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Research Report: ZLC-2011-17
A Comparative Analysis of In-Market Pharmaceutical Distribution Channel Strategies
in Sub-Saharan Africa: A case study of Kenya
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A Comparative Analysis of In-Market Pharmaceutical Distribution Channel Strategies in Sub-Saharan Africa
A case study of Kenya

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Summary:
This thesis tackles the question of what is the right distribution channel strategy that a big pharmaceutical company can use to improve access to its medicines in sub-Saharan Africa market in light of the risks and challenges inherent in the region. We analyze the existing distribution channel options, the risks associated with each one of them and explore possible strategies to mitigate the risks.

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KEY INSIGHTS

1. Distribution of pharmaceutical in sub-Saharan Africa is poorly understood and perceived as risky business.

2. Improved knowledge of pharmaceutical supply chains can result in better distribution coverage and access to medicines.

3. Adoption of appropriate distribution strategies can improve availability and affordability of medicines in sub-Saharan Africa

Introduction

Traditionally, large multi-national pharmaceutical companies perceived Africa as a small risky market. However, in the recent years there has been growing interest in serving markets in sub Saharan Africa. This renewed interest appears to come from two reasons namely, the future business potential for these markets is large and secondly, by so doing, it signals good corporate citizenship for the multi-national pharmaceutical companies.

However, the limited ability of countries in sub Saharan Africa to pay and the inconsistent flow of funds from donor agencies further intensify the perceived riskiness of the sub-Saharan African markets. Further, lack of effective supply chains is considered a key reason for the slow materialization of demand in these markets.

Strong supply chains are essential to effective health care delivery in all sectors - public, faith-based[1], and private. However, the process through which a particular medicine or drug flows through the supply chain from the manufacturer to the patients in sub-Saharan Africa has not been well documented. This paucity of knowledge is a bottleneck to access of essential and life-saving pharmaceutical products to patients in this region.

An extensive review of literature (32 references distributed across 12 developing countries) on retail sector distribution chains for malaria treatment in developing world published in Malaria Journal (February 2010) concluded that evidence on the distribution chain for retail sector malaria treatment was mainly descriptive and lacked representative data on a national scale. Documenting the process and the associated challenges will therefore provide the necessary insights to guide supply chain

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[1] Affiliated with or sponsored by a church or other religious organization

strategies for manufacturers who view Africa as an important emerging market for pharmaceuticals.

This thesis was an attempt to find the right supply chain strategy for a large pharmaceutical company to improve access to its medicines in sub Saharan Africa.

Pharmaceutical Supply Chains in Africa

Pharmaceutical markets in other parts of the world including the Middle East and North Africa currently differ significantly from markets in sub-Saharan Africa. Even within sub-Saharan Africa, there are significant differences between Anglophone and Francophone countries, with the differences being more pronounced in the regulatory area of pharmaceutical supply chains. This study focused on sub-Saharan Africa, where an in-depth study of Kenya was carried out to represent East African markets. A study of Ghana was also done and findings reported in a separate report.

Figure 1 below shows a typical pharmaceutical product value chain from product development to point of healthcare delivery.
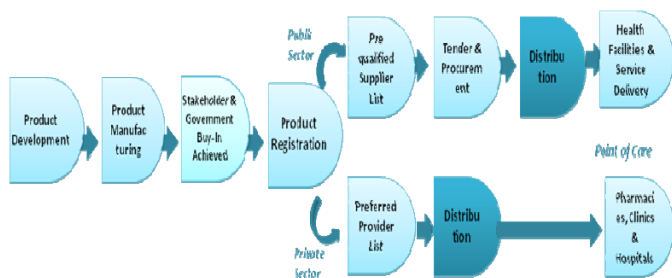

Figure 1 Pharmaceutical product value chain

Access to medicines in sub-Saharan Africa

Essential medicines save lives and improve people's health when they are available, affordable, of assured quality and properly used. Figure 2 shows key factors affecting access to essential medicines.

According to Yadav et al (2009), uptake of malaria medicines is a real problem in malaria endemic countries due to challenges prevalent at the lower level (downstream) supply chain. These include bottlenecks at the drug regulatory authorities, lack of appropriate supply chain coordination and poor physical infrastructure. This is confirmed by the findings of this study which show that access to essential medicines remains low in Kenya, especially in rural areas and resource limited settings such as slums in the capital city. There is low availability and affordability of medicines due to low purchasing power, poor road network and lack of proper distribution channels and facilities.

Literature reviewed shows an increasing role of private sector in improving access to medicines but clearly points to a glaring knowledge gap in supply chain strategies to achieve effective distribution of pharmaceutical products in sub-Saharan Africa.
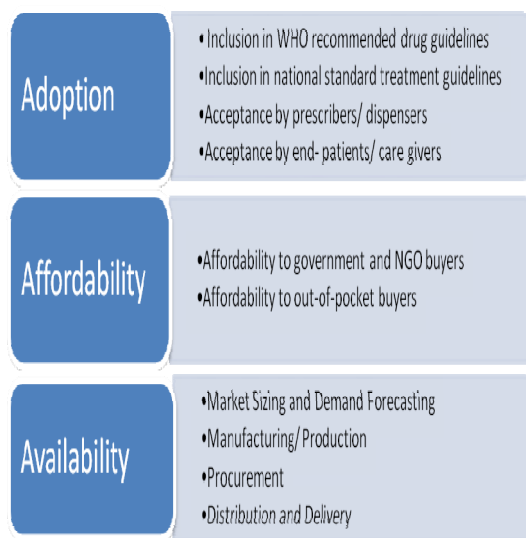

Figure 2 Factors affecting uptake of malaria medicines (Yadav, Stapleton, & Wassenhove, 2009)

In-country distribution of pharmaceuticals

In-country distribution is achieved through three key distribution systems namely; public, private-for-profit and private-not-for-profit systems (see figure 3).
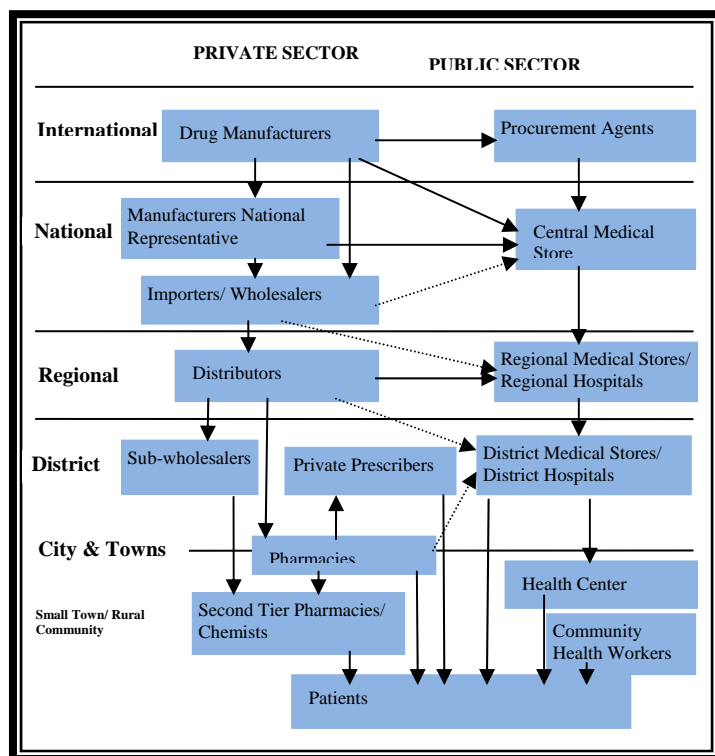

Figure 3 Interaction between private and public sector distribution systems (Adopted from Yadav, Stapleton, & Wassenhove, 2009)

Distribution channel options in Kenya

Current distribution channel options in Kenya can be classified into four main categories based on their competitive strategies. These are retail chains, niches, logistics service providers and "middle of the road" distributors.

Retail chains have centralized procurement units through which they purchase inventory as wholesalers and distribute to end-users (patients) through a network of retail pharmacies. Niche distributors operate a distribution system that is designed to serve a well defined niche market segment. They include distributors in public sector (central medical stores), faith-based sector (MEDS) and franchise shops run by humanitarian organizations (e.g. CFW Shops). They have a centralized procurement unit to facilitate bulk purchases and hence get competitive prices.

Distribution using logistics service providers (LSP) is a new concept in Kenya. Most provide warehousing and distribution services on behalf of the manufacturer in return for a commission. Middle of the road distributors are those without a clearly defined distribution strategy and do a little of each of the components of supply chain operations. They import, distribute, wholesale and some also run retail chains.

Distribution challenges & risks in Kenya

The following are the key challenges facing distribution of pharmaceuticals in Kenya:

Undercapitalization: healthcare outlets in resource limited settings lack adequate working capital. Because of the nature of their small scale operations, they have limited chances of attracting credit from the distributors or banks who regard them as risky customers.

Foreign exchange fluctuations: Local currency fluctuations against the dollar are a challenge to maintenance of steady product prices for a long time even when the prices have remained stable from the manufacturer. This results in foreign exchange losses incurred by the importers every time they place a new order.

Poor debt management: Weak legal systems, poor vetting of credit customers and lack of debt management skills are responsible for bad debts and delays in collection of receivables.

Grey markets and trade in counterfeit pharmaceuticals: Grey market and trade in counterfeit pharmaceuticals is associated with serious negative impact on business and health outcomes of the patients. Grey markets thrive in Kenya due to high price differentials and supply inadequacy within the market.

Low purchasing power: The purchasing power of majority of people living in Kenya is low with most families paying for health services as out-of-pocket expenses.

Uncertainty of in-market demand: Demand uncertainty and lack of appropriate forecasting skills result in losses through products expiries, loss of revenue and goodwill due to stock-outs and hence diminished profitability arising from price mark-downs to clear short dated products.

Recommendations to improve distribution of pharmaceuticals in Kenya

In light of the risks and challenges identified in Kenya, the following five recommendations have been proposed as mitigation measures from a manufacturer's perspective. They can also be applied other sub-Saharan markets.

Establishment of regional distribution centers (RDCs): Use of RDCs is expected to result in better economies of scale and scope because the hub can order large quantities and varieties of products from the manufacturer to satisfy the demand in the entire region. This will further lead to lower foreign exchange risks resulting from less frequent orders from the overseas manufacturer thereby resulting in stable prices. Use of RDC would also result in reduction of in-country lead times due to stock stability at the hub and relatively shorter distances between the hub and the in-country markets. Benefits of establishing a RDC are summarized below (see table 1).

Benefit	Explanation
Increase products security	Closely track the chain of inventory custody to control grey markets and introduction of counterfeit products in the supply chains
Lower cost of in-bound logistics	Lower unit costs of commodities and shipping obtained from "pooling" procurement and consolidating shipments for the region.
	Consolidate a number of products into a single shipment, thus reducing costs and time of administration and processes such as customs clearance.
Lower foreign exchange risks & Price stability	Less frequent orders from manufacturer hence lower foreign exchange losses leading to price stability
Lower cost of in-country distribution and lower working capital requirements (out-bound logistics)	Shift inventory storage to a nearby location where in-country supplies can be drawn in smaller quantities on need basis
	Shorter lead-times hence lower inventory holding requirements and lower overall distribution costs. Smaller and more frequent shipments enable in-country supply chains to increase throughput.

Table 1 Benefits of using RDC

Establishment of a credit financing mechanism for rural pharmacies and drug shops: Innovative financing mechanisms initiated by the manufacturer, such as drug shop credit financing using community approaches and use of mobile telephone money transfer services (e.g. M-Pesa) would result in

improved availability of working capital to pharmaceutical outlets operating below the level of distributors and especially those in rural areas and other resource limited settings. This will in turn result in improved geographical coverage and better access.

Differential pricing: Differential pricing is a strategy which involves charging two different prices for the same product but in different market segments based on their purchasing power. If properly applied, it can be a strong incentive to encourage increased products uptake, higher market coverage and product penetration.

Establishment of strategic partnerships: A manufacturer can increase product availability and affordability through establishment of partnership with distributors and stakeholders who are already serving customers in the target market segments. By so doing, the manufacturer will benefit from utilizing the distributor's established distribution channels, market knowledge and goodwill.

Ensure ownership of in-country marketing authorization rights: Whenever a firm cedes its products marketing authorization to a third party such as an agent or distributor, it loses flexibility to appoint multiple distributors or change the agent who holds the rights in a particular country. Thus in order to allow for flexibility in organizing distribution system in each country and to achieve desired outcomes, the pharmaceutical firm should consider taking control of marketing authorization rights.

Implementation of these strategic options is expected to result in supply chain systems that promote wide distribution coverage, better prices to patients and overall profitability of all the stakeholders in the supply chain.

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