

An Overview Of Financial And Risk Management In Nigeria And Its Construction Industry Using SCLEEPT Analysis

¹A.C.C. Ezeabasili, ²N.U.Dim, ³J.I Onyewudiala, ⁴A.I. Ezeabasili,

¹School of Built Environment; Quantity Surveying, University of Salford UK.

²School of Built Environment, Construction Management, University of Salford, UK.nattdims@yahoo.com
accezeabasili@yahoo.com

³Department of Mechanical Engineering Federal University of Technology Owerri

⁴Agorsy University, Atlanta, USA

Abstract—Financial and risk management are central to the effective management of any organization to the extent that if they are done well, they can help an organization in safeguarding its assets, and use its resources economically and efficiently. A critical reflection on the construction industries in Nigeria regarding their behavior towards financial and risk management was undertaken, and these were based on the Social, Cultural, Legal, Economic, Environment, Political and Technology indices (SCLEEPT) which can also be referred as the external factors. Each of these factors described Nigeria and the construction industries within the Nigeria context on the present financial and risk management practices, and proposed an action plan for achieving a bright future with respect to available resources and the limitation to prevent black Swans.

Keywords—Finance, Risk, SCLEEPT, Blackswan, Nigeria

INTRODUCTION

Financial management can be described as the efficient and effective use of an equity capital, borrowed cash, personal cash or any other business fund, taking the right decisions to maximize profit and add value to an entity (Petre and Mahammed, 2011). There are two types of finance namely; public and private. Private finance is a fund from individuals, private firms and companies which are generated from savings, inheritance and finance institutions. On the other hand, Public finance is fund that is generated through the national resources and taxation.

According to Michael F Dallas (2006), the main objective of risk management is to maximize the benefits of completing the project in line with its objectives, not just to complete it within the budget, schedule and its performance parameters. Therefore, risk management is undertaken early in project lifecycle so that the outcome can still be in line with the project objectives. Risks can occur as a result of the following: -Limited experience, Lack of information, general uncertainty regarding future

conditions and view point, Parties, or personal, and the change in stakeholder relationship during the course of a long duration project. Risk in construction can also occur because of costly unknown conditions such as poor ground, old buried structures, archeological remains, future exchange rates, labour disputes, technical failure, and inaccurate data. Therefore, if risks were to be defined presently because of available documented information from past experience and contingency made for the unforeseen events, risks will generally have less impact which will not terribly hinder the success of a project. However, some risk events are rare to occur, have a terribly huge impact when they occur, and can only be described retrospectively. Those risk events are referred to as the black swans (Taleb, 2007).

Financial management and risk management work together to prevent project failures. Financial management maximizes profits and achieves sustainable management of capital as well as risk management but they have different routes of achieving these same goals. Risk when described to have a favorable outcome is referred as an opportunity. On the other hand, unfavorable risks are termed as threats. Risks increase with hazards and decrease with safeguards. Risk can be classified into two namely: Elementary risk and Global risks. Elementary risk includes project and business risks and they are usually checked within the business boundary of operation. More so, global risks can be described as environmental risks from external effects which affect both the private and public finances. Elementary risks only affect the personal finance, business and corporate finances.

Investors are often afraid of making decisions due to lack of full knowledge in the field of financing methods and the associated risks. Therefore it is necessary to recognize the methods of financing, assessment of effectiveness, and identification and management of risks while undertaking investment projects. All organizations will require the potential investor to consider risks interest in ventures both those risks associated with the construction and operation and those pertaining to the mode of financing the project. Modern economic analysis and

finance management methods provide numerous solutions which allowed investors to make the right decisions throughout all the phases and stages of the investment process.

The sources of financing investments from the public sectors are usually taxes and subventions. In regression periods, only urgent projects are financed become funds from taxation is limited. Subventions, inform of interest free loans can be encouraging. Project financing, in developing countries like Nigeria, are financed by multilateral, bilateral organizations. However, lack of developed financial markets limits the financing, and discourages creditors from financing in these developing countries. Highly developed market economy combines the numerous projects financing with both the state and private finance. These sources of finance are pension funds, insurance companies, commercial banks, large corporations, stock exchanges, property (real estate) developers. Every financial investment is associated an element of risk which must be studied critically to eliminate its negative consequences. Such studies are to find the current and future possibilities and threats for the project. Studies preceding the investment decision are aimed at performance of the project in the context of strategies of the company like product capacity of employment of more qualified staff, protection and improvement of the natural environment; limiting the risks to minimum, and ensuring effective implementation of the investment project.

BLACKSWANS AND RESILIENCE IN CONSTRUCTION INDUSTRIES IN NIGERIA AND ITS CONSTRUCTION FIRMS

Elementary risk usually falls within the mediocre region where rules and regulations apply, Taleb (2007), wrote that Mediocristan is a province dominated by the mediocre where normal things happen, things that are expected, whose probabilities

of occurring are easy to compute, and whose impact is not terribly huge. In the Mediocristan, normal things happen which are ruled by ordinary normal distribution, and obeys the Bell curve rule. Here observations must be many before they can affect the aggregates while the Extremistan as a place where a single new observation can completely disrupt the whole aggregate. The black Swans are the events that happen in the Extremistan. The more likely the risk events become, the lower the consequences and are located towards the Mediocristan. Whereas, at the Extremistan are risk events with low likelihood, but have high potential consequences the black swans (Taleb 2007). Earthquakes, Sunamis, Oil rig explosions, crashing of financial market are Black Swans. Resilience against Black Swans may be caused by the retooling of business culture, cohesiveness in leadership team and organizational nimbleness (GREEN).

The Table 1.0 below explains the present level of exposure to risks by construction companies in Nigeria, and the level of financial management as a result of the exposure.

Notable black swan events in Nigeria include the explosion of oil rig that destroys the ecosystem and economics of the Nigeria Delta region, the financial market crashes that devalued portfolios and the sudden BokoHaram terrorist attacks. These events became real life threats which could not be imagined that they will happen. They were difficult to predict and carried massive impact that are spread through the Nigeria society. People generally find it difficult to look outside their experience to fathom what is usually unfathomable because it is always easier to interpolate or extrapolate. Risk experts added that companies must think more broadly outside functional areas or business silos, out the normal organizational hierarchy and having effective cross-functional discussion of risk and risk solutions to encounter BlackSwan events that might be impending.

Table 1: The SCLEEPT reflection of the present risk and financial management in construction firm and Nigeria.

Key	3	2	1	N/A
Exposure to Risk	Very high	High	Low	Not Applicable
Financial Management	Very Active	Active	Less Active	Not Applicable

Recent	Exposure to risk		Financial Management	
	construction industry/form	Nigeria	Construction industry/form	Nigeria
Social	1	3	3	1
Culture	2	3	2	1
Legal	1	3	3	1
Environment	3	3	3	1
Economic	3	3	2	2
Politics	3	3	1	1
Technology	2	3	2	1

SOCIAL

Nigeria is blessed with many natural resources like oil and minerals, and has high Human Development Index (HDI). Nigerians are known all over the developed countries for their ingenuity and resourcefulness in business and academics because they work hard. However, fighting terrorism remains a serious burden to Nigeria because huge resources for the social development that are channeled towards the fight and catering for the terrorism victims would have been used to develop infrastructure. Companies can be private, limited liability, and joint ventures with directors and a yearly turnover of various businesses. They keep and maintain their proper cash flow records and monitor transactions from its banks regularly, pay company tax. Construction companies in Nigeria struggle to be afloat and to have a competitive advantage over their peers, increasing in the number of business they do, and having technically sound staff in construction related practices. These increase the confidence of the construction companies and boost their company's image.

They are however limited by corruption, mismanagement and training of personal and capacity building issues. Social issues affect procurement both in time, quality and in Nigeria.

CULTURE

Nigeria has roughly 250 ethnic nationalities and more than 400 different spoken languages. The major groups are Igbo, Hausa and Yoruba because these groups dominate the other minor groups in business, language, religion and politics. These major ethnic groups compete among themselves in business, construction and politics thereby causing some instability in the country. Nigerian ethnic nationalities should use their language in Education and culture because culture promotes education and business. The culture of the Nigerian construction industries should protect the legacy of artifacts, ideals, values, and benefits that has been built up over centuries during construction, and influence the present construction projects. Most construction companies in Nigeria adopt the western style of management, primarily focused on management by objectives, good financial management, and the use of risk register for their projects. They have encountered many construction risks such as the ground conditions, environmental issues, and fluctuating exchange rates. They grow in terms of employers and employee relationship adopting the type of relationship between workers that promotes trust and recognition. The national cultural days of obligation are observed by the companies.

LEGAL

Nigeria adopts the common law legal system because she was colonized by Great Britain, yet the implementation is such that it has not curbed the alarming crime and corruption rate in construction

related issues. Politics and tribal manipulations of the law have also encouraged citizens to sponsor all kinds of crime and manipulations of the laws and whittle down construction activities. Nigeria should have a legal framework that sanitizes the polity and reduce corruption and embezzlement that affect project delivery. This will make Nigeria a safe place for foreign investment and construction. Most construction companies are registered as a Limited Liability Company in Nigeria. They pay their company tax, the value added tax, and education tax regularly. A financial audit is done yearly to show the company's profit which determines the tax to be paid, and the tax always reflects about 12½% of the total contract sum. They stick to known construction standards to avoid disputes, pay their taxes and other deal with corporate responsibilities. The companies act within the legal regimes such that users and employees are protected from the risk and hazards of poor construction methods and standards. The employees' rights are respected to avoid legal tussles.

ECONOMIC

Nigeria is a rich country because she has a mixed economy and has about the biggest economy in Africa. However, due to the fall in oil price Nigeria is experiencing economic downturn that is affecting its infrastructural development. This has affected the banking and interest rates and subsequently the construction industry and its economy. The rate of unemployment has increased while the investment and economic growth has slowed down. The Nigerian government is drawing up plans to tackle these problems by cutting down unnecessary expenditure, and promote the non-oil export, production and Small and Medium Enterprise. Nigerian economy should be stable, with stable exchange rates, higher customer disposable income, to have easy access to credit at low credit rate, improve in oil production for infrastructural development. Nigeria should have a higher skilled workforce for SME establishment and self-employment especially in the construction industry.

Construction firms operate mostly with capital raised as loans from banks which they pay back promptly. Most companies' businesses are civil Engineering contracts from government and private sectors within Nigeria. The jobs are advertised and awarded after competitive bidding and tendering. The economies of the construction firms are affected by the fluctuating exchange rates, and the devaluation of Nigerian currency. The firms recently retrenched staff because there are a number of bidding losses and poor project control which are being tackled by initiating capacity building, and training of staffs. Losses were incurred from quality, repetition and material handlings. These firms will improve more in construction technology, employing more expert hands, and having competitive advantage over other companies. The firms increase remuneration for all staff to boost their morale.

ENVIRONMENT

Nigeria is environmentally vulnerable to natural and man-made pollution, and the Nigeria's construction firms will be free from most pollution problems if it adopts modern techniques and world best practices in curbing environmental scourge. i.e. provide intensive training to her citizens in environmental management issues, and strengthening the legal framework for environmental protection. The construction firms try to keep her physical environment clean to avoid various risks. However the prevailing environment hazards of water, air, land pollution affects its efforts. Therefore all water runoff should be attended to and diverted proper to avoid more damage to the environmental. Wastes from construction contain a lot of heavy metals and other chemical pollution that should be treated. Construction firms must have to minimize the pollution of the environments and treat all wastes before disposal so as to be free from litigation related to pollution defaults. Soil erosion (especially gully) in the southern Nigeria and desertification in the northern Nigeria is ravaging the country and possess risk of various types to construction and infrastructural development. They present typical environment of corruption, poor work output, low technology should be discouraged.

POLITICAL

Nigeria practices the presidential system of government, and has democratically elected governments. Federation finances are shared every month from the proceeds of the economy to the three tiers of government. The possible risks here are that the politicians and bureaucrats manipulate the sharing formulae to the advantages of their tribes or zones. The local government, by the error of double interpretation of the constitution, suffers and little gets to it. Nigeria is therefore politically and economically unstable and at risk as the grass root suffers from infrastructural deficit and adequate maintenance. Nigerian construction firms are affected by the political instability of the nation. Politics affects the early or late release of the nation's budget, and Citizens from the political dominant ethnic nationalities influence the award of contract, and undermine merits which increasing the risk of failure in project execution. Companies benefit from the stable politics that will be inherent. This means that employees will grow and enjoy the benefits of good employment laws, and reducing workers disputes and claims.

TECHNOLOGICAL

Construction firms in Nigeria now involves in e-tendering and offsite construction as well as the supply chain management to an extent which reduces the chances of risk and Black swans. Advanced technology makes things easier for firms to improve on communication, e-tendering, etc. Firms must improve on her entrepreneurship and appropriate technologies to make the tendering process and inventory control easier reducing the chances of losses through the risks of procurement and execution. The rate of

development of new technology and innovation in Nigeria is low as a result of corruption, lack of electrical power supply, lack of technological infrastructure and motivation among others. Her investment in iron and steel, vehicles, infrastructure is not very encouraging and needs improvement.

Nigeria should research and develop more on the technology that will primarily feed and shelter her teeming population. Nigeria should encourage local construction companies and consultants by giving them preference to get jobs in Nigeria over foreign ones. This will make them grow in experience, grow economically and in expertise, and add to the socio-economic development statue of the country.

IMPROVEMENTS ON SCLEEPT AND PREVENTION OF BLACK SWANS FOR THE PRESENT GENERATION OF COMPANIES/FIRMS

From the table 1 shown above, the future SCLEEPT will be realized by reducing to minimum the possible exposure to risks Nigeria, and improve the financial management to, at least, an active level. Generally, this actualization can be achieved with the help of feedback information from the present risk and financial behavior to assist in the modeling of the strategies for the future to prevent the black swans. Therefore, this section is mainly for the transition from the extremely risky event to the minimum where everyone is safe. Moreover, we need to understand and apply the zip's law which says that the more we are familiar to a lot of risk events now, the more we are safe from the black swans in the future because it will make those rare risk events that occurs once in a while to becomes less frequent.

The future cultural aspect will be actualized through proper Scientific management of the Nigerian financial resources (the oil and non-oil sectors), and provide the required good leadership and sacrifices at all levels of government and industry. Also, Proper statistics must be made available for planning and resource allocation at all times as to predict Black Swans. A desirable state where no man is oppressed because of tribe, sect, religion, color or creed will be achieved with infrastructural development would be evenly spread across the country and local construction companies having even privileges to get job.

The future cultural aspects will be actualized through standardization, equality, and liberalism. The cultural integrity will also be strengthened by changing the idea of 80/20 rule by Pareto to 50/50. This randomness variety does not generate Black Swans but reshuffle the society by giving the minority group an opportunity and a sense of belonging. The standardization will enable Nigeria to develop a means of differencing between right and wrong, good and evil so that the country learns from the past, maintain distinctive identity, and diversities in preserving its ways of life since development is an instinctive, egalitarian, inclusive and a holistic activity. This applies to construction of roads, estates,

environmental projects, schools, hospitals and has helped in minimizing construction risk.

More capacity building and the training for legal enforcements personnel will help to actualize the future legal aspect because more efficient institutions will be in place to check crimes. Improved legal framework will prevent crimes and the Black Swans. Also it will help in fighting the present Nigerian attitude of "above the law" by giving every Nigerian citizen equal right and justice. Law enforcement institutions like the Judiciary, Police, immigration, Army forces must be strengthened to be effective in fighting corruption. Good legal trained worker would minimize ruler in providing for arbitration, legal drafting and instigation issues.

The Future Economic aspect will be actualized through proper seminars and education on financial management strategies, risk management techniques, and the awareness of the Black Swans. Also, the sustainability principle company's business transactions (procurement and whole lifecycle costing) will help to actualize the future economic aspect which will help to mitigate bankruptcy, and the other Black Swan events. The Lewis Structural Change (dual-Sector) model is recommended to further develop the agricultural sector, construction and Industrial sector. This will improve the wages and the quality of life, growth in GDP, and more tax for government's, and access to capital by entrepreneurs in various industrial ventures.

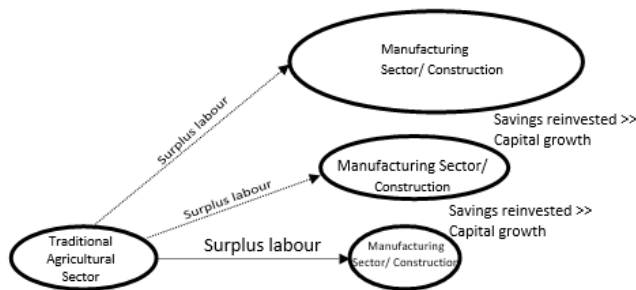


Figure 1: Lewis' Structural change model of growth (Adapted from Jason Welker, 2015)

The future environment will be actualized through the sustainable location of industries to industrial layouts, treatment of the water, land and air pollutions, and noise reduction from vehicles, industrial machines and generators. This can be achieved if the proper study on environment is done before any business investments begins, and proper enforcement of environmental policies. This will reduce the Black Swan of drought and famine, and exposure of CO₂ and other industrial gases to the surrounding environment depleting ozone layer. Also, the future environment will be achieved through the use of Best Practicable Environmental option (BPEO) in planning decisions, analyzing sensitivity, Life Cycle Assessment (LCA), BREEM, and CEEQUAL assessment manuals for design and assessment of sustainability and Best practices of Environmental footprints. These will add

value to health and economic development of the Nigeria people and reducing cost of various developmental projects like roads, housing estates, rails, bridges etc.

The future political aspect will be actualized by enforcing the code of conducts on the politicians, and assets declaration. Also, the devolution of power, having strong regional governments which are smaller and easier to manage, and sustainable economy will help to reduce the crimes and impunity caused by politics. There should be strict fiscal transparency, in the present Federal Government, states and Local Governments to make for protection of public funds. These will make us avoid Black Swans of terrorism, power struggle, and the stealing of public funds at the federal level where it is surplus. Money save would be use to reduce the infrastructural deficient.

The future technology aspect can be actualized by restricting the importation, transfer and adaptation of inferior technologies. This restriction can be carried out by agencies such as the standard organization of Nigeria (SON). Also, the future technology will be achieved by imposing high taxes and import duties on such imported technologies so that local ones can grow especial construction industries. Moreover, modern mass production methods, new technologies such as "NANOTECHNOLOGY" and "SMARTY PHONES" which here made many technologies affordable and faster should be introduced and sustained.

Conclusion

Financial and risk management would ever remain topical in the world and in business. These would be either in the mediocristan or the extremistan. The indept study of these would help reduce or eliminate scenarios of different dimensions whose impact would ordinary devastate or destroy the environment and the institution. Nigeria and its construction industries have a lot to learn the best practices in more developed economies. Training and capacity building is risk and financial management is imperative to improve on the present study of forms and Nigeria.

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GREEN