant relationship between 5S and QWL.

The first secondary hypothesis: There is a significant relationship between 5S and objective aspects of QWL.

The second secondary hypothesis: There is a significant relationship between 5S and subjective aspects of QWL.

The second main hypothesis:

There is a significant relationship between 5S and service quality.

The third secondary hypothesis: There is a significant relationship between proper sorting and service quality.

The fourth secondary hypothesis: There is a significant relationship between order and service quality.

The fifth secondary hypothesis: There is a significant relationship between optimal cleanliness and service quality.

The sixth secondary hypothesis: There is a significant relationship between standardization and service quality.

The seventh secondary hypothesis: There is a significant relationship between self-discipline and service quality.

The third main hypothesis:

There is a significant relationship between QWL and service quality.

The eighth secondary hypothesis: There is a significant relationship between the objective aspects of QWL and service quality.

The ninth secondary hypothesis: There is a significant relationship between the subjective aspects of QWL and service quality.

Research background

1. Manuel F, Suárez-Barraza & Juan Ramis-Pujol has conducted a research entitled " An exploratory study of 5S: a multiple case study of multinational organizations in Mexico ". A conceptual framework was developed based on the results of the theory and field comparison: this provides a glimpse into the relation of 5S with other improvement programs such as thought and Kaizen model in the analyzed organizations.
2. Alberto Bayo-Moriones et al, have conducted a research entitled "5S use in manufacturing plants: contextual factors and impact on operating performance" in 2010. Results indicate the existence of a positive relationship between 5S use and some contextual factors like size, the merger of a factory into a multinational group, product type, the technology used and quality programs of the factory. Furthermore, 5S is positively related to some measures of performance, especially those that are associated with quality and productivity.
3. Cemal Zehir et al, have conducted a research entitled "Total Quality Management Practices' Effects on Quality Performance and Innovative Performance" in 2010. The main objective of this study is the investigation of this issue: Do TQM practices affect the quality and/or innovative performance? And also the definition of effective components in this type of performance. Accordingly, we reviewed the literature for hypothesis development and in order to test the research model, the data were collected by conducting a survey in Marmara region and then a positive and significant relationship was observed between TQM practices and quality & innovative performance.
4. Cheng-hua Wang, Kan -Yu Chan and Shiv Chan Chen have conducted a research entitled "total quality management, market orientation and hotel performance: modulatory effects of external environmental factors" in 2012. Results show that TQM has had a positive impact on hotel performance. Market orientation has had a positive impact on hotel performance. Market orientation leaves an intermediary effect between TQM and hotel performance.

5. R.Gayathiri & Dr. Lalitha Ramakrishnan have conducted a research entitled "Quality of Work Life – Linkage with Job Satisfaction and Performance" in 2013.
In this study, a positive relationship was found between these factors, so hospital management should ensure the life quality of nurses in order to be able to provide job satisfaction and performance improvement. This article has attempted to identify the significance and size of the variables and also their linkage with satisfaction and performance by reviewing the life quality.
6. Chandranshu Sinha & D.Phil have conducted a research entitled " FACTORS AFFECTING QUALITY OF WORK LIFE: Empirical Evidence From Indian Organizations" in 2012.
Results indicate that these factors play a significant role in satisfying the needs of employees. And how the various aspects will be evaluated and applied at the level of middle management to develop a unique and unparalleled QWL in social-technical systems for eliciting related responses to favorite works.

Research methodology

The present research is a descriptive one of correlation kind and casual-comparative (Ex-Post Facto).

Statistical population, sample size and sampling method:

Statistical population of this study includes a total of 211 staff and nurses (except doctors) and almost 1700 patients of private hospitals in Gorgan (Masoud, Mousavi & Kapri hospitals). And therefore, using the table of Krejcie and Morgan the sample size was considered 140 persons for staff and nurses and 313 persons for patients. For determination of samples, a stratified sampling was used. This research was conducted from April to September 2013 and its spatial domain was the private hospitals of Gorgan city (Masoud, Mousavi & Kapri).

Methods and instruments for data collection

In this research, library and field methods were used for obtaining information. One of the data collection instruments used in this study was the questionnaire. This research has two questionnaires for staff and nurses; the first one is 5S questionnaire and the second is Walton's QWL standard questionnaire. And SERVQUAL service quality standard questionnaire was used for patients.

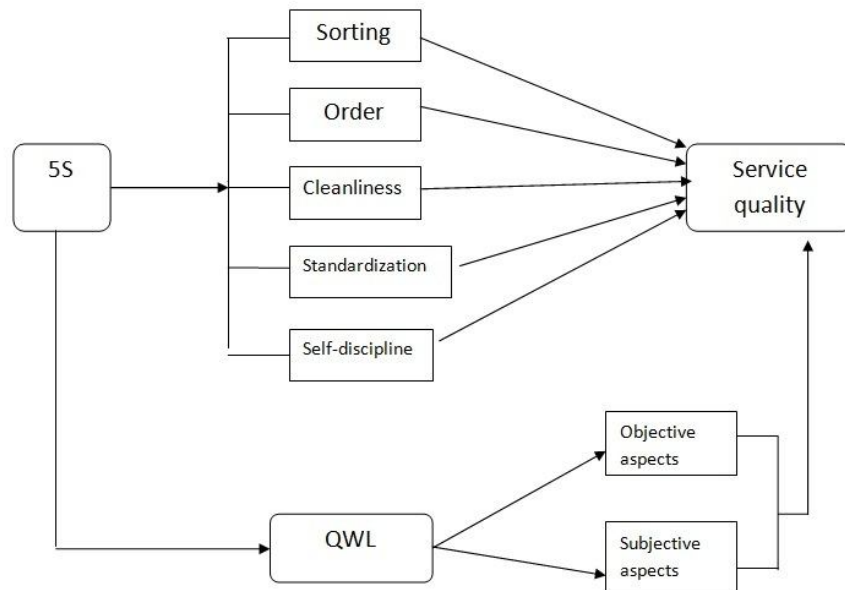
Methods for data analysis

In this research, first the measurement model of the study is fitted and then the original model will be examined and finally research hypotheses will be tested. To investigate the relationship between the main variables, Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI) were used and to determine the relationship between secondary variables Pearson's correlation test was applied. For performing factor analysis and secondary research hypotheses SPSS software was used and for performing confirmatory factor analysis and investigating and analyzing the main hypotheses of the research the structural equation method was applied using Lisrel8.8 software. This method makes it possible to test the validity of research hypotheses and reveal the significance of obtained coefficients.

Theoretical framework of the study

In the current theoretical framework, the relationship between 5S and QWL is shown as the first main hypothesis. Also, the relationship between 5S and objective dimensions of QWL and 5S with subjective dimensions of QWL are the first and second secondary hypotheses of this research. In the second main hypothesis the relationship between 5S and service quality is studied and in its secondary hypotheses the relationships between proper sorting, order, cleanliness, standardization and finally self-discipline with service quality will be investigated respectively. In the third main hypothesis as specified in the diagram, the relationship between QWL and service quality is evaluated and in the eighth secondary hypothesis the relationship between objective dimensions of QWL and service quality and in the ninth secondary hypothesis the relationship between subjective dimensions of QWL and service quality will be assessed.

The Research Model



Research findings

1- Research findings of the first main hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to the implementation of 5S and QWL, the first main hypothesis is confirmed; hence there is a significant relationship between 5S and QWL of the staff in private hospitals of Gorgan city. This means that with the increase of 5S implementation, the QWL of staff will also increase.

2- Research findings of the first secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to 5S and objective aspects of QWL, the first secondary

hypothesis is confirmed; hence there is a significant relationship between 5S and objective aspects of staff QWL in private hospitals of Gorgan city. This means that with the improvement of 5S implementation, the objective aspects of staff QWL will also improve.

3- Research findings of the second secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to 5S and subjective aspects of QWL, the second secondary hypothesis is confirmed; hence there is a significant relationship between 5S and subjective aspects of staff QWL in private hospitals of Gorgan city. This means that with the improvement of 5S implementation, the subjective aspects of staff QWL will also improve.

4- Research findings of the second main hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to 5S and service quality, the second main hypothesis is confirmed; hence there is a significant relationship between 5S and service quality in private hospitals of Gorgan city. This means that with the increase of 5S implementation, service quality will also increase.

5- Research findings of the third secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to proper sorting and service quality, the third secondary hypothesis is confirmed; hence there is a significant relationship between proper sorting and service quality in private hospitals of Gorgan city. This means that with the increase of sorting, service quality will also increase.

6- Research findings of the fourth secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to order and service quality, the fourth secondary hypothesis is confirmed; hence there is a significant relationship between order and service quality in private hospitals of Gorgan city. This means that with the increase of order, service quality will also increase.

7- Research findings of the fifth secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to optimal cleanliness and service quality, the fifth secondary hypothesis is confirmed; hence there is a significant relationship between optimal cleanliness and service quality in private hospitals of Gorgan city. This means that with the increase of cleanliness, service quality will also increase.

8- Research findings of the sixth secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to standardization and service quality, the sixth secondary hypothesis is confirmed; hence there is a significant relationship between standardization and

service quality in private hospitals of Gorgan city. This means that with the increase of standardization, service quality will also increase.

9- Research findings of the seventh secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to self-discipline and service quality, the seventh secondary hypothesis is confirmed; hence there is a significant relationship between self-discipline and service quality in private hospitals of Gorgan city. This means that with the improvement of self-discipline, service quality will also increase.

10- Research findings of the third main hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to QWL and service quality, the third main hypothesis is confirmed; hence there is a significant relationship between QWL and service quality in private hospitals of Gorgan city. This means that with the improvement of staff QWL, service quality will also increase.

11- Research findings of the eighth secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to objective aspects of QWL and service quality, the eighth secondary hypothesis is confirmed; hence there is a significant relationship between objective aspects of QWL and service quality in private hospitals of Gorgan city. This means that with the improvement of objective aspects of QWL, service quality will also increase.

12- Research findings of the ninth secondary hypothesis:

Regarding the mentioned hypothesis testing and obtained results of the analysis of data derived from questions related to subjective aspects of QWL and service quality in private hospitals of Gorgan city, the ninth secondary hypothesis is confirmed; hence there is a significant relationship between subjective aspects of QWL and service quality. This means that with the improvement of subjective aspects of QWL, service quality will also increase.

Conclusion

The research findings of studies by Fatemeh Noushinfard & Mahdiah Mohammad Amini which were conducted for environmental assessment of public libraries indicate that the librarians of Kerman public libraries evaluated their environment well and positively in terms of the organization of materials and facilities. Unfortunately, librarians expressed their dissatisfaction with the criterion of discipline and order. 80% of librarians found the observation of cleanliness criteria acceptable and positive in their libraries. Also, 60% stated that the criterion of standardization has been observed in the Province libraries and had a positive opinion on this issue. Regarding the fifth criterion i.e. participation and work discipline, 42% of librarians have expressed a favorable opinion and evaluated their own and other colleagues and librarians mode of action and cooperation acceptable in the library environment.

Behzad Karami Matin et al, have conducted a research entitled “The impact of Organizational Adornment (5S) on hospital services”. Research findings show that the establishment of Adornment System had an effective role in the promotion of service quality and performance of the three units like nutrition, medical records and surgical ward; so that the degree of staff and patients satisfaction showed significant differences before and after the implementation of 5S in all three units. Dr. Mohammad Namazi, Zohreh Karimi & Mohammad Hadi Maher have conducted a research entitled “The impact of accrual accounting basis implementation on QWL components”.

The implementation of accrual accounting has no impact on some of their QWL components (indices for fair and adequate payment and overall living space); but affects other components. So that a safe workplace had the most and “social integration and solidarity in organizations” had the least impact. Also, the results of the study suggest that individual characteristics of respondents have no effects on their views regarding research hypothesis.

Alberto Bayo-Moriones et al, have conducted a research entitled “5S use in manufacturing plants: contextual factors and impact on operating performance”. Results indicate the existence of a positive relationship between 5S use and some contextual factors like size, the merger of a factory into a multinational group, product type, the technology used and quality programs of the factory.

R.Gayathiri & Dr. Lalitha Ramakrishnan have conducted a research entitled "Quality of Work Life – Linkage with Job Satisfaction and Performance".

In this study, a positive relationship was found between these factors, so hospital management should ensure the life quality of nurses in order to be able to provide job satisfaction and performance improvement.

Suggestions

1. Adequate attention to the improvement of sorting, due to the positive impact of this factor on QWL and service quality
2. Adequate attention to the increase of order, due to the positive impact of this factor on QWL and service quality
3. Adequate attention to the increase of cleanliness, due to the positive impact of this factor on QWL and service quality
4. Adequate attention to the increase of standardization, due to the positive impact of this factor on QWL and service quality
5. Adequate attention to the improvement of self-discipline, due to the positive impact of this factor on QWL and service quality
6. Attention to the objective aspects of QWL, due to its positive impact on service quality
7. Attention to the subjective aspects of QWL, due to its positive impact on service quality

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