

*Review*

# Privatisation of the Central Medical Supplies (CMS) public corporation: Why not?

Gamal K. M. Ali<sup>1</sup> and Abdeen M. Omer<sup>2\*</sup>

<sup>1</sup>Former Department of Pharmaceutical Services and Planning Manager, Federal Ministry of Health, Khartoum, Sudan.

<sup>2</sup>Occupational Health Administration, Ministry of Health, Khartoum, Sudan.

Accepted 16 June, 2011

**To improve the effectiveness of the public pharmacy, resources should be switched towards areas of need, reducing inequalities and promoting better health conditions. Medicines are financed either through cost sharing or full private. The role of the private services is significant. A review of reform of financing medicines in Sudan is given in this article. Also, it highlights the current drug supply system in the public sector, which is currently a responsibility of the Central Medical Supplies Public Corporation (CMS). In Sudan, the researchers did not identify any rigorous evaluations or quantitative studies about the impact of drug regulations on the quality of medicines and how to protect the public against counterfeit or low quality medicines, although it is practically possible. There is need to continually evaluate regulations put in place to ensure that the public is protected by promoting the marketing of high quality medicines rather than commercial interests, and that the drug companies are held accountable for their conducts.**

**Key words:** Sudan, healthcare, medicines, essential drugs, pharmacy management.

## INTRODUCTION

The present policy of the national health-care system in Sudan is based on ensuring the welfare of the Sudanese people through increasing national production and upgrading of the productivity of individuals. A health development strategy has been formulated in a way that realises the relevancy of health objectives to the main goals of the national development plans. The strategy of Sudan at the national level aims at developing the Primary Health Care (PHC) services in the rural areas as well as urban areas. In Sudan, 2567 physicians provide the public health services (554 specialists, 107 medical registrars, 1544 medical officers, 156 dentists, and 206 pharmacists) (Gamal and Omer, 2008). The proposed methods of preventing and controlling health problems are: (a) Promotion of food supply and proper nutrition (b) An adequate supply of safe water and basic sanitation; (c) Maternal and child health-care; (d) Immunisation against major infectious diseases; (e) Preventing and

control of locally endemic diseases, and (f) Provision of essential drugs. This will be achieved through a health system consisting of three levels (state, provincial and localities), including the referral system, and secondary and tertiary levels. In such a system, Pharmacy management should be coordinated and integrated with other various aspects of health in which the aspects considered subsequently have to be put into consideration

First, the community must be the focus of benefits accruing from the restructuring, and legislature to protect community interest on the basis of equity and distribution should be put in place. Handing of the assets to the community should be examined and the communities should be encouraged to transfer the management of health schemes to a professional entity. Secondly, the private sector should be used to mobilise and strengthen the technical and financial resources, from within and without the country, to implement the services with particular emphasis on utilisation of local resources. Thirdly, the government should provide the necessary financial resources to guide the process of community

\*Corresponding author. E-mail: [abdeenomer2@yahoo.co.uk](mailto:abdeenomer2@yahoo.co.uk)

management of pharmacy supplies. The government should move from being a provider of services to being a facilitator through setting standards, specifications and rules to help harmonise the private sector. A legally independent body should be established by an act of parliament to monitor and control the service providers. The government should assist the poor communities, who cannot afford service cost, and alleviate social-economic negative aspects of privatisation. The fourth aspect is that the sector actors should create awareness to the community about the roles of the private sector and government in the provision of health and pharmacy services. These should be crowned with support agencies providing the financial and technical support, training facilities, coordination, development and dissemination of health projects, as well as evaluation of the projects.

The health system in Sudan is characterised by heavy reliance on charging users at the point of access (private expenditure on health is 79.1% (WHO, 2004)), with less use of prepayment system such as health insurance. The way the health system is funded, organised, managed and regulated affects health workers' supply, retention, and the performance. Primary Health Care was adopted and introduced during the last decade as a main strategy for health-care provision in Sudan with the following new strategies: (a) Polio eradication by 1988; (b) Integrated management of children illness (IMCI) initiative; (c) Rollback malaria strategy; (d) Basic developmental need approach by 1997, and (e) Safe motherhood involving an initiative of making pregnancy safer, eradication of harmful traditional practices and emergency obstetrics' care programmes.

The strategy of price liberalisation and privatisation has been implemented in Sudan over the last decade, and has had a positive result on government deficit. The investment law approved recently has good rules and regulations on the above strategy particularly pertaining to health and pharmacy areas. The privatisation and price liberalisation in the health fields has undergone restructuring but it is not complete yet. There is still need to provide adequate pharmacy supplies to the major sectors if pharmacy services are to be perfected.

Basing on the fact that the government of Sudan has great experience in privatisation of public institutions as exemplified by Sudanese free zones and markets, Sudan telecommunications (Sudatel) and Sudan airlines, it should be in position to implement the privatisation process in the health privatisation policy with efficiency and effectiveness. Through privatisation, government is not evading its responsibility of providing health-care to the inhabitants, but merely shifting its role from being a provider to a regulator and standard setter. Drug financing was privatised early in 1992 and currently; the Federal Ministry of Health (FMOH) has privatised certain non-medical services in hospitals such as catering services, security and cleanings. Therefore, implementing

this policy cannot come as a surprise. The overall goal of the CMS ownership privatisation is to improve access to essential medicines and other medical supplies in order to improve health status of the inhabitants particularly in far states (e.g., western and southern states).

If alternative ownership of the CMS is established by selling the majority of shares to the private sector, the following objectives will be achieved: (a) Easy access to essential medicines of good quality and affordable prices to the states' population and governments; (b) Efficiency and effectiveness in drug distribution system to avoid the serious pitfalls and incidences that have been reported during the last ten years of the CMS; (c) Equity by reaching all remote areas currently deprived of the formal drug distribution channels, and (d) Improvement of the quality and quantity of delivery of medicines to the public health facilities.

Achievement of the aforementioned objectives is expected to: (a) Increase geographical and economic access to essential medicines in all states (that is, in both rural and urban areas) to reach at least 80% of the population (currently less than 50% of population has access to essential medicines); (b) improve the tax collection from the new business by becoming more efficient (the tax revenues could be used to finance other health-care activities), and (c) Enable the government to reserve some shares (not more than 50%) in the new business and then use its shares' profit to finance a free medicines project in hospital outpatients' clinics, and other exempted medicines, e.g., renal dialysis and haemophilic patients treatment.

## **PRIVATISATION OF PUBLIC PHARMACEUTICAL SUPPLIES**

The term privatisation has generally been defined as any process that aims to shift functions and responsibilities (totally or partially) from the government to the private sector. In broader meaning, it refers to restricting government's role and to putting forward some methods or policies in order to strengthen free market economy (Aktan, 1995). Privatisation can be an ideology (for those who oppose government and seek to reduce its size, role, and costs, or for those who wish to encourage diversity, decentralisation, and choice) or a tool of government (for those who see the private sector as more efficient, flexible, and innovative than the public sector) (Kameran et al., 2009; Gormley, 1991). Scarpaci (1991) contends that "the invisible hand of the market is more efficient and responsive to the consumer needs while the public administrative budgets consume a large portion of tax monies that could otherwise be used for service delivery". The emphasis is on improving the efficiency of all public enterprises, whether retained or divested. Privatisation may take many forms first among which are the elimination of the public function of

government and its assignment to the private sector for financial support as well as delivery of services (police, and fire departments, schools, etc.). Opponents characterise this as “load-shedding” (Bendick, 2009). The second form is deregulation, which involves transfer of responsibility of setting standards and rules concerning goods or services from government to the private sector (Gormley, 1996; 1997). Privatisation also includes the selling of public assets (city buildings, sports stadiums) to private firms in which the government issues vouchers, financed cards or slips of paper that permit private individuals to purchase goods or services from a private provider (food stamps) or circumscribed list of providers (Kettl, 1995). There is also franchising which is the establishment of models by the public sector that are funded by government agencies, but implemented by approved private providers. The process also involves contracting through which the government finances services, service providers have been chosen and the specifications of the various aspects of the services have been laid out in contracts with the private-sector organisations that produce or deliver the services. Another aspect of privatisation is the introduction of user fees in public facilities such as hospitals enables these institutions to generate income or finance some goods from private sources, either through drug sales or other services. This kind of privatisation has been applied in Sudan since early 1990s, as the health financing mechanism (especially for medicines).

In Sudan, the government decided to distance itself from direct involvement in business, and thus to divest most of its interests whether in loss or profit making public enterprises. The public reform programme was implemented in the context of the broader reforms, which were introduced in 1992. The reforms started with the liberalisation of local currency, foreign exchange transactions, internal and external trade, prices and health services (e.g., user fee as a mechanism of drug financing and other services). They were based on the transfer of activities vested in the government institutions to the private sector. It signalled the government intention to reduce its presence in the economy, and to reduce the level and scope of public spending and to allow market forces to govern economic activities. Privatisation also forms part of the government strategy of strengthening the role of the private in the development to achieve the vision of the 25 years strategy in which the private sector would be the engine for economic growth. Although it has become clear that the previous policies delivered very disappointing results, this reform has led to greater reliance on individual initiative and corporate accountability rather than on government as a decision-maker in business matters.

Since the privatisation policy goal is to improve the performance of the public sector companies, it can contribute to the growth and the development of the economy by broadened ownerships, participation in

management, and stimulation of domestic and foreign private investment.

The following are the primary objectives, which have been defined in the government’s policy statement on public sector reform: (a) Improving the operational efficiency of enterprises that are currently in the public sector by exposing business and services to the greatest competition for the benefit of the consumer and the national economy (b) reducing the burden of public enterprises on the government’s budget by spreading the shares’ ownership as widely as possible among the population. (c) Expanding the role of the private sector in the economy (permitting the government to concentrate on the public resources abandoning its role as provider of basic public services, including health, education, social infrastructure, and to compact the side effects of the privatisation) and (d) encouraging wider participation of the people in the ownership and management of business.

In pursuing the primary objectives, the privatisation policy aims at transforming the performance of most significant enterprises in the public sector and ensuring liquidation of all viable and non-viable public enterprises as soon as possible through commercialisation, restructuring and divesture.

Public sector reform efforts are thus aimed at reducing government dominance and promoting a larger role for the private sector, while improving government’s use of resources. Movement towards those goals in some countries is supported by components of a structural adjustment loan, which help to initiate the programme and establish the legislative and institutional base.

Contrary to the ideas advanced previously, however, opponents of the privatisation policy argue that the original objectives of state ownership ensured that the corporate sector of the economy was in national hands rather than being controlled by either foreign investors or the minorities that enjoyed business dominance upon independence. With privatisation, they further argue that the use of investment in state firms to accelerate development in situations where the private sector could be reluctant to take risks is lost.

## **PUBLIC SECTOR MEDICINES SUPPLY SYSTEM**

In Sub-Saharan African countries (Sudan inclusive), discussions about the medicine distribution system reform have concentrated on ways of improving sustainability and quality of access to essential medicines. These discussions also have include debate on the impact of privatisation of public drug supply organisations on effectiveness, efficiency, quality and cost of medicines in the public health facilities, as well as on the respective role of the public and private sectors (Leighton, 1996). Until the mid 1980s, governments in Africa assumed responsibility for providing drugs to the

inhabitants in some countries such as Mali and Guinea. The private distribution of all drugs including aspirin was illegal (Vogel et al., 1989). In many countries, including Sudan, there were two parallel government distribution systems. The public health network of hospitals and health centres were gratuitously supplied with drugs while in the public sector pharmacies, the drugs were sold to the public at subsidised prices.

During the 1990s, Sudan introduced a number of initiatives to establish drug-financing mechanisms as part of the health reform process and decentralised decision-making at a state level. In 1992, when a law was passed, medicines in public health system were not free-of-charge anymore. The aim of the government was to increase equitable access to essential medicines, especially at states' level. As a result, the central medical stores, which were responsible for the medicines supply system of the public health facilities, became an autonomous drug supply agency, and was renamed the Central Medical Supplies Public Corporation (CMS) and operated on cash-and-carry basis. It was capitalised and an executive board was installed. Since that time, it implied that the states and federal hospitals have to buy their own medicines and other medical supplies. They have to organise their own transport means for distribution of medicines to their primary health-care facilities and hospitals. In addition, all hospitals became financially autonomous entities and had to organise their own medicine procurement systems.

Before the introduction of the public drug supply system in Sub-Saharan Africa, Sudan inclusive, there were serious shortages or no medicines at all, particularly in rural areas. A study in Cameroon found the rural health centres received only 65% of the stock designated for them, and 30% of the medicines that arrived at the centres did not reach the clients. The loss rate after arrival in hospitals was estimated at 40% (Stephens, 1982). In Sudan, Graff and Evarard (2003) who visited the country on a WHO mission reported that, despite the cash-and-carry system taking off well, the lack of sufficient foreign exchange hampered the CMS procurement activities and that this resulted in low stock levels of all medicines including failure to stock life-saving products. Hospitals had to purchase the medicines from elsewhere and often had to buy from private sector. Despite large budget allocations to hospital, the allocations were not sufficient to cover the purchase of needed medicine supplies. This resulted in the medicines not being available most of the times. The in- or outpatients with their prescriptions were directed to the private pharmacies. In 2003, Khartoum Teaching Hospital, the biggest hospital in Sudan (not farther than 5 km away from the CMS), had medicine stock of only LS 83,000 (US\$ 31). This would not fill one prescription for an anaemic patient with renal failure. It was a common practice for patients or their relatives to be given prescriptions to buy any pharmaceutical supplies that

were needed including drugs and other disposables, from private sector pharmacies.

Many ministries of health, service providers and researchers have identified many characteristics that lead to poor performance in Africa's public drug supply systems. The systems are characterised by (1) absence of competition (2) insufficient funding (3) inefficient use of available resources and (4) poor management.

Competition is the best way to ensure that the goods and services desired by the consumer are provided at the lowest cost. Given the customers (that is, public health facilities) freedom of choice enables market forces to provide sustained pressures on companies to increase efficiency. Privatised companies generally operate in a competitive market environment.

With regard to inability to provide sufficient funding, Sudan provides a good example. In Sudan, with exception of Khartoum, Gezira and Gedaref states, all the states do not have enough funds to establish efficient drug supply system. In spite of being profit-making organisation, the CMS has failed to avail such funds during the past 14 years.

Public control promotes inefficient use of available resources. The CMS has worked as a profit-making organisation since its establishment in early 1990s. Due to the absence of privatisation, the CMS engaged in the establishment of a repackaging joint venture pharmaceutical factory in 1999 and recently announced its commitment to build a pharmaceutical city with not less than US\$ 20 million, regardless of the fact that there is lack of life-saving medicines in the public health facilities. Had it not been lack of prioritisation, a typical symptom and sign of most public organisations, such an amount could be sufficient to establish a reliable supply system for all states of Sudan.

There are a number of constraints inherent in operating government drug supply service, which leads to poor management. These constraints comprise:

1. Hiring civil servants rather than persons with business experience and skills. Managers confront different challenges in public setting. They are not easily hired or fired. The lack of accountability results from the lack of shareholders, who would be free to remove incompetent administrators.
2. Too low wages. Even if the services were able to recruit outside of civil service, the wages paid are often too low to attract experienced managers. In addition, the managers do not share in dividends or other monetary activities as do private managers and incentives for doing well are often attenuated in a bureaucracy.
3. Cultural and structural conditions that promote corruption. These, include enormous pressure of wage earners to support an extended family and a strong incentive to more than their fixed government wage, traditional gift giving practice as well as having a proprietary view of public offices (Van der Geest, 1982).

## PRIVATISATION OF THE CMS'S OWNERSHIP

The public sector drug supply institutions, CMS inclusive, have not succeeded in as far as organising reliable and regular essential drug supply for the public health facilities is concerned (Huss, 1996). One of the many criticisms levelled on the public drug supply system, generally in Africa and particularly in Sudan, is how badly they are internally managed. There are those who agree that, despite the experience of autonomy and the stabilised role of the private sector organisations, a greater amount of real pharmaceutical resources could still be made available to the public health-care system. They argue that the access to essential medicines could be significantly increased, if managerial efficiency of the system were improved and were able to overcome the constraints inherent in operating a government drug supply organisation (Akin, 1987).

## ADVANTAGES OF PRIVATE AGENCIES

There are many arguments in favour of privatisation of public institutions. Advocates of this method claim that privatisation has a large number of advantages (Savas, 1987; Hartley, 1986; De Hoog, 1984; Moore, 1987; Ascher, 1987). First, it is argued that privatisation is efficient and effective because it fosters and initiates competition. The competition among firms drives the cost down. Empirical studies have clearly proved that the cost of the services provided by the government is much higher than when the services are provided by private contractors. For example CMS's declared mark-up on cost (35%) amounted to 2.3 times the private mark-up (15%). In addition, private sector pays taxes, customs and other governmental fees (CMS exempted).

Furthermore, it has also been shown that privatisation provides better management than the public management since decision making under privatisation is directly related to the costs and benefits. In other words, privatisation fosters good management because the cost of the service is usually obscured.

Another important aspect advanced is that privatisation would help to limit the size of government at least in terms of the number of employees; it is an established fact that overstaffing is common in publicly owned enterprises. With competition established privatisation can help to reduce dependence on a government monopoly, which causes inefficiencies and ineffectiveness in services.

It is also argued that the Private sector is more flexible in terms of responding to the needs of citizens. Greater flexibility in the use of personnel and equipment can be achieved for short-term projects, part-time work, among others. Bureaucratic formalities are very common when government delivers the service. Less tolerance and strict hierarchy in bureaucracy are the reasons of the inflexibility in publicly provided services.

## RATIONAL OF THE CMS PRIVATISATION

Even in the absence of broader adjustment context, however, it has long been clear that the CMS reform is needed and that it is actually unavoidable. Patients, administrators (at both hospitals and ministries of health), doctors and other health-care professionals, the regulatory authority and others are fully aware that the performance of the CMS is poor and that patients still suffer even after the privatisation of medicine financing in 1992. Although it is a profit-making organisation, neither the Ministry of Finance nor FMOH is getting any returns from the CMS. The Ministry of Finance, after more than 14 years, still has to inject annual money to cover the cost of certain budget lines such as free medicine projects. The following are the main three justifications, which summarise the inefficiency of the CMS as a public organisation:

1. The existence of widespread dissatisfaction with the situation of pharmaceuticals in public facilities: For instance, 79% of the population pay for their medicines out of pockets (WHO, 2004). The access to essential medicines in Sudan is still less than 50% (Quick, 1997).
2. The ever increasing cost of health care. There is no satisfactory estimate of the total capital invested in the CMS. Rather than receiving a sustained flow of dividends from its investments, the Ministry of Finance still finances the free medicines and drugs for certain diseases. For example, in Khartoum State, the CMS employs large capital, which is more than 10 times that of the Revolving Drug Funds (RDF) but the RDF, with a small capital of US\$ 2 million supports the Ministry of Health activities with two billion every year. In contrast, the CMS has never contributed anything to health services since it was established in 1992. Instead, the strong stream of dividends and tax revenues, which should support public spending on other health activities, is lost. Hence, it is the poor who suffer as a result (Gamal and Omer, 2008).
3. Violation of pharmaceutical regulation at the expense of the public health by creating a big loophole in the pharmaceutical legal framework, which inevitably, leads to marketing of counterfeit medicines. This practice also suppresses the private sector (the government encourages it heavily to grow) by making inappropriate barriers to the private sector provision of drugs.

This is not to say the CMS has no future; there are substantial investment opportunities. Many can be turned around under new ownership and may succeed. It has been the experience of state enterprises worldwide that, in both socialist and in mixed economies, it is exceedingly difficult to remain competitive if enterprises are run by boards of public servants with multiple objectives and without real accountability to shareholders. The constraints on investment, from government and other business decisions also contribute to stifling competition

especially if the enterprises are cut off by virtue of ownership from the latest technologies, and marketing and management trends.

This mainly stems from the fact that public sector boards and civil servants are not in touch with markets and commercial trends and those government-run companies have conflicting objectives that do not stress commercial accountability and thus jeopardise survival and commercial success (Gamal and Omer, 2008).

Reform is a matter of practical necessity rather than ideology. For example, the government of Cuba is still committed to socialist policies, and has recently chosen for pragmatic reasons, to privatise its telephone company. The final pragmatic reason compelling the government towards swift public sector reform is that the resources are being misused.

### **STRATEGIES TO OVERCOME THE CMS PRIVATISATION OBSTACLES**

It is not surprising some obstacles and resistance from some CMS members of staff will confront this reform. The following strategies may help to overcome such resistance and obstacles: (a) Consensus should be built by negotiation with relevant ministries, public and private sectors, and interest groups so that all “buy into” the process and participate in formulating the goals (b) Promotion of research and development and dissemination of research information for community use. The WHO Mission Report of 2003 will be of great value and expected outcomes with being more focused on the patients after adoption of user fee policy.

### **THE ROLE OF THE FMOH**

Private enterprise functions most efficiently if market forces are allowed to operate independently and completely unfettered. Nonetheless, some FMOH involvement is necessary to ensure the availability of proper use of good quality and affordable pharmaceuticals. Therefore, FMOH will continue its current responsibility of importing, licensing, inspecting and regulating the distribution system without any discrimination between different organisations, including the new established businesses. This has to be done by facilitating the development of adherence to the national drug list in the public health facilities, encouraging cheap purchase of registered medicines from reliable sources, quality control of medicines and maintenance of quality through out the system, as well as enforcement of the price control system. The FMOH could also be involved in informing private distributors and the public about the appropriate use of medicines.

At the public health facilities, however, freedom-of-choice arguments that would justify a *laissez-fair*

approach to private sector importing do not apply. There is the overriding merit aspects required in the management of medicines, the related requisites of availability, cost-efficiency, and quality control. Some pharmaceuticals are more cost-effective than others. And therefore, the enforcement of a government-mandated essential drug list lowers the real resource cost of a given quantity of pharmaceuticals necessary for alleviation of common diseases. Standard treatment guidelines alleviate unsuitable medicating practices particularly over-medication, and reduce costs to consumers (Gamal and Omer, 2008).

### **RECOMMENDATIONS**

By resurrecting competition, which could be achieved mainly through privatisation of the CMS ownership, many of the mentioned pitfalls can be avoided. The new business should be responsible (of course without any kind of monopoly) for drug supply and distribution to the public health facilities on competition basis. The initial capital of the drug stocks for the different health facilities should be given to this new business by signing a clear agreement with interested states’ ministries of health.

The government may retain a special (or “golden”) share ranging from 30 to 50% to protect a newly privatised business from unwelcome take-over on national security grounds, or as temporary measure, to provide an opportunity for management to adjust to the private sector. The special share requires certain provisions in the articles of incorporation of a company, which may not be changed without the specific consent of special shareholder. The presence of a special share is a useful tool but is not intended to be a government straitjacket on the management. The management and not the government are generally responsible for ensuring that the special share’s provisions are observed (Omer, 1994; Gibbon, 1996). In order to develop a free market in shares, special shares should be time limited as far as possible. The purpose of privatisation is to remove the government from ownership of the CMS. In some cases, especially where there are major uncertainties about the probable market of the business, for example, United Kingdom and other governments have sold their ownership interest gradually over a period of years (Gibbon, 1996; Bryman, 2004; MOH, 2003; WHO, 2007; Andalo, 2004).

### **CONCLUSIONS**

The CMS reform is stronger today than it was in the early 1990s, when the reforms were started. There are many highly committed and able individuals throughout the public sector in the absence of the single-minded pursuit of commercial success. Also, in the long-term interest of

employment growth and the public at large, narrower concerns have prevailed. Managements and boards are less able and less willing to impose accountability for results on themselves and their employees. Stock-out of life saving items is common, and sanctions for non-performance are often absent altogether. To overcome those common symptoms of all public owned enterprise, and achieve the strategic objectives of the FMOH by increasing the access of population to the essential medicines, the privatisation of the CMS's ownership is the best solution of choice.

## REFERENCES

- Akin JS, Birdsall N, De Ferranti DH (1987). *Financing health services in developing countries: an agenda for reform*. World Bank, Washington, D.C: USA.
- Aktan CC (1995). An introduction to the theory of privatisation. *J. Soc. Pol. Econ. Stud.*, 20(2): 187-217.
- Andalo D (2004). Counterfeit drugs set alarm bells ringing. *Pharm. J.*, pp. 273- 341.
- Ascher K (1987). *The politics of privatisation contracting out public services*. New York: St Martin's Press. P. 23-28.
- Bendick MJ (2009). *Privatising the Delivery of Social Welfare Services*. Privatisation and Welfare State, Eds. Princeton, N.J: Princeton University Press. pp. 15-23.
- Bryman A (2004). *Social Research Method*. (2<sup>nd</sup> Edition). Oxford University Press.
- De Hoog RH (1984). *Contracting out for human services-economic, political and organisational perspectives*. New York: State University of Albania. Pp. 34-42.
- Gamal KMA, Abdeen MO (2008). *The Impact of the Pharmaceutical Regulations on the Quality of Medicines on the Sudanese Market: Importers' Perspective*. Sudan Knowledge. Pp. 1-16.
- Gibbon H (1996). *A guide for divesting government-owned enterprises*. How to Guide. July 15. Geneva, Switzerland. Pp. 4-19.
- Gormley WT (1996). Regulatory privatisation: a case study. *J. Pub. Adm. Res. Theor.*, 6(2): 243-260.
- Gormley WT (1997). Regulatory Enforcement: Accommodation and conflict in four states. *Pub. Adm. Rev.*, 37(4): 285-293.
- Graff PJ, Evarard MM (2003). *WHO mission to Sudan: travel report. WHO/HO: EXD/HTP*. World Health Organisation: Geneva. Pp. 23-28.
- Hartley K (1986). Contracting-out: A step towards competition. *Econ. Affairs*, 6: 5.
- Huss R (1996). *Pharmaceutical consumer co-operative - the third path? CRAME: a case study of from Central African Republic*. *World Hospitals*. 31(3): 13-15.
- Kamerman SB, Khan AJ (2009). *Privatisation and Welfare State*. Princeton, N.J: Princeton University Press. pp. 25-30.
- Kettl DF (1995). *Privatisation as a tool of reform*. The Lafollette Policy Report. 7.
- Leighton C (1996). Strategies for achieving health-financing reform in Africa. *World Development*. 24(9): 1511-1525.
- Ministry of Health (MOH). (2003). *25 years Pharmacy Strategy (2002-2027)*. Khartoum: Sudan. Unpublished Report. Pp. 3-17.
- Moore S (1987). *Contracting-out: A painless alternative to the budget cutter's knife*. Steve H. Hankie (Ed.). Prospect for privatisation. New York: The Academy of political science. Pp. 16-27.
- Omer AM (1994). *Socio-cultural aspects of water supply and sanitation in Sudan. NETWAS*, Nairobi: Kenya. 2: 4.
- Quick JD (1997). *Managing Drug Supply: The Selection, Procurement, Distribution and Use of Pharmaceuticals*. 2<sup>nd</sup> ed. West Hartford, CT: Kumarian Press. Pp. 5-15.
- Savas, E.S. (1987). *Privatisation: The key to better government*. Chatham House Publishers Inc., New Jersey. Pp. 18-26.
- Scarpaci JL (1991). *Health Services Privatisation in Industrial Societies*. London: Jessica Kingsley Publishers.
- Stephens B (1982). *Cameroon health centre study. Prepared for Population, Health Nutrition Department: World Bank*. International Science & Technology Institute, Inc., Washington, D.C. Pp. 7-25.
- Van der Geest S (1982). The efficiency of inefficiency: medicine distribution in South Cameroon. *Soc. Sci. Med.*, 16: 2145-2153.
- Vogel RJ, Stephen B (1989). Availability of pharmaceutical in Sub-Saharan Africa: roles of the public, private and church mission sectors. *Soc. Sci. Med.*, 29(4): 479-86.
- WHO (2004). *The World Medicines Situation*. World Health Organisation (WHO): Geneva, Switzerland. WHO/EDM/PAR/2004.5
- WHO (2007). *The World Medicines Situation*. World Health Organisation (WHO): Geneva, Switzerland. WHO/EDM/PAR/2004.5.