The Adoption of Information and Communications Technology in the Administration of Health Insurance Schemes in Ghana

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Abstract - This study evaluated the level of information and communications technologies (ICTs) adoption in the administration of the National Health Insurance Scheme (NHIS) in Ghana within the context of the Activity Theory. The study used the mixed methods which involved the survey of 104 staff using questionnaires and an interview with the Regional ICT Coordinator of the NHIS in Accra. The study revealed that the NHIS' in the Region did not have an ICT policy of their own derived from the national ICT policy. Also, the level of adoption in ICTs was not satisfactory as essential processes in the schemes administration were still being done manually. ICT usage in the schemes was not adequate and effective. The majority of the staff had basic-intermediate ICT skills; and trainings in ICTs for staff were not adequate. The study concluded that even though ICTs hold great potential for health insurance scheme administration, these benefits for now remains an illusion in Ghana's NHIS setup. A policy driven and training led strategies were recommended.

Keywords - *Health Insurance; Information and Communication Technology; ICT Administration; Health Administration, ICT Policy, Ghana*

1. Introduction

Information and communication technology (ICT) is so profound a phenomenon that it has truly revolutionized the way we live and work. It is by no means an exaggeration if its impacts in terms of magnitude are analogized to that of the impacts of the industrial revolution that swept Western Europe three centuries ago. ICTs are proving to be highly potent forces in terms of bringing alternative and unprecedented technical solutions (Assefa, 2009). The emergence of ICTs has brought a great change to how organizations, businesses, governments and institutions perform and go about their businesses and activities.

According to Assefa (2009) ICT generally refers to the broad field of information processing and communication through the use of computing devices, computer programs and also telecommunication equipments and techniques.

The term encompasses all those technologies that enable the handling of information and facilitate different forms of communication among human beings, between human beings and electronic systems, and among electronic systems, and broadly includes the capturing, output, storage and processing systems of a computer and communications technologies that produce devices, methods and networks to transmit information in digital form.

In health administration, ICTs have proven to be powerful tools in supporting more effective delivery of health services and hence, increasing the efficiency of health delivery systems. The health sector is highly information-intensive. Providing effective health services requires the extensive collection of patient data in analogue and digital forms, which are then processed and disseminated within the same institution or sent to other institutions (WTD, 2010).

The then Vice President of the Republic of Ghana, Mr. John Dramani Mahama on September 1, 2010 challenged the National Health Insurance Authority to step up its technological installations to eliminate fraud and improve on its services. He made this call when he addressed the Ghana Medical Association (GMA) annual public lecture, in Accra on the theme; "National Health Insurance Scheme (NHIS)-Opening the policy dialogue for universal coverage". Akomeah (2004) also stressed that ICTs are a major pre-requisite for a country to achieve its development goals. He stressed on Ghana's desire and determination not to be left behind in the global advance towards using ICTs to promote human progress. It is therefore worthwhile to note that ICTs are indispensable in our age for solving problems and issues relating to health insurance administration in Ghana.

The introduction of the Mutual Health Insurance Schemes in Ghana and Accra saw the use and application of ICTs

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such as computers, Internet, software, telephone etc in the administration of its activities. ICTs have brought enormous benefit to the schemes' administration despite the challenges that they are facing. According to Rodrigues (2003), the combined utilization by the health sector of information and communication technologies (ICT) and networked data processing to transmit, store, and retrieve digital data for clinical, educational, and administrative purposes, both at the local site and at distance, is growing at a rapid pace. ICT applications and technologies bring numerous technological solutions to the administration of Health Insurance Schemes and therefore must be employed in meeting and solving the challenges and problems the schemes are besieged with.

The study was aimed at assessing the level of ICT adoption in the Health Insurance, the adequacy and effectiveness of ICT systems use as well as the level of skill and training of staff in the use of ICTs for health insurance administration within the context of the Activity Theory.

2. Literature Review

This section reviews literature for the study. It coves ICT policy and adoption, benefits of ICT use, ICT-based applications for Health Insurance Administration and challenges of ICT Use in Health Insurance Administration. The section ends with a discussion of the Activity Theory which was adopted as the theoretical framework for the study.

2.1 ICT Policy and Adoption

The establishment and introduction of the National Health Insurance Scheme in Ghana in 2004 came at a time when governments and stakeholders have taken several initiatives to improve the usage of ICT and its infrastructure in the country. These have been in the form of policies and regulatory frameworks to educate and develop the ICT infrastructure to help the country realize the benefits of ICT adoption. The roll out of the MHIS' therefore saw the adoption and application of ICTs in the administration of the schemes. ICTs were used in some of the schemes activities especially during registration, renewal and processing of membership in the district schemes.

For the effective use and implementation of ICT in organizations there need to be an ICT policy to guide that process. According to Labelle (2005) ICT policies deal with issues related to information dissemination and use as well as issues related to the spread and use of the technology itself. He said that ICT policies require to be planned in order to marry the needs of people with the

opportunities and possibilities that are available through the use of ICTs. Policy-making must be based on the best information and intelligence available. It should be undertaken in consultation with stakeholders to help secure beneficial and realistic outcomes.

According to Sirirak, Islam and Khang (2009) ICT availability and ICT integration have a significant positive relationship only with operational productivity, while the intensity of ICT usage has a significant, positive relationship with both operational productivity and customer satisfaction. It is therefore important to note that the depth or intensity of ICT adoption is equal to the level of impact it will make in the organization. Therefore, the higher the intensity of ICT adoption, the greater the level of impact it will make and the lower the intensity of ICT adoption, the lesser of its impact in the organization.

In their studies on ICT adoption models, Manueli, Latu and Koh (2007) proposed a four stage ICT adoption process to classify businesses' ICT adoption stages. They include:

a) "No ICT adoption"
b) "Basic ICT adoption"
c) "Intermediate ICT adoption"
d) "Advanced ICT adoption" stage

In the "No ICT adoption" stage are businesses that have not adopted any ICT other than the traditional landline phones or a simple cellular phone. The "Basic ICT adoption" stage includes businesses that have adopted ICT such as the Internet for collecting information, use email, or use the latest cellular phones to send or receive emails and access the Internet. The "Intermediate ICT adoption" stage includes businesses that have a basic or static website and that are engaged in electronic commerce with the use of software and systems to enhance their businesses while the "Advanced ICT adoption" stage include those that conduct business-to-business transactions electronically (or online), business-to-customers transactions both electronically and online or have any complex ICT integration in their business processes. The DMHIS' can therefore be categorized under the intermediate stage of ICT adoption because they make use of the Internet, as well as software and systems to conduct their transactions. They have still not gotten to the stage of conducting online transactions with clients or facilities as well as health care providers.

2.2 Benefits of ICT Use

According to the OECD (2004), Information and communication technology (ICT) and e-business applications provide many benefits across a wide range of intra- and inter-firm business processes and transactions. ICT applications improve information and knowledge

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management inside the firm and can reduce transaction costs and increase the speed and reliability of transactions for both business-to-business (B2B) and business-to-consumer (B2C) transactions. In addition, they are effective tools for improving external communications and quality of services for established and new customers.

Gatautis (2008) reiterates that ICT has changed and will further transform not only the nature of work and communications, but also the ways of the organization of enterprises, and business activity. It is expected that this technology will eliminate the existing limits between economic relations and interaction, and will create new ways of communications, new types of market relations and will provide new opportunities to mobilize activities and expand spaces of interaction. ICTs have also brought improved security and monitoring in the way information is handled and communicated within and between organizations. This has minimized if not eliminated the risk of fraud and irregularities in systems within and outside organizations.

Information and communication technologies (ICTs) are not only limited to the transfer of information. In the developed world, in addition to relaying information, ICTs are used to promote better health behavior, to improve decision making, to promote information exchange among peers, for self care and professional support, and to enhance the effectiveness of health institutions. Innovations such as electronic medical records, hospital information systems, Intranets, public networks, health decision-support and expert systems, telemedicine, and community health information systems have altered cost, quality, accessibility and delivery of health care. All dimensions of health are now supported by ICT applications (ECA, 2001).

2.3 ICT Based Applications for Health Insurance Administration

A number of ICT based applications have been implemented in the administration of health insurance in many countries around the world. Institutions and organizations in the administration of health insurance have implemented technologies such as networks and the Internet, mobile phone, telephone and fax systems, biometric systems, enterprise systems, online transaction processing systems etc, to help in the running and effective management of health insurance schemes. A community data network which established a regional exchange of health care data among physicians, hospitals, insurers, and others in the community, realized that information can be exchanged securely and affordably while improving the quality and reducing the cost of health care with the use of ICTs (GAO, 2003).

Among leading digital technologies, Internet-based ICT solutions are rapidly changing the way health organizations, providers, care planners, payers, regulators, and consumers, access information, acquire health products and services, deliver care, and communicate with each other (Rodrigues, 2003). He stressed that in the developed countries, e-health has evolved from the delivery of online medical content toward the adaptation of generic e-commerce solutions to the processing of administrative transactions, logistical support of clinical tasks, and the operational support of decentralized and collaborative healthcare.

According to Bohm and Testor (2004), the term biometrics recently has also been used to refer to the emerging field of technology devoted to identification of individuals on the basis of their biological traits, such as those based on retina-scans, iris-patterns, fingerprints or face recognition. In today's world, a wide variety of applications require reliable and secure authentication methods to confirm the identity of an individual requesting their service. Some examples of such applications would include secure access to buildings, computer systems, health service access, and many more. Among all the biometric techniques, fingerprint-based identification is the oldest method which has successfully been used in numerous applications.

Information dissemination, communication patterns, business practices, economic development and public health are changing as a result of improved access to mobile phones and other information and communications technology (ICT), (Mechael, 2006). The use and benefits that mobile phones bring can also help in the administration of health schemes. Agents of MHIS' could make use of mobile phone technologies to verify and validate information given by prospective members of the scheme. For example, through this technology, agents could know whether a prospective member is an 'active' contributor to Social Security and National Insurance Trust (SSNIT) or not by means of a simple text message via a mobile phone and this can help in eliminating the stress of acceptance or rejection of registration forms submitted by agents.

The introduction of online transaction processing (OLTP) in businesses is helping organizations to perform efficiently and effectively. According to Bog, Kruger & Schaffner (2009), OLTP systems are the backbone of today's information systems supporting daily operations. Hasan & Khiyal (2008) asserts that OLTP systems are in high demand in developing countries. These systems are very helpful to run the daily business and help improve the efficiency of businesses. The implementation and use of an online transaction processing systems by the MHIS' can be of immense help in meeting some of the challenges

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they are facing currently. For example, the use of such a system could help avoid the issues of double billing and overstatement of cost as well as wrong detention of members of the schemes in health care centers just to increase the cost of health service rendered to them. Such a system could help the district schemes approve every transaction been rendered to members of the schemes by health facilities in order to make sure drugs issued are in the NHIS drug list at the right cost and with the right diagnosis.

2.4 Challenges of ICT Use in Health Insurance Administration

To make ICT a catalyst for Africa's socioeconomic development, governments must create an enabling policy environment that will maximize their citizens' benefits from the technology. Currently, such an environment does not exist in several African countries (Otiso & Moseley, 2009). Kwapong (2007) in her studies of problems of policy formulation and implementation in Ghana, found out that even though governments sets the overall national ICT policy, it becomes difficult in its implementation and she suggested some merit in allocating considerable authority to regional and local authorities in setting priorities and approaches.

Also, Information Technology (IT) is expensive and it is difficult for organizations to generate the capital needed for IT investment, which is often regarded as an add-on cost. Currently, there is fragmented use of electronic connectivity to exchange health data among all providers. Standards for content (how the meanings of medical terms are represented) are not yet agreed upon, nor are there standards for how messages are to be sent. Security, and thus privacy, has not yet been assured, authentication of users and data encryption need to be more effectively implemented (GAO, 2003).

In their studies, Asemi & Safahieh (2008) findings revealed that that computer use does not necessarily improved computer literacy skills of staff. This might be because of the lack of continuous and compulsory training programs or adequate manuals to equip staff with the essential knowledge of computer and ICT skills, a situation very typical of the MHIS' in Accra. They also found out that one of the challenges for efficiency and effectiveness in the performance of tasks and duties is as a result of limited number of computers for work.

2.5 Theoretical Framework

The Activity Theory was adapted for the study. Activity Theory is based upon the work of Vygotski and his student Leont'ev from their studies of cultural-historical psychology in the 1920s (Hashim and Jones, 2007). The Activity Theory is a framework or descriptive tool for a system. The activity theory stipulates that activities in organizations are mediated through the role of tools and artifacts (ICTs), guided by laid down procedures, rules and regulations (Policies) that helps in achieving organizational goals and objectives.

It is therefore important to point out that the activity that will be engaged in will be the use of ICTs in the administration of the DMHIS. These ICTs must be guided in terms of how they will be acquired and managed which will involve an ICT policy framework which depicts the rules and regulations, laid down procedures in the model, as well as the tools, that is the information and communication technologies which will be used in meeting the desired outcome in the community or organization (District Mutual Health Insurance Schemes).

3. Methodology

This study used a mixed method approach to find out the use of ICTs in the administration of the health insurance schemes in the Greater Accra Region. This included both qualitative and quantitative methods, involving the use of interview and survey questionnaires as data collection methods.

The population of the study consisted of eight Mutual Health Insurance Schemes (MHIS') in the Greater Accra Region. The stratified sampling method was used to divide the population into non-overlapping sub-groups called strata. A sample size of 104 was used for the study representing 59% of the total population. The subjects of the study were divided into the following strata, namely core staff, assistants, and supporting staff. That is, each stratum had a sample size as follows; core staff thirty (30), Assistants twenty (20) and Supporting Staff (54) making a total of one hundred and four (104), that is, 59% of the total population. According to Tagoe (2009) the advantages of using this method are that, the method allows all groups within the population to be represented, a characteristic which simple and systematic random sampling lack. Secondly, there is an increased precision in the use of the method. This is due to the method's ability to divide the population into homogenous strata.

A self-designed questionnaire was used in the questionnaire survey. The questionnaire was divided into five sections. Section A dealt with biographical data of respondents Section B also dealt specifically with the level of adoption and use of ICTs in the scheme. Section C covered the adequacy and effectiveness of ICTs. Section D was on Skills and training of staff in ICTs. Section E looked at the challenges encountered by staff in using

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ICTs in the schemes administration. There were a total of 26 closed and open-ended questions. The interview technique was used for the Coordinator of ICT in the Greater Accra Region. Questions on ICT policy, level of adoption, adequacy and effectiveness of ICTs, challenges and funding among others were asked.

3.1 ICT Policy

The study revealed that even though there is an overall national ICT policy, to which the majority (87%) of the respondents responded in the affirmative, the interview also revealed that the Greater Accra Region and individual schemes in the region do not have an ICT policy of their own derived from the national ICT policy. This has created a gap where a particular district lacks an aspect of ICT while the others also lack in other areas of ICT. This is supported by Kwapong (2007) in her studies of problems of policy formulation and implementation in Ghana, which found out that even though governments sets the overall national ICT policy, it becomes difficult in its implementation and she suggested some merit in allocating considerable authority to regional and local authorities in setting priorities and approaches.

3.2 Level of ICT Adoption in the Performance of Tasks and Duties

The study revealed that the level of ICT adoption in the performance of tasks and duties was quite. But it must be pointed out that most of the tasks performed with ICTs were mainly administrative and these included registration of new members, renewal of membership (mostly done in the MIS department), and payment of registration or renewal fees, among others. That is, basically processing of data and information. The major functions of the scheme performed in the claims department such as claims submission and processing, as well as vetting of claims (54.5%) is mostly been done manually (50% adoption), which is a major setback in detecting fraud and irregularities.

3.3 Common ICT Platform

The study revealed that there is no common platform between the district schemes and various facilities or health care providers in the Greater Accra Region that could help them in making effective and accurate claims as indicated by 94% of respondents. This is supported by GAO (2003) that currently, there is fragmented use of electronic connectivity to exchange health data among all providers.

3.4 Effectiveness and Adequacy of ICTs

The study revealed that the Oracle database application used by the MHIS' is not able to detect wrong receipt inputs. This was confirmed by 68% of respondents. Internet connectivity in the district schemes, the study revealed is not reliable (77%) as it goes off and slows down during working hours which become a major source of worry to staff and members of the scheme because it leads to delays and long queues during work. From the studies, it was also found out that there are inadequate computers in the district schemes. Staff complained of only few computers and therefore most of the work is done by only few people which increases the work load and affects the speed of work. This confirms studies assertion made by Asemi & Safahieh (2008) that one of the challenges for efficiency and effectiveness in the performance of tasks and duties is as a result of limited number of computers for work. The challenges of ICT use namely, frequent breakdowns of systems, electric power failures, and inadequate computers as well as inadequate computer skills (Asemi & Safahieh, 2008), were evident at the MHIS' offices in Accra.

3.5 ICT Skills of Staff

The study revealed that all respondents were IT literate but the majority (63%) of respondents rated that their IT skill level as intermediate. The study also revealed that ICT skills of respondents were not influenced so much by gender even though more male than female staff were proficient in ICT skills. Specifically 57.1% of males had advanced ICT skills as compared to 51.1% of females who rated their ICT skills as intermediate. Also, 27 (41%) of the respondents between the ages of 26-30 years had intermediate ICT skills just as the majority of the core staff (54.8%) and supporting staff (60.6%) staff who also had intermediate ICT skills.

The results for test of significance of the relationship between the characteristics of the staff and their ICT skills revealed mix outcomes for the relationship between the gender, age, and position/category of staff; and the level of ICT skills at the 0.05 level. The study showed no significant relationship between gender and ICT skills at the 0.05 level ($\chi 2 = 3.7$, df= 3, p>0.50). In a similar study, Haywood, et al (2004) showed no variations in the relationship between gender and ICT skills of respondents. They concluded that not much significance exists between gender and level of ICT skills of people. The study, however, revealed a significant relationship between age and level of IT skills of the staff ($\chi 2 = 25.94$ df= 9   p< 0.05). It was noted that the youngest age group was not the category with expertise in ICT, but rather the slightly older age groups of 26-30 years (50%) and 31-35years (50%)

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who might have acquired the expertise due to longer years of service on the job, hence increased access and higher contact with the ICT systems. On the other hand, most (50%) of the older staff rated themselves as novices in ICT.

The results of the study also showed that, level of skills in ICT of the staff was significantly tied to their positions ($\chi2$ = 13.1, df = 6, p>0.05). It can be observed that the core staff by virtue of being the key operational staff and had higher contact with the ICT systems were more proficient or had expertise (66.7%) in ICT than the Assistants (33%) and supporting staff (Table 3).

This might also be an indication that there are no misplaced priorities in terms of access to and use of ICT for work. Thus, those staff (core staff) who were supposed to have access to ICTs for work really had the benefits of the available ICTs, and were more proficient in ICTs than the other category of staff.

Table 1: Level of ICT Skills by Staff Categories (Position)

Categories of staff	Level of ICT Skills				Total
	Novice	Intermediate	Advance	Expert	
Core Staff	-	17(25.8%)	9(32.1%)	4(66.7%)	30(28.8%)
Assistants	2(50%)	9(13.6%)	7(25%)	2(33.3%)	20(19.2%)
Supporting Staff	2(50%)	40(60.6%)	12(42.9%)	-	54(51.9%)
Total	4(100%)	66(100%)	28(100%)	6(100%)	104(100%)

$\chi2$ = 13.1   df = 6   p-value = 0.041

These findings are consistent with a study conducted by DTI (2007) in Denmark, which showed a significant relationship between the age and position (level of education) of respondents and their level of ICT skills. They also found out that the majority of the older population had weak ICT skills and the highly educated with higher positions had good skills in ICT and were able to quickly learn and employ new technologies.

In support, Adjuwon and Rhinet (2007) reiterated that without proper training and education, including in-service training or courses, even the available resources will be underutilized. Health information professionals need to develop expertise in ICT, information management, searching, downloading and evaluation of Internet-based health information resources.

3.6 Challenges of ICT Use MHIS'

The study revealed that there is a challenge of authenticating visits to facilities or health care providers by members of the scheme and this has led to instances of double or false claims to the district schemes. For example, there is no system in place like a biometric system that could verify and authenticate visits by members of the scheme to the various facilities or health care providers. Riha and Matyas (2000) added that to achieve more reliable verification or identification we should use something that really characterizes the given person.

ICTs are energy dependent and without adequate and reliable energy supply they cannot be used effectively and this can even affect their life span. One of the challenges revealed was frequent power outages that disrupt the flow of work at the district offices. Most of the district schemes complained much about the energy related issues at their various district schemes offices and the researcher experienced this in some of the district schemes during the collection of data. This is in agreement with the studies conducted by Mpofu, Milne and Watkins-Mathys (2009) in South Africa, which found out that firms frequently experienced power outages and this was affecting business and operations. This is also supported by Mukooyo (2008) that one of the challenges associated with ICT is the issue of power availability.

The study also tried to find out the various ICTs the districts schemes lack but could be of help to the administration of the schemes. In response, the staffs believe that the schemes lack bar coding technology, biometric systems, online transaction processing systems, scanners, etc. This is supported by Rodrigues (2003) that technology distribution and access deficiencies represent the most challenging issues in health administration.

It was also revealed in the study that most of the district schemes are challenged in the acquisition of ICTs as a result of financial constraints. The results showed most schemes are supposed to purchase various ICTs through their internally generated funds which are not sufficient to cater for those needs. According to GAO (2003), IT is expensive and it is difficult for organizations to generate the capital needed for IT investment, which is often regarded as an add-on cost. Rodrigues (2003) asserts that the low level of capital investments in the health sector limits the market for new and expensive technologies. This is complicated by the fast-changing deployment of new technologies and accompanying standards that are constantly raising the level of advancement that must be met to remain current.

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4. Recommendations

The researchers make the following recommendations for consideration by the NHIS and those other health insurance schemes in developing countries for consideration:

4.1 Develop an ICT policy for the Region or Districts

The study revealed that the Accra region and individual district schemes lack an ICT policy of their own derived from the national policy. As a result specific inputs of ICTs to meet the specific challenges of the district schemes are lacking. It is therefore recommended that the region or districts are given the merit to develop their own ICT policy derived from the national policy of the NHIS and from the government's ICT for development policy to meet their specific needs with losing track of the national.

4.2 Improve and develop a regular ICTs training schedules for staff

The study also revealed that staffs of the district schemes have received one form of training or the other in ICTs. But the training received focused more on the Oracle database application of which quite a number of staff rated themselves on the average. It was also realized that training schedules or updates have not been done regularly. It is therefore recommended regular training schedule should be developed and retraining of staff in the Oracle database in relation to updates and changes.

4.3 Remove bureaucratic and funding constraints

The study revealed that the acquisition of ICTs is also hampered by financial constraints because district schemes are suppose to purchase ICTs through their internally generated funds. Also, the study found out that because ICT purchases are done in bulk by the NHIS to reduce cost, it delays the usage of these ICTs because they are always received late after purchase. In recommendation, schemes should innovative ways of soliciting for funds and the bureaucratic process of procurement be made flexible for speedy purchasing ICT equipments.

4.4 Adoption of biometric system

Also, district health insurance schemes must employ biometric systems to capture the thumb print of members of the schemes, to enable the schemes cross check the thumb prints during claims submission by the facilities.

4.5 Design a Common ICT Platform

The study also revealed that no common ICT platform exists between the district schemes and various facilities and health care providers. This has led to the issue of double billing, over statement of cost and over billing of drugs by providers. The researcher recommends therefore that a common platform such as an Online Claims Processing Systems to improve upon this challenge. The study also revealed that the Oracle database application software been used by the district schemes is not able to detect wrong receipt inputs. It is therefore recommended that the Oracle application be redesigned or upgraded with modules that can detect wrong inputs into its system in order to check any irregularity that might arise as a result.

4.6 Design a system to receive automatic updates from SNNIT database

The NHIS should also design a system in collaboration with SSNIT to receive automatic updates from the SSNIT database. The district schemes can also develop a mobile phone technology with SSNIT where agents of the schemes can check the availability of prospective member who is a SSNIT contributor.

4.7 Ensure uninterrupted Power Supply

One of the major challenges the study revealed was the frequent power outages that disrupts the flow work in some of the district schemes. The researcher recommends that district schemes be equipped with power generating plants to support ICT usage in times of power failure or outage to ensure an uninterrupted power supply.

5. Conclusion

The data for the study has revealed that only some aspects of the activity theory were evident in the NHIS's level of adoption and use of ICT for health insurance administration. The Activity Theory stipulates that activities in organizations are mediated through the role of tools and artifacts (ICTs), guided by lay down procedures, rules and regulations (policies) that helps in achieving organizational goals and objectives. In effect, the Activity Theory was not evident in the ICT adoption by the MHIS' in Accra. Evidence abounds that if the Greater Accra Region of the MHIS' could draw up a policy derived from the national policy to suite and meet their specific needs by making the right input of ICTs, as well as train staff adequately there is no doubt that there will be major improvements in the schemes administration and thereby increase efficiency and effectiveness resulting in good quality health care administration in Ghana.

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