

# EFFECTIVE RISK MANAGEMENT IN MODERN INDUSTRIAL ORGANIZATIONS IN NIGERIA

**Okereke, Chukwunenye Iheanacho**

Faculty of Social Sciences,  
University of Port-Harcourt,  
Port-Harcourt, Nigeria.

E-mail: chuokereke@yahoo.com.

## **Abstract**

Risk exists in all human societies in the form of natural disaster or a result of socio-technical failures, both of which lead to either loss of human life, damage to limb or loss of asset. The paper underscores that in modern and post-modern organizations the importance of perceiving and treating issues in their inter-relatedness and inter-connectedness is imperative in the reduction of incidences of organizational risks. It employed Weber's Bureaucratic Model as a theoretical framework to explain a widespread specification of tasks, anonymity of rules, circumscribed statuses in organizations, wherein most aspects of modern life are organized. By the nature of bureaucratic organizations, employees are unequivocally exposed to risks at their workplaces, arising from human and technical error. Public inquiries and risk communication do not provide sufficient leverage for risk reductions as they lack strong basis on the organizational culture. This paper stresses the need for a safety culture that offers an expository medium for effective risk management, repudiating a unilateral decision by the management, but integrating the employees in policy decisions on health and safety to obtain a consensual opinion on safety management that could be enriched through frequent research and development (R & D).

**Keywords:** Organizations, Safety, Risk, Culture, Socio-technical, Employees.

## **Introduction**

Risk predates human society (Beck, 1992) and is inherently societal, such that without it, there is no society (Arrow, 1971). It includes all cases of man-made hazards and natural disasters.

From the pre-social and pre-political period to the recent modern and post-modern societies, risks exist in various forms and magnitude. In the pre-social period, there was no industry, no arts and worst of all there was continual fear and danger of violent death (Nisbet, 1982) with individuals living in a horde and acting in a manner perceived to secure their self-preservation (Mayo, 1962). Hobbes (1651) had aptly described life in the

pre-social and pre-political period as '*solitary, poor, nasty, brutish and short*', as there were disorderliness, chaos and anarchy owing to absence of laws to regulate human thought and actions. In effect, man faced the perils of violent attack from his fellow humans and attack from wild animals that ultimately increased risks of untimely death.

It was envisaged that modern societies would be risk-free. In contrast, they are characterized by '*new risks*' (Beck, 1992; Giddens, 1991; Latour, 1991) such as nuclear power, terrorism, bombings, chemical and biotechnical production, incredible carnage on the highways, kidnappings, computer fraud, and health disorders among others.

Specifically, within the first quarter of 1998, the capital city of Sierra-Leone witnessed series of bombings from the troops led by rebell *ó* Koromah. The disaster was quite devastating as it involved massive loss of lives and property. On September 11, 2001 United States of America witnessed an unprecedented terrorist attack that was suspectedly master-minded by Osman Bin Laden. Planes were rammed into the monumental structures (the World Trade Centre in New York and the Octagon in Washington) leading to destruction of the structures and massive loss of lives and property. Also, on Sunday 27 January, 2002 series of high calibre bombs suddenly exploded in Ikeja - Lagos, Nigeria and threw the entire metropolis in panic and hundreds of people into the black Isolo Carnal where they met harrowing deaths.

Modern societies are characterized by incessant cases of transportation accidents (by road, rail, air and sea) that have led to loss of lives or damage of limb as well as loss of property. There is environmental degradation and pollution arising from the improved and developed industrial and factory systems with adverse consequences on physical and mental health and industrial accidents among others. Against the foregoing, this paper discusses effective risk management in modern industrial organizations. Organization is a social entity that is goal-oriented, with a deliberately structured activity system and identifiable boundary (Daft, 1992) consisting a group of people in a division of labour that is rationally directed toward the achievement of a common objective (Morgan, 1972). It includes mutual benefit associations (Barber, 1950; Sayles and Strauss, 1953; Blau and Scott, 1970), business concerns, service organizations and common wealth organizations (Parsons, 1954). But of particular interest to this study are industrial business concerns.

### **Theoretical Orientation: Weber's Bureaucratic Model**

Scholars that include Haralambos and Holborn(2007) and Gerth and Mills (1953) point out that Weber identified three major types of actions: Charismatic action based on the charisma *ó* the innate abilities and extra-ordinary characteristics of the actor; the traditional action based on the customs and traditions of the society, which are learnt and widely shared that secures its support; and the rational *ó* legal action that is greatly perceived to be universalistic and impersonal, enduring and cost-effective.

The rational-legal action is technically superior to the other forms of action (Marshall, 1998) and is institutionalized in bureaucracies. Bureaucracy as used in this context, refers to a hierarchical organization that is rationally designed to coordinate the activities of many workers in the pursuit of large-scale administration tasks and

organizational goals (Gerth and Mills, 1953). Implicitly, organizational goals are set apriori by the management, workers are recruited based on their technical qualification that could enhance the growth and achievement of the goals of the organization and who occupy statuses (positions) necessary for effective role performance that are impersonal (not personalized, irrespective of personage ó education, social status etc).

Nevertheless, the various kinds of malfunctioning of bureaucracy as an administrative machine have been noted by Andreski (1985) and Merton (1968), and of particular interest to this study is the aspect styled by Veblen as '*trained incapacity*' (Kahn, 1979) that hinders a bureaucrat from demonstrating ingenuity and discretion in emergency circumstances and which safety - culture seeks to ameliorate.

### **Classical Risk Management in Industrial Organizations**

Etzioni (1964) argues that life in modern industrial society was increasingly conducted in organizational settings and Parker, Brown, Child and Smith (1978) reiterate thus:

We are profoundly shaped as individuals by Organizations, by the constraints they impose, the processes they develop, the interests they articulate and the goals they realize.

The foregoing suggests the existence of an organizational culture, which is a fairly stable system (Lorsch, 1986) of shared values, assumptions, beliefs and norms that unite the members of an organization (Smircich, 1983; Kilman, Saxton and Serpa, 1986; Sidener, 1995; Bartol and Martin, 1998). This reflects common views about the way things are done in the organization.

In modern industrial organizations, catastrophic accidents are becoming inevitable features of advanced technology (Perrow, 1984), arising either from insufficient knowledge necessary for adequate operation of machines or existence of strict rules that the workers have been educated to follow. The operators who were trained to adhere to prescribed rules and procedures (which ironically were for safety reasons) were limited in the range of responses available to them when confronted with risky situations (Perrow, 1984; Haralambos and Holbon, 2007) such that an analysis of system failure should consider human and technical types of error that cause about 70 ó 80 percent of most disasters (Turner, 1991).

In some instances where rules are circumscribed, performing activities not otherwise specified for a given status might be construed to suggest lack of seriousness, lack of commitment to duty or usurpation of another employee's duty. It has been observed that in some cases an employee performs the role of his superior, the latter mistakes it for sabotage ó an attempt to demonstrate competence to perform duties statutorily allocated to his superior or a deliberate design to render him (the superior) redundant to the organization. Except in few cases where deviation from the organizational norm results to remarkable achievement as typified in the 3M Story, it has always been condemnable and

meted with severe negative sanctions that range from queries to termination of appointment of the employee. Deal and Kennedy (1982) revealed a Story told at 3M thus:

A worker was fired because he continued to work on a new product idea even when his boss had told him to stop. Despite being fired and taken off the payroll the individual continued to come to work, pursuing his idea in an unused office. Eventually, he was re - hired, he developed the idea into a huge success and was made a Vice President.

The above story conveys an important value in the innovative 3M Culture, which requires persistence when one believes in an idea. It is enhanced by organizational values, which provide behavioural guidelines for employees in organizations (Karathanes and Huter, 1975), thereby making significant impact on organizational effectiveness, particularly in areas of motivation, job satisfaction, absenteeism and labour turnover (Bate, 1992).

Toft and Reynolds (1994) argue that organizations should learn from the experiences of other industries by studying the findings and recommendations of public inquiries to enable analysis of the cause of systems breakdown in a practical way. It has been observed, however, that though public inquiries and their findings provide a rich source of data, they are not always objective truth ó searching and capable of enforcing organizations to carryout their recommendations. First, the membership composition for the public inquiry might be skewed to involve a preponderance of political or business associates whose appointments are based on patronage, not on technical competence. Second is the existence of *‘organized crime’*, used to exploit a multitude of market opportunities (Cantanzaro, 1985) and sometime indirectly supported by government.

President Noriega of Latin America involved himself in drug trafficking and, therefore, never raised brow against drug trafficking in his country. Also Colonel Musa Troare of Mali amassed stupendous wealth illegally while in office and did not forcibly condemn embezzlement of public funds and other illegal practices. Richardson brothers operated from working class neighbourhood in South London during the 1950s and 1960s and moved towards corporate criminal success of some magnitude (Parker, 1981) before a case of murder attracted the police to their activities (Hobbs, 1988). Similarly, Imo State of Nigeria, Government White Paper (1997) revealed that between 1993 and 1994 a group of young men led by Obidiozo Duru and Amanze Onuoha, who suddenly acquired enormous wealth in circumstances that were either unexplained or unexplainable thronged the capital city of Owerri ó Nigeria with their wealth. Their activities were not challenged and called to order by the authorities who ordinarily should challenge them. With time, a new brand of crime - Child Kidnapping (*for satanic practices, ritual murder or outright human merchandizing*) hitherto unknown in the history of Owerri was unleashed on the inhabitants with alarming regularity by the same group such that it stirred up emotions and aroused public indignation that people were compelled to resent the group in the September 1996 Owerri Riot.

Information obtained from public inquiries should be handled with extreme caution as there exist nothing to show that they considered phenomenon in a cultural context and, more so, as their reliability and validity are not guaranteed. Toft and Reynolds (1994) did not have hindsight of a possible existence of high complex technology that might be the only existing firm in a location with none other to interact with or to gain isomorphic learning. It is perhaps, in this awful situation that Turner (1991) indicates that disasters may arise from attempts to handle ill ó structured problems, the full implications of which were not realized before the event. In some cases, efforts are made to inform people about intrinsic risks (dangers) in the use of certain electrical, electronic and mechanical equipments. This is risk communication, which is fundamentally concerned with dissemination of information from experts to lay people and requires creation of awareness of risk in the lay people (Wynne, 1992) and improving understanding between conflicting judgments on acceptability of hazards (Pidgeon, Turner and Blockley, 1991) among others. The communication sometimes consists highly technical information that is beyond the scope and comprehension of some laymen and is further complicated by the use of an abstract and obscure language that altogether hinders comprehension. Some manuals are written in languages that are incomprehensible to the user as typified in the use of French or German for an English audience and vice-versa.

### **Safety Culture in Risk Management**

Sociology has always been identified with emphasis on culture as, an efficient explanatory framework in the understanding of a people and phenomena. Culture theory in risk management perceives risk as socially structured and influenced by people's everyday interaction with family, friends and peers so that a person's response to risk (*hierarchical, individualist, egalitarian and fatalism*) is dictated by his stake in social group and the extent to which this relates to other individuals through a system of rules (Douglas and Wildarsky, 1982). It offers an interesting context within which rival theories can be gauged, but it reduces social life to four personality types which is an over-simplification of the way risk is managed in reality. The theory does not recognize the existence of certain personality traits, otherwise described as eccentric and that some individuals adopt the personality forms interchangeably in different circumstances.

Safety Culture model is a reformation to the culture theory, and could be explicitly regarded as the product of individual and group values, attitudes, perception, competencies and patterns of behaviour that determine the commitment to, and the style and proficiency of an organization's health and safety management. According to Towlson (Unpublished), it is a deep-seated value underpinning the organization - both the way in which work is carried out (*the formal systems of management and working practices*) and also the informal interactions between people and codes of social behaviour, such as the accepted customs, conduct, dress codes and language used in the organization.

Safety culture concentrates upon the cultural context in which decision - making takes place, such as the use of ethnographic (Borodzics et al, 1993) and grounded theory case studies (Pidgeon, Turner and Blockley, 1991) that has proved helpful in enabling

researchers to understand and contextualize behaviour in crises situations from the perspectives of the decision-makers involved. The model sees risk as a combination of socio-technical factors (Turner, 1991) and argues that a *'risk'* or *'safety culture'* operates at organizational level (Booth, 1993; Pidgeon, 1991, Dake, 1991; Turner, 1991) and requires efficiency in hazard identification, decision on persons at risk, evaluation of risk level, risk controls (*existing and additional*), record of risk assessment finding, monitoring and review (Hughes and Ferrett, 2008). This was typified in the Chernobyl accident, on which reports indicated that a poor *'safety culture'* among employees in the Soviet nuclear industry was a human contributory factor to the accident (Pidgeon, 1991).

The risk assessment, which is a meticulous examination of what could cause harm and determining the extent of attempts to prevent harm from workplace activities, has a triple dimension. First, many industrial workplace activities are inherently dangerous and the management has a moral obligation to protect the employees from circumstances that could expose them to risk life, limb, physical or psychological health while at work. Second, the management will want to minimize financial cost of accidents in the workplace, arising from damage to machinery, payment of compensation to the injured, loss of output, increased insurance premiums etc. Third, is the legal implication of injury to the employee, owing to inability of the management to adequately provide for health and safety that is suggestive of negligence. Okereke (2005) opines that:

The law concerns itself with carelessness only where there is that duty to take care and where failure in that duty has caused damage. In such circumstances, carelessness assumes the legal quality of negligence and entails the consequences in law of negligence.

The organization could therefore be penalized by the court through fines or imprisonment of the managerial staff that is vicariously liable for the negligence. It is important to underscore that safety in industrial/organizational settings also depends on the health, safety and environment (HSE) standards of the organization. A hostile environment could evolve where the management is autocratic and scarcely, if ever, liaises with the employees in risk management decisions and policies. In contemporary Nigeria, the mania for *'foreign'* to the neglect of *'indigenous'* or *'local'*, together with economic hardship have negatively affected indigenous enterprises. Foreign technicians are preferred to the indigenous technicians; foreign products are preferred to indigenous or locally-produced products, making indigenous workers and products less competitive than their foreign counterparts even in the domestic market. The majority of existing industries in Nigeria are now managed by Indians/Lebanese who make the work environment hostile to the workforce through poor remuneration, lack of job security, threat of or actual use of physical force to discipline *'erring'* workers.

The safety culture is greatly affected by commitment of the management to health and safety as well as by the extent of aggressive effort to promote health and safety standards (Hughes and Ferrett, 2005). Invariably, it accepts the bureaucratic structures, but requires the management to have the humility to consult with employees on risk

management in the organization to enable an informed choice on cost ó effective risk management strategy in the organization. Focus Group Discussions (FGDs) could be organized, involving between 8 and 12 employees in each group and requesting active participation of the discussants on health and safety in the organization. The research team leader could be a part of the management or an independent researcher contracted by the organization. The findings might be quite revealing and the report would be valuable in designing or modifying a safety culture for the organization.

Hughes and Ferrett (2008) cautioned on the expediency of involvement of managers in workplace inspection and accident investigation, the use of personal protective equipment (eg. *googles and hard hats*) by all managers and visitors in designated areas; ensuring that employees attend specialist refresher training courses when required (eg. *first aid and fork lift truck driving*); full cooperation with fire drills and other emergency training exercises, comprehensive accident reporting and prompt follow-up on recommended remedial actions. When the aforementioned issues are integrated into the culture of the organization, the safety culture eventually approximates a Business Continuity Plan that rationally targets at mitigation of hazards, readiness to handle hazards, response to hazards and recovery from hazards. These are ultimately hoped to contain the *‘best’* that can happen, the *‘worst’* that can happen and the *‘most probable’* that can happen. It is enhanced by research and development (R & D), but is regularly modified by the social dynamics, especially with respect to technology, fashion and taste.

## **Conclusion**

Risk is inevitable in all societies, particularly in modern industrial organizations where machines and machinery are used in economic productivity and where risk communication has not been integrated into the safety-culture. This is complicated by deficiencies in bureaucratic structures that result to *‘trained incapacity’* or *‘educated incapacity’* that hinder effective risk management in emergency situations. Risks in modern industrial organizations have physical health, economic growth and legal dimensions that could be effectively managed (that is, substantially reduced) through a safety culture developed by the management in consultation with the employees of the organization.

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