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Assessment of the impact of Delayed Reimbursement by the National Health Insurance Scheme on the Supply Chain Management of St. Dominic Hospital, Akwatia, Ghana

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Abstract

The National Health Insurance Scheme (NHIS) is a major social intervention program ever initiated, implemented and championed by the Government of Ghana in its quest to achieving universal health coverage for all the citizenry. Although a beautiful and highly acclaimed and acceptable scheme by many, the implementation of its payment regime of reimbursable claims to service providers is fraught with several challenges of which delayed reimbursement of submitted claims to health service providers is a major one. It is assumed that this anomaly disrupts the supply chain management of service providers with some consequential results in general service output of the latter viz; availability of prescribed medicines, surgical and medical consumables, patient waiting time and medical and surgical equipment. Employing descriptive and inferential statistics in a cross-sectional study with the problem statement, variable assessment, instrument development, method of data collection (primary and secondary), data analysis and report writing well captured, the researcher concludes that there is some amount of truth that truly delayed reimbursement by the NHIS has some consequential results on the general service output of healthcare providers and therefore recommends prompt payment of submitted claims by the NHIS.

Keywords*: National Health Insurance Scheme, Delayed Reimbursement, Health Service Providers, St. Dominic Hospital, Supply Chain Management.*

Introduction

According to Worthington and Chris Britton (2006), every business has an environment within which it operates. The survival of a business largely depends on its environment which is both within and without. Thus, a business has an internal environment as well as an external environment. A business grows successfully when it has the capacity to adapt to its external environmental shocks while leveraging its strength within. Generally, there are two types of business environments. There is an internal environment which is peculiar to the business. It embodies a business' strengths and weaknesses. Examples of such environment are vision and mission statements, core values, organizational structure, human resource, cooperate culture, technology base among others. The second type is the external environment and there are two subtypes of this namely micro and macro environments. This environment is usually external to a business. It ordinarily presents threats and opportunities to the business. Some examples of micro environment are suppliers, customers, competitors, community etc.; examples of macro environment are political, economic, social, cultural, technological etc. (Campbell, D. J.1997). Usually, an organization is presented with several challenges but with pragmatic, time-tested and well thought through strategies, the business is likely to surmount the challenge either from within or from without. It is somewhat difficult for a business to survive and succeed without such strategies which ultimately have impactful bearing on the prevailing environmental circumstances (Jones, G. R. (2013).

The National Health Insurance Scheme is an example of a micro external environment of the health providers in Ghana. St. Dominic Hospital is a health service provider in Akwatia, Ghana. The National Health Insurance Scheme (NHIS) plays an indefatigable role in the payment regime of health services in Ghana. Payment is

one of the four basic components of health services delivery system (Leiyu, S. & Douglas, A. S, 2012). Without the ability to pay, it becomes difficult to access health services even if it is affordable. Thus, health insurance guarantees access to health services. Therefore, the role of health insurance scheme in healthcare delivery is essentially relevant. In fact, studies have shown that people covered by health insurance have less health-related financial stress (The NYT, 2015). Lately, health providers in Ghana, including St. Dominic Hospital, Akwatia, have been experiencing delayed reimbursement of claims by the National Health Insurance Scheme. This has gone on for some time with many complaints about the paradigm as it generally affects the operations of health providers. In fact, evidence emerged from studies on delayed reimbursement of the National Health Insurance Scheme to health facilities proves that this payment regime is counter-productive as it affects several aspects of operations in general (Ahenkan & Azaare, 2018).

Health service providers have often complaint about massive disruption of facility supply chain management – careful upstream and downstream administration of the relationships with suppliers and customers to deliver superior customer-based and quality service. In some cases, there is even serious attack on relationships among facility managers and suppliers because of the phenomenon of delayed reimbursement by the NHIS.

The National Health Insurance Authority, the officialdom under which the NHIS operates, reports on its website (www.nhis.gov.gh) that the "active subscriber base of the NHIS as at December 2014 was 10.5 million. Over 29 million attendances at healthcare facilities were made because of the NHIS in 2014. Currently, 69% of NHIS registered subscribers are exempted from paying premiums. These include Social Security and National Insurance Trust (SSNIT) contributors and pensioners, persons under 18 years old, persons 70 years old and above, pregnant women, indigents (the core poor), persons with mental health conditions, categories of disabled persons designated by the Minister responsible for Social Welfare, as well as beneficiaries of the Livelihood Empowerment Against Poverty Program (LEAP). These exempt categories count for close to 69% of registered members of the scheme, and consequently only an estimated 31% of members pay contributions, which contributions are also not at fixed actuarially determined rates. Revenues emanating from contributions collection over the years form a relatively small proportion of NHIS inflows, accounting for 3.4% of total revenue in 2014. The National Health Insurance Levy (NHIL) contributed 73.8% of total revenue while SSNIT contributions accounted for 20.4%."

At the facility level, in 2019, about 86% of OPD attendants to St. Dominic Hospital were NHIS Card bearers (SDH, 2019). Truly, quite an impressive number of the residents of Ghana are registered NHIS members and majority of them really make good use of the insurance. Section 38 (1) of the L.I 1809 which regulates the NHIS states "A claim for payment of health care service rendered which is submitted to the scheme shall, unless there is any legal impediment, be paid by the scheme within four weeks after receipt of the claim from the health care facility" (Nestor Naabulee Nasage & co, 2019). Meanwhile, although St. Dominic Hospital manages to faithfully comply with section 37 (7) of L.I 1809, which enjoins service providers to timely submit claims for payment, the NHIS unfortunately does not religiously comply with section 38 (1) of the L.I 1809. It is almost becoming a convention in practice, that the NHIS comfortably delays payment of claims to St. Dominic Hospital for not less than an average of about ten (10) consecutive months. This in effect has become the regular face of the payment regime of the NHIS. Thus, it is very appropriate to examine the relationship between this payment regime (delayed reimbursement to health providers) and the supply chain management of St. Dominic Hospital Akwatia, as well as the consequential results if any on quality service delivery in general, i.e. availability of prescribed medicines, consumables, patient waiting time and equipment.

Methodology

Study type

Descriptive as well as inferential statistics were employed in this cross-sectional study. A randomly selected number of (i) staff and (ii) clients of St. Dominic Hospital, Akwatia were used for this work.

Population and sample

The study population was made of two groups namely staff and clients:

1. Forty-five randomly selected staff of the hospital
2. Twenty-five randomly selected clients of the hospital

Data collection

The study focused on the staff and clients of St. Dominic Hospital, Akwatia as the primary population. The technique used in data collection was direct interview of staff and clients as well as careful observation of the focused group for several weeks. Self-administered questionnaire was also done in a 70 people survey. While both qualitative and quantitative methods of data collection were applied, emphasis on the latter was much. Out of the population, a total of 45 staff and 25 clients were sampled.

Data analysis

T-test double tale was used for the hypothesis test because the sample size was less than one hundred. Pearson's correlation analysis was also employed in this study to investigate the relation between selected variables. In the descriptive analysis, particular emphasis was placed on standard deviation as a measure of central tendency. Correlation analysis was employed to examine the direction and strength of the relationship between different pairs of variables. The positive or negative (+/-) signs are indication of either positive or negative (directional) relationship between the variables. Hypothesis testing was done using two selected variables to determine whether to accept or reject the null hypothesis (Ho). The test sought to establish if delayed reimbursement impacts the supply chain management of the hospital by examining patient medication, equipment, consumables, prescribed medicines and patients waiting time.

Variables measurement

Supply chain management is observed as the dependent (y) variable with delayed reimbursement as the independent (x) variable. Staff admission of available medicines for patients' medication; availability of essential equipment and other consumables for work were measured as the impact of the independent variable on the dependent variable. Besides these, client's satisfaction for service delivery, i.e. – availability of prescribed medicines at the dispensary and patient waiting time were also measured as impact of the independent variable on the dependent variable.

Results and discussions

On one hand, the study reveals that two of the five points measured under the independent variable (delayed reimbursement) namely equipment and patient waiting time do not really have any meaningful impact on supply chain management. In the case of equipment, the p-value is less than .05 therefore, reject Ho and accept Ha. The null hypothesis suggests that delayed reimbursement does impact availability of equipment for work. Nonetheless, the study reveals that availability of equipment for work is not impacted by delayed reimbursement. This, nevertheless, is quite revealing because it is very difficult to purchase equipment for work if the NHIS delays in reimbursement. Invariably, since equipment are often capital intensive and they are not purchased frequently, it makes a lot of sense when the purchase of same is not so dependent on reimbursement by the NHIS. Patient waiting time is another variable which the study found as not impacted by delayed reimbursement by the NHIS. Ordinarily, patients spend a lot of time at the hospital when essential consumables are not available. The study however clearly initialed that delayed reimbursement by the NHIS does not impact the waiting time of patients; the p-value of this variable is less than .05.

On the other hand, three variables namely availability of medicines for patient's medication, availability of consumables for work and availability of prescribed medicines at the dispensary were found by the study to be very much impacted by delayed reimbursement by NHIS. This is because the p-value in each of those variables is more than .05. Thus, in such cases, the null hypothesis is accepted, and the alternative hypothesis rejected. It means also that, delayed reimbursement by the NHIS clearly influences or impacts the supply chain management of the institution with respect to procurement of medicines and consumables for use on patients.

The study indicates a positive correlation between the following variables: patient waiting

time, equipment, prescribed medicines, consumables and medicines for medication. The first point is the relationship between equipment and patient waiting time which is positive. Secondly, availability of prescribed medicines for patients at the dispensary and consumables available for work have positive relation. Also, very important is the third point, it notes that the relationship between consumables and staff admission of available medicines to serve patient medication is positive.

With the above said, several limitations were however associated with the study. Notable among these is time constraint both on the part of the researcher and the respondents. The researcher could have extended the time duration of the study. Although there were no restrictions with time, the researcher decided to undertake this study within a space of two months to further estimate the researcher's aptitude in time management. But for this, there could have been more time to probably gather additional data than what was used for the study. The story is not different for the respondents in answering the questionnaire. In the future, more time could be allocated for such study to enable avoid this limitation. Yet another limitation was gender. Many of the participants in the study were females as opposed to males. This could occasion some amount of bias and the reliability of the study regarding gender because there was not equal number of both genders in the study. Money is another limitation of the study that is associated with this study. Usually, such studies are money intensive. Developing, printing, distribution and collection of data are all projects that involve some expenditures of monies. This study was done purely for academic reasons and therefore the researcher was funded the project without much resources available.

Conclusion

This study has offered an opportunity to the researcher to attempt to establish that there is indeed a real relationship between delayed reimbursement by the National Health Insurance Scheme (NHIS) and the supply chain management of St. Dominic Hospital. No doubt that this relationship has certain amount of impact on the latter in the scenario here established. Although the descriptive analysis does not establish much of an impact i.e. as many of the averages are below 50% of the data analyzed, the other analysis namely hypothesis testing and correlation establish greater amount of impact of the former on the latter. Thus, to a large extent delayed reimbursement by NHIS impacts on the supply chain management of St. Dominic Hospital, Akwatia. The researcher by this attempt has contributed marginally to the deposit of knowledge in this regard. This being one of the reasons of research work has been achieved by this study and future studies on this space of knowledge may adequately utilize the recommendations made in this work to further enhance knowledge.

Tables

Table 1. Descriptive Analysis

Variables	Mean	Median	Mode	Standard Deviation
Y - Supply chain management.	3.29	3.00	2.00	1.37
X1 - Patient medication	3.21	3.00	2.00	1.24
X2 - Equipment	3.90	4.00	5.00	1.24
X3 - Consumables	2.94	3.00	3.00	1.18
X4 - Prescribed medicines	3.08	3.00	3.00	1.38
X5 - Patient waiting time	2.67	3.00	2.00	1.27

Source: Fieldwork (2020).

Table 4. Hypothesis test

Variables	P(T<=t) two-tail	Conclusion
Y - Supply chain management.		
X1 - Patient medication	0.76276646	Not less than .05 – Do not reject Ho
X2 - Equipment	0.02670256	Less than .05 – Reject Ho and accept Ha
X3 - Consumables	0.168617626	Not less than .05 – Do not reject Ho
X4 - Prescribed medicines	0.619242956	Not less than .05 – Do not reject Ho
X5 - Patient waiting time	0.018795862	Less than .05 – Reject Ho and accept Ha

Source: Fieldwork (2020)

Table 5. Correlation

Variable 1	Variable 2	Correlation
X5 - patient waiting time	X2 – equipment	0.245083407
X4 - prescribed medicines	X3 - consumables	0.30893991
X1 - patient medication	X3 - consumables	0.282495282

Source: Fieldwork (2020)

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