



HINDRANCES TO PACKAGED AND BOTTLED WATER BUSINESSES IN NIGERIA: A REVIEW

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ABSTRACT

Water is an essential resource for life and good health. It is the most common, most widely distributed and most useful liquid on earth. It is the most precious natural resource that exists on our planet. As with most developing countries, access to safe water is a major challenge in Nigeria. Ground water and pipe borne (tap) water are the major sources of drinking water. These sources are said to be unsafe. Packaged and bottled water businesses in Nigeria are hindered by various challenges such as epileptic power supply, distribution problems, air and environmental pollution, integrity, or business feasibility concerns and inefficacy of government regulatory bodies etc. The aim of this research paper is to examine and discuss the hindrances to Packaged and Bottled Water Businesses in Nigeria with a view of identifying the hindrances and to extend the existing literature on hindrances to Packaged and Bottled Water Businesses in Nigeria. The main sources of data were journals, conference / seminar / text books, newspapers, and the internet sources etc., which were used to review literatures in the water business field. The result shows and discusses the hindrances affecting the packaged and bottled water businesses in Nigeria's business environment.

Key Words: Bottled water, Businesses, Hindrances, Nigeria and Packaged Water etc.

INTRODUCTION

1.1 Background to the study

Water is an essential resource for life and good health. It is the most common, most widely distributed and most useful liquid on earth. It is the most precious natural resource that exist on our planet (Musa, et al; 2008). Two third of the human body weight is made up of water attaining forty-five percent in the average adult. The brain is eighty five percent water, muscles contain seventy five percent water, and bones thirty three percent (Akpan, 1998). As a result of the

significance of water in physiological systems, it is difficult to survive long without water (Longdet, et al; 2004).

People need access to a clean water supply for varied uses. Paradoxically, there is shortage of clean water as demand for it continues to grow across the globe at an alarming rate. With almost two – thirds of earth covered by water, it is difficult to understand how a shortage of clean water supply could exist. However, it does exist as only one percent of the water in the world is consumable without treatment (Lee, W., Liang, Z.Y., Sanchez-Torres, A., and Zhang, K., 2005)

As with most developing countries, access to safe water is a major challenge in Nigeria. Ground water and pipe borne (tap) water are the major sources of drinking water. These sources are said to be unsafe sources of drinking water because findings indicated that ground water sources contain trace elements, dissolved solids and pathogens in excessive quantities that may be dangerous to the health of the people. Consequently, most of the investigations carried out on ground water samples from different parts of Nigeria revealed that most of the available sources of water or water types are polluted or contaminated hence, were not fit for drinking purpose (Ogunbanjo, 2004; Tijani, 2004; Muta'a Hellandendu, 2012).

In Nigeria, Government-owned public water utilities, such as Water Corporations, are statutorily charged with the responsibility of supplying water from conventional water treatment plants that use water from impounded reservoir (Dams) flowing streams, lakes and deep boreholes (Adetunji and Ilias, 2010). The Nigerian government has a national water supply policy, whose aim is to provide potable water to all citizens by the year 2020.

Nigeria is blessed with abundant water resources but largely untapped. In spite of the abundant water resources, government at all levels (federal, state and local) have not been able to successfully harness these resources to ensure a sustainable and equitable access to safe, adequate, improved and affordable water supply to its population (Muta'a Hellandendu, 2012). Consequently, given the renewed global commitments towards the Millennium Development Goals (MDG) marked for 2015, the importance and contribution of locally sourced low-cost alternative drinking water schemes to sustainable access in rural and peri-urban settings of developing nations cannot be over-emphasized (UNDESA, 2004). Giant strides were made by the private sector in form of packaged and bottled water businesses to fill this gap/ void by the government. These businesses operate in the environment and are hindered by various challenges.

1.2 Research Problem

Packaged and bottled water businesses in Nigeria suffer from various social and economic challenges such as high cost of production, unreliable grid supply, distribution problems, multiple taxation, littering or environmental pollution, integrity, quality, inspection or business feasibility concerns and inefficacy of government regulatory bodies. According to Ademoroti (1996); Dada (2009); Aroh et al. (2013), People still worry about the purity of the sachet water. The integrity of the hygienic environment and conditions where majority of the packaged water

in the markets are produced has been questioned. CAMON (2007), as cited by Dada (2009); stated that “there are claims of past outbreaks of water borne illnesses that resulted from consumption of polluted sachet waters most of which are of unknown origin.”Adetunji and Ilias(2010), also stated that increasing number of private companies registered and unregistered, are getting involved in the packaged water business in virtually every district in the country. Edoga et al.(2008) noted that “about 70 percent of Nigerian adults drink at least a bottled or sachet of water per day resulting in about 50 to 60 million used water-bottles and water-sachets disposed daily across the country.”This has led to a lot of littering of the disposables (empty bottle and the sachet) and by extension environmental pollution.

Packaged and bottled water businesses in Nigeria engage people of different status in the society. These range from the Packaged and bottled water producers/manufacturers, whole sellers, retailers, consumers, government regulatory bodies, consumer protection organizations and pressure groups. Each views the impact differently. Hence, the need to study the hindrances to packaged and bottled water businesses in Nigeria.

1.3 Research Aim

The aim of this research paper is to examine and discuss Hindrances to Packaged and Bottled Water Businesses in Nigeria with a view of identifying the hindrances and to extend the existing literature on Hindrances to Packaged and Bottled Water Businesses in Nigeria.

1.4 Research Methodology

The main sources of data were journals, conference / seminar / workshop papers, text books, newspapers, magazines and the internet sources etc., which were used to review literatures in the Water Business field and help in examining, identifying and narrowing some of its hindrances. These help in understanding the Water Businesses, especially Packaged and Bottled Businesses in Nigeria.

2.0 LITERATURE REVIEW

2.1 Packaged and Bottled Water Businesses in Nigeria

Water scarcity affects all social and economic sectors and threatens the sustainability of the natural resources base. Addressing water scarcity requires an intersect oral and multidisciplinary approach to managing water resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. Integration across sectors is needed. This integration needs to take into account development, supply, use and demand, and to place the emphasis on people, their livelihood and the ecosystems that sustain them. On demand side, enhancing water productivity (the volume of production per unit of water) in all sectors is paramount to successful programmes of water scarcity alleviation (FAO, 2007).

Since independent, Nigeria has spent a lot of money on developing water supplies. However, there are still many health problems in both urban and rural areas due to polluted drinking water and a shortage of water for daily hygiene. Rural areas face specific problems not encountered in the towns. It is simply too expensive to provide a house - to - house water supply because homes are so widely scattered. Many rural people have low incomes and find it difficult to fund or maintain a water supply. They also lack the skills needed to maintain the water source (DFID, 2003). Pipe borne potable water is also inadequate both in quantity and quality (Adekunle et al, 2004; Voanews.com). An alternative to the seemingly inadequate water supply is found in Packaged and Bottled Water.

Increasing number of private companies registered and unregistered, are getting involved in the packaged water business in virtually every street (Adetunji and Ilias, 2010).It is also expected that total bottled water will record a total volume compound annual growth rate (CAGR) of 9% over the forecast period, driven by population and urbanization growth (Euro monitor International, 2016).Therefore, it is paramount to identify the hindrances to packaged and bottled water businesses in the country. The hindrances are a sub-part of environmental analyses for any given product or business operating within an environment.

Environmental analysis is a strategic tool used to identify all the external and internal elements, which can affect the organization's performance. The analysis entails assessing the level of threat or opportunity the factors might present. These evaluations are later translated into the decision-making process. The analysis helps align strategies with the firm's environment. Businesses are greatly influenced by their environment. All the situational factors which determine day to day circumstances impact firms. So, businesses must constantly analyze the trade environment and the market. The most used detailed analysis of the environment is the PESTLE analysis. This is a bird's eye view of the business conduct which is used to foresee where the organization will be in the future (pestleanalysis.com)

PESTLE analysis consists of various factors that affect the business environment. Each letter in the acronym signifies a set of factors. These factors can affect every industry directly or indirectly. The letters in PESTLE, also called PESTEL, denote the following things:

- i. Political factors
- ii. Economic factors
- iii. Social factors
- iv. Technological factors
- v. Legal factors
- vi. Environmental factor

This study analyzes these factors with regards to the hindrances to Packaged and Bottled Water Businesses in Nigeria. Businesses analyze these factors because they can conclude the direction in which the industry can move. It helps to set up strategies in line with changes. These include

but not limited to: government policy, political stability, labor laws, automation, technological know-how, environmental laws, cultural implications, gender and connected demographics, social lifestyles, domestic structures and educational levels, the inflation rate, the interest rate, disposable income of buyers, credit accessibility, unemployment rates, the monetary or fiscal policies, the foreign exchange rate etc. (ibid)

2.2 Hindrances to Packaged and Bottled Water Businesses in Nigeria

Water is essential for all socio-economic development and for maintaining healthy ecosystems. As population increases and development calls for increased allocations of ground water and surface water for domestic, agriculture and industrial sectors, the pressure on water resources intensifies, leading to tensions, conflicts among users, and excessive pressure on the environment. The increasing stress on freshwater resources brought about by ever – rising demand and profligate use, as well as by growing pollution worldwide, is of serious concern. Despite considerable humanitarian endeavor over the last three decades, almost 900 million people continue to lack access to safe water (One World, 2012).

In terms of quality and quantity of public water supply, the inadequacy of pipe borne water in Nigeria is almost endemic. As studies have shown that standard industrialized world model for delivery of safe drinking water technology is not affordable in much of the developing world (Gadgil and Derby, 2003). The achievement or realization of the renewed global Commitments toward the Millennium Development Goals (MDGs) by 2015 required the development of locally sourced alternative low cost drinking water schemes that will provide sustainable access to safe drinking water in all areas in developing countries (UNDESA, 2004). As the country population grew and industries increased, the supply of water by the public utilities became inadequate in quality and quantity (Adetunji and Ilias, 2010).

According to Akunyili (2003), it is the inability of the Government to persistently provide adequate potable water for the growing population that has tremendously contributed to the proliferation of the packaged and bottled water businesses. The bottled water price is within the reach of the tautology — that is elite (Adekunle et al, 2004). Whereas, packaged water notably, offers the most accessible and quickest means of assuaging the feeling of thirst. Although this form of drinking water is easy to get and the price is affordable, people still worry about its purity and integrity (C.A.M.O.N, 2007; Dada, 2009).

The provision of water that is safe and clean is a must for any country pursuing sustainable development (Bello et al, 2017). Packaged water if improved upon has been suggested as a low cost, readily available alternative water provision (Dada, 2009). At first, there were worries about the purity of packaged water. In recent times, packaging of potable water in form of sachet water has gradually gained wider acceptability in our major cities. Demographic and socio-economic variables are largely responsible for the choice and preference for this product. It is

usually packaged and sold to members of the public in sealed nylons. This occurs in almost all parts of the country, like motor parks, markets, public functions and street corner shops thereby polluting every area of the country (Aroh et al., 2013).

The National Agency for Food and Drug Administration Control (NAFDAC) is mandated to enforce compliance with internationally defined drinking water guidelines, but regulation of the packaged water industry aimed at good quality assurance has remained a challenge to the agency. Packaged and bottled water are readily available and the prices are affordable, but there are concerns about its purity especially packaged water. The integrity of the hygienic environment and the conditions where the majority of the water in sachets are produced has also been questioned. There are claims of past outbreaks of water-borne illnesses that resulted from consumption of polluted water in sachets (C.A.M.O.N, 2007). However, nationally documented evidence is rare and these claims were with regards to packaged water and not bottled water.

The packaged and bottled water businesses are hindered by the unreliable power supply which is the root cause of the reliance on self-generating sets for production. As a result of the foregoing, cost of packaging operation is high (Nwanya et al., 2013). The problem of high cost of production is there because of inability to quantitatively predict energy and pool of trained manpower required for a continuous operation (Ekechukwu et al., 2011). Distribution of the produced water is a problem due to bad roads. For example a distance that will take a vehicle one hour, may last for three hours because of bad roads and this results in consumption of more fuels and damaging of vehicles used for distribution. On the three-tiers of government taxation concern the water factories should unionize, impliedly, the solidarity canvassed for here is meant to guarantee protection to major variables that drive cost of production- energy, labour and material if the entrepreneurship must be successful (Nwanya et al., 2013).

The packaging of packaged water is made of non-biodegradable synthetic polyethylene (polythene), which does not decay, decompose or corrode, and which when burnt, produces oxides of carbon, nitrogen and Sulphur which can harm man and the environment. Almost every nook and cranny in Nigeria is littered with sachet water nylon, popularly called “pure water”, the large volume of which in ordinary parlance, constitutes pollution and termed negative externality or economic ‘bad’ in economics. About 70 percent of Nigerian adults drink at least a sachet of pure water per day resulting in about 50 to 60 million used water-sachets disposed daily across the country (Edoga et al., 2008; Adetunji and Ilias, 2010).

2.3 The Hindrances to Packaged and Bottled Water Businesses in Nigeria

From the reviewed literature above, the table below shows the summary of Hindrances to Packaged and Bottled Water Businesses in Nigeria.

Table 2-1: Summary of Hindrances to Packaged and Bottled Water Businesses in Nigeria

S/N	Hindrances to Packaged and Bottled Water Businesses in Nigeria	Sources
1	Unreliable Power Supply	[Nwanya et al., 2013]
2	High Cost of Production	[Ekechukwu et al., 2011]
3	Distribution Problem	[Nwanya et al., 2013]
4	Purity and Integrity Concerns	[Dada, 2009]; [C.A.M.O.N, 2007]
5	Multiple Taxation	[Nwanya et al., 2013]
6	Inefficacy of Government Regulatory Bodies	[C.A.M.O.N, 2007]
7	Intense Competition	[Adetunji and Ilias, 2010]
8	Pollution	[Edoga et al., 2008]; [Adetunji and Ilias, 2010]; [Aroh et al., 2013]

Source: Authors, from literature review

2.4 Hindrances to Packaged and Bottled Water Businesses in Nigeria

2.4.1 Unreliable power supply

Regular and stable power supply is of paramount importance for industrialization and economic development of any nation. Almost all if not all public and private utilities suffer from epileptic power supply in Nigeria; the packaged and bottled water businesses included. The Nigerian Government inability to provide these businesses with adequate electricity supply led them to look for other alternatives of generating power. An example of such alternatives is a power generator. This is used with the aid of gas/fuel to power any given company. The use of these power generators solves the issue of the electricity; however they invariably led to the next issue.

2.4.2 High cost of production

The packaged and bottled water businesses in Nigeria face the problem of high cost of production for a number of reasons but mainly due to the inability of the government to provide adequate power and the use of power generators to generate electricity. The fuel/gas cost of using these power generators on a daily basis and factoring in the removal of the country's fuel subsidy is too high and not to mention the wear and tear cost of maintaining these power generators.

2.4.3 Distribution problem

According to Nwanya et al. (2013), the distribution of the produced package and bottled water is a problem due to bad roads in Nigeria. The road network in the country is a shamble. You can hardly go a mile without seeing numerous potholes. These issues of bad roads impact the packaged and bottled water businesses by increasing transportation cost due to damage of vehicles and the consumption of more fuel for it takes longer to reach desired destination on bad roads.

2.4.4 Purity and Integrity Concerns

Packaged and bottled water businesses provide the perfect alternative to drinking water in Nigeria due to the accessibility and affordability of the products to members of different status (lower class, middle class and upper class) in the society. However, there is a general consensus with regards to the purity and integrity of the products, especially packaged water. The hygiene of the areas in which most of these packaged water are produced are bewildering.

2.4.5 Multiple Taxation

The failing development of the Nigerian manufacturing sector has been blamed on many factors, top of which is the challenge of the inept tax authority that has crippled production. The packaged and bottled water manufacturers have to pay multiple taxes to the various tiers of government in addition to the cost of powering their businesses via power generators, transportation costs due to bad roads and paying staff salaries; this makes it an almost impossible task to make profit and to keep the business afloat.

2.4.6 Inefficacy of Government Regulatory Bodies

According to C.A.M.O.N. (2007), The National Agency for Food and Drug Administration Control (NAFDAC) is struggling to provide good quality assurance with regards to the packaged and bottled water products, especially packaged water. Corruption and the vast and disperse nature of Nigeria's population makes it next to impossible for any form of government regulation to have any effect.

2.4.7 Intense Competition

According to Adetunji and Ilias (2010), increasing number of private companies registered and unregistered, are getting involved in the packaged and bottled water businesses, especially packaged water. With the ever growing population of Nigeria, with drinking water a necessity on a daily basis and with the packaged water being a low-tech large-market venture, there is an ever increasing competition for the products which invariably erodes the market of the bottled water manufacturers.

2.4.8 Pollution

Nigeria, just like the rest of the world is becoming increasingly conscious on the effect of pollution. The improper disposal of the non-biodegradable synthetic polyethylene packages and the plastic bottles leads to all sorts of problems. For example, environmental pollution through littering and sewage blockage and air pollution through burning of these disposed materials which are harmful to the health and the environment. This invariably leads to the decrease in demand of the packaged and bottled water products, especially packaged water.

3.0 SUMMARY AND CONCLUSIONS

This study discusses the hindrances to packaged and bottled water businesses in Nigeria. The literature reviewed in this work was used to identify, tabulate and discuss the main hindrances to packaged and bottled water businesses in Nigeria.

This study identified eight hindrances to packaged and bottled water businesses in Nigeria and they are: Unreliable Power Supply, High Cost of Production, Distribution Problem, Purity and Integrity Concerns, Multiple Taxation, Inefficacy of Government Regulatory Bodies, Intense Competition and Pollution. “Packaged and bottled water businesses **are** hindered significantly by some factors in the Nigeria’s business Environment”.

4.0 LIMITATIONS OF THE STUDY AND FURTHER RESEARCH DIRECTION

This study has been carried out with an aim to examine and discuss hindrances to packaged and bottled water businesses in Nigeria with a view of identifying the hindrances and to extend the existing literature. Further research is suggested to carry out an empirical study to determine the extent to which either of the factors of packaged and bottled water businesses in Nigeria affects the stakeholders etc.

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APPENDIX



Figure: Bottled Water Samples

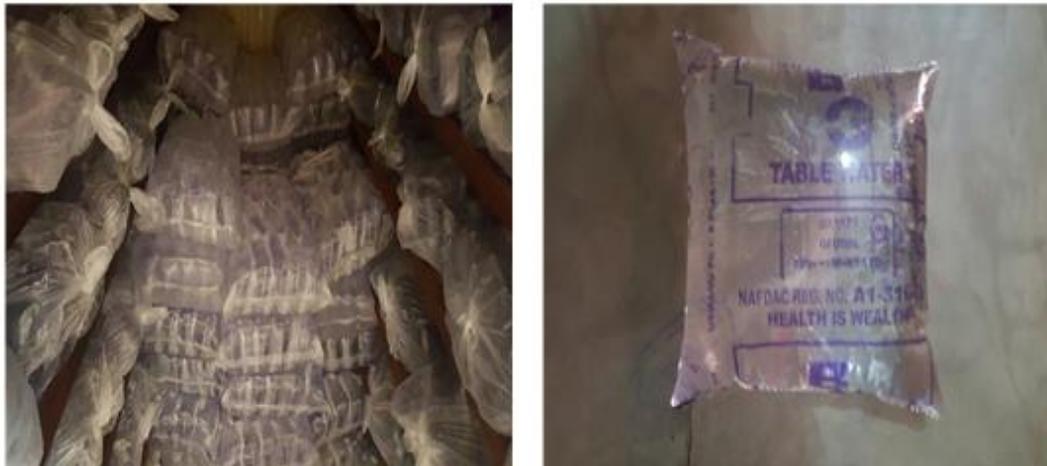


Figure: Packaged Water Samples (also known as Sachet water)