The Use of Mobile Phone to check for the Authenticity of Pharmaceutical Products in Nigeria a case study of Mobile Authentication Service (MAS).

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Abstract
The mobile Authentication Service (MAS) of The National Agency for Food and Drug Administration and Control (NAFDAC) is an attempt at turning the mobile phone which is now in the hands of majority of Nigerians into a tool of fighting the war against fake drug proliferation in Nigeria. Fake drugs incidences have resulted in death even among children as most of the consumers do not know the quality of what they are buying or taking (Olike Chinwendu, 2008). This is already yielding fantastic result as people in the city are making use of their phones to check the authenticity of the drugs they purchase. The challenge remain in the fact that majority of Nigerian buy their drugs in the informal or open market this seem to be a solution for the elite as majority are still likely to be taking the fake drugs.

Background
Nigeria in recent years has been known for being a haven for all kinds of counterfeited products (Erhun et al., 2004). In Nigeria the problem of fake drug proliferation have affected the plausibleness of the Healthcare system leading to unwholesome effect on the consumer resulting to illness, disability and even death. Some of these incidences have resulted in death even among children as most of the consumers do not know the quality of what they are buying or taking (Olike Chinwendu, 2008). Considering the knowledge base of the drug vendors, whose minimum academic requirement to obtain a license is the first school-leaving certificate, they are not in a good position to differentiate between fake and genuine product (Erhun and Adeola, 1995). This situation makes it imperative that there is need to heighten effort in fake drug eradication.

The National Agency for Food and Drug Administration and Control (NAFDAC) among several approach towards the eradication of fake drug employed the use of telecommunication at combatting the menace of fake drug proliferation in the nation.

As at May 2012, the Nigerian Communications Commission (NCC) has 118,850,928 connected GSM lines, of which 97,553,425 GSM lines are active [www.ncc.gov.ng). The National Agency for Food and Drug Administration and Control (NAFDAC) planned to leverage on this figure to saved Nigerian from the menace of fake drug.
**Mobile Authentication Service: Definition and Presentation**

The Mobile Authentication Service (MAS) works with mobile phones that are SMS enable. It allows individuals with mobile phones to check whether a drug is fake or original without direct contact with the manufacturer.

This service was introduced into Nigeria by National Agency for Food and Drug Administration and Control (NAFDAC) in response to the increasing rate of fake drugs sold in this country. It is an attempt to turn mobile phones into mobile tools that can help check this problem as many lives have been claimed and many are still endangered by the circulation of such fake products.

The Mobile Authentication Service (MAS) uses Truscan technology which enables Consumers to enter a twelve digit number printed on the back of the packaging of a drug and send it via SMS to a dedicated number which automatically sends a Negative or Positive responds about the genuineness of the product before it is purchased.

This service was made possible through a partnership between National Agency for Food and Drug Administration and Control (NAFDAC), GSM operators as well as representatives of national and international pharmaceutical companies in the country. A sponsor and partner is BIOFEM which provides *sproxil* Technology, the technological solution for the anti-counterfeiting service.

**How Does NAFDAC MAS work?**

This is a very simplified step by step method of verifying the authenticity of any drug via mobile phone. It can be applied just at the point of purchase of a product by the consumer.

**Step 1:**

Scratch the *sproxil* label on the product to be purchased to reveal a unique 12 digit PIN.

**Step 2:**

Text the Unique 12 digit PIN as SMS to the short code **38353**.

**Step 3:**

Immediately receive a response in form of SMS on your phone affirming the validity of the PIN either positively or negatively.

With the support of all mobile network providers in the country this service is available in all corners of the country. It is free of charge once the phone is SMS enable.
The National Agency for Food and Drug Administration and Control (NAFDAC) and other stakeholders in the drug and food administration sector of the country, encourage pharmacists to help consumers who are not literate to check the originality of the product with their own phone.

**The MAS Experience in Nigeria.**

The National Agency for Food and Drug Administration and Control (NAFDAC) on February 2, 2010, launched the NAFDAC Mobile Authentication Service (MAS) with the aim of putting the power of checking for originality of product in the hands of consumer. The National Agency for food and Drug Administration and Control (NAFDAC) has made compulsory the implementation of MAS by all Pharmaceutical companies for all their major products especially the Antibiotics and the Antimalarial drugs. The official deadline for implementation is set for 2\(^{nd}\) of March, 2013. It is hoped that this directives will be implemented and definitely allow Nigerians to check the authenticity of their medicines and eliminate fake drugs from circulation.

To date it is clear that out of every 200 Nigerians one knows about MAS. Well over a million text messages have been sent by Nigerians and millions of products now carry the unique sproxil label to show that such product is MAS ready (sproxil.com/mas.html). GlaxoSmithKline in partnership with National Agency for Food and Drug Administration and Control (NAFDAC) in February 2011, run a six months pilot anti-counterfeiting programme in Nigeria. In all a total of 145,000 texts from 115,000 unique users was received. This figure represents approximately 10% of use from the total products send out for the pilot programme. Ninety percent of text returned a genuine confirmation, 2.5% received a counterfeit alert and other received a message indicating a duplicate PIN ([www.developingcountriesunit.gsk.com](http://www.developingcountriesunit.gsk.com)).

**Interest for Habitele:**

MAS is an example of Nigeria new type of value added service available through mobile phone. The Mobile Authentication Service is a NAFDAC innovation supported by BIOFEM that uses Sproxil technology to address the drug counterfeiting challenges in Nigeria. This new effort from NAFDAC and its partners allows anyone in Nigeria to check the authenticity of their medication with a simple text message.

This is a world-first, showing the pro-activeness of Nigeria in the global fight to rid the world of fake medication. There is no personal data required to make use of this system. The regimes of engagement raised by this application are Clientele and Legatele.
Links for further information on MAS.

nigeria@sproxil.com.

www.biofempharmaceuticals.com

http://sproxil.com/about.php

http://www.nafdac.gov.ng/

References


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