Explanation and Evaluation of a Four Step Model for Crisis Management Planning Process

EXPLICATION ET EVALUTION DES PROCESSUS DE PLANIFICATION DE GESTION DE CRISE DE MODELE A QUATRE ETAPES

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Abstract

The aim of this paper is to assess the crisis management planning process based on a four step's model at South West Power Generation Management Company in IRAN. In this research, the plan of company was assessed to meet contingent crisis based on crisis management planning process containing: finding risks and vulnerable issues, preparing plans and scenarios to meet crises organizing and training management team, and performing plans experimentally. The method of research was descriptive-analytical and statistical population included all 48 personnel of the company in different job levels (Top, Middle, and Executive) who were conferred in a referendum. Research tool as a questionnaire of 27 questions with Cronbach's Alpha coefficient 0.95 prepared to plan crisis management. This research was conducted by performing a chi-square test to assess questions and "One-variable (t)" test to evaluate hypothesis of research, regard to the complexities of social and human relationships, technologies used in the industry, national and international regulations, climate and region conditions and other effective factors, occurring crisis is seemed as usual and inseparable in the life period of that organization. Thus, the production affairs, human resources and the credit of the organization has been affected and even misguided in their principle goals due to these crises. Therefore, it was revealed the analysis of the findings of this research was weak in comparison with that of theoretical findings.

Résumé

Le but de ce texte est d'évaluer le processus de planification de gestion de crise repose sur un modèle en quatre étapes au sud Power Company West Management génération en IRAN. Dans cette recherche, le plan d'entreprise a été évaluée pour répondre à la crise contingente repose sur la gestion de crise du processus de planification contenant: trouver risques et des enjeux vulnérables, préparation des plans et des scénarios pour répondre aux crises organisation et la formation d'équipe de gestion, et l'exécution des plans expérimentalement. La méthode de recherche a été descriptive-analytique et de la population statistique comprenait tous les 48 du personnel de l'entreprise dans les niveaux d'emploi différentes (haut, milieu et exécutif) qui ont été conférés à un référendum. Outil de recherche comme un questionnaire de 27 questions avec 0,95 Cronbach Alpha coefficient de prêts à un plan de gestion de crise. Cette recherche a été menée en effectuant un test du chi-carré pour évaluer les questions et "à une variable (t)" essai pour évaluer l'hypothèse de recherche, qui concerne la complexité des relations sociales et humaines, les technologies utilisées dans l'industrie, réglementations nationales et internationales , le climat et les conditions de la région et d'autres facteurs efficaces, la crise se produise est paru comme d'habitude et inséparables dans la période de la vie de cette organisation. Ainsi, les affaires de production, ressources humaines et le crédit de l'organisation a été touchée et même erronée dans leurs objectifs de principe à cause de ces crises. Par conséquent, il a été révélé l'analyse des résultats de cette recherche a été faible en comparaison avec celle des résultats théoriques.

scénarios exécutif; Response rapide; Planification de la gestion des crises

INTRODUCTION

One of the most significant functions of organizations, at present to support and protect national benefits and production is to find correct methods and effective plans to control risks which always divulge and appear as a threat in different shapes. Power Generation industries are expected to provide all required power for different parts such as industry, agriculture, home, administration, general and so on. In the other word, any production unit plays an important role to prepare country and zone power, so it determines the significance of knowing and recognizing crises for correct management. The extreme need of power, in different parts and departments, brings to mind rapidly to prevent cases which lead to shut down or stop its production. Some cases and issues like events caused by production process, environmental problems, social lows and regulations, lack of necessary equipments, available faults in protective units, can lead to appear these crises in power industry.

As mentioned above, it is safe to say that, weak and unwanted operation resulting from existence of fault in plans designed to meet available crises can lead to occur great losses and unfavorable results. So it reveals importance of crisis management planning. Crisis: is referred to all unplanned events, accidents, incidents, or series of events which lead to certain unfavorable results. (Sikich, 2006).

We all are always affected by crises. So whether work in organizations or not, we must know why crisis has inseparable property of our life, what we can to decrease its effects and also realize how to make them (organization) safer and safer to minimize the effects of crises (Mitroff, Anagnos, 2002).

All crises are of same aspects as follow:

1- Appearance of insecurity, risks and people security menace.

2- Wasting resources and appearing punitive losses or menacing social economy.

3- Lack of readiness to meet or control problems.

4- Finding & preparing a chance for anarchist groups to threaten people. (Pour ezzat, 2003, 2004)

Crisis Management: crisis management has been come to existence as a research field since 1980 and it has been received attention by finding Cyanide in Johnson & Johnson company's sedative pill, explosion of Bhopal factory belonging to carbide union of USA. (Ahari, babaei, 2003, 2004).

In addition, there are two functions important to manage crisis, first is to know issues risky and leading to crisis and the another is to interfere when crisis causes to loss. The advantage of knowing crises in time is to remove them at the starting point, and second function can save time in short time, but regard to the difficulty of knowing the importance of issues, it can involve great expenses for organizations and society. Planning is one of the elements of management, so it can be utilized to meet, know and remove critical issues by manager before any loss happens (Rezaeian2003, 2004). Unlike natural phenomena and events, crises which happen because of human activities are avoidable and mustn't take place, so people will criticize responsible organizations if these crises take place (Mittrof,Anagnos 2002). Other researchers like Varque (1993), Elexander (1984), Breg (1990) have presented same hypotheses about definition of management crisis which identify exigent operation as the concept of crisis management.

The importance of crisis management planning: crises affected on trading organizations are often different and take place immediately organizations have accepted that readiness is necessary to meet and remove these kind of crises, regardless of their causes (resulting from an accidents, or natural disaster. etc. (AMA, 2005).

Crisis management follows this rule too and must be planned. Getting ready to meet crises is obtained for crisis management through planning. All organizations must plan to meet and remove one or more kinds of crises, because any kind of crises can happen for organizations. Therefore different kind of crises must be considered completely (Mittrof, Anagnos, 2002). Being ready to meet crises, cause to important results. First, main trading goals of organizations can't be forgotten, so support and agreement of managing commit will be approved. Second, regard to presence of interferences between crisis management plans and other important plans like: income management, environment management, redesigning management and the like, it can help to integrate key and important plans of organizations (Mittrof,Angnas, 2002). These days, due to the losses and damage that crises cause to the importance of crises control through planning has been revealed. Necessity of manager's skill: most of organization established these days, can't prevent to happen and appear crisis and if it (crisis) happens, organizations can't control or remove it. And above all, top managers don't realize and know skills and methods of modern management which are necessary to remove crises. These modern skills are not difficult and can be taught to people easily, however, these skills are necessary for modern global economy success, crisis management is more important than crisis control, because it gives critical and unique perspective to people regard to necessary skills for modern management and new organizations in

21st century (Mittrof, Anagnos, 2002).

Ian Mittrof, the organizer of crisis management school, refers the lock of these skills to educational systems and he states, in selected part of "crisis leadership" book: "in general, our problem is referred to this fact, that our educational system like other established organizations, follows its goals separately. Our organizations, in fact, are affected directly by what and how we teach, as an example, although all human and technical aspects of problems are related to each other, we treat them as independent and controllable issues in separable systems, and besides we insist that scientific, practicable and human teachings are of separable systems in universities. In this point of view, our educational system causes to a great part of our problems (Mittrof, 2003). So, it can be resulted in some problems of organizations to meet risks, which appear in different conditions, which are due to the lack of required teachings which have not been realized correctly. In addition, searching, competition and the complexities of organization relationships, cause to improve knowledge range from technical field to social and human field. It can be stated about scientific and skill requirement that: Crisis management issue is an extreme study field which need to be taught abilities like strategic planning, decision making and problem solving, general relationship management, information management, politic management, social-psychological process management, and especially media management, because tumultuous media can make a crisis of a usual incident.

Recognition of crisis process & relative concepts as well as other skills like, recognition of damageable issues, recognition of different between crisis and required skills, and recognition of required information and resources, are taught in crisis management to find crisis condition (Qoli pour, 2003, 2004).

Snares of management and organization: one of the main reasons that misguide organizations to meet critical events can be resulted from manager's neglect of planning, containing "5" factors as follows:

1st. Lack of crisis happening acceptance – managers may think no crisis will happen in their organization.

2nd. Disinclination for getting ready as urgency – competitive urgencies of organizations cause to stop their attempts for principle readiness.

3rd. Neglect of the inherent risks of trading – the range of risks can't be determined unless through prefect analysis of risk in current operation.

4th. Conniving at warning signs: managers often fail to analyze former critical issues or use other organization experiences in their industries.

5th. Weak support and untested plans – if crisis plan is not tested or performed experimentally, it won't protect organization against real crisis. (SHRM 2007).

The most common weaknesses of crisis management planning:

"Geary Sikich" presents a brief about most common weakness of crisis management planning (table 2) which is useful to analyze current crisis management plans (Sikich, 1996).

Table 1
The Most Common Weaknesses of Crisis Management Planning

Weaknesses	Assessment
The lack of the systematic collecting of information	• Containing issues like analysis regular guidance unique data, organic information, and directions of company's policy
The lack of the systematic publication of information	• Arranging information and lack of sharing it to impressible – persons who are responsible for plan application
Fault in realizing & making an official structure for events	• It is a common snare that all most of planners don't design and plan their organizations requirement, but design it in a standard frame
Lack or minimum harmony with institutes	• Negligible relationship with associations, available industries and protective – institutes like: fire stations polices hospital and… can lead to anarchy.
Lack or weakness in definition of organization responsibilities	• Minute directions in definition in definition of personal responsibility and egoistic operation in emergency condition can lead people to say: I'm not responsible for it. I think it was your business.
Plan can't be recharged or it recharges hardly	• Your plan has been regulated to regard to usual requirements. You never test it voluntarily. You have not been planned to meet any events. There's no harmony and agreement to continue assessment or renew devices. Required alternating changes like phone numbers has been forgotten in paragraphs.
User can't use equipment and devices because they have been developed	• Your plan is of information but user can use it easily. You have taught no one to apply them.
Plan is not perform and employed by competent personal	• Fault in involved appropriate persons to distribute a list of exigent weakness in sectors which manage by them in the method you like.

(Sikich,1996)

METHODOLOGY OF RESEARCH

Regard to issue of research, it can be classified as a descriptive method and regard to its goal can be classified as an applied research. Research tool is a questionnaire of 27 questions which questions & answers has been designed using "Likert" 5 choices questions. Determination of the admissibility of questionnaire has been obtained by expert's suggestion & ideas. Used method to determine of questionnaire was cronbach's Alpha using SPSS software & coefficient of 95. So it shows that questionnaire is of enough credit. Main hypothesis & question for this research are:

Main questions: How is the planning of south west power generation management to manage probable crisis?

Main hypothesis: Crisis management plan of south west power generation management has a dynamic crisis management planning process.

Chi-Square was used to answer the main question and one-variable "t" test was used to accept or reject the main hypothesis.

Conceptual Research Model

Crisis management planning is standard by recognizing issue as continual process in researching model (Figure No1). Crisis team must recognize all conceivable issues and arrange them as a list. The starting point of this process is to record most probable events. Critical issues are classified in two parts containing natural and artificial. Artificial issues include cases like harshness accidents, failures, defective and damaged equipments. Weakness in planning and timing, fire accident and diseases like food poisoning, but natural issues contain cases like climate conditions, earthquake and epidemic diseases.
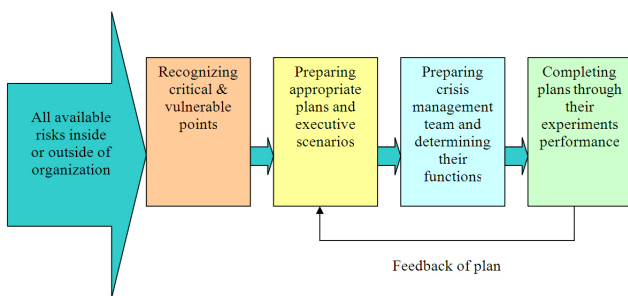

Figure 1
Research Model for the Crisis Management Plan Process

Same cases of crisis management refer to airplane accidents, theft, invasion, bankruptcy, terrorism, war and so on. Even if these crises don't happen to your company, your readiness will be affected by crisis happened for others.

Crisis management team must always take in to consideration potential issues and import plan – that can be read issue – to continue crisis management plan (NTA,2003).

These plans are prepared in the frame of appropriate plans. Appropriate plans contain scenarios which can involve all programs to meet crisis. Good scenario of crisis management, best-worst scenario- is the plan in which one can determine how organization will be affected by crisis, it mean that good scenario of crisis can predict the crisis that organization neither think about it nor ready to meet it. Beside not only this crisis will happen, but it happen at the worst conditions like at the weekend, further more, it involves to shut down a system designed excellent and operated properly. Good scenario contains all responses which happen at unit. So, good scenario is a plan to meet events which are not taken into consideration but they can happen and will at the worst (Mittrof, Anagnos, 2002). Tenberge (1994) shows parts and groups – in Figure "2"– which can prepare scenario of company.
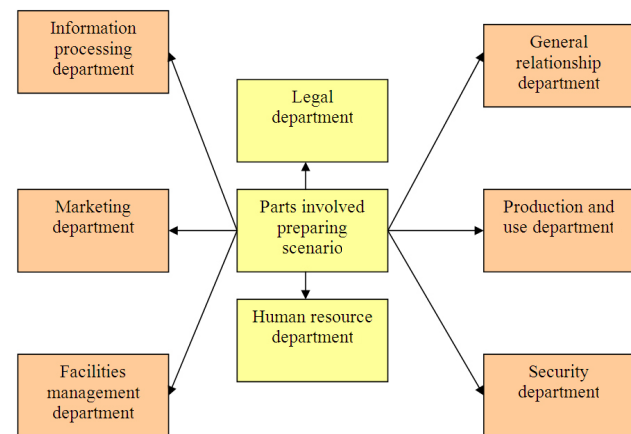

Figure 2
Departments Involved Preparing Scenario

These groups analyze data and select appropriate method for operation. These groups can do the best when they're able to make decision, thus, best people for these groups are "Top managers". However other important resources mustn't be forgotten. When an organization prepares its crisis studying group using competent personnel, they must be ready to do their function. Crisis studying group must control technical requirements of crisis. (Tenberge, 1994). There are a lot of steps to perform a crisis management plan. Crisis management provides a program and examines it and also makes it up-to-date. If crisis happens, this team will be ready to control it. A good crisis team must contain great management, competent personnel of general relationship department, legal assistant and insurance responsible, however it can be variable in different companies and different crises, but make sure to choose best people. Small companies which are hard up for personnel to provide a crisis team can always use this process in crisis condition to get ready. Owners can be members of this team. A list of advisors and professional people such as attorneys and representative of insurance may be members

of the group. These people not only can help company to plan good scenarios, but may be called in crisis condition. This team is able to know and recognize all people and conditions affected by crisis. Crisis management team is reinforced through recognizing scenario with bad effects on company and improving a model to solve the problems (NTA, 2003).

Crisis controlling team can be trained as a sport team; it can be practiced to increase "The experience of team work", "quick responds" and "effectiveness". In this step "initiating", "practical exercise" and "simulation" are useful.

Top manager must support these exercises to increases and excite people motive, therefore an effective system must be selected to encourage personnel. Well encouragement can lead personnel to meet and remove crisis (Rezvani, Tadbir, 170).

Martin.R.sugru former manager of PAN.AM airline state: We have an official directions book written by ourselves and we test and check it regularly. All sector of company such as flight operation, repair & maintenance, engineering, legal personnel, general relationship or passengers services, are of certain design and goal. We trained one of exercises 2 months ago. We chose a kind of disaster and apply crisis control system. Then through these trains, we collected team and perform direction of book. We continue our exercises continuously. These exercise even help organization to prevent emergency conditions and crisis happening. These exercises cause to develop the readiness of personnel, thus great opportunities will form for companies, local authorities & medias to trust in each other.

The Findings of the Research:

In the first step, the result of "X^2" test show (table 2) the planning of company in all steps were weak, and the test of research hypothesis (table 3) rejects it (there is no dynamic crisis management planning process in company).

Table 2
Distribution of Assessing Planning for Probable Crisis Management and Results of "X^2" Test

Questions	Statistics	Choices					Mean	X^2	Significance level
		Excellent	Well	Not bad	Weak	Very weak			
1-Are operations performed to recognize critical point?	abundance	9	111	142	43	24	3.13	202.77	0.0001
	percent	2.7	33.7	43.2	13.1	7.3			
2-Has crisis management team been establish?	abundance	7	60	118	76	19	2.86	143.39	1.0001
	percent	2.5	21.4	42.1	27.1	6.8			
3-Is crisis management team able to collate & meet probable crises?	abundance	0	8.0	12	16	11	2.36	2.78	0.426
	percent	0	17.0	25.5	34.0	23.4			
4-Is south west power generation management company of appropriate plan to meet crises?	abundance	7	100	215	118	29	2.89	288.34	0.0001
	percent	1.5	21.3	45.8	25.2	6.2			
5-Does south west power generation management company perform experimental plans(pilot study) to collate crisis?	abundance	0	12	59	45	24	2.42	37.88	0.0001
	percent	0	8.8	42.1	32.1	17.1			
Total	abundance	23	291	546	298	107	2.74	646.38	0.0001
	percent	1.8	23.0	43.2	23.5	8.5			

Table 3
Result of "t" Test for Main Hypothesis of Research

Variable	Mean	SD	Degree of freedom	T quantity	significance level
All questions of main hypothesis	2.74	0.655	47	-2.73	0.009

Table 4
Indices of Assessment on Crisis Management Planning

Steps of management planning	Indexes of assessment
Recognizing critical points	Recognizing risks
	Recording risks
Preparing appropriate plan	Analyzing & preferring risks
	Preparing plan & various scenarios
	Preparing plan resources
	Preparing documents of previous crisis issues
	Communications
Establishing crisis management team and teaching training human resources	Establishing crisis management team
	Explaining functions & roles
	Ceding authorities to top managers
	Up to dating crisis plans
	Communicating to medias
	Teaching personnel
Completing plans through experimental performance	Distributing information
	Similarizing and practicing crisis
	Assessing experimental performance of scenarios

In second step, some indexes based on questions of questionnaire were designed to assess the plan, regard to table 4, which present results and analysis for any step of crisis management planning.

Assessment of statistical result obtained from first step process recognizing critical point shows that company has an appropriate operation, but it is weak to prepare a system, because observation, measurement, recording archives and correcting information about events are first steps to meet crisis in company operated correctly (Faghihi, Abolhasan, 2003, 2004).

Table 5
Statically Indices used to Recognize Critical Point

Recognizing critical point	Assessment indexes	Mean	SD
	Recognizing risks	3.17	0.947
	Recording risks	2.98	0.829

"Tenberge", in second step of planning process, states: emergent operation plan present a list of critical points to determine effect of an event. A data sheet is an analysis performed on affairs to help you and your company for recognizing warning signs of critical and dangerous conditions at starting point. This system will be useful to guide your company in critical condition, if you use it in your company current operations. This system reminds you what you know to determine an unique problem. Affair analysis datasheet contains two parts: 1- questions analyzing affairs, 2- strategic questions.

Table 6
Statically Indices Preparing Appropriate Plan

Preparing appropriate plan	Assessment indexes	Mean	SD
	Analyzing & preferring risks	2.96	0.91
	Determining plans & various scenarios	2.8	0.87
	Preparing plan resources	2.70	0.844
	Documenting previous critical issues	3.01	0.889
	Communication with stock holders	2.85	0.825

Statistical amount obtained from table 6 which use to prepare appropriate plan of company show the attempt of company, in fields of analyzing & preparing risks, designing appropriate scenarios, documenting previous crises, is so weak. In theoretical view point, in fact, effective response is resulted from complete scenarios and appropriate plan to meet crisis, so it presents the importance & necessity of appropriate plan.

Table 7
Statically Indices Related to Crisis Management Team

Preparing crisis management team and training human forces	Assessment indexes	Mean	SD
	Preparing crisis management team	3.13	0.934
	Explaining functions & roles	2.73	0.849
	Ceding authorities to top managers	2.98	0.897
	Up to dating crisis plan	2.70	0.891
	Communicating to medias	2.87	1.035
	Training personnel's	2.36	1.031

One of crisis management functions in organizations is to establish teams against crisis. These teams must be official, continuous, and with certain personnel and planned meeting. The roles and functions of personnel are clear. These teams must present new guide directions, new studies, new method and even continue

protective cases & issues performed in other companies (Yaghinloo,Tadbir,145).

Investigating exhibition 7 statistically which is related to another step of crisis management planning and observing it (Table 7) reveal although company has selected some personnel to control crisis, the complementary efforts has not done. These efforts contain: clearing roles and responsibilities of personnel, ceding authorities to them, up to dating collected plans, educating personnel.

Table 8
Statically Amounts of Plan Completing Indices Through Experimental Performance

Completing plans through experimental performance	Assessment indexes	Mean	SD
	Publishing information	2.39	0.774
	Simulating & exercising crisis	2.40	0.901
	Assessing experimental performance of scenarios	2.47	0.952

The last step of analyzing crisis management plan is to be assured that plans designed to meet crisis are useful and effective.

Periodic exercises can determine ability of personnel to control and meet crisis. Statistical amounts of table 8 reveal that company is weak in this part too, and it causes to decrease the effectiveness of plans.

"Ten berg" stats: In other part of crises management planning, experimental exercises is an issue which can reveal whether plans are useful, and besides companies can use their results to correct & up-to-date plans. Crisis plans will be effective and useful if any personnel (involved to plan) be aware of it or have it in his/her drawer and also know his/her role in scenario. Any personnel must know what he/she must do in emergent conditions, in particular, in factories, large hotels, department stores and etc. (Ten berg, 1992).
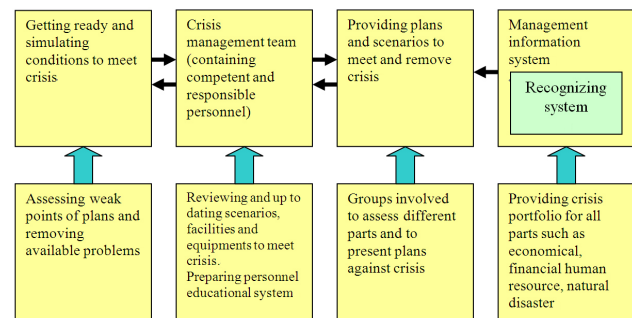
CONCLUSION AND SUGGESTIONS

Assessing crisis management planning, through questionnaire, observing statistical results and interviewing to personnel, reveal this company designer plans through collecting information to meet and control exigent risks, and performs its operations through parts involved to planning and related to other parts.

An analysis of this research compare to hypothetical principle and proactive planning revealed there were some weakness in all parts of planning to manage & control probable crises and also this plan was not able to remove crises or decrease their bad effects.

Results obtained from analyzing crisis management planning in South West Power Generation management company (Abadan GasPower Plant) are represented as a crisis management planning pattern in Figure 3.

Figure 3
Proposed Model of Crisis Management Planning Process

Other program can be considered to plan and recognize current operations of company or other organizations as proactive plans which are as follow:

1- Utilizing risk analyzing methods to prepare plans and scenarios against probable crisis.

2- Determining roles and responsibilities of crisis management team's members and ceding authorities in emergent conditions.

3- Educating personnel to present effective and useful operation in emergent conditions.

4- Publishing information of former crises to analyze them.

5- Simulating scenarios and performing practices to determining weak points and remove decreases.

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