

Case Report

The Official Automation Effects on Maintenance Recipients' Satisfaction (Case Study: Gachsaran Oil & Gas Production Company)

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ABSTRACT

The purpose of this research is study of the official automation effects on maintenance recipients' satisfaction in Gachsaran Oil & Gas Production Company. To do this, after reviewing of literature and the discussion of the subject, we designed the methodology of research which includes the advantages of applying official automation. In this methodology, we have a questionnaire for measuring the satisfaction of the maintenance recipients. This questionnaire was given to sample. After data collection and statistical analyze, these results showed that impelementation of official automation in Gachsaran Oil & Gas Production Company can satisfy maintenance recipients' in the fields of quickness, precision, reduction of official bureaucracy and number of accomplished work orders but satisfaction in these fields are not same.

Keywords: official automation, satisfaction, maintenance, Oil Company, Gachsaran

1. INTRODUCTION

We live in an age of knowledge and information Srshtab amazing, incredible Srshtab technology and creativity. With the popularity of computer and information technology and media quick access to advanced economy no country can twenty-first century to the twentieth century without an electronic infrastructure and a little handle. Information is an important factor in management decisions. Having accurate information, accurate, timely increase the speed of decision-making and stop making most of the decisions will be wrong. During the recent years of use and the use of office automation system in our country has undergone And many organizations are interested in the exploitation and use of these systems show And are willing to

spend heavily to deploy and use these systems, but to be seen to what extent the implementation of these systems has provided the consent of the users of them. We must also change our circumstances are constantly changing, otherwise we will pay a heavy price for the lack of change (doctor Nordahl, head of the World Union of Science and productivity: Management Message). One of the principal value of an organization's resources. As human resources, material and financial resources in the production process and the role of particular value. But in the age of information and communication are particularly valuable information. The civil society and the dissemination of key information and using it is a social one. It was meant to

promote national growth. Information on vision and significantly affect our behavior. Electronics and computer technology in the last decade phenomenon caused the explosion of information and certainly an important influence on the direction of society and will have the information they need. Today not only senior managers and executives, but all segments of society, such as scholars and businessmen are forced to use information. Information system users, information as a valuable resource, capital and labor equally apply. As important and valuable information essential to the organization's activities are, therefore, should be established to enable information systems to produce and manage them. The ultimate aim of such systems ensure accuracy, reliability and validity of the information available at the time required and the form can be used. Nowadays, information systems play a vital role in all areas of a company. Due to successful companies shows that they all look to information systems, information systems management Information systems that serve as a valuable resource, managers and employees the ability to increase the effective realization of the goals would come with high productivity. Organizations in the new era of application of computer and information technology and advanced media and the future of those who identify remedial accurate, detailed the advantages and disadvantages of these systems, and the experience of others to learn about observes without the who will bear the costs of that experience again. With the development of communication and data transmission technologies, today users can communicate with one another through personal computers looking for information or for an use of databases. Connect the computer to a network allows the individual to be a reorganization of the way to work. In the modern era of information technology is not included in the communication time and space constraints, as we use mobile phones to communicate. Computer

networks have made it possible for people in the target groups to exchange information with each other. There are many different ways to support the communication of individuals and groups. (Sarrafzadeh, 2001, p. 78) Information technology helps us that walls duties, locations and levels of management separates the down pour and allows us a new network of relationships between members of the organization and outside the organization create. Automation technology that is part of a suite of PC-based hardware and software is said to store, transfer, convert the data into meaningful information used. Experts believe that one way to increase the effectiveness of the organization in order to improve service quality and meet the needs and expectations of our customers. Deming TQM movement is one of the pioneers of quality and customer satisfaction one knows. So by increasing the service quality, customer satisfaction goes up and thus enhance organizational effectiveness and purpose of automation is also increasing the effectiveness of the organization (MacLeod, 2008). Raymond Mklvyd automation in management information systems to issue and believes automation is comprised of all the electronic systems of formal and informal communication between those inside and outside of the institution and vice versa. The main task for the automation of data processing systems, management information and decision support system distinguishes communications.

Kai (2004) in a study entitled "Analysis and design of automation systems" at the University of California to be expressed. Recently automation system designed to optimize the different levels of administrative tasks and save costs, manpower and time, more and more. Doing facilitate service automation and productivity increases. Process automation and instructions and diagrams requires the activities of the system. Design automation system based on the behavior of structural system is created based on the different process occurs. (Chi, 2004). Galstr

(2003), in a study entitled "Evaluation of various complex steps and multiple levels of automation, human machine" at the Catholic University of America expressed it. Introducing a high level of automation in complex systems requires an understanding of the design principles of the system are multiple.

Mohammad Hassanzadeh (2005) in his thesis titled Comparison Bhutan performance before and after the implementation of the automation project for obtaining a master's degree in public administration, was below the overall goals of the research: 1) Study and express views and theories regarding the implementation of automation 2). Data documentation, evidence of peripheral equipment (4) (3) compare the performance of companies before and after the effect of automation on the company's performance. The results of our study suggest that there is a positive relationship between the two variables, performance and automation equipment and improve the company's performance. Srafyazdh in information technology and its application in the organization (2004), the advantages of automation and is divided into two parts: direct benefits such as increased services, saving time and labor and indirect benefits, such as less dependent on other departments, need less red tape, increase job satisfaction and more satisfied customers. The main mission of the net, carried out a series of actions taken to maintain the equipment in a reasonable condition and improve the technical skills of their workforce or change the adverse conditions to an acceptable agreement is necessary, Maintenance and production support in a production unit and the strengths and weaknesses of key importance in this section is directly affecting productivity and profitability of production (Seyyed Hossein, 2001).

Traditional oil and gas operation maintenance management company responsible for maintenance of machinery and equipment, planning and preparation of the materials and the

repair and renewal of machinery, equipment and maintenance process in all the factories and plants, the company is responsible. Client of the agency, including operational plants, desalination, gas compressor, gas and liquid gas, water and electricity. After two years of implementation of this system, it is necessary to measure the success. According to the Office Repair is a service for the rest of the operations, the most important parameter to measure the success of the clients or the clients of the agency's satisfaction. The study aims to examine the satisfaction of the users of the services of the Office of the establishment of office automation, the measure of its success, a step taken to improve it.

Research questions:

- 1) Is the automation in the management and maintenance of oil and gas operating company GACHSARAN would respond quickly to users of the service is operated in order to satisfy them?
- 2) Maintenance of automation in managing the exploitation of oil and gas companies GACHSARAN would do things carefully in order to satisfy the users of its services has been handled?
- 3) Does maintenance of automation in managing the exploitation of oil and gas companies GACHSARAN reduce bureaucracy in order to satisfy the users of its services has been handled?
4. Maintenance of automation in managing the exploitation of oil and gas companies to increase the frequency of service to the users of its services Traditional management is in order to satisfy them?

Research

Study of the nature and aims of applied research. The specific feature of the applied researches, test the effectiveness of scientific theories in a particular area Also in terms of data collection and analysis of cross-correlation. The population of sampling We client population of all

employees of the Department of Plant Maintenance exploitation of oil and gas companies GACHSARAN to number about 300 people. Due to the number of employees of each of the factories and the ratio of total employees, the factory employees equally and randomly chose several people. The sample in this study was done randomly.

Methods and tools for data collection

In this study, both library and field method is used. With books, resources, studies and articles in the field and go to the internet, all related theories and key research variables studied and the necessary items for inclusion in the study were collected. As well as to evaluate hypotheses, a questionnaire was provided to the participants. This questionnaire was elaborated in the first chapter.

Validity or reliability of tools:

The concept of reliability or validity of the question that the instrument measures the extent to which the desired attribute. Without the knowledge of the credit can not be accurately measured data from the confidence (Sarmad, 2006). Researcher to determine the validity of the content validity were used. Content validity of a credit is usually used to examine the components of the instrument. Validity of the measuring tool to the question of forming them. If asked to define the characteristics and special skills are required, valid test content. Validity of a test commonly used by experts in the subject matter is determined. The content validity depends on the judgment of the jury. The questionnaire used in this study, in addition to an internal investigation -as an example Farahani (2009) - has been approved by the relevant faculty. This tool has 15 questions.

Validity or reliability of the instrument

The reliability of the technical characteristics of measuring instruments. It deals with the concept

of measuring instruments mentioned in similar conditions to what extent the results gives the same (Sarmad, 2006, p. 166). The ability of reliability (trust) of the technical characteristics of measuring instrument which indicates that the measurement instruments to measure variables and specific trait, built-how gives the same results in the same conditions.

In other words, the tool is reliable tool that has outstanding repeatability and measurement results are the same (Hafeznia, 2006). One way of calculating the ability of reliability, Cronbach's alpha coefficient, which is used to calculate the variance of each questionnaire must be calculated and the total variance test. It is clear however Cronbach's alpha index closer to 1, the internal consistency of the questions and thereby queries will be more homogeneous. Cronbach's coefficient lower 45/0, 75/0 and average and acceptable, and has proposed rate increases 95/0 (Cronbach, 1951). Obviously, if the low alpha value, should be reviewed to remove any questions that its value can be increased.

Table 3-1: Cronbach's alpha coefficient questionnaires used in research

Cronbach's alpha	Variables
0.721	Speed response
0.832	Accuracy in performing tasks
0.729	Reducing bureaucracy
0.759	Read service

Cronbach's alpha coefficient for this study, a pilot study was conducted with a questionnaire survey among 30 employees. This ratio was calculated using SPSS software, the values in Table 3-1. As we see in the table all the questionnaires and Cronbach's alpha coefficient was at an acceptable level. So we can conclude that all the questionnaires had good reliability.

Research findings:

The first is maintenance of automation in managing the exploitation of oil and gas companies GACHSARAN would quickly

respond to users of its services in order to satisfy them is run?

Table 4-5: one sample t-test for the variable response

The Test: 12					
The value of t	Degrees of freedom	Significant	Mean	Significant at the 95% confidence interval	
				lower limit	upper limit
2.487	2.487	280	0.015	0.699	1.26

As we can see t is larger than 1.96 (significantly smaller than 0.05). After an average of 12 larger. This means that our variable of good intensity and satisfaction of users has been made in this area. But the upper and lower limit values than the average small. The automation in the management and maintenance of oil and gas operating company GACHSARAN would quickly respond to the users of its services in order to satisfy their office. But this satisfaction is not significant. Second question: Is the automation in the management and maintenance of oil and gas operating company GACHSARAN would do things carefully in order to satisfy the users of its services has been handled?

Table 4-6: one sample t-test for the variable accuracy in performing tasks

The Test: 12					
The value of t	Degrees of freedom	Significant	Mean	Significant at the 95% confidence interval	
				lower limit	upper limit
6.380	280	0.000	1.742	1.20	2.28

T here is much larger than 1.96 (statistically close to zero). The lower and upper limits is positive and has a fairly large quantities. The average significantly older than 12. The automation in the management and maintenance of oil and gas operating company GACHSARAN well done under carefully controlled in order to satisfy the users of its services.

Third question: Is the automation in the management and maintenance of oil and gas operating company GACHSARAN reduce

bureaucracy in order to satisfy the users of its services has been handled?

Table 4-7: sample t-test for a variable reduction of bureaucracy

The Test: 12					
The value of t	Degrees of freedom	Significant	Mean	Significant at the 95% confidence interval	
				lower limit	upper limit
4.900	280	0.000	1.237	.74	1.74

T is also much larger than 1.96 (significantly closer to zero) the upper and lower limit values are not too big. The average is greater than 12, but the rate is low. Once in office automation and maintenance of oil and gas operating company GACHSARAN to an average reduction of bureaucracy in order to satisfy the users of its services were run. The fourth question: Is the use of automation in the management and maintenance of oil and gas companies to increase the number of services to the users of its services Traditional management is in order to satisfy them?

Table 4-8: sample t-test, a variable frequency to provide services

The test: 9					
The value of t	df	Significant	Mean	Significant at the 95% confidence interval	
				lower limit	upper limit
3.351	280	0.0001	0.731	0.29	1.17

As we can see t is larger than 1.96 (significantly smaller than 0.05), then an average of 9 bigger. The satisfaction has been achieved in this field. But small amounts of lower and upper limits. In other words, automation in the management and maintenance of oil and gas operating companies provide services to the users of its services Traditional increasing number of office in order to satisfy them. But this satisfaction is not significant. To answer the fourth question of statistical data management

and maintenance use. Due to the automation in the management and maintenance of the 90 has been implemented, the only hit between 90 and 91 have at our disposal. So hit the year to 90 compared with the two years. Summary statistics include the number of requests over the years tasks in Table 4-9 and Figures 4-4 and 4-5 is shown.

Table 4-9: Number of application tasks in the Maintenance Department in different years

Year2012	Year2011	Year2010	2008years	
103372	87530	77063	43396	Number

As we see the number of requests after the implementation of office automation work has been a significant growth. As such it is a growing trend and this means that the number of requests could do more in the coming years. The figures could somehow supporting the first and third research question is, why the increase in the number of requests could be tweaking things done or reduce bureaucracy as well.

CONCLUSION

Is automation in the management and maintenance of oil and gas operating company GACHSARAN would respond quickly to users of the service is operated in order to satisfy them? In chapter four we see the results of automation in the management of the Office would quickly respond to users in order to satisfy them. But this satisfaction is not significant. According to the Department of maintenance activities in oil and gas exploitation and development GACHSARAN its increasing need for the department to further communication channels with the speed of automation here has led the short communication channels of communication necessary Ease provides managers and works and services more quickly done in the factory sub-department. As noted with satisfaction the results achieved this season, four significant phonogram and Office Maintenance can find vulnerabilities and fix

them in order to speed up more services to users in order to increase the effectiveness and efficiency step remove.

Is automation in the management and maintenance of oil and gas operating company GACHSARAN would do things carefully in order to satisfy the users of its services has been handled? The results obtained in four seasons can be seen that in Office Automation Maintenance Traditional oil well done under carefully controlled in order to satisfy the users of its services and the satisfaction at the results achieved is quite impressive. In the past, done a lot of human error can be seen that the costs for maintenance, office automation to enhance the ability of staff to get things done that they added to the accuracy of human errors caused a decrease in providing services to the users is.

The accuracy of increasing the quality of services provided to clients or customers, management and maintenance as well. Is automation in the management and maintenance of oil and gas operating company GACHSARAN reduce bureaucracy in order to satisfy the users of its services has been handled? The results of chapter four we see that the automation in the management and maintenance Traditional oil companies to reduce bureaucracy in order to satisfy average users of the service is managed. As we know, bureaucracy and paperwork in organizations leads to a waste of time and also reduces the accuracy of doing things, and sometimes creates irregularities in the administrative system in long term will in the conventional.

Welcome some of the staff providing services to clients in the management and maintenance Traditional oil companies and also some other system software is unfamiliarity and lack of interest in doing things for software is the cause The equipment it should reduce the bureaucracy is not the case with training and capacity building in the field of software maintenance personnel is resolved. Is automation in the

management and maintenance of oil and gas operating companies provide services to the users of its services. Traditional increasing frequency in order to satisfy them is run? The results of the four observed that increased automation in the management and maintenance of the service to users of its services in order to satisfy them is run, but the satisfaction is not significant.

According to the latest two years before and after the implementation of automation equipment also can be seen that the number of requests after the implementation of automation tasks more. In other words, the trend is growing and an increasing number of requests from tweaking things can be done or reduce the bureaucracy.

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