

An Assessment on the Impact of Information Technology in Hospital Management: Case Study of Yobe State University Teaching Hospital (YSUTH)

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ABSTRACT: Information Technology (IT) is rapidly changing the way Hospitals are set up. In this study Fifty questionnaires were employed to collect data from staffs, across five different unit of the hospital. Yobe State University Teaching Hospital, through direct observation and interview. The evaluation was carried out in order to understand the impact play by information technology in hospital management. Having looked into the research outcomes obtained from the analysed data, the result shows that; Based on the basis of this investigation findings, it could be concluded that information technology (IT) has a tremendous progressive effect on healthcare. This was manifested by the nature of information collected from the hospital staff for the research conducted. After the findings made, on the importance of IT facilities, on to which the staffs alleged that information technology exercises an impact on hospital service delivery and likewise improve their performances. The result of the study also clearly indicated that information technology has contributed immensely to the success of the numerous hospital operation, despite the challenges. Furthermore, the result for the measurement of health information system adoption in the hospital has recognised some influences which affect the lack of its fully accomplishment. Conversely, the investigationon this issue had make clarifications that the employees faced numerous challenges in adopting information technology in the hospital

Keywords:ITAssessment,InformationTechnology, Health Information System, Hospital

I. INTRODUCTION

Information technology (IT) has been a key instrument in the execution and development of economies since the mid-1970s, and it has perhaps turned into the principle technological empowering influence of economic globalization. All the more as of late, this has been broadly as compelling (Barton, B., 2014). Today, the world is continuing developments in all-inclusive economies and they are going ahead rapidly. These advancements are because of the change of pinched together based economy into information based one. For the most part, right and strict accomplishment of information technology is by all accounts troublesome. Until 1980, PC was the main innovation which was secured as the information technology.Right now, IT has get to be similar to collection which incorporates acollection of equipment, administrations, capacities and essential advancements. Information technology as is an innovation which studies, plans, creates, actualizes, oversee computers based information systems. particularly computer programming and equipment programs. As well, is a branch of technology which makes the study, utilization and procedure of information conceivable in the regions of capacity, control, exchange, administration, control and computerized information readiness utilizing equipment, programming and Network (Chirani and Tirgar, 2013). Information systems and related technologies keep on developing at an exceptional stride. Numerous commercial ventures have profited from the utilization of information systems, especially with the coming of the internet (WWW) and e-business (Crowe and Nagub, 2010).

Hikmet et al (2008) upholds that preparing and thinning out of information in an organisation is changing measurement from manual to modern



to computer age. Workers are overwhelmed with the information they got from distinctive source, and they used it reliably. In any case, the most ideal approach to oversee information in an organisation is to embrace the utilization of systems administration knowledge and information are the key components that upgrade efficiency, competition, resources and support. Nations have focused on methodologies for expanding the giving quality training. It is similarly essential to take a look at our hospitals and figure out the advancement of training as the world is changing toward Technology reinforces (Crowe and Nagub, 2010). However, the economy in today's information society is reliant next to alternate assets on creation, management and sharing of information is basic and important. Information technology manager can be described as a man in charge of overseeing authoritative information, and keeping up the technology apparatus (Bross and Cronje 2013).

The abilities acquired by information technology managers can enhance the collective profitability of an organisation and absentee of such abilities might just affect the productivity of an organisation, on this ground it is accepted that equipped and qualified information technology managers accommodated abilities (Bross, and Cronje 2013).Information Technology as a profession touches all circles of human endeavour within and outside an organisation.On the contrary, Hikmet at el (2008) describe health information technology (HIT) as the extensive variety of clinical, operational, and vital systems utilized in hospitals, for example, electronic medical records, automated doctor request section and patient charging systems. Therefore, the adoption of healthcare technology cannot be over emphasized and was labelled as the key driver to enhancing the quality, security, and proficiency of healthcare management.

II. INFORMATION TECHNOLOGY IN HEALTH

Healthcare information technology is a key figure making strides quality and diminishing cost healthcare, but then, the effective usage of health IT differs enormously among medicinal services systems. E-health (electronic health), the utilization of information technology to enhance or empower health and healthcare, has as of late been high on the healthcare development plan. Given the striking enthusiasm for e-Health, little reference has been made to the utilization of these advancements in the progression health (Kaye et al,

2010). E-health is a rising field of medicinal informatics, referring to the organisation conveyance of health services administrations and information utilizing the web and related technologies. In more extensive sense, the term portrays a specialized development, as well as another method for working, a state of mind, and a promise to organized, worldwide considering, to enhance health care mainly, provincially, worldwide by utilizing and correspondence innovation (Seedhouse et al, 2008).

E-health, characterized as the "utilization of information and communication technologies (ICT) in backing of health and health-related fields, including healthcare managements, health surveillance, health writings and health training, learning and exploration. Can possibly enormously enhance management proficiency, grow or scale up treatment conveyance to a large number of patients in developing nations, and enhance persistent results (Blaya et al).Information technology (IT) is propelling medicinal services more quickly than any other time in recent memory. Indeed, the rate of adaption of electronic health records in the recent years has bested over two decades ago. The Medicare and Medicaid EHR Incentive program's "Meaningful Use" prerequisites have additionally quickened the advancement, improvement, and utilization of key usefulness fundamental to procurement of more secure, higher quality, and more patient-focused care for people and populaces (Mostashari 2014).

Nonetheless, E-health technology is advanced as a standout in the midst of the most encouraging steps towards more secure medication treatment. E-health provisions offer a stage for institutionalization and information trade crosswise over organizations and interface of consideration, encourage in-procedure controls and twofold checking, help to restructure procedures and backing the medicinal services experts amid their work (Seedlinget al, 2013).

HOSPITAL INFORMATION III. **SYSTEM**

In order to make availableoutstanding health services, hospital should be fortified with hospital information system (HIS) to automate their occupational processed. Hospital is defined as a health care institution that put in order the complete individual health care that offers inpatient care, outpatient care, and emergency. Additionally, a hospital should provide administrative services. Both of those services data will be managed in HIS. Hospital information system is an incorporated



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information structure to handle the whole process of the hospital management right from registration, medical and medicine services as well as interior services such as worker's data management, finance and procurement (Handayaniet al, 2013).

In same vain, Information is vital to fruitful critical rational and health managementservice. Critical thinking incorporates choosing an investigative system, making a right determination, evaluating care needs, and picking the most proper treatment alternative. In a perfect world information is irrefutable, free from predisposition, obviously imparted, appropriate and precise. Some information may be quantifiable, far reaching or auspicious. All vital information should be open. These attributes then are the antecedents or prerequisites of electronic information systems (Hovenga and Heard, 2010). These days, information systems are fundamentally computer based systems. They are mix of equipment, programming, systems and workers, composed to encourage different assignments and exercises in organization (Eric, T.G. el al, 2013).

In general, health information system can be defined as huge, incorporated system that comprehensive support the information requirements of hospitals including patient, scope of innovation in healthcare utilization to obtain, store, convey, investigate health-giving information and financial management (Acharvulu, 2012). In the hospital setting, this innovation is a standout amongst the most imperative parts to the conveyance of top score and safe consideration. Specifically, medicinal services supplier request passage, has been indicated to the less medical mistake, while structure that show as of late finished lab testing may diminish excess testing. Irrespective of these advantages, hospital facilities have been moderate to receive these advances (Society of Hospital Medicine 2010).Presently, clinics are indebted to enhance their quality health managements to meet the higher standard. This

change is upheld through the execution of e-health project. Under this development, hospitals are pleased to have health information system (HIS) or Enterprise Resource Planning (ERP) for healthcare. Be that as it may, to-date just a couple of hospitals have executed a coordinated heath information system. Keeping in mind the end goal to give astounding health service administrations, hospitals ought to be prepared with hospital information system to computerize their business process (Yan, J.J. at el, 2015).

IV. RESEARCH OBJECTIVES AND DATA COLLECTION METHODOLOGY

The primary purpose of this research work was to investigate the importance and adoption of information technology at Yobe State University Teaching Hospital (YSUTH) which is situated in North East Nigeria. It was as well, prepared to identified theimplementation maturity, alongside possible challenges faced by the users, in case, if any. The qualitative research carryout in this investigation is through the use of interviews and questionnaires which shown to be beneficial in exploring the targetedissues. However, the study employed the interview to explore the respondent's opinion on the use of Information Technology. The aforementionedlikewise willassists the investigator to know the up-to-date state and impact of ITfacility at (YSUTH) directly from the specialists who customarily have interface with the facility. The required information was gathered through interviewing 50 respondents who were selected from five different section of the hospital. In addition, the respondents include administrative staffs, doctors, nurses, pharmacists and laboratory technologists of the hospital. All the interview was briefed and precise on the information concerning the motive of the study

Age bracket		Frequency	Percentage
	26-35yrs	13	26.0
	36-45yrs	16	32.0
Valid	46-55yrs	10	20.0
vana	56-65yrs	6	12.0
	66-75yrs	5	10.0
	Total	50	100.0

V. DATA ANALYSIS AND RESULTS Table 4.1 Age of respondents

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Table 4.1 shows that 16 (32%) are between 36-45 years, 13 (26%) are between 26-35 years, 10 (20%) are between 46-55 years, 6(12%) are between 56-65 years, while 5 (10%) are between 66-75 years respectively.

Table 4.2 Sex of respondents					
Sex		Frequency	Percentage		
	male	28	56.0		
Valid	female	22	44.0		
	Total	50	100.0		

Table 4.2 indicated that a maximum number of 28 (56%) were male while 22 (44%) were female respondents.

Profession		Frequency	Percentage		
	administrator	10	20.0		
	pharmacist	10	20.0		
Valid	lab-technician	10	20.0		
v and	resident doctor	10	20.0		
	nurse	10	20.0		
	Total	50	100.0		

Table 4.3 Profession of	of respondents
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Table 4.3 identified that a total of 10 (20%) respondents were equally selected and represented from each of the five various departments, this includes administration department, pharmacy, laboratory, doctors and nursing department respectively.

Research Question 1

Do you agree IT make available adequate, truthful, understandable and suitable information in the hospital/or in your department?

Profession		Frequency	Percentage
	strongly disagree	2	4.0
	disagree	3	6.0
Valid	neutral	7	14.0
	agree	23	46.0
	strongly agree	15	30.0
	Total	50	100.0

Table 4.4 reveal that a total number of 23 (46%) of the respondents agree that IT, makes available adequate, truthful, understandable and suitable information in the hospital, 15 (30%) agree strongly, 7 (14%) were neutral 3 (6%) disagree with the statement while 2 strongly disagree with the following statement. The outcome demonstrated that the majority of the respondents are conscious of the importance and benefits of

having active IT adaption inside the organization. Furthermore, this is a clarification that most workers are knowledgeable of the significant and influential of information technology in carrying out the hospital daily routines.

Yang et al, (2015) affirms that the appropriate assortment, managing and use of health information systems perform a serious part in identifying medicinal hitches and recognizing



ground-breaking resolutions and allotting means to treat patients. Information technologies are extensively employed to increase the superiority of healthcare provision. In the advancement of those developments up-and-coming technologies stand not solitary used any longer for the overall administration of health systems, nonetheless they stand also concentrated on improvement and accomplishment of other resolutions.

Research Question 2

Do you believe that health information systems enhance the quality of decisions by making information readily available?

		Frequency	Percentage
	strongly disagree	3	6.0
	disagree	7	14.0
Valid	neutral	4	8.0
, and	agree	23	46.0
	strongly agree	13	26.0
	Total	50	100.0

Table 4.5 revealed that 36 out of the total respondents constituting (72%) of the entire total respondents agreed or believes that information technology has the capacity to enhance the quality of decision by making information readily available. In contrast to that, 10 of the respondents, representing (20%) disagreed with that assumption, while the remaining 4 (8%) didn't take any site. However, gone with the majority, this has proving beyond doubt that information technology systems do play very important roles in enhancement of

employee's performance and productivity as well. (Acharyulu, 2012) upheld that health information systems haveprogressive as an incorporation system of order admittance systems, a managerial system, and departmental subsystems inside a hospital, it is also projected to make available the employees with numerous, worldwide information for resolution making and well communication. It has come to be more and more obligatory for every health care worker in hospital to use computer terminal at virtually all day's work.

Research Question 3

What is the extent of acceptance in the use of these facilities in hospital management?

Table 4.6 Frequency Percentage 8 16.0 slightly 25 50.0 moderately Valid 17 34.0 highly Total 50 100.0

Table 4.6 shows that 25 (50%) of the respondents shows that their level of IT recognition in hospital management is reasonably moderate, 17 respondents, representing (34%) gave it upper hand (highly) on that, and 8 representing (16%) gave only little acceptance which is slightly. Considering the outcome, it seems the workers need to be more educated and better inform about the relevancy, efficacy and importance of this information

systems to their work, because the outcome of the research question affirms that the number of respondents that highly embrace the implementation of this technology is at the average dimension. As the result revealed, Crowe and Nagub (2010) indicated, 'in any case, the most ideal approach to oversee information in an organisation is to embrace the utilization of systems administration knowledge and information



are the key components that upgrade efficiency, competition, resources and support'.

Research Question 4 & 5

Whether you are conversant to the use of these IT facilities * If question 4 is yes, what is the level of familiarity? Cross tabulation

	Table 4.7				
		-	If question 4 is yes, what is		
		the level	of familiarity	?	
		slightl	moderately	highl	
		у		у	
		1	24	2	27
	agree	3.7%	88.9%	7.4%	100.0
					%
You are conversant to the		1	3	4	8
use of these IT facilities	strongl	12.5%	37.5%	50.0	100.0
	у			%	%
	agree				
		2	27	6	35
Total		5.7%	77.1%	17.1	100.0
				%	%

Table 4.7 revealed the data analysis for both research question 4 and 5 respectively. The two questions have a direct linked, because is only the respondents with agreed opinion will be legitimate to answer research question 5. However, based on the outcomes, 35 persons out of the total respondents have confessed that they are familiar with the operation or rather know how to use these facilities, but is only the magnitude of their understanding differs, while 15 respondents disagreed. Moreover, as indicated in the joint tabulation, 27 respondents out of the total agreed response, which represent (77.1%) of the participants, shows that they have a moderate knowledge of IT familiarization, and also knowhow of handling the facilities. 6 (17.1%) indicated that they have a very sound knowledge of understanding the operation of these facilities, while 2 (5.7%) participants have little understanding. However, the general outcome of this investigation has demonstrated that good majority of the workers are conversant with the utilization of information technology facilities, in addition means that they are computer literate but notwithstanding there is need for them to receive more training and retraining as we know technology evolve. Nevertheless, doing that will improve the workforce efficiency and productivity as well.

Research Question 6 & 7

Are there any challenges you face in making use of these IT facilities? * If question 6 is yes (specified) Cross tabulation

1 able 4.8						
	If question	If question 6 is yes (specified)				
	Lack of	poor	poor	lack of	lack of	
	electricit	internet	access to	equipm	knowle	
	у	facilitie	the	ent's	dge	
		s in the	hospital			
		hospita	data base			
		1	link with			
			the			
			laborator			



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					у			
	Ĺ	9		5	2	6	1	23
Are there any challenges you face in making use of these IT facilities?	agree	39.	1%	21.7%	8.7%	26.1%	4.3%	100.0 %
	strongly agree	0		3	0	3	4	10
		0.0	%	30.0%	0.0%	30.0%	40.0%	100.0 %
		9		8	2	9	5	33
Total		27.	3%	24.2%	6.1%	27.3%	15.2%	100.0 %

Table 4.8 portrayed the breakdown of information obtained from research question 6 and 7, which has connection, just like the immediate previous research question that was treated before this very one. Obviously, there is no endeavour that doesn't has its challenges, based on this fact, the researcher tried investigating that, alone with the types they might be facing in the cause of carrying out their hospital daily responsibilities. The outcomes show that 33 (66%) agreed there are problems, which they believed directly or indirectly does affect their service delivery, while 17 (34%) disagreed. However, as the discovery disclosed, the hospital has a multiple challenge. The greatest challenges among is lack of constant power supply

and inadequate IT facilities, both has equal number of respondents, which is 9 each, and perhaps representing (54.5%) of the total respondents. Other issues include, poor internet facilities, which has 8 (24.2%) of respondents, then lack of sufficient operational knowledge among the workers, which has 5 (15.2%) respondents, and lastly poor accessibility to the laboratory database, which has 2 (6.1%) of the respondents, representing.

However, (Handayani et al, 2013) observed that teaching hospitals as a community establishment had better have an exceptional service to the public, then in order to achieve this goal, these problems should be urgently overcome.

Research Question 8

Are these facilities easy to use in terms of menu and outcome interpretation?

		Frequency	Percentage
	strongly disagree	1	2.0
	disagree	2	4.0
Valid	neutral	10	20.0
, uno	agree	27	54.0
	strongly agree	10	20.0
	Total	50	100.0

Table / 0

Table 4.9 shows that a total number of 37 (74%) of the total respondents affirms that they do understand the operation of these facilities and with the numerous programs contain in the information systems, as well the clarification of the display outputs or results. In contrast to that, 3 (6%)

disagreed with that, while 10 (20%) respond refuse to take any site. Conversely, this outcome signifies, most of the workers are IT acquiescence, since majority of them can easily operate these facilities without much hindrance, as well as interpreting the display results.



Research Question 9

The information system has the capacity to communicate and interchange data between the hospital departments

		Frequency	Percentage		
	strongly disagree	4	8.0		
	disagree	6	12.0		
Valid	neutral	3	6.0		
vund	agree	23	46.0		
	strongly agree	14	28.0		
	Total	50	100.0		

Table 4.10 reveal that the presentation of data breakdown that evaluated whether this information system is capable of making a correspondent's task, and exchange of information among the various hospital departments. Based on the findings outcomes shown in the table, 37 (74%) respondents out the total participants, representing agreed that the hospital information systems are capable of performing the stated obligations. Although 10 (20%) opposes or disagreed. The remaining 3 (6%) are undecided. However, going with the opinions of majorities, (Crowe and Naguib, 2010) staff has understood numerous profits of IT systems, including data reliability, improve communication across the departments, increased sureness resolution making, because information is usually seen, strengthened influences critical to managing the hospital, reduced reliance on paper based information's and advance planning and administrator abilities'. Certainly, with this outcome, the researcher thought large number of the staffs do understand the influential IT in hospital execution and delivery.

Question 10	
Do you prefer human power to the used of I'	F facilities?
	Table 4 11

Table 4.11			
		Frequency	Percentage
Valid	strongly disagree	5	10.0
	disagree	14	28.0
	neutral	4	8.0
	agree	19	38.0
	strongly agree	8	16.0
	Total	50	100.0

Table 4.11 showed the opinion of the respondents over whether, they prefer better utilization of paper based to the used of information technology facilities. The findings uncovered that 27 (54%) respondents agreed with that proclamation. On the other hand, 19 (38%) disagreed. Whereas 4 (8%) were neutral. However, the outcomes of this investigation meant that the

workers need to be encourage, enlighten and better communicate about the remarkable influences information technology facilities has over paper based. However, Luiz M.J, (2013) observed that information technology has the generous potential to add to enhancing access to give a second thought, bringing down general expenses, and overflowing operational efficiencies in the health



system. The inspiration driving these patterns lies in the possibility to diminish the wrong doing of numerous legacy and paper-based systems, enhance limit of health system to oversee persistent and their information, expand agreeability with health regulations, guarantee accessibility of information to backing more effective care, and upgrade security around patient privacy.

Research Question 11

Is, in any way the adoption of these technology affect the rate of employment or human work force in the hospital?

		Table 4.12	
		Frequency	Percentage
	,		
Valid	disagree	7	14.0
	neutral	3	6.0
	agree	27	54.0
	strongly agree	13	26.0
	Total	50	100.0

Table 4.12 displays the data analysis that try to investigate, on whether the adaption or rather implementation of these technologies in somewhat way can affect the rate of employment or the human workforce in the hospital. The findings indicated that 40 (80%) agreed it does. In dissimilarity 10 (20%) disagreed. Apparently, is believed that anything that has advantage must also have its disadvantage, so in line with that, and perhaps in spite of the fact that, the tremendous contribution of these technologies can never be over highlight, but they still have their drawbacks. However, the researcher reason in the same manner with the majority respondent's, really it can reduce worker's degree of employment to some extents, because these technologies doesn't require much workforces to handle them. Moreover, the purposes are that must of the clinical manoeuvres is been done via machine-driven instruments and internet service.

Research Question 12

Do the present IT facilities need modification or enhancement for efficient and effective patie	ent care?
Table 4.13	

		Frequency	Percentage
Valid	disagree	1	2.0
	neutral	4	8.0
	agree	28	56.0
	strongly agree	17	34.0
	Total	50	100.0

Tale 4.13 reveals that a total number of 45 (90%) respondents agreed that the current facilities on ground need to be replace or change, on the other hand, only 1 (2%) disagreed with the idea, while 4 (8%) were neutral. However, this research finding showed that the hospital is seriously lacking remodel working facilities, and is understandable without that the expected objectives desired to be achieved can hardly be fully

accomplished. Acharyulu (2012) revealed that currently, hospitals are required to increase their value of health services to meet the higher standards. Therefore, there is need for the government or hospital authority to get involved, in providing the hospital with new or rather modern facilities in order to become align with the competitive trend, doing so will certainly enhance their inputs and productivity as well.



			What is the cost of maintaining these facilities?		Total		
			slightly	moderately	highly		
Are fa affordable purchase?		strongly disagree	2	1	3	6	
			33.3%	16.7%	50.0%	100.0 %	
			0	2	6	8	
	facilities to	disagree	0.0%	25.0%	75.0%	100.0 %	
		neutral	0	2	4	6	
			0.0%	33.3%	66.7%	100.0 %	
			0	9	12	21	
		agree	0.0%	42.9%	57.1%	100.0 %	
		strongly agree	0	3	4	7	
			0.0%	42.9%	57.1%	100.0 %	
Total		2	17	29	48		
		4.2%	35.4%	60.4%	100.0 %		

Research Question 13 & 14 Are facilities affordable to purchase? * What is the cost of maintaining these facilities? Cross tabulation

Table 4.14 demonstrate the research analysis for the cross tabulation of research question 13 and 14. Research question 14 was attempted to ascertain the affordability of purchasing the IT facilities. As indicated in the table, out of total the respondents, 28 (58.3%) believes that the facilities are inexpensive. Whereas 14 (29.2%) disagreed with that impression. However, 6 (12.5%) are uncertain. Moreover, the second research question is prepared to investigate the expense of running and maintenance of the facilities. Based on the information gathered from the research conducted, 30 (60%) respondents agreed that the cost of maintenance of the facilities is relatively expensive, 18 (36%) Percentage of participants decided is not so much expensive. Then, 2 (4%) believed is just slightly expensive. Nevertheless, the research analysis unveil that the cost of the facilities upkeep is a bit expensive, but, notwithstanding that should not be a reason for neglecting the facilities in unhealthy condition, since the purpose of establishing every organization is to achieve a certain desired goals, and without conducive working environment, standard can never be compromised. The researcher suggests, the hospital authority should give much priority and emphasis on acquiring modern facilities, and

they should also adopt the culture of appropriately maintenance service.

VI. DISCUSSION AND CONCLUSION

Hospital as public institution is expected to have an outstanding service to society, because of their importance, they need to be fortified with an organise health information structure due to their complex business processes as healthcare and service research organisation. With a functioning information system, hospital could handle the entire process of hospital management starting from registration process, medical and medicine services, as well as in-house services, such as employee data management, finance and so on. However, based on this study outcomes, it could be concluded that information technology (IT) has a tremendous effect on healthcare. This was manifested by the nature of information collected from the hospital staffs for the research conducted. Subsequently the findings made, on the importance of IT facilities, on to which the employeesalleged that information technology exercises an influence on hospital services and enhances their performances as well. The outcome of the investigation clearly indicated that information



technology has contributed immensely to the success of the hospital operations, despite the numerous challenges. Bigus et al. (2011) supported the impression by revealing that information technology that gives key favourable circumstances which can help an organisation meets its business objectives and recognizes it from competitor facilities. Similarly, technology can help organisation discover new or substitute approaches to enhance its management.

Equally, the outcome for the measurement of health information system maturity in the hospital, has recognised some factors which affect the lack of fully accomplishment of information system operation success in the hospital. Conversely, the investigation conducted on this dispute had make clarifications that the employees faced numerous challenges in adopting information technology in the hospital. However, Seedhouse et al, (2008) revealed some of these influences are as result of human, technical, and organisational factors. These identified shortfalls have become an obstacle to the ineffective usage of these IT facilities.Correspondingly,Freeman., (2012) make remark that a successful health information technology has got to be vibrant in meeting hospital goals and rising of health awareness conveyance in any setting subsequently, preferably, embracing of health of information technology enhances the nature of consideration while additionally lessening expenses by inciting suppliers with guiding principle, taking out copy tests, diminishing drug blunders, and enhancing the stream of clinically applicable information.

Nonetheless, the findings also identified that the information technology facility in the hospital is confronted with several difficulties that affect the general wellbeing of the services delivery. These challenges include; shortage of electricity supply, poor internet and IT facilities, inadequate equipment, insufficient skills and ICT knowledge amongst employees. All the same, in order to enhance service and productivity these difficulties must be urgently overcome to meets the clinical objectives, doing socan leads to smooth service delivery and execution of the hospital various functions. As is rightly upheld, (Sultan, N., 2014) it is considering that the absence of liable facilities management system program too makes a difficulties identified with business positioning at the organization level. A typical illustration may be found in investment positioning procedure, as the prioritization of activities break because of absence of dependable communication information and the

absence of valuation in light of performance and expenditureplan (Wheatley B., 2013).

REFERENCES

- [1]. Barton, B, (2014). Lessons Learned in Healthcare Information Technology. The Journal for Quality and Participation, [Online]. **37** (2). Available <u>http://search.proquest.com.ezproxy.wlv.ac</u> <u>.uk</u>
- [2]. Bigus, J.P. et al. (2011). Information Technology for Healthcare Transformation. IBM J. RES & DEVELOPTMENT [Online]. 55 (5) Paper 6. Available at http://wk6kg9sdm.search.searialssolutions
- [3]. Blaya, A.J., Fraser, S.F.H., and Holt, B. (2010). E-Health Technologies Show Promise in Developing Countries. [Online]. Available at <u>http://www.search.proquest.com.ezproxy.</u> wlv.ac.uk
- [4]. Bross, E. and Cronje (2013) Information society needs of Managers in a large Governmental Organization Journal of Education Technology and society.
 [Online]. 12 (1) pp 285-297. Available at http://www.sciencedirect.com
- [5]. Chirani, E. and Tirgar, M.S., (2013). INFORMATION TECHNOLOGY'S ROLE IN ORGANIZATIONS PERFORMANCE. Kuwait Chapter of Arabian Journal of Business and Management Review, [Online]. 3 (1). Available at <u>http://search.proquest.com.ezproxy.wlv.ac</u> <u>.uk</u>
- [6]. Crowe, R.J.I., and Naguib, N.G.R., (2010). The Deployment of Information Systems and Information Technology in Field Hospital. 32nd Annual International Conference of the IEEE EMBS, Buenos Aires, Argentina, August 31 September. [Online]. Available at http://www.ieeexplore.ieee.org.ezproxy.wlvuk
- [7]. Eric, T.G. et al. (2013). Examine the Role of Information technology in Cultivating Firm's Dynamic Marketing Capabilities.
 [Online]. 50. pp 336-346. Available at http://www.sciencedirect.com
- [8]. Handayani, W. P., Rahamani, Z.M., and Hidayanto, Z. A (2013). Information Technology Assessment on Hospital Information System Implementation: Case



Study a Teaching Hospital. International Journal of Engineering a Technology. [Online]. **5** (2). Available at http://www.enggjournals.com/ijet/docs

- [9]. Hikmet, N., Bhattacherjee, A., and Menachemi, N. (2008). The Role of Organizational Factors in Adoption of Healthcare Information Technology in Florida Hospitals. Health Care Manage Science. [Online]. Available at http://search.proquest.com
- [10]. Hovenga, J.S.E., and Grain, H (2013). Health Information System: Health Information Governance in Digital Environment. [Online]. Available at http://wk6kg9sd8m.search.serialssolutions .com
- [11]. Lintonen, P.T., Konu, I.A., and Seedhouse, D., (2008).Information Technology in Health Promotion. HEALTH EDUCATION RESEARCH [Online] 23 (3), Pp 560-566
- [12]. M.J., (2013). Information Luiz, Technology Systems in Public Sector Health Facilities in Developing Countries: the case study of South Africa. BMC Medical Information and Decision Making. [Online]. Available at http://www.biomedcentral.com/1472-6947/13/13
- [13]. Mostashari, F., (2014). Health Information Technology and Healthcare. Healthcare [Online]. pp 1-2. Available at <u>http://ac.elscdn.com</u>
- [14]. Pp 1-2 [Accessed 20 July 2015]. Available at http://ac.els-cdn.com
- [15]. Society of Hospital Medicine (2010). Health Information System. Journal of Hospital Medicine. [Online]. Available at www.onlinelibrary.wiley.com.ezproxy.wl v.ac.uk
- [16]. Sultan, N. (2014). Making Use of Cloud Computing for Healthcare Provision: Opportunities and Challenges. International Journal of Information Management. [Online]. 34 (2). Available at <u>http://www.sciencedirect.com</u>
- [17]. Wheatley, B., (2013). Transforming Care Delivery through Health Information Technology. [Online]. 17 (1), pp 81-86. Available at <u>http://www.ncbi.nlm.nih.gov/pmc/articles/</u> <u>PMC3627785</u>
- [18]. Yang, J.J., Li, J., Mulder, J., Wang, Y., Chen, S., Wu, H., Wang, Q., and Pan, H.

(2015). Emerging Information Technologies for Enhanced Healthcare. Computer in Industry. [Online]. pp 3-11. Available at <u>http://ac.els-cdn.com</u>