

Juxtaposing Regulation Theory with Agency Behaviour: Understanding the Role of the Regulator in the Developing World with Evidences from Nigeria

Olugbenga, Ebenezer Olatunji (Ph.D.),
Department of Political Science, Faculty of the Social Sciences,
Ekiti State University, P.M.B. 5363, Ado-Ekiti, Ekiti State, Nigeria.
E-mails: olugbenga2010@gmail.com; ebenezeraoaye@gmail.com

Abstract

This paper explores the interface between the theory and practice of social regulation, particularly in developing or Third World Countries. Using two popular theories of regulation, the paper builds upon the framework of ecology of administration to argue that social regulatory agencies in developing countries may acquire unique characteristics that not only affect their modus operandi, but also midwife their outcomes and assessment in ways that differ significantly from the experiences of their contemporaries in the developed world. The paper finds evidences for these by examining the activities of two agencies in Nigeria: (1) the National Agency for Food and Drug Administration and Control (NAFDAC), an agency that is responsible for the regulation of food, drugs, chemicals, confectionery, cosmetics and related items; and (2) the Economic and Financial Crimes Commission (EFCC) that is responsible for the prevention of financial crimes, corruption and arraigning financial criminals in Nigeria. Among other recommendations to improve the outcomes of regulation in developing countries, the paper advocates for the creation of improved regulatory environment by government, strengthening of political commitment to the cause of regulation; government's avoidance of playing 'regulatory games' in order to guarantee the regulatory freedom of agencies; improved funding; functional communication amongst stakeholders in regulation; and the use of new social heuristics that combines legalism with social realities in order to boost regulatory compliance amongst the regulated.

Keywords: Regulation Theory, Agency Behaviour, Role, Regulator

1. Introduction

In many parts of the world, there is a rise in the study of public regulation. From the United States of America (Gerston, Fraleigh and Schwab, 1988; Ceullar, Mariano-Florentino: 2004); Switzerland and Korea (Fulda, 1963; Levy and Spiller, 1994) to Africa, parts of Asia and Latin America (Black, 2000), much research has gone into the description and analysis of the spread of regulatory agencies. In fact, from an analysis of public regulation in the EU countries, one can observe a growth of what Garret (1995) and Braithwaite (1993) have called 'transnational regulatory agencies' which could be forerunners of what may eventually become international regulatory institutions or agencies.

In spite of this avalanche of research and reports, however, there is lack of adequate theoretical understanding of administrative regulation and consequently, of the actual workings of regulatory agencies. To a large extent, this is due to very limited understanding of why regulatory agencies act as they do. In the social sciences in general, theories are intended to act as intellectual beacons to help illuminate phenomena, provide understanding, explain events and predict social outcomes. Regulatory theories are propounded to help understand, explain and predict the behavior of regulatory agencies. It has been asserted, for instance, that:

Theories of regulation are important because they help us to understand the functions of regulation, predict situations where it is most likely to be effective, and evaluate the outcomes of regulatory policies. A good theory should explain each stage in the regulation process, from the time a potential regulation is proposed, through its adoption, implementation and enforcement.

(Mitnick, 1980:5).

In addition, a theory of regulation should be able to account for the success or failure of several regulatory proposals to scale through the policy process; the reasons for regulation; and the trend to deregulation, if any. Thus, a regulatory theory should be able to explain past regulatory achievements, illuminate present regulatory decisions or choices and predict the outcomes or consequences of regulation in general.

The reality, however, is that although theories abound that purport to explain the behaviours of regulatory agencies, only few connections exist between such theories and actual agency behavior. The situation is such that none of the many available theories alone completely explains the whole gamut of regulation behaviour. This situation explains the disconnect that is often experienced between regulation theories and actual agency behavior. As an observer explains:

The outpouring of theoretical attention is matched...by the gaps in our knowledge about the actual

workings of what we might call regulatory democracy, or how the public participates in the decisions of the regulatory state that so dramatically affect them under existing law.

(Florentino-Ceullar, 2004:4).

2. Ecological Factors of Regulation in Developing Countries

Riggs (1964) conceived of administration in developing or Third World societies as essentially unique, the society being prismatic in nature and the administration consisting of blocked throughputs, bi-focalism and bazaar-canteens where the prize goes to the highest bidder.

In the particular case of public regulation in Third World or developing countries, the relationship between theory and practice is more obfuscated. If the avalanche of existing theories of regulation (which are mostly of Western origin) cannot completely explain regulatory behavior in developed countries, they are less likely to have value in illuminating regulatory choices, problems and predict regulatory outcomes in developing countries.

Another trajectory of the situation is that the objective conditions surrounding regulation in the developing world are dictated by the ecology of administration (and by extension, regulation) in such countries. Such conditions include control by a political class which, although might have secured power through legal-rational means, nevertheless exercises such power mostly through charisma, thereby personalizing political office. In that circumstance, the temptation to use appointments in regulatory agencies either to reward political loyalists or to punish opponents may be very real. In other cases, regulatory agencies have been starved of funds, political support or the helmsman removed totally in dictatorial circumstances either for failing to prosecute perceived 'enemies' of a regime or to conceal irregularities perpetrated by an incumbent government and its agents. This has been the situation with some regulatory agencies in some African countries. In the particular case of the Ribadu-led Economic and Financial Crimes Commission (EFCC) in Nigeria's Fourth Republic, there were:

reports in many newspapers concerning unceremonial removal of Ribadu, that the PDP-led government believed that if Ribadu was left unchecked, EFCC sanctions ... would unearth shocking revelations about the depth of corruption during the Obasanjo years, and how the PDP and its chieftains turned the national wealth into a bazaar to be enjoyed only by a few

(Owagbemi, 2012:132).

Another environmental factor surrounding regulation in developing countries is the endemic connection between bureaucracy and corruption. Although corruption is a universal phenomenon, bureaucratic pathologies in Third World countries tends to instigate a high tendency towards corruption by staff of regulatory agencies. Because Third World or developing countries often institute economic controls either to cater for the requirements of populist socialism (which has high attraction for such countries) or to actively control indigenous or foreign capital, there is the need to institute and enforce many controls. The 'regulative arena', to use Henry's (2001:301) terminology, is very likely to be identified with costs to certain groups, particularly violators of regulations with accompanying sanctions which are both apparent and real. This is a perfect setting for corruption to thrive. In Clapham's words:

Since each set of controls requires a bureaucracy to administer it, and provides economically rational entrepreneurs with an incentive to circumvent it, the opportunities for corruption are multiplied. Administrators acquire an interest in maintaining controls which they have to be paid to operate, and which they may be paid again to turn a blind eye to.

(Clapham, 1985:107).

Clapham cites instances to buttress his argument from the African countries of Ghana, Guinea and Tanzania; and from Arab states like Egypt, Algeria and Iraq. From South Asia, he cites examples from Sri Lanka prior to 1977 and, in certain respects, Burma and India. He also brought up examples from Brazil in South America and in particular, Peru during the Velasco government.

Another peculiarity of public regulation in the developing world is the dearth of qualified and experienced manpower to manage regulatory institutions and agencies. With the exception of a few such as Brazil, Korea and to some extent, South Africa, most countries of the South lack the necessary expertise and experienced hands to manage public regulatory agencies successfully. Therefore, they often operate on the basis of zeal without the required knowledge, expertise and experience. This is apart from the fact that such agencies may actually be caricatures or facades to siphon public funds, reward regime loyalists or high jacked to conceal the wrong dealings of the government. Under such circumstances, a regulatory agency would find it difficult to fulfill its publicly declared mandate.

Finally, regulatory agencies in developing countries suffer from the problem of transferred aggression. This refers to a public perception (particularly by regulated interests) of public regulatory agencies in such countries as instruments of state oppression where the state is conceived as an orphan, an artificial, externally-imposed structure that is opposed to the interests of the more natural, homogeneous clan or community and its

individuals. For this reason, the regulated may attempt to make the work of the agency difficult and therefore, seek to compromise it. Actions in this perspective may range from the subtle, such as undermining regulatory effectiveness through collective sabotage by the institution of deceptive, ineffective actions in the form of ‘self regulation’, to violent expressions of discontent such as psycho-social and physical attacks on regulatory personnel and properties of regulatory agencies.

3. Theories of Public Regulation

There are several contending theories or models of public regulation. These include the public interest, capture, bureaucratic and economic theories (Gerston; Fraleigh and Schwab, 1988: 61– 81; Sustain, 1985: 49; 1986: 74; and Meidinger (1992). Others are the motivation and principal-agent theories and the rent-seeking model (Jan-Erik Lane, 2000: 118-131).

ment from 1968 to 1975 (Clapham, 1985:106). This paper examines two of the several theories of regulation – the public interest and captures theories and utilizes them in attempting to x-ray the behaviour of the National Agency for Food and Drug Administration and Control (NAFDAC) as an independent agency responsible for the regulation of food, drugs, cosmetics and related items in Nigeria.

In doing so, the paper reviews the regulatory behaviour of NAFDC in its handling of three issues that border on its mandate within the past one-and-a-half decades. The first is the banning of Potassium Bromate from use as a raising-agent or an improver in the baking of bread in particular, and in the confectionery industry in general. The second is the agency’s handling of the problems connected with its proposal to establish zonal drug-marts in each of the six geo-political zones of Nigeria, in order to sanitize the existing chaotic drug distribution channels and to combat the circulation of fake, counterfeit and adulterated drugs. The third case under scrutiny concerns the behaviour of NAFDAC in the control and regulation of hotels and the fast food industry in Nigeria.

4. The Public-Interest Theory

The public-interest theory is hinged on the assumption that government is the ultimate guarantor of the public good. The theory submits that the public good is maximized as government regulates private functions to maximize public welfare through the pursuit of equality in the society.

Because the natural instinct of man is to dominate and exploit his fellow human beings, government, it is argued, controls monopolistic power-structures in business, politics and employment, among many others, to create favourable conditions for fair competition and participation in socio-economic activities. This, it is argued, is because the public has little control over its own fate. As Mitnick (1980: 97) argues, the assumptions of public interest theory have focused on the desirability of regulatory agencies to oversee different aspects of life with a view to creating a “good society.

4.1 Basis of the Public Interest Theory

The public interest-theory is hinged on the belief that those who exercise political, economic and business power are omnipotent in their areas of control and make decisions, not with society in mind, but for their own well-being (Gerston, Fraleigh and Schwab, 1988: 66). In addition to the above, the ruling class is intolerant of the working class and lacks the ethics of accountability. In such a situation, Domhoff (1979:25) argues, working class “challenges either have been beaten back by united power elite or accommodated by the compromising efforts of the ruling class moderates”. Indeed, in the latter instance, policy changes tend only to foster token equality which may just be equivalent to political symbolism.

Indicting modern corporations as oligarchic and self-serving, Bachrach (1967:105) argues that regulation would be a way of shifting power from private elites to the hands of government managers, to the advantage of the public. Public interest theory argues that regulation will help to minimize outrageous business behaviours like the harmful effects of cutthroat competition and monopoly power.

Another argument of public-interest theory of regulation is that certain issues that are so critical and specialized they cannot be left to traditional political practices and influences. Such include food and drug quality, monetary-system stability, safety standards in automobile and building construction, air travel regulation, etc, among many others. Indeed, industry scandals and avoidable social, economic and health disasters have hastened the call for economic and social regulation in the public sphere.

For instance, the health disaster involving thousands of Thalidomide babies born with serious deformities in the U.S.A. before the mid-1970s as a result of an improperly tested-drug, has not been forgotten. In another case, about 107 people died in the mid-1930s from sulfanilamide, an antibiotic drug that had not been properly tested for safety. Collapsed tunnels, methane gas explosions and black lung disease, outcomes of poor working conditions, led to the passage of several laws aimed at protecting members of the public in the U.S.A. between the 1930s and the 1980s (Gerston, Fraleigh and Schwab, 1988:38 and 67).

In Nigeria, the celebrated dumping of toxic wastes at Koko Port in 1988; the dumping of radio-active

wastes at Ibadan in the year 2005 in which some onlookers inhaled poisonous gas and died; the many cases of people who take expired, substandard and fake drugs and die as a result; and the now increasing cases of building-collapse in developing countries; and the now frequent cases of plane crashes are symptomatic of a greater need for regulation. Other cases that call for government regulation of vital sectors of the economy include the cases of failed banks in which depositors lost their savings, with so much suffering, pain and agony. Problems like those mentioned above, signal the need for more governmental action in society. These, argue Jones (1984:19), have increased the number of social programmes and the number of new regulations and regulatory agencies in the modern state.

4.2 Criticism of Public Interest Theory

Public-interest theory has been criticized from several perspectives. The first of such has to do with the determination of what interests are public and how they can be distinguished from private interests. Lane (2000: 7) is of the opinion that while the concept of 'interest' has an individualistic import since it denotes what various persons wish, the concept of 'the public' has a holistic import as 'the public' somehow refers to a collective entity. For her, since there is constant tension between the individualistic connotation of 'interest' and the holistic connotation of 'public', the concept of the public interest is unclear, being both a descriptive and an evaluative notion.

The attempt to resolve this controversy has led to several disputations in the literature. Thompson, Ellis and Wildavsky (1990) argue that since there are opposing interests or values in society, it is difficult to pinpoint what the 'public interest' would be. Social choice theorists like Riker (1982) and Kelly (1986) are suspicious that an attempt to identify the public interest may run into the difficulties of majority decision-making rule. If we assume that public interests are not those shared by the majority but those that each and everyone would pursue if they were rational or enlightened individuals, we would be invoking the ideal or value component of the concept.

For Rawls (1971), the requirement of rationality in the definition of public interest is ambiguous, capable of being interpreted from either a personal or universalistic (impartial) point of view. This point was made earlier by Olson (1968), when he argued that what exists in the public sector are not the pursuit of 'public interests' as such (when defined from a universalistic, impartial perspective), but of mundane interests, self-interests and more or less narrow collective interests. He also posited that unless by coercion or some other special device to make individuals act in their common interest, rational self-interested individuals will normally not act to achieve their common or group interests.

Another problem with the concept of the public interest is its rather fuzzy boundary in relation to other kinds of aggregated interests. These include 'state interests' that define interests being pursued by the state or those that express the essence of the state. Also, some officially-stated interests may or may not agree with state interests. As Meidinger (1985: 9) argues, "it is an entirely open question whether state interests or official interests could be called 'public interests'.

Group interest, which stands for collective interests pursued by a small or large set of people, may be egoistic, altruistic, state or bureau interests and may also be official or non-official. Meidinger (1985) submits that it is true that state agencies (or bureaux) pursue both official and non-official interests whether these be state interests or merely self-interests. This can be especially true when state interest is conterminous with self-interests or personal interests of regulatory officials. Such situations can easily give room to opportunistic behaviours on the part of regulatory officials. As such, there is the belief that, rather than serve the interests of the public, regulation has protected the entrenched interest of business, economic and political elites in addition to those of regulatory officials and regulatory agencies themselves.

Furthermore, it is strongly argued that regulation has also been in the interest of business as it has protected the private sector from instability and unsatisfactorily low profits. In Nigeria, for instance, it has been noted that:

...the production capacities of our local pharmaceutical industries have increased tremendously according to reports by individual manufacturers and the Pharmaceutical Manufacturing Group of Nigeria (PMGMAN). GlaxoSmithkline was reported to have recorded a 77 percent growth in sales, which their General Manager West Africa attributed to "NAFDAC living up to its responsibilities of enforcing strict compliance to product regulation"

(Akunyili, 204:18).

In the above and many other similar cases, the regulated find it in their interests to court and if possible, control the regulatory process. For instance, Wilson (1980:384) attempted to prove this by drawing a relationship between campaign contributions, electoral success and bureaucratic policymaking in the United States of America and concludes, "that there has been an incentive for regulated industries to supply campaign contributions is beyond dispute".

Thus, critics of the public-interest theory argue that regulation has limited utility because 'public

interest' is difficult to define, locate, and even more difficult to make function on a consistent basis. The fact that the social dynamics of regulation cause regulatory policies to benefit the regulated disproportionately, rather than its supposed beneficiaries, (mainly members of the public), cause critics to reject the theory. It is argued, therefore, that the public interest theory does not explain fully, the dynamics of regulatory behaviour.

5. The Capture Theory

The capture theory is an antithesis to the public-interest theory. While the public interest theory argues that regulation is instituted in the public interest, the capture theory proposes that regulation serves the interest of the regulated industries. In a sense, the theory argues, the regulator is captured by the regulated and that the loser is the public who, ordinarily should benefit from regulation. Some of the capture theorists include Kolko (1968), Lowi (1969), Stigler (1975), Huntington (1952), Bernstein (1955) and McConnell, (1966). The capture theory makes sense because, as an observer has explained:

...One may expect the regulators and those regulated to end up in a common strategy after playing the regulation game a couple of times. Both would agree on a regulation policy that would remain stable over time, with maximization of their joint interests in stable and predictable outcomes.

(Lane, 2000: 122)

Weaver (1978:198) submits that there are two major views on the capture theory. The first, the 'capture-at-origin view', argues that regulation is adopted at the behest of business to protect its interest and needs. The second is the 'co-optation' view. It contends that although regulatory agencies were originally formed to serve the public interest, overtime, they get co-opted by the industries they were supposed to regulate, mainly in order to protect their interests. Either way, the theory argues, the benefits of regulation accrue mainly to the regulated and regulators rather than members of the public.

A major difference between the public interest and capture theories is that, while the former presupposes that, the public will benefit from regulation, the latter argues that the benefits of regulation will accrue not to members of the public, but to other actors in the regulatory arena, namely the regulated and the regulators themselves.

Another difference between the two (theories) is that while the public interest theory is idealistic or prescriptive, the capture model purports to be more empirical, bringing to clearer reality, the actual behaviours of regulators and the regulated. The capture theory, therefore, claims to have an advantage in explaining actual agency behaviour.

5.1 Basis of the Capture Theory

The capture theory, particularly its 'capture-at-origin' variant, indicates that from the onset, regulation was never intended to serve the public but to benefit business. As Kolko (1968:2) argues, from the beginning of the twentieth century, American industries have influenced proposals on regulation- from drafting, adoption to implementation- by the new regulatory agencies.

Lowi (1969) offers an explanation for this development. According to him, modern government is intimately connected with the rise and success of private power. In addition, he argues that rule making and administration have changed during the course of the Twentieth Century from that of rigid rule-setting for all to follow, to that of discretionary rule-making and application for particular groups and interests. Several issues that were once presided over by the legislature have been delegated to regulatory agencies, ministries, boards and commissions that often give in to pressure from powerful interest groups that attempt to influence policy.

According to Lowi (1969:58), this is a strategy to "parcel out to private parties the power to make public policy". In this and several other ways, he argues, private interests dominate government and perpetuate privilege over equality. This, the capture theory postulates, is the situation with regulatory agencies. A search through the literature suggests that this could be due to several factors:

- (a) First is the condition of asymmetric information. Regulated industries have an information advantage over their regulators. Lane (2000) puts the question rhetorically:

Who knows the exact shape of the cost curves in an industry? What about elasticity of demand?...The regulator is dependent upon those regulated to provide them with basic information as they act within the confines of bounded rationality... the regulator can only use indicators that are at best fairly reliable tools but at worst carry simply straightforward erroneous information.

This is more so because much of regulation relies on voluntary compliance and reporting of data by the regulated, which often have monopoly of information.

- (b) Second, the regulated can increase their control over the regulators in certain ways. For instance, Fraleigh, Gerston and Schwab (1988:70) argue, "public officials are bribed, although such gross persuasion is seldom necessary". Subtler ways of influencing the regulatory process include exploitation of mutual interests between the regulated and the regulatory agency through mutual membership of professional associations. Another avenue for influencing regulators could be mutual

- membership of investors' fora in particular industries.
- (c) Three, there is no credible motivation for the regulator to begin to look very closely into a sector of the economy that is regulated as long as the regulated can disclose information that puts it at advantage and in which the regulator can prohibit all manners of opportunism, both in terms of product quality and price. Indeed, Mueller (1989) has argued that:

Personnel in bureaux are in reality not the unselfish servants of their political masters, devoted to the neutral and objective fulfillment of a vocation. Quite the contrary, public administrators fulfill their duties out of selfishness, reducing the public goals of a bureau to the status of a means in relation to more basic personal objectives such as pecuniary reward, personal power and prestige as well as security of employment.

Apart from economic and financial regulation, social regulation can also be very prone to capture and co-optation. Studies of regulation in the U.S.A. have revealed that social regulatory agencies such as the Interstate Commerce Commission (ICC), the Federal Trade Commission (FTC) and the United States Food and Drug Administration (USFDA) have been co-opted at one time or the other by the industries whose operations they were supposed to regulate (Fellmeth, 1970:311; Nadel, 1971:8). In the particular case of the FTC, the Commission protected businesses for years by stressing the enforcement of false-advertising charges brought by competing businesses rather than prosecuting businesses whose practices harmed consumers mostly. In the case of the USFDA, it was alleged that its early standards regarding pure foods often favoured established industries over those that provided cheaper substitutes, even when the substitutes were found to be safe. Nadel (1971) cited the case of USFDA's favouring of butter over margarine in this circumstance.

5.2 Criticism of Capture Theory

Even though the capture theory presents a somewhat more pragmatic analysis of regulatory behaviour, critics still argue that it is one-dimensional, revealing very much the problem of agency-capture. However, the case is such that most regulatory agencies are designed to represent a variety of constituents that includes both the public and the regulated. For instance, Peltzman (1976:217) argues the fact that agencies are "public" means that through a variety of procedures (such as hearings and investigations), public opinion will be considered or incorporated in the regulatory decision-making process. As such, he concludes that capture theory as a whole fails to consider the diversity of interests represented in the regulatory process.

Conversely, Meidinger (1992) submits that the popularity of the capture thesis and its criticisms have contributed to substantial changes in the structure of modern regulation (such as the expansion of participation, judicial review of regulatory decisions and enforcement rights by regulatory beneficiaries). However, some critics still argue that those changes have served primarily to legitimate regulation further, rather than to alter its effects (Offe, 1976). On the suggestion that powerful economic and political interests often dominate the regulatory arena, it is argued that these developments should not be feared because they are checked in the market place (Gerston, Fraleigh and Schwab, 1988:71). How effective such checks can be, however, remains a matter of controversy.

In juxtaposing regulation theory with the actual behaviour of NAFDAC, we discuss three of NAFDAC's recent policies in regulation with a view to seeing how well the policies and their implementation agree with the basic postulations of the public-interest and capture theories of regulation.

6. Three Case Studies

6.1 Case Number One: The banning of the use of Potassium Bromate as an Improver in Bakeries and the Confectionery Industry in General

Section 14 (c) of the Counterfeit and Fake Drugs and Unwholesome Processed Foods (Miscellaneous Provisions) Decree 25 of 1999 defines unwholesome food products as those which "contains any harmful or toxic substances which may render it injurious to health or has been mixed with some other substances so as to reduce its quality or strength" (Federal Military Government of Nigeria, 1999).

Bakers and confectioners are known to use several supplements and conditioning agents as improvers of dough to increase its strength during mixing, extensibility for moulding and also to increase loaf volume and texture. According to NAFDAC, studies have shown some of such improvers and reagents to be deleterious to the health of the public. Because of its worry over the harmful effects of potassium bromate on the health of the public, NAFDAC has banned the use of this oxidizing agent in spite of the fact that it is cheap and probably the most effective in its category. Indeed, the British Ministry of Agriculture (cited in Akunyi Ii, 2005: I) has argued that:

Concern has been expressed on the harmful effect of potassium bromated. Toxological studies have convincingly shown that potassium bromated affect the nutritional value of bread by degrading vitamins A1, B1, B2, E and niacin, the main ingredients in bread.

Also, the British Food Manufacturing Industries Research Association reported in 1980 that potassium

bromate destroys folic acid in solutions in 10 days (cited in Akunyili: 2005:2). Furthermore, research findings by Kurokwa, et al (1982) and Quick, et al (1975) (Cited in Akunyili: 2005:2) have confirmed that flour and bread treated with bromate proved carcinogenic on oral administration in rats (<http://www.bakeryindia.com/breadact.htm>).

Finally, the International Chemical Safety Cards (ICSC) reported that potassium bromate causes cough and sore throat when inhaled. When ingested or taken orally, either directly or indirectly, it causes abdominal pain, diarrhea, nausea, vomiting, kidney failure and loss of hearing. Other effects are redness and pains both in the eyes and skin (Cited in Akunyili: 2005:2). This is apart from the fact that it causes cancer and breakdown of essential in bread and other bakery products. Other improvers that are injurious to health include ammonium persulphate and nitrogen trichloride. Due to the above reasons, the Food and Agricultural Organization in collaboration with and removed potassium bromate from the list of improvers generally regarded as safe (GRAS). In conformity with the FAO/WHO Committee decision, NAFDAC banned its use in flour milling and baking in Nigeria in 1993.

6.2 Case Number Two: NAFDAC's Proposal to Establish Drug Marts across Nigeria

The idea of establishing drug marts across Nigeria centred mainly on a plan to build a national and some zonal drug distribution centres to sanitize the drug distribution channels in the country as it is in countries like Sweden and India (Oyedemi, 2004:32). It was aimed at sanitizing the chaotic drug distribution networks in Nigeria that is dominated by charlatans, a situation that has led to the preponderance of fake, adulterated and expired drugs in the country, with adverse consequences on the health and productivity of the citizenry. According to the NAFDAC Director General, the plan was "to achieve maximum effective regulation within the shortest time possible" (Akunyili, cited in Oyedemi, 2004:32). That plan was to be achieved by closing existing markets operated mainly by sellers of fake drugs and other charlatans and replacing it with drug marts that would make government regulation and control of the drug business more effective by facilitating more thorough checking and monitoring of drugs and medications coming into the Nigerian market, either from local or foreign pharmaceutical companies.

In planning the programme, NAFDAC had consulted with the National Assembly and other stakeholders, particularly the Pharmaceutical Society of Nigeria (PSN). Whereas the National Assembly saw the merit of the drug mart idea and decided to commit N800 million Naira to it during the 2001 and 2002 financial years, the Pharmaceutical Society of Nigeria and the drug dealers initially supported the idea but later antagonized it. Eventually, the programme was aborted.

The Director General explained why the programme was aborted. According to her:

regulating the market was like swimming against the tide—it was a bundle of confusion. It was not organized, many of the shops are run by charlatans...We called the pharmacists to Oshodi and explained to them: in fact the architect showed them the design, and some made suggestions like the inclusion of a bank... (later) there was an attack on the agency-NAFDAC-with headlines like "Drug Mart? Is it their business?" And the fight was so much that we had to reinvite the pharmacists again. There we told them all over again of the aims of the drug mart. They seemed to agree but after each meeting, the fight became greater. So, one day, my loved ones called me and said I am fighting drug barons...later my management had a meeting and the issue of the drug mart was closed.

(Akunyili, cited in Oyedemi, 2004:32).

6.3 Case Number Three: Inspection of Baby Food and Hotel Businesses

NAFDAC inspects the fast food and hotel businesses to ensure that food served to members of the public contain the right ingredients, in the right proportions and that they are not in bad conditions, adulterated or expired. This is all in a bid to safeguard the health of members of the public. Sometimes in the year 2004, NAFDAC inspected an hotel, made discoveries of expired canned food that should have warranted an alarm to warn members of the public about eating in such a place, but kept quiet because of some other considerations. According to the Director-General:

We inspected a top hotel recently. We did not want to destabilize the system by raising an alarm, because we found an expired baking beans and processed foods- all these are used in most restaurants except 'mama put' (bukateria)-I mean processed tin tomatoes, expired food items. It was difficult for us not to raise an alarm because should we raise an alarm about an hotel where we have mostly foreigners, one will destabilize the system. Those may further raise an alarm in their countries. Regulation is not easy. What we do is dish out information that would not further cause panic to the public.

(Akunyili, cited in Oyedemi, 2004:32).

In that circumstance, rather than raise an alarm, the agency charged the hotel a fine, thereby trading of the protection of public health for revenue generation. Contrasting the action of the agency in that circumstance with its action in another instance where the agency found expired baby milk on display for sale, the Director General noted:

We could not hide that of the baby milk; it is criminal. But with that hotel, it was made to pay a fine with a strict warning that if it happens again, even if it is the biggest in Africa, it would be closed down.

(Akunyili, cited in Oyedeji, 2004:32).

7. Assessing NAFDAC's Regulatory Behaviour in the Three Cases on the basis of Public Interest and Capture Theories

Our assessment of NAFDAC's regulatory behavior in the three cases cited above vis-à-vis the public interest and capture theories of regulation will benefit greatly from Weimer and Vining's (1992:13) suggestion that regulation results not only from situations of market failure but also of government failure. Market failure occurs when the pursuit of private interest does not lead to an efficient use of society's resources or a fair distribution of society's goods. Although a theory of government failure is yet to develop fully, insights from public choice theory and organizational behaviour suggests that even governments that possess the most intelligent, honest and dedicated public officials may not be able to promote the social good in every circumstance. As Wolf (Jnr.) (1979) argues, this could be due to problems of government supply and policy implementation. For Weimer and Vining (1992:113), however, the problems include those created by direct democracy, bureaucratic supply, representative government and administrative decentralization.

Therefore, we assess the behaviour of NAFDAC in the three cases cited above on the basis of the following assumptions of the public-interest and capture theories:

- (a) That public interest theory's assumption of rational behavior both by the regulator and the regulated does not hold in all cases. On the contrary, both parties do not always act purely in the public interest. Oftentimes, bounded rationality, opportunistic behaviour and strategic decision-making in order to enhance self-interest enter the model of public regulation (Posner, 1974);
- (b) That public regulation is open to series of problems of monitoring and enforcement of regulations that may eventually add up to weaken incentives for the regulated to comply with regulations (Freeman III, 2000:200);
- (c) That in reality, public regulation actually involves series of principal-agent problems. These range from the fact that the most important interests at a point in time are either those of the principal or the agency; two, the fact that problems arise as the principal attempts to monitor the agent with respect to the terms or the goals agreed upon; three, that decisions have to be made on who bears the costs of monitoring, as well as how to reduce the cost without affecting agency effectiveness; and four, the problems of the possession of asymmetric information by the regulated, meaning that the regulated may withhold vital information from the regulator (Lane, 2000:125);
- (d) That just like regulated industries have more information about their sectors than the regulatory agency, under normal circumstances, agencies also possess more information about their own activities than do their principals (government) and therefore, can pursue their own interest to some extent. The principal incurs certain costs as he attempts to minimize the costs of the undesirable behaviours of the agent and to control it. Weimer and Vining (1992:312) describes these as agency loss.
- (e) That agencies occasionally end-up being captured by the very industries or institutions they are supposed to regulate. These occur as the regulated court their regulator who, over time, learns to adjust to the desires of the regulated. Bribery, mutual membership of professional associations and investors' fora, lobbying, etc are the means by which this becomes possible; and finally
- (f) That because of the above factors and the inherent failure of any particular theory to explain all aspects of regulation, it may be worthwhile to complement one theory with another in analyzing regulation theory and agency behaviour. Such an approach may indicate corrections to issues of market and government failures, thus enhancing the prospects for successful regulation that will benefit the public maximally.

8. Analysis of Ecological Factors in NAFDAC's Regulatory Behaviour

Certain aspects of NAFDAC's behavior in the cases cited above can be traced to environmental factors surrounding regulation in the developing or Third World. One of these factors is the fact that, even though many Third World governments recognize the need for regulation in many sectors of the economy and national life, they tend to give only little attention to the requirements for effective regulation. These vary across sectors but a common requirement is finance, irrespective of the sector under consideration. Failure to finance regulatory institutions adequately will almost certainly lead to regulatory ineffectiveness, failure or capture either by regulated industries or other interests that are opposed to regulation. This is because he who pays the piper will

eventually dictate the tune. If regulatory agencies are short of funds, they may likely compromise standards or buckle under pressure to anti-regulatory interests.

A second factor in regulation in the Third World is the penchant of political office holders for wanting to use such agencies as targets for the distribution of the spoils of office or for hunting their opponents. By so doing, they recruit all manners of personnel into such agencies, whether or not such recruits have the requisite qualifications, experience or tact to manage such offices. This defines the context for low quality of staff in several agencies, and since an employee cannot give what he/she does not have, many agencies fail to live up to expectation on the long run. The other side to this is the tendency for political chief executives to want to employ state apparatus to deal with their potential and actual political opponents who, for political purposes, are seen as 'enemies' or to shield their 'associates' from prosecution. A regulatory agency may be 'sent' after the opponent's business or his/her integrity by bringing up issues and offences committed against the state, either in present, immediate or remote past. In several developing countries, allegations bothering on the above are common with anti-graft or anti-corruption agencies.

Related to the above-mentioned factor is the pressure that individuals and groups mount on regulators to circumvent rules, lower standards and grant them different concessions for which they may not qualify. This may come about because many of the corporate citizens that are regulated are floated by individuals in power who often have the monopoly of representing foreign capital as sole agents, sales representatives or distributors in the developing world. Regulation is a difficult terrain and without technical competence and moral rectitude, a regulator will find it difficult to enforce standards in the face of extreme pressure to bend the rules or threats of removal from office or even threats to life.

In the developing world, public office holders do not just represent the state, their political benefactors or professions alone, but also certain ethnic, communal and religious interests. This approximates closely to what Ekeh (1975:91-112) referred to as the primordial public, which influences public officials to wanting to give back to such interests that might, in the past, have been instrumental to, or contributed significantly either to their training or choice for the position they now occupy. When such primordial interests come face-to-face with the requirements of legalism in regulation, there is a strong tendency for the regulator to attempt to sabotage state interests or at best, to seek ways of giving them 'soft landing' in ways that may detract from the primary objectives of regulation. This is because a proverb by the Yorubas of South Western Nigeria says 'ina ile ni omo eranko maa ya kehin'. Literally, this means no matter the heights you attain in public service, you must eventually return home to your people. For this reason, you are expected to use your office to court the favour of your people while occupying such offices.

Furthermore, governmental instability in developing countries appears to be having direct effects on institutional stability, and this affects regulatory agencies in such countries. Several public policies and institutions of governance are eroded and cancelled once there is a change of government, either through authoritarian means which are becoming less popular, or even through democratic changes of government. State institutions and agencies that survive such changes often end up having to operate under so many decrees/laws (including amendments) that there could be confusion about the mandate and *modus operandi* of such institutions. This is not healthy for the optimum performance of public institutions. Another direct effect of this is the creation of many loopholes in relevant laws for aggrieved parties to explore to advantage. Also, this has a capacity to hinder or make regulatory reforms cumbersome. This was the case with NAFDAC, the regulatory agency that this paper focuses on.

Finally, corruption is a major factor in administration in the developing world. In the midst of extreme poverty, public office holders are often tempted to corruptly enrich themselves in ways that would likely vitiate their sense of fairness in the enforcement of regulations. The other side to this is that an officer does not have to seek avenues for corrupt self-enrichment; he is surrounded daily by individuals and groups who will offer him bribes to turn a blind eye to the law, either directly or indirectly through middlemen who are experts at this. The reality of what Lipsky (1976, 1979) called 'street-level implementation' in regulation makes this a common occurrence. Regulators often exercise discretionary power to make on-the-spot-decisions on the field, without an opportunity to take instructions from their bosses. Corruption may not be far away from such regulatory officers, who may simultaneously be seeking protection from the regulated, job security and pecuniary rewards from what they do.

By banning the use of potassium bromate in bakeries and the confectionery industry, NAFDAC evidently intended to protect and safeguard the health of the public. However, after series of public enlightenment campaigns and consultative meetings between NAFDAC officials and millers/bakers, and after giving them a two-month moratorium within which to comply, NAFDAC destroyed "thousands of loaves of bread... and many bakeries were closed clown" (Akunyili, cited in Oyedeji, 2004:32). That is expected of a result-oriented regulatory agency in an environment like Nigeria's. However, in a sudden turnaround that suggests that some other interests might be at play, the Director-General noted that:

NAFDAC found it insensitive to continue to destroy such large quantities of bread or to close down most bakeries considering the nature of services rendered to our teeming population and also the economic implications...again, we stopped enforcement

(Akunyili, 2005:3).

The agency found it more convenient to allow Nigerians to be fed with poisonous substances while unscrupulous businessmen made fantastic profits on the people because they rendered certain ‘important services’ to the citizenry. Rather than enforce relevant laws and regulations, that can guarantee the high quality and safety of products, the agency was contented with appealing to bakers and millers to comply, even after refusing to do so for about two years. Whatever might have been the reasons behind the actions of the agency, it clearly suggests a validation of the capture thesis, as it did not promote the good health of the consuming public. There have been other cases of breach of regulations that were set out by the agency. For instance, during the routine inspection of water packaging industries in Lagos between January and July 2004, two of the fifty-three factories refused NAFDAC inspectors entry into their premises although the law permits forceful entry if there is enough suspicion that illegal activities are being perpetrated there (*NAFDAC Consumer Safety Bulletin*, 2004:30).

In the case of the drug mart, NAFDAC actually consulted with several stakeholders on the issue, notably the Pharmaceutical Society of Nigeria (PSN) and the National Assembly. Even though the National Assembly supported the idea and decided to vote funds for the project, the PSN could not bring itself support it, even though its members attended meetings with NAFDAC and made suggestions for the planning and implementation of the programme. The consultation was not comprehensive because some relevant stakeholders were excluded from the planning. For example, the drug marketers who were to be relocated and rehabilitated through the programme were not carried along. Also, the pharmacists who were involved did not agree with all aspects of the proposal and therefore, resisted the idea. The pharmacists could not reconcile their interests with the programme amid fears that their trade would be adversely affected if the policy proposal were successfully executed. A vocal minority within the Pharmaceutical Society of Nigeria felt that the existing drug distribution channels should be cancelled without a replacement, a development that would have promoted their acquisitive interests. They lobbied the National Assembly to a point that the policy proposal was dropped (Olugbenga, 2008: Fieldwork Interview with Stakeholders in Pharmaceuticals Regulation).

NAFDAC closed down the Aba and Kano drug markets for six and three months, respectively, in order to sanitize the markets. The traders apologized and started a self-regulatory initiative ostensibly in their own interests (Oyedeji, 2004:32) and not in the interest of the public. In addition, they mounted media campaigns against the proposal. In the end, the Ikoyi, Lagos office of NAFDAC got burnt in mysterious circumstances on March 7, 2004 (*NAFDAC Consumer Safety Bulletin*, 2004:30) while an assassination attempt was made on the person of the Director General in December of that same year.

The fact that NAFDAC Director General, Professor Dora Akunyili was a member of the Pharmaceutical Society of Nigeria (PSN) was not enough to persuade the members to support the policy. In fact, it can be argued that the DG’s membership of the Society might have contributed to the agency’s toleration of the opposition to the policy by its members. At last, the agency decided to abandon the policy.

In case number three above, it is very evident that NAFDAC failed to perform up to expectation by keeping quiet when it should have raised an alarm to warn the public over the use of expired processed food in the hotel. By refusing to raise alarm, the agency was indulging in what can be described as ‘regulative terrorism’ against members of the public.

It was clear that NAFDAC did not protect either the public interest or the national interest in its handling of the case. Rather, the fact that it made the hotel management to pay a fine implies that the agency was more interested in generating revenue for itself and protecting the profit maximization motive of the hotel than protecting the interests of members of the public, in a manner reminiscent of the capture thesis.

9. Towards Improving Regulatory Performance in the Developing World

The foregoing analysis suggest that there are many problems confronting regulation in developing countries, which needs to be addressed in order to improve regulatory performance and deliver better dividends of governance to the citizenry.

There is a need to harmonize the numerous laws that are concurrently applicable to regulatory agencies in many developing countries. This is important because regulation is a difficult arena. Regulated interests will seek to exploit such loopholes to their advantage.

Also, the current situation whereby many regulatory agencies in developing countries lack sufficient autonomy to act is counter-productive. While it is true that, depending on the sensitivity of an agency’s mandate, it may be closely monitored by the political chief executive, it is certainly not good for an agency to be too reliant on orders from above. A means of enhancing agency independence in developing countries is to attach their finance to special accounts over which the political chief executive will have no power. Such should be

under the monitoring of either the legislature or the judiciary. While appointments to the helm of affairs of agencies are often carried out by political chief executives, such appointments should first be confirmed by both the legislature and the judiciary.

Furthermore, there should be improved funding for regulatory agencies in order to make them immune from temptations to accept gifts or any form of sponsorship by regulated interests. This is important because an agency can hardly enforce regulations strictly if they have to depend on the regulated for sustenance. No form of self-regulation by regulated industries can be effective and achieve stated policy objectives. Even while carrying out this research in Nigeria's chaotic drug distribution markets in Onitsha (Eastern Nigeria), Kano (Northern Nigeria) and Idumota, Lagos (Southwestern Nigeria), the researcher was either threatened or offered bribes by pharmaceutical distribution cartels to write 'good report' about them. This is one reason NAFDAC has not been able to sanitize and stamp out the chaotic drug distribution outlets in Nigeria.

Also, regulatory agencies in developing countries should be ready to experiment with new ideas aimed at encouraging voluntary compliance by regulated interests. This can come about by evolving more inclusive methods in their dealings with regulated industries at all levels of policy initiation, adoption, planning, implementation, assessment, review and termination, where there is need for it.

Finally, regulatory agencies should improve on staff welfare to reduce the temptations by them to seek and accept bribes from regulated industries. Also, there is need for them to collaborate more with similar agencies, both locally and internationally. This will enable them to share experiences and information and thus make their operations easier and, perhaps, more successful.

10. Conclusion

This paper juxtaposed the assumptions of two popular theories of regulation (the public-interest and capture theories) with the realities of regulation in developing countries. It sought evidences for these by examining the regulatory behaviours of the National Agency for Food and Drug Administration and Control (NAFDAC), an institution of the Nigerian government, in three cases involving social regulation within the past decade. By so doing, the paper identified several ecological characteristics of regulation in developing countries. It then argues that these characteristics, some of which bother on pathologies, must be addressed so that regulation can yield optimum results in developing countries. The paper closes by recommending suggestions for overcoming such challenges which poses obstacles to excellence by regulatory agencies in developing countries.

References

- Akunyili, Dora. (2004). "The NAFDAC Story", *NAFDAC Consumer Safety Bulletin*, Vol. 2 No.1 (ISSN: 1596-1596-3594) (January- March).
- _____ (2005). "Potassium Bromate in Bread: What are the Implications?", *Medical Nigeria* (February).
- Bachrach, Peter (1967): *The Theory of Democratic Elitism*, Boston: Little Brown.
- Black, S. Bernard (2000). "Russian Privatization and Corporate Governance: What Went Wrong?", *52 Stanford Law Review* (1731).
- Braithwaite, John (1993). "Transnational Regulation of the Pharmaceutical Industry", *525 Annals of the American Academy of Politics and Social Science* (12).
- Ceullar, Mariano-Florentino (2004). *Rethinking Regulatory Democracy*, Stanford: Stanford Law School (AAIT.V17d@google.com).
- Clapham, Christopher (1985). *Third World Politics: An Introduction*, Worcester: Billings and Sons Ltd.
- Davidson, H. Roger and Oleszek, .J. WaIter (1985). *Congress and its Members (2nd Edition)*, Washington, D.C.: Congressional Quarterly Press.
- Derthick, M. and Quirk P. (1985). *The Politics of Regulation*, Washington, DC: Brookings.
- Domhoff, William (1967). *Who Rules America?* Englewood Cliffs, New Jersey: Prentice- Hall.
- Ekeh, P. Peter (1975). "Colonialism and the Two Publics in Africa: A Theoretical Statement" *Comparative Studies in Society and History*, Vol.17, No. 1. (Jan.,) pp. 91-112.
- Federal Military Government of Nigeria (1999). *Counterfeit and Fake Drugs and Unwholesome Processed Foods (Miscellaneous Provisions) Decree*, Lagos: Ministry of Information and Culture (Printing Department).
- Federal Republic of Nigeria (1993). *National Agency for Food and Drug Administration and Control Decree, 1993* (Supplement to Official Gazette Extraordinary No. 3 Vol. 80, 26th February 1993-Part A), Lagos: The Federal Government Press.
- Freeman III, A. Myrick (2000). "Economics, Incentives and Environmental Regulation" in Vig T. Norman and Kraft, E. Michael (Eds.) *Environmental Policy: New Directions for the Twenty-First Century, Fourth Edition* Washington, D.C.: CQ Press.
- Gerston, N. L., Fraleigh C. and Schwab, R. (1988). *The Deregulated Society*, Pacific Grove, California: Brooks/Cole Publishing Company.

- Henry, Nicholas (2001). *Public Administration and Public Affairs (Eight Edition)*, New Delhi: Prentice Hall of India (Pvt.) Ltd.
- Lane, Jan-Erik (2000). *The Public Sector: Concepts, Models and Approaches (3rd ed.)*, London: SAGE Publications Ltd.
- Lipsky, M. (1976). "Towards a Theory of Street-Level Bureaucracy", in Hawley, W. D. et al, *Theoretical Perspectives on Urban Policy*, Englewood Cliffs, New Jersey: Prentice-Hall.
- _____ (1979). *Street Level Bureaucracy*, New York: Russell Sage Foundation.
- Meidinger, Errol (1985). "On Explaining the Development of 'Emissions Trading' in U.S. Air Pollution Regulation, *Law and Policy* (7).
- _____ (1987). "Regulatory Culture: A Theoretical Outline," *Law and Policy* (9).
- _____ (1992). "Administrative Regulation and Democracy", Working Paper on the Sociology of Regulation, Baldy Center for Law and Social Policy, Buffalo, New York: State University of New York (eemeid@acsu.buffalo.ed).
- Mitnick, Barry (1980). *The Political Economy of Regulation: Creating, Designing, and Removing Regulatory Forms*, New York: Columbia University Press.
- Mueller, D. (1989). *Public Choice II*, Cambridge: Cambridge University Press.
- Nadel, Mark V. (1971). *The Politics of Consumer Protection*, Indianapolis: Bobbs- Merrill.
- Noll, R. and Owen, B. (1983). *The Political Economy of Deregulation*, Washington, D.C: American Enterprises Institute.
- Offe, Claus (1976). "The Theory of the Capitalist State and the Problem of Policy Formation," in Lindberg, et al (ed.), *Stress and Contradictions in Modern Capitalism*, Lexington Massachusetts: Lexington Books.
- Okwuraiwe, P.E (2004). "Perspectives on the Consumer as the Missing Link in the Court of Consumer Protection", *NAFDAC Consumer Safety Bulletin*, Vol. 3, No.3 (October).
- Olugbenga, E. Olatunji (2008). Fieldwork Interview with Stakeholders in Pharmaceuticals Regulation (Unpublished).
- Oyedeji, Oyeyemi, (2004). "Akunyili: NAFDAC Slashes Fake Drugs, Counterfeiting to 20%", *The Comet* (December 14).
- _____ (2005). "Is NAFDAC Winning the War Against Fake Products?", *The Comet*, Tuesday (October 4).
- Olson, Mancur (1968). *The Logic of Collective Action: Public Goods and the Theory of Groups*, New York: Schocken Books.
- Owagbemi, O.Gabriel (2012). "Anti-Graft Policy of the Federal Government of Nigeria: The Case of the Economic and Financial Crimes Commission (EFCC)", *African Journal of Stability and Development*, Vol. 6. No.2 (July).
- Peltzman, Sam (1976). "Toward a More General Theory of Regulation", *Journal of Law and Economics*, 19, No 2 (August).
- Rawls, John (1971). *A Theory of Justice*, Oxford: Oxford University Press.
- Riggs, W. Fred (1964). *Administration in Developing Countries: The Theory of Prismatic Society*, Boston: Houghton Mifflin.
- Riker, Williams (1982). *Liberalism Against Populism*, San Francisco: Freeman.
- Rosenbaum, A. Walter, (2000). "Escaping the "Battered Agency Syndrome": EPA's Gamble with Regulatory Reinvention", in Vig. T. Norman and Kraft, Michael, (Eds.) *Environmental Policy: New Directions for the Twenty-First Century*, (Fourth Edition, Washington, D.C.: CQ Press.
- Weimer, L. David and Vining. R. Aidan, (1992). *Policy Analysis: Concepts and Practice*, Englewood Cliffs, New Jersey: Prentice-Hall.
- Weiss, L. and Klass, M. (1986). *Regulatory Reform: What Actually Happened?* Boston: Little, Brown & Co.
- Weingast, R.Barry (1984). "The Congressional Bureaucratic System: A Principal-Agent Perspective (With Applications to the SEC) 44, *Public Choice*.
- Wilson, James (1989). *Bureaucracy: What Government Agencies do and why they do It*, New York: Basic Books.
- Wolf, Charles (Jnr.)(1979). "A 'Theory of Non-Market Failures", *Journal of Law and Economics*, Vol. 22 No. 1 (April).

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage:

<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There's no deadline for submission. **Prospective authors of IISTE journals can find the submission instruction on the following page:** <http://www.iiste.org/journals/> The IISTE editorial team promises to review and publish all the qualified submissions in a **fast** manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Recent conferences: <http://www.iiste.org/conference/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

