International Journal of Asian Social Science
ISSN(e): 2224-4441/ISSN(p): 2226-5139
URL: www.aessweb.com

EXAMINE THE RELATIONSHIP BETWEEN HOSPITAL INFORMATION SYSTEMS AND IMPROVING ACCOUNTABILITY OF NURSES

Fakhraddin Maroofi[1]

[1]*Department of Management University of Kurdistan, Sanandaj, Iran*

ABSTRACT

The aim of this research is correlational and 216 questionnaires were designed and collected by the researcher. The measurement of the reliability and validity of the questionnaire and a pilot study was (30 people) conducted reliability tests using Cronbach's alpha for hospital information system (.606) and for improving accountability (.786). The results showed a positive and significant relationship between hospital information system and improve accountability exists (R = .310, significant = .000), between users' satisfaction and quality improvement system. There is a positive relationship between accuracy, quality of information content; information and access to information have improved the response and positively related and significant. The lack of relationship between users' satisfaction and quality improvement system meets the expressed need for administrators to upgrade the system software and hardware to better satisfy its users to increase the efficient use of hospital accountability level hospital information system.

Keywords: Hospital information systems, Accountability, System quality, Information quality, Nurses, Quality improvement system.

Contribution/ Originality

This study contributes in the existing literature is well and used a new estimation methodology and originates a new formula and one of very few studies which have investigated, so, the paper contributes the first logical analysis.

1. INTRODUCTION

One of the issues is that a large volume of information on government bonds is an important health issue in many cases, Progress of a country based on that country's health care speech parameters (Nasiripour *et al.*, 2014) are among the important components of health care. Hospitals have minimal volume information that is generated is transferred from chapter to chapter is notable

DOI: 10.18488/journal.1/2016.6.5/1.5.272.279
ISSN(e): 2224-4441/ISSN(p): 2226-5139

that information management is a complex, heterogeneous and large working hard enough (Nasiripour *et al.*, 2014). Hospital information systems, computer aided management system that makes the ruling Therapy Centers (Gholamhossein and Sadeghi, 2012). And electronic tools the financial, administrative, clinical collecting, sorting, storing computer with the ability to retrieve and provide decision-makers in both time and space (Gholamhossein and Sadeghi, 2012). The rise of public awareness of the citizens, and their expectations the government agencies in various countries have been undergoing changes to the morals of the citizens excepted from their organizations, rules and regulations, justice, equality, saving, production efficiency, powerful to engage them (the clients) more than to consider (Hoover, 2008). Polls show that the public hospitals Patients not satisfied with the manner of service of the hospital such as bed shortages, lack of fitness facilities, the number of visitors, constraints, resources, facilities, obtain outside legal aspects billing, hospital and recycle of beds, particularly in hospitals. Also, some other problems referred to the government hospitals, and theories patients, in other words, public face poor accountability from hospital management (Isfahani et al., 2012) as well as, part of the problems related to information systems of the hospitals (Bloom, 2000). According to agency theory-services, public organizations, managers, for their performance against budget, including hospitals should be held accountable. In developing countries, government hospitals are the main pillars of health systems. Overall, 50-80% of the budget is allocated to this sector (Aghajani, 2007). Resellers, system builders of HIS, information to improve accountability in the areas of financial, political, structural, cultural, organizational, team, informational, managerial, professional, hierarchical, etc. can be entrusted with the management and other stakeholders, which internally and externally prepared and will be given the main purpose of the above research. To achieve the answer of HIS that can improve the response of stakeholders internal and external. Health sector using information systems effectively achieves the goals, efficiency, effectiveness, and quality of services as well as patient satisfaction, which are a fundamental necessity (Nasiripour *et al.*, 2014). The organization of health care his a role in establishing the promotion of health of human society has a test trial and error, task confuses non-repairable, so having an information management system, management based on correct information, accurate and timely manner is very important lowering admission, discharge, transfer time (Csiki *et al.*, 2005). When prescribing physician requests para time getting answers, visit the historic information enhance the accuracy of the published information, call that is illegible in manual mode, etc.... Accelerate communication between intersectional in enhancing patient satisfaction, better service, reports daily facts when informed of the hospital's cost-income status, layoff, etc. are issues that hospital information systems need to be doubled (Kamfiruzi, 2011). Use of these systems has increased quickly respond to internal and external stakeholders, patients, and the hospital. Actually need to reduce health care costs, increase the quality of care and develop health services the strategic considerations on the use of business and Use competitive advantages, hospital information systems have emphasized and recommended and need to develop such systems in providing health care quality (Shen *et al.*, 2012). Well, HIS by providing information and patient records to provide those services not only improve decision-making in the health but, also developing the organization which is an important and effective role (Gholamhossein and Sadeghi, 2012). Reichertz (2006) in their studies finds that

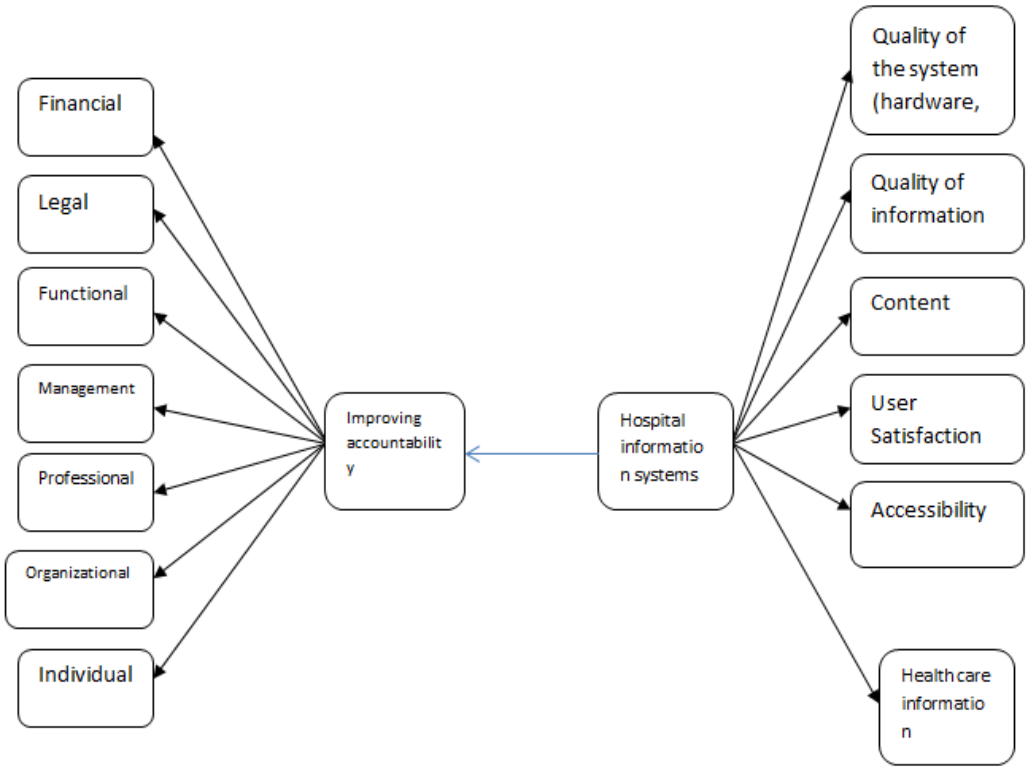
seven protective mechanisms are essential for management analysis (risk, risk management policy, punishes, investigating the activities of an information systems, data backup plan, disaster recovery plan, emergency mode operation plan). Among them, risk management plan and data plan fully support all hospitals in the physical security mechanisms which is required for projects to apply in the majority of hospitals to access emergency in a hospital (Ahmadi *et al.*, 2010) and showed that the application of HIS reviewed in view of nurses users units more clinics in Sub Para and secretary. Gholamhossein and Sadeghi (2012) in their study, the following results were obtained, in patients with an average stay of 56/6 per day reduced the mean total cost of illness Equivalent of 772,604 rials was enhanced in the application process response time of 13 minutes, duration testing process 2 Minutes, and in Time admission process pony reduction were observed in the computer system 260 minutes. Shen *et al.* (2012) found that 7/47 percent of the users were satisfied with the hospital information systems, helping to decide the overall SPECTRA 2/53, but, in the Sdazkarbran quality of hospital information systems have some degree of satisfaction. Azizi *et al.* (2010) in their research found that the degree of match ends information system hospitals shows that the average total system less than 50% and was weak. Lalehio *et al.* (2011) in their study found that the use of information technology (telephone, Fax and e-banking services) will increase bank accountability between managers and employees regarding the gender perspective, on the serving and a duration degree in information systems to improve accountability, no significant differences are observed. Zahedi *et al.* (2009) concluded that they increase or decrease the ability of non-governmental organization's activity in the field of public health. Iran participation of non-governmental organizations is facing uncertainties, the government stance on the role of NGOs in empowering people's awareness of their participation in the activity NGOs on the accountability of NGOs to influence the future. Fazlollahi *et al.* (2011) findings indicate a positive impact on the response variable is to promote public confidence in the country.

1.1. Hypothesis

The main hypothesis: the relationship between hospital information systems (Imam Reza) (AS) have improved significantly and positively responds Nurses zero sum.

1. Relationship between quality of hospital information systems (hardware, software) improved significantly and positively responds.
2. The relationship between hospital information system data quality has improved significantly and positively respond.
3. The relationship between the information content of a hospital information system is improved significantly and positively respond.
4. The relationship between health information systems, hospital information accuracy has improved significantly and positively responds.
5. The relationship between user satisfactions with the hospital information system has improved significantly and positively responds.
6. The relationship between the ability to access information on the hospital information system has improved significantly and positively responds

1.2. This Conceptual Model



2. METHODS

This study uses new estimation methodology and the practical purpose of the study is a correlational study population of all nurses working in hospitals of Imam Reza (AS), Kermanshah (493 patients), the probability of sampling an equal using Cochran formula, 216, was obtained. Data collection and library studies and internet combined questionnaire designed by the researcher and standards that measure the reliability and validity of the questionnaire, a pilot study (30 people) was conducted reliability tests using Cronbach's alpha for hospital information system (.606) and for improving accountability (.786) were obtained using the content validity of the questionnaire was reviewed and approved.

3. RESULTS

The results of the descriptive variables: 42.1% male and 57.9% female gender perspective in terms of age, 28.5% under 30 years of age, 59.8% between 31-40 years, 10.7% between 41-50 and 0.9% above 50 years of age, 4.7% in terms of qualification, diploma, associate degree, 4.7 percent, 77.6 percent and 13.1 percent bachelor of senior and more terms of marital status, and 31.3% were unmarried, 68.7% married below 22 percent from the previous 5 years, 26.2% between 6 - 10 years, 34.6% between 11-15 years, 7.9% between 16-20 years and 9.3% had more than 20 years' experience.

Table-1. Test Kolmogorov - Smirnov for normality of data

	Kolmogorov-Smirnov[a]		
	Statistic	**df**	**Sig.**
Accountability	.119	214	.000
Hospital Information System	.084	214	.001
Accuracy of Information	.152	214	.000
Content	.194	214	.000
Quality of information	.174	214	.000
Access to information	.185	214	.000
User Satisfaction	.188	214	.000
Quality Systems	.099	214	.000

Based on the above table because the significance <0.05 is the assumption of normality is rejected and the assumption of non-normal data, the data is accepted

Table-2. The relation between hospital information system and improve responsiveness using the Spearman test.

The main hypothesis of this study: hospital information system and improve the response			Hospital Information System
Spearman's Rh correlation	Accountability	Correlation	.310**
		Significant level.	.000
		Number	214

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the above table between hospital information systems and improve accountability, a positive and significant relationship exists at 95% confidence level, significance = .000 (approved premises) are a relatively good correlation between the degree of r =.310

Table-3. The relationship between improving accountability Secondary research hypotheses using Spearman's test.

Secondary research hypotheses		**Improving accountability**
Quality Systems	R	.072
	Sig	.292
	N	214
User Satisfaction	R	.123
	Sig	.073
	N	214
Access to information	R	.190**
	Sig	.005
	N	214
Quality Information System	R	.255**
	Sig	.000
	N	214
Content	R	.433**
	Sig	.000
	N	214
Accuracy of Information	R	.273**
	Sig	.000
	N	214

Based on the above relationship between the quality of hospital information system and improve the response is positive and there is poor correlation between sig = .073; r = .123, and improve the quality of hospital information system does not respond positively, positive significant

correlations significant = .292, but between them is desirable; r = .072, the access to the hospital information system and improve the response is positive significant correlation between degree of correlation between them is relatively weak significant sig = .005; r = .190, between hospital information systems and improve data quality, accountability, positive significant positive relationship exists degree of correlation between them is relatively weak sig = .000 r = .255, between the hospital information system and improve the information content of the response is positive significant correlation between degree of correlation between them is desired significant = .000; r = .433, between hospital information systems and improve data accuracy, accountability there is a positive significant correlation between degree of correlation between them is relatively weak significance = .000; r = .273

4. DISCUSSION

The results of these tests show that the 99% confidence level, significance = 0.000 and the value is less than 0.01, and thus reject the null hypothesis and accept the opposite assumption. This means that the positive and significant relationship between hospital information system and improve the response. Spearman correlation coefficients between these two variables are equal to 0.310 which shows a positive relationship between them. Results sub-hypothesis first and second indicating disapproval of the relationship between the qualities of hospital information system, the satisfaction of users with the improved response is significant and more than 05, but, the relation obtained is not significant. The third hypothesis test results show that the 99% confidence level, the significant = .005 is less than .01, and thus reject the null hypothesis and accept the opposite assumption This means that the relationship between access to hospital information systems Imam Reza answered that there are significant improvements in Kermanshah hospital. (Confirming the hypothesis) and a Spearman correlation coefficient between these two variables is equal to 0.190, which indicates a positive relationship between them. The fourth hypothesis test results show that the 99% confidence level, the significant = .000 is less than .01 and, therefore, the null hypothesis was rejected and the opposite assumption. This means that the relationship between the qualities of hospital information systems Imam Reza answered that there are significant improvements in Kermanshah hospital. (Confirming the hypothesis) and a Spearman correlation coefficient between these two variables is equal to 0.255, which indicates a positive relationship between them. The fifth hypothesis test results show that the 99% confidence level, the significant = .000 is less than .01, and thus reject the null hypothesis and accept the opposite assumption. This means that the relationship between the hospital information systems, the information content of Imam Reza answered that there are significant improvements in Kermanshah hospital. (Confirming the hypothesis) and a Spearman correlation coefficient between these two variables is equal to 0.433, which indicates a positive relationship between them. Results obtained the sixth hypothesis testing shows that the 99% confidence level, the significant = .000 is less than .01, and thus reject the null hypothesis and accept the opposite assumption. This means that the relationship between the accuracy of the information on Hospital Information Systems, Imam Reza answered that there are significant improvements. (Confirming the hypothesis) and a Spearman correlation coefficient

between these two variables is equal to 0.273, which indicates that there is a positive relationship between them.

5. SUGGESTIONS

Is proposed to improve the efficiency of the system is to evaluate the impact on service outsourcing deals. The effect of increasing the efficiency of hospital information systems Imam Reza is proposed to upgrade the facilities, hardware and software platforms and other the system updates accordance with its operators is scientific and practical ability. Courses are offered for users to update their knowledge of the system to be.

REFERENCES

Aghajani, M., 2007. Analytical and comparative study of hospital information systems. Tebo Tazkie, 11(4): 29-36.

Ahmadi, M., L. Shahmorady, M. Barabadi and F. Hosseini, 2010. Evaluating the use of hospital information systems according to 9241 standard isometric. Hakim, 13(4): 226-233.

Azizi, A., A. Hajavi, H. Haghani and M.S. Baghini, 2010. Respect rate of hospital information system Criteria of American college of physicians in educational hospitals of Iran, Tehran and Shahid Beheshti Medical Sciences Universities. Health Inf Manage, 7(3): 323-329.

Bloom, G., 2000. Equity in health in unequal societies: Towards health equity during rapid social change. Brighton, U.K: University of Sussex, Institute for Development Studies, IDS Working Paper No. 112.

Csiki, I., A. Marcu and C. Ungurean, 2005. Description of the national health information system in Romania. Bucharest: WHO Regional Office for Europe Press.

Fazlollahi, Z., H.L. Afshar, M. Jabraili and M. Maleki, 2011. An evaluation of hospital information system implementation in Imam Hospital in Urmia. Health Inf Manage, 8(5): 731-798.

Gholamhossein, L. and M. Sadeghi, 2012. Evaluating efficiency of Shafa Hospital Information System in Imam Reza Hospital. Journal of Islamic Republic of Iran Armed Forces University of Medical Sciences, 10(1): 6-62.

Hoover, N., 2008. Hiltons welcome mat starts on the web. Available from http://reports.informationweek.com/abstract/7/660/Enterprise-Software/undefined./ [Accessed 2011 Sep 18].

Isfahani, S.S., M. Jahanbakhsh and M. Habibi, 2012. Assessment and comparison of hospital information systems in isfahan hospitals based on the adjusted delone and mclean model. Health Inf Manage, 8(5): 609- 620.

Kamfiruzi, A.J., 2011. Assessment of hospital management information system HIS. Shiraz University, School of E-Learning. Available from http://earmin.com/his-srs.

Lalehio, Z., L. Nejad, M. Jebraeili and M. Maleki, 2011. Evaluating implementation of hospital information system in Imam Khomeini Hospital of Orumieh. Health Information Management, 8(5): 245-378.

Nasiripour, A.A., M. Mahboubi, S.H. Mousavi, A. Arash, m. Alireza, E. Afshin, A. Saeed, M. Ehsan and M. Mohsen, 2014. Evaluating hospital information system (HIS) of Imam Reza Therapeutic Educational Center of Kermanshah. Adv. Environ. Biol., 8(11): 748-753.

Reichertz, P., 2006. Hospital information system. International Journal of Medical Informatics, 75(8): 268-281.

Shen, M., M. Carswell, R. Santhanam and K. Bailey, 2012. Emergency management information systems: Could decision makers be supported in choosing display formats? Decision Support Systems, 52(2): 318- 397.

Zahedi, S. Al-Sadat and P. Khanlu, 2009. Future studies addressing the areas of health NGOs in Iran 1404. Iranian Journal of Management Sciences, 5(21): 47-76.