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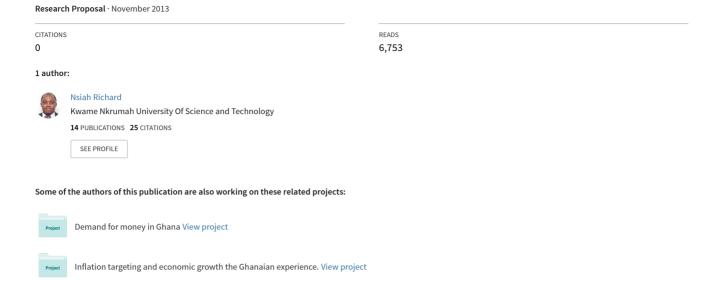
Research Proposal · November 2013

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Research proposal on the management of credit risk in the emerging oil and gas industry in Ghana. (2013)

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RESEARCH PURPOSE/OBJECTIVE

This research work would primarily concentrate on the broad credit risks in the energy sector and design appropriate specific policy guidelines that/which could prevent the loss of investment due to the high risks associated with the energy market.

The focus of the policy manual will be on prevention of credit risks materializing due to the volatility in the oil and gas (energy) industry by means of devising a mechanism for avoidance of the risks in the first place, and in the unlikely event of a Bank being hit by credit risks, an effective recovery support system provided.

As a major research component of this outgoing initiative, this proposed project shall focus on evolving an innovative design of an energy unit/department in a Bank that would be responsible for risks identification, provide appropriate solutions and trading strategy in the emerging oil and gas industry in Ghana.

The manual may additionally be helpful to managers and staff in general in the Banks by providing a variety of supervisory culture, practice and procedures in granting credit in oil and gas related activities.

BACKGROUND:

Ever since the discovery of oil and gas in the Western region in Ghana, many are of the view that its citizens – both natural and artificial beings would turn into millionaires in the shortest possible time neglecting the risks associated with the "black-gold" to its stakeholders. A lot of stakeholders including the government have all counted their returns without shaping the expectations of the people.

A key stakeholder(s) in both the upstream and downstream oil and gas activities are the banks who will manage their shareholders equities and the risks associated with activities in the oil and gas industry. The financing role of the banks in the oil and gas industry at all levels makes them susceptible to credit risks in their trading activities. Ghana has only *been* a net consumer of oil and other petroleum products but with production of oil in commercial quantities come with *its* own benefits and risks to players associated with the black gold.

This research work has become necessary to unearth the potential credit risk to the banks for the fact that about eighty five percent of the banks are yet to trade in oil and oil related activities as part of or as a wholly business line as their core business operations. The researchers are convinced that the larger number of banks without much exposure in the oil and gas trading activities in the emerging sector might be trapped by the glimpses of financial booms and rush into difficulties if the natures of credit risks are not explained and the necessary strategies enrolled to assuage against any such happenings. The researchers are aware of huge losses such as what happened to Barings Bank Plc. in 1995. The bank collapsed because it could not meet the enormous trading obligations that a staff exposed or entered into on behalf of the bank. A policy manual will not only be instructional but a guide indicator for cash flow, set ceiling for trading limits and strategies for front and back office officials.

The development of credit-risks manual shall be the primary objective of this work. Fulfillment of those objectives shall be based on finding acceptable solutions for the following credit risks issues and requirements.

a. The nature of credit risks in the oil and gas industry.

b. Mechanism for integrating an energy unit/department in Banks operations.

c. The linkages between the energy department and the other operational units in the Banks.

d. The supervisory role of the back office in oil (energy) trading activities.

The research work will try to investigate all the existing risk and identify suitable policy guidelines for managers and other bank staff for smooth operational flow.

The credit policy manual will be design to be consistent with sound and prudent banking practices in use elsewhere in the world. The manual's purpose is to provide all personnel with a comprehensive understanding of specific credit risks exposure to banks, how these risks will be identified, monitored and controlled in order to protect shareholders fund.

The manual will be developed from existing policy and procedural instructions as well as external sources. This manual and subsequent updates will help further define the bank's credit risks policy and serve as a primary reference source for all credit-related issues especially in the oil and gas industry.

Any proposed changes must first have the approval of the bank's senior credit officer or director. The policies outlined are intended to be general in nature and will be supplemented by various procedures, which will contain implementing details.

Furthermore, the manual will be a supplementary to requirements outlined in various Bank of Ghana circulars and other internal policy documents. This is intended to be both a sound and practical manual. It is also intended to be instructional.

The manual though will not be expected to cover every credit risks exposures due to the constant changing dynamics in the banking and energy markets.

It cannot replace prudent business judgment, sound assessment of the borrower's ability, capacity, integrity, and wise structuring of a credit facility that is appropriate to the needs of both a borrower and the Bank.

This manual will also be a living document and will be periodically reviewed and up-dated.

This manual will strictly be an internal document and intended for guidance in the lending process by branch managers, lending officers, credit department managers, credit committee members, other members of bank management and directors shareholders and other stakeholders. An expect risk management is a profit function which is to disguise other trading strategies under the guise of risk management. This should be a very scary practice for any company. And yet, the idea of risk management adding value outside of reducing risk keeps popping up in the market place every now and then

LITERATURE REVIEW

The researchers will be concern with the theories about the topic. We shall review previous research works done on the topic, by reviewing literature on the various views held by authors on credit risks in the banking industry.

For the purposes of this research, we would consider the views held by the various authors on;

1. The definition of credit risks in the oil and gas industry.

2. Credit derivatives tools.

3. Risks management strategies and other related issues such as the Basel standard approach on generalized and specific risks that affect banks' operations in the oil and gas industry.

RESEARCH QUESTIONS

The researchers are determined to come out with an effective working manual on credit risks for banks in the oil and gas sector by posing the following vital questions.

1. To what extents are Banks in Ghana exposed to credit risks in the emerging oil and gas industry?
2. What specific credit risks are exposed to banks in the oil and gas industry?
3. What monitoring tools or actions are to be adopted in managing credit risks exposures to banks in the oil and gas industry?

Credit risks are the risks that counterparty cannot fulfill his contractual obligations at maturity. Credit risks can be classified as settlement risk and current exposures or replacement risk.

SIGNIFICANCE OF THE STUDY

The research topic is very important to the overall success of the banks in the country in the wake of Ghana developing her oil and gas sector and will bring out the following to bear on the banking sub-sector.

1. Improve the corporate supervisory roles in the banks in oil and gas trading activities.
2. Improve understanding (literature) on credit risks associated with oil and gas transactions in the banks.
3. Fulfill the KNUST requirement of awarding an Msc Economics.
4.

RESEARCH DESIGN AND METHODOLOGY

Having identified a research topic and done the preliminary literature review the next logical step is to chalk out the route map for the research project. Looking at the research process

'onion' (Saunders et. al., 2003) one can identify various approaches, strategies and data collection methods across the continuum of research philosophy.

Figure 1: Elements across the continuum identified in the Research Process 'onion' Research Philosophy Positivism Realism Interpretivism
Research Approach Deductive Inductive
Research Strategies Comprehensive medial survey Analysis of case studies Grounded Theory
Time Horizon Cross-Sectional Longitudinal
Data Collection Methods Sampling Secondary Data Observation Evaluation of the results

Source: adopted from the *research process 'onion'* by Saunders et. al. (2003

Although choosing the research philosophy is dependent on the choice of strategic aims and hypotheses of the study, it would be misleading to prefer a single approach to the others. A combination of researches approaches often gives better results as it is often known. It can be illustrated by a following quote:

"Not only is it perfectly possible to combine approaches within the same piece

of research, but…it is often advantageous to do so."

(Saunders et. al., 2003)

Since it is perfectly alright to combine approaches, it can be deduced that it is perfectly

alright to 'mix and match' different research strategies with the different research approaches.

DATA COLLECTION METHODS

Having decided upon the research strategies, the next step is to collect the data. Limited by

the choice of time horizon, a lot of the data that will be used in this research is likely to be

secondary in nature. Typically secondary data are of the following types:

Documentary – written materials or non-written (media-based) materials

Multiple Source – area based (e.g. journal, country) or time series based

Survey – censuses, continuous & regular survey, or ad-hoc surveys.

These types of secondary information can be available in books, journal articles, newspapers

& magazines, conference papers, reports, archives, films, television, electronic database,

internet, etc.

The literature reviews would typically constitute the majority requirement of secondary data.

Information regarding credit policy in the emerging oil and gas industry in Ghana, most

probable reasons of credit risks, ways of appraisal and management as well as other vital

information (required for furthering & supporting the analysis of findings from primary data)

are the typical kinds of secondary data that would be used in the study. Such data are

nowadays mostly available through the Internet. Alternatively, libraries are good sources of

books on leading theories and thinking of experts on the subject. In the present research we

will generally lean on secondary data.

ANALYSIS OF DATA AND INTERPRETATION OF FINDINGS

The data obtained through the various methods discussed above would be either **quantitative** or **qualitative**. Since the research is mostly Positivism in nature, there is likely to be too many data that might require elaborate statistical analysis of quantitative data.

Quantitative analysis is more likely to be secondary and exploratory (or descriptive) in nature, summarising data in the form of charts, tables, percentages and averages. In the event that a survey is carried out, the data obtained would mostly be categorical, hence is likely to be ranked across a scale. This data might be represented in terms of frequency, central tendency or dispersion. It is highly likely the research might require the necessity of inferential data analysis.

Qualitative analysis of data is expected to be more frequently used within the research than its quantitative counterpart. Although there might be scope for a certain degree of quantifying some of the data, an overall non-quantifying method is likely to be used through the data analysis and interpretation process. This would involve *categorisation*, *'unitising' data*, *recognising relationships and developing categories to facilitate it*, and *developing and testing hypotheses to reach conclusion*.

The researchers will start this work by collecting the various relevant literatures available about credit risks to financial institutions, the industry in general and in banks in Ghana. This will help to arrive at a better solution for the proposed credit risks policy manual in the emerging oil and gas sector. The work will cover the research design, population, sampling techniques, data collection and analysis.

The study will mostly be a survey which aims at assessing the credit risks exposures on financial institutions in the emerging oil and gas industry and suggest policy directions to assuage against those risks materializing.

The approach or method to be adopted will be appropriate for the study because it involves collection of data covering all the twenty four top commercial banks and Bank of Ghana. The twenty four top commercial banks have traditionally been exposed to risks in general but will be minors in the emerging oil and gas industry.

To achieve the research objectives, a total of twenty five sample size will be adopted to complete a questionnaire and answer a guided interview questions. The researchers intend to use both open and closed ended questionnaires due to limited resources including time. The interviews may mostly be structured but will also include some element of unstructured pattern which may provide some flexibility to the exercise.

Questionnaires will be distributed to headquarters of the twenty four commercial banks and Bank of Ghana, supervisory division, to assist in providing vital information for the purpose of the study.

The interviews will also enable the researchers clarify some questions that might appear to ambiguous and those that might not be part of the questionnaires but could pop up in the cause of the study.

TIMESCALE:

The researchers however, belief that with proper formal introduction by our school, stating clearly the purpose of this research work, we shall be able to obtain a data that will represent our population for the study within the stipulated time period.

June-July 2013. Review of Literature

August 2013. Draft Literature Review

September 2013. Agree Research Strategy with Supervisor

October 2013. Agree Formal access to organization for collection of primary and secondary date.

November 2013. Compile, pilot and review questionnaire.

December2013 - January 2014. Administer questionnaire.

February 2014. Final collection of questionnaire.

March 2014. Data Analysis.

April-May 2014. Final writing of project report.

LIMITATIONS:

Time constraints of the semester require less time than may be ideal for detailed study on the topic. The researcher also being outsiders (non-bank staff), there are bound to be aspects of banking practices, culture and team communication that will not be revealed during our interviews and observations. Being outsiders may also limit what is revealed to us. The bank staff may be guarded in their conversations around the researchers, especially in the initial observational stage. We also envisage a situation where some bank (respondents) may not respond at all for the fear of tapping into their credit risks policies and this may throw our finishing time overboard.

The time frame given for the completion of the work will cause some shortcomings in acquisition of information, especially by the observation, as more time is needed before one can give a proper account of a case.

Finance is also a problem, as going and moving from one organization to another will mean gathering more information for the work and that will also results in huge budget.

DELIMITATION:

The researchers are using the top twenty-four commercial bank because we want to be able to do a better observation for the work, though there are other financial institutions who are also involved in the oil and gas business. We are also manful of time frame as a limiting factor. The research team will also be spending more time on the field for questionnaires and interviews responses as well as observation in order to produce a world class credit risks policy manual.

Conclusion

The final report project will have the following format:

1. Title

2. Abstract

3. Introduction

4. Literature Review

5. Research Methodology

6. Primary and Secondary Research

7. Analysis

8. Findings

9. Conclusions & Recommendations

10. References

11. Appendices

REFERENCES

1. Managing Energy Risks; An Integrated View on power and Other Energy Markets; **Risk Management (Credit Risk),** Markus Burger, Bernhard Graeber and GeroSchhindlmaryr, 2007

2. Energy Risks Management; **Wider Risks management Questions;** Steve Leppard, 2005

3. Surviving Energy Prices; **Different Kinds of Risks;** Peter C. Beutel, 2005

4. Management Control s; **Price Risk Management and Trading; Tom James, 2008**

5. **Valuing and managing Energy Derivatives**, 2nd Edition, Draganapilipovic, 2007

6. Credit Issues and Counterparty Risk; Energy Risk Management: Hedging Strategies and instruments for the International Energy Markets; Robert Maxant and George Travers, 1998

7. Advances in the Management of Uncertainty; 2nd Edition, Vincent Kaminski, **Credit Risk Management for the Energy Industry – some Perspective**, 2005

8. *Buy, R., et al*, 1998, "**Activity managing corporate risk – new methodologies and instruments for non-financial firms**" in J. Gregory (ed), Credit Derivatives (London: Risk Books)

9. Energy Bank (Ghana) ltd/**Energy Policy Framework,** as can be read on the internet at www.energybank.com

10. Bank of Ghana Act 2002, Act 612; Bank of Ghana Notices /Directives / **Circulars / Regulations & Supervisions,** as can be read on the internet at www.bankofghana.org.gh/supervision

11. **After mouth of The Credit Crunch, Corporate and Financial Supervision;**
www.accaglobal.com/student/archieve s/p2

12. Saunders *et al*. (2009)

13. U.S. Federal Sentencing Guidelines, Chapter 8—Part B: Remedying Harm from Criminal Conduct, and Effective Compliance and Ethics Program. (November, 2004). http://www.ussc.gov/2004guid/8b2_1.htm.

14. Basel Committee on Banking Supervision: Discussion paper—fair value measurements http://www.bis.org/bcbs/commentletters/iasb20.pdf.

15. Sarbanes-Oxley Act of 2002: SEC. 404. Management Assessment of Internal Controls.http://www.sox-online.com/soxact.html#sec404.

16. Platts. "The Increasing Divergence of WTI Pricing from World Markets" (March 2009). Can be readonline:http://www.platts.com/Content/Oil/Resources/Market%20Issues/wtipricing.pdf.

17. http://www.masterpaper.com