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RISK MANAGEMENT IN PROJECT PLANNING

Статтю присвячено оцінці методів з управління ризиками при плануванні проектів. Узагальнено види та методи управління ризиками та виділено найбільш доцільні з них для проектування у нафтовій галузі Нігерії. На основі даних досліджень низки компаній були оцінені очікування та результати від різних заходів з управління ризиками й визначено, що найбільш доцільними з них є передача та уникнення.

Ключові слова: ризик, управління ризиком, проектування, передача ризику, нафтова галузь.

Статья посвящена оценке методов управления рисками при планировании проектов. Обобщены виды и методы управления рисками и выделены наиболее целесообразные из них для проектирования в нефтяной отрасли Нигерии. На основе данных исследований ряда компаний были оценены ожидания и результат от различных мероприятий по управлению рисками и определено, что наиболее целесообразными из них являются передача и избежание.

Ключевые слова: риск, управление рисками, проектирование, передача риска, нефтяная отрасль.

The article deals with the assessment of risk management techniques in project planning. The types and methods of risk management are summarized and the most appropriate ones are identified for designing in the Nigeria oil industry. Based on research from a number of companies, we have evaluated the expectations and outcomes of various risk management measures and identified the most appropriate ones as transfer and prevention.

Keywords: risk, risk management, project planning, risk transfer, oil industry.

Introduction. Risk has become a frequent occurrence in the lives of people whether or not they engaged in economic activities or otherwise. Risk process is documented by incidents escapades of accidents leading to significant economic loss or loss of life. Avoiding such circumstances has increased the support for risk analysis and risk assessment in projects or companies. Throughout this timeframe which was contrived by the economic crisis, analyzing these style of risk and estimating their levels becomes increasingly important higher. However, economic agents are encouraged to decide on the adoption of prompt action to shift from high risk levels at acceptable lower levels. This is conceived to improve working conditions and environment.

Though conceptually developed and applied in countries with working financial markets, risk management, with the current form, is just beginning to be heeded in Nigeria. According to the source there are not many organizations with their own mechanisms for measuring, others do not know the advantages that you would get by applying the procedures already established.

Effectiveness of risk management needs the evaluation of events in a two-different approaches, on the one hand, from the point of view of the variability and on the other from the viewpoint of the effect of the aftermath. Based on the type of risk surveyed, some selected techniques can be used to approximate the number of semi-measurable and measurable. Usually for major risks it is recommended the use of measurable evaluation methods that contribute to an accurate appraisal of the possible consequences. Upon these calculations, decision makers has to setup specific measures to make certain of better protection of prospective host. For this material it will be used in risk assessment a measurable method.

The purpose. The purpose of the article is to summarize risk management techniques and evaluate the most appropriate ones for projects in the oil industry.

Problem setting. The fact is each project is exclusive, having distinctive goals and create risks to its

important parts, they not old antecedently. Suitable specifically if the conditions and events unsure if they occur, can produce project risks that will have an outcome on project objectives. Naturally in an exceedingly new project management are often solved potential risks supported expertise from different comes below similarity statements. Even so, there's no a set of lessons (Hilson and Hulett 2004) drawn from various projects to overcome certain types of risks or to resolve difficult situations, each project manager has to face the challenges of the project which leads.

To complete the project is important to cross all stages and phases of life cycle. Correct conduct of planned actions to attain the objectives of the project square measure conditioned: framing the terms, provision and use of resources to budget, action of milestones, etc.. Hasty action, or inaction unregistered correct coordination project manager of the team will create tough things expressed objectives or of risk.

This is why risk management could be a terribly effective thanks to manage essential things. Based on, the groups square measure ready take positive measures to attenuate the results of the danger materializing.

References analysis. The widespread of duties can produce different kinds ideas for lots of projects. Theories and practices, as will be siphoned from writing, which should be carefully shown that, anything they might be, the projects gives a number of elements: a special purpose, a particular time for completion, utilization of material, human and monetary schemes. Some projects might be said continue or converted into other projects. For defining the term "project" various specialists voiced their view in recent decades (Rutman and Mowbray, 1983; and Hedin Conrad, 1987; Hayes, 1989; Valade and Bamberger, 1991, Munns and Bjeirmi, 1996 Mățăuan, 1999). Profile authors of recent years (Lewis, 2000; Ciobanu, 2002; Turner and Simister, 2004; Borgăoanu, 2005; Bulat, 2011; Opran, et al., 2012) took over and

improved the definitions keeping references to "specific elements: objective data specifically allocated resources, planned activities dedicated team fixed" (Pascu, 2005).

Based on some trustworthy estimation, the project is "a role that has a beginning and an end and is managed in order to attain the goal of the objective, in compliance costs, calendar and plan quality criteria" (Hayes, 1989). European Commission (1986) within the project in a "group of activities to be performed in a logical sequence to achieve a set of prototype objectives formulated by the client" (Istrate, 2004). According to others, the project is "a set of actions performed over a period of time, with moments defined start and end with a clear purpose of the work performed by its own budget and a specified level of results obtained." (Lewis, 2000).

The main results. The only goal or objectives we as humans are wired is towards meeting different needs needs, to achieve something to finish an objective or kinds of objectives. Some of these activity can be tagged draft. Beginning from when we can suggest that the projects has been existence for thousands of years, along with those who consider project progress and put in the work. The revelation are constructors of Amazing projects who gave a new wave to human civilization.

The world is dismayed by the recent fever of the comes. created obtainable by the eu Union for development comes round the world. however additionally to being a fashion drafting may be a should, particularly with a project that may not apply for these funds. Moreover, a weak project can not be chosen for funding, that is why people and legal entities should prepare specialists during this regard. they'll be those to make sure the overcoming of oppressive realities in several projects: low practicality once completion, poor communication at intervals and outdoors the team, their budget and time inconsistency, inadequate employment, scarce documentation etc.

It is important to note that not all accidental losses are not virtually the same, a single definition of risk should not equally be expected. Therefore, Ogwo in (2000) defined risk as the chance of loss, the possibility of an unfortunate occurrence; the uncertainty as to the occurrence of an economic loss a dispersion of actual from expected results a combination of hazards and the objective doubt concerning an outcome in a given situation. In a nutshell, risk is an unexpected event or occurrence, It is a situational event.

Risk management in projects goes through the following stages:

- business Risk. This refers to the variability or uncertainty of business earnings, which arise from general economic depression. In this situation, the earning is always below projected outcomes and it is called a loss for failure or entropy;

- financial risk. It is the variability of a firm's returns to shareholders which arises from high level of debt financing.

- market risk. This is the part of the variability of an individual's investment returns that is caused by market conditions. Such conditions include - changes in purchasing power, changes in interest rates, changes in investors' expectations in the overall economic performance of a company and market reaction to

unanticipated events, e.g. the death of a president or war or strike or some other related situations;

- liquidity risk. This results from poor synchronization (either unanticipated or due to the inefficient management) of a business cash flows;

- purchasing power risk. This type of risk arises from increase in the rate of inflation. Operationally, the real value of assets, especially financial assets, are seriously affected during inflationary periods. Willet (1991) asserts that purchasing power risk affects mostly businesses in fixed income financial assets;

- foreign exchange risk: This is the random of changes in exchange rates. Changes in exchange rates are quite natural for a global business of over one hundred national currencies. Business investors may be able to advance their economic welfare by acquiring the assets dominated in currencies they expect to appreciate, and selling assets and insuring liabilities dominated in currencies they expect to depreciate. As business investors revise their holding of assets dominated in different currencies, the exchange rate is expected to change thereby leading to an unexpected risk;

- politico-economic risk. This is the variability in investment returns arising "from political and economic forces such as electioneering campaigns, voting, inter-party conflicts, tax laws, foreign trade policies, indigenization policy, communal clashes, etc;

- default risk. This risk is as a result of a borrower's inability to service borrowed funds and pay the principal sum as at when due;

- industry risk. This arises from unanticipated variations in profit caused by particular factors affecting the industry, e.g. commodity prices;

- management risk. This refers to the variability of a firm's earnings arising, from ineffective and inefficient management due to judgmental errors or fraud;

- natural risk. This is the risk of a firm's earnings arising from natural disasters, e.g. flood, weather, fire outbreak, earthquakes, etc.

All the varied kinds of risk mentioned on top of, square measure related to the onshore and offshore operations of the oil and gas trade. As a results of the on top of risks, the liquidity, solvency, efficiency, gain, and marketability positions of the trade square measure adversely affected. so as to bring matters in restraint, and to enhance the performance index of the oil and gas trade, risk management becomes a *since qua non*. Anyanwu and Onuoha (1999) represented risk management because the method of identification, quantification, and treatment of risks. whereas risk identification is that the act of analyzing the sources of risks, sort of losses and therefore the consequences of risks; risk quantification is bothered with the activity of risk factors; and risk treatment refers to the management and administration of risks. In alternative words, risk treatment is bothered with the thought of assorted techniques of risk management so as to create a company become effective, efficient, healthy, grow and develop.

The various techniques of risk management according to Okereke in (1991)

- avoidance of risks. This is the kind of approach that seeks to change the conditions that bring about loss producing events, for example, ensuring good house -

keeping in factories by putting in place an effective waste disposal procedure. This approach suggests that "prevention is better than cure" in all cases;

- minimization of risks. This suggests that this kind risk cannot be totally avoided but can be reduced to a very large extent. This can be done through an effective Health, Safety and Security(HSS) program;

- retention of risks. This relates to the opinion that accidental losses in business be captivated or retained internally. It is performed by issuing primary responsibility for risk management to a specialized risk management area in an organization;

- transfer of risks. This approach suggests that risks in business should be directed to a third party, usually an insurance company. It involves the purchase of insurance policies to pay for losses gathered by individuals and or businesses.

It has been disclosed from literature that risks can't be all avoided. Therefore, the 3 major approaches to the treatment of risks are step-down, retention, and transfer. during a bid to reduce risks, operators within the oil and gas trade emphasize on health, safety and security program. This policy or program has become therefore well-liked that staff within the oil and gas trade have been created to bear a educational program in HSS, 'it has become a basic demand if workers are to figure within the oil and gas trade. If a corporation will scale back the speed and severity of activity accident, diseases and improve the standard of labor life for his or her hands, the firm's earnings, shareholders' returns, liquidity, and leverage positions of the firm are well assured. Foster (2000) but notes that the Health, Safety and Security (HSS) program will solely be effectively accustomed manage those risks that are internal to the organization. Those risks arising from the business surroundings like social unrest, politico- economic risks, market risks, natural disasters etc can't be effectively managed supported the HSS program. He, therefore, suggests that the acceptable technique for managing risks within the industrial work is to transfer these risks to a 3rd party e.g. Associate in Nursing insurance firm once necessary.

However, an insurance policy serves as a shock-absorber to any person who experiences accidental losses. Irukwa (1978), states that not all accidental losses (risks) can be transferred to an insurance company. Such risks that cannot be shifted to an insurance company are called uninsurable risks. They may include prolonged natural disaster, potential government actions, etc. The insurers are not willing to accept such risks because they lack relevant statistics of the frequency of occurrence of such risks under what conditions they occur and how much damages that are caused by such risks. Zielag (1999) observes that as a result of the bad omen that bedeviled the insurance industry such as non-payment or unnecessary delays in the payment of claims most operators in the oil and gas industry prefer to minimize or retain their business risks rather than transferring such to an insurer or third party.

Risk retention is done by assigning primary responsibility for risk management to a specialized risk management unit as noted earlier. In this case, the risk manager handles loss exposures through social security benefits and the creation of contingency funds. Bello (1989) asserts that risk retention technique is only appropriate for the treatment of risks associated with loss of lives resulting to death or permanent disability of employees.

This study adopted the nomothetic method paradigm to grant its entire method the empiricism and quantitative knowledge analysis required in research. The thirty eight copies of the analysis form distributed to thirty eight chief executives of the oil and gas firms in Port Harcourt were the most supply of the primary knowledge analyzed in this study. The analysis knowledge were conferred exploitation tables and straightforward percentages. the 2 null hypotheses were tested exploitation the chi-square (χ^2) data point

The transfer of risk is not the major technique for risk management in the oil and gas industry in Nigeria.

In testing the null hypothesis, the various techniques of risk management in the oil and gas industry were presented in the table below.

Table 1 – Technique of risk management

Response	Observation	Expectations	O-E	$O-E^2$	$(O-E)^2/E$
Transfer of risks	16	9.5	6.5	42.25	4.45
Minimisation of risks	12	9.5	2.5	6/25	0.65
Retention of risks	7	9.5	-2.5	6.5	0.65
Avoidance of risks	3	9.5	-6.5	42.25	4.45
Total	38	38			10.20

Notable constants

Level of significance = 0.05

Level of freedom = 3

Critical level = 7.82

Having computed $10.20 > \text{critical level } 7.82$.

Hence, the null hypothesis was rejected. This implies that the transfer of risk is the major technique for risk management in the oil and gas industry in Nigeria.

The results of our analysis revealed several techniques of risk management. These techniques are - the transfer of risks to a third party, minimization of risks, retention of risks, and avoidance of risks. These

techniques are in agreement with the view expressed by Okereke (1993). But the major technique for the management of risks in the oil and gas industry in Nigeria is the transfer of risks to an insurance company.

It was also observed from this study that health, safety, and security program is to the risk management tool with the best cost - benefit trade-off. We gathered that the purchase of an insurance policy is the risk management tool with the best cost benefit trade-off in Nigeria. This finding is in support of Foster (2000) and Bello (1989).

Conclusion. It was concluded that based on the

analysis no one particular technique can effectively manage all risks since risks are of varying dimensions. While those risks within the organization are minimized using the Health, Safety and Security (HSS) program, those that are external to the organization and are uninsurable are better managed by retaining or absorbing them in which case a specialized risk management unit is established in the organization. However, the major

technique used in risk management in the oil and gas industry in Nigeria is the process of transferring such risks to a third party through the purchase of an insurance policy since insurance is the risk management tool with the best cost-benefit trade-off. It was therefore recommended that risks in oil and gas operations be managed by transferring them to a third party

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