

A FRAMEWORK OF OPERATIONAL CONTINUITY MANAGEMENT GOVERNANCE

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Keyword

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Abstract

Operational continuity is not a simple issue that can be solved by a Back-Up center or an alternate site. Strategic issues (including law, standards, etc) demand a new approach in terms of the operational continuity management (OCM). Also, it is necessary to develop a new framework of OCM governance as a part of the corporate governance. Experts from corporate governance insist that OCM can to be included in the corporate operational control and so it is important to set up a strategy for OCM in the organization.

This paper describes how OCM governance suggests two aspects of effectively controlling corporate risks in the viewpoint of corporate governance. First of all, the top corporate management develops the strategy of operational continuity with regard to the corporate governance. Secondly, there is the aspect of how to build up and manage the strategy of operational continuity in the corporations.

Introduction

Today, corporate crisis with the change of the market environment is a major factor that threatens corporate management. Due to this new crisis, corporations change as time passes, building up a system of prevention and response that all industries can use. Therefore, crisis management will be an essential part in management strategy with marketing and sales in the corporation.

Traditionally, the corporation has restrictively managed risks like financial risk. This financial risk has grabbed the attention of the top management who recognizes it as a special issue that the Chief Financial Officer manages.

However, the top management has recognized that corporation survival is deeply involved with operational continuity. Therefore the corporation has considered various risks that interrupt its operational continuity in the viewpoint of corporate existence. This means that corporate risks are diverse and broad, and that the executive's or the department's limited response to those risks reaches a margin.

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Operational continuity of the corporation could be a strategic problem or even a legal problem, but not a financial or an IT-based technological problem[1]. This does not carry the CFO's interest or support, and this means that it has to manage a corporate governance that emphasizes on efforts. Also, it has to manage responsibility and communication about corporate risk management on the basis of the management's interest and support. Thus, the OCM(Operational Continuity Management) is able to define the process of how the corporation manages operational continuity.

This paper proposes a concept and issues about OCM governance where the corporate management can solve diverse risks that threaten corporate existence. In order to identify the concept, the governance of a corporation, the IT, and the Information security, they will be investigated through a literature review. Also, the relationship between the corporate governance and OCM governance will be defined. Additionally this paper will present the definition, the purpose, and the framework of the OCM governance, and a road map to implement the OCM governance. Factors that determine success such as leadership, a flexible process, and the principles of OCM governance will also be discussed.

Research Background

Governance Concept

The lexical explanation of the governance concept is as of the following:

<Table 1> Lexical Meaning of Governance

Item	Definition
Governance	Any action that governs, processes or empowers
Govern	To control or direct an official(nation, city, organization etc), Works to impact(nation, city, organization etc)actions and activities

The term 'governance' is often used in political science, and means a state reign and a managerial way that all stake holders like the citizens and the mass media can influence the government's decision making. The term involves the possibility to control and operate the structure and all of its activities including the stake holders' participation, decision making, process implementation, execution, and direction.

Corporate Governance

Corporate governance is often called a corporate reign or a corporate operation, and generally its definition is as of the following:

The way to make corporate decisions after adjusting to all of the stake holders' interests, and the execution of decisions and its directions.

The corporate management's responsibility to conduct a feedback process such as proposing a strategic planning, to achieve an objective, to properly manage risks, to use corporate resources, and to carry out their activities.

The background of a corporate governance varies as the corporate environment changes. It is possible to make an important decision for corporate business activities upon the agreement of its stake holders in the current corporate environment. Also, a corporate governance concept is created by demanding a method to control a corporation according to its increase in complexity of the social environment. For example, the illegal accounting of the El-Ron company was due to the lack of corporate governance. Afterwards, Basel II announced to prepare a global framework to emphasize an accounting integrity and to improve the control system.

To control corporate business activities effectively, the establishment and the application of the internal control system, the reinforcement of management responsibility, and the process for risk management are necessary to systematize a corporate governance.

IT Governance

The concept of IT governance has presented itself from lots of entities. It can be arranged with regard to two aspects through a literature review.

First of all, the IT governance on a narrow sense is to derive the permanent agreements related to the IT responsibility between the Information System department and the user department. Also, it is a problem to whom and when it would be impacted to the IT investment.

Secondly, the IT governance on a broad sense, is a problem that is related to the organizational structure and the business process. It is possible to connect with a corporate strategy and an IT strategy, or it develops, directs, and controls the IT resources in the order in which the corporation can achieve competitive superiority. Also, it could be a way to consider IT on the process where people who are responsible to organizational control supervises, monitors, controls and directs the business activities.

Finally, the common concept of the IT governance through two aspects is to manage, develop, operate, and use the IT on the enterprise and strategic dimension to maximize its managerial value.

Information Security Governance

The general definition of Information Security governance is as of the following. The purpose is to secure secrecy, integrity, and availability about the information that the corporation possesses. The security has to be compatible with the mission, the vision, and the strategy of a corporation, and it is not a simple technological approach for an optimized Information Security Management.

Table 2 shows critical factors that the Information Security governance has to include[3].

<Table 2> Critical Factors of Information Security Governance

item	contents	
internal management of organization	policy and management of information security that is suitable to the mission, the vision, and the strategy direction and control between the top management and the officers	
internal and outward require-ments of informat-ion security	outward require-ments	requirements in terms of legal, regulatory and statutory viewpoint requirements in terms of the observance of standard(ISO 27001) or the Best Practices
	internal require-ments	requirements in terms of the IT infra security requirements in terms of integrity, secrecy, availability of information

The technological framework such as the security architecture on the IT architecture or the ISO 27001 has to be implemented in order to reflect those critical factors of information security governance on organizational activities. The framework could be a tool for implementation because it includes a basic idea of information security governance[4].

BCP/BCM Concept

BCP/BCM is a method to maintain continuity of business operations and a process to recover business operations if business operations break down due to an incident in the corporation. Thus, BCP/BCM includes risk assessment, continuity plan, emergency response, recovery, crisis communication, and education/exercise etc.

The common objective between each governance and BCP/BCM is to ensure business continuity on the process to implement a managerial framework of their subjects. However, some differences exist on its strategy and detailed managerial areas. Table 3 shows a comparison between corporate governance, IT governance, information security governance, and BCP/BCM.

<Table 3> Comparison of BCP BCM and Governance

items	corporate governance	IT governance	IS governance	BCP BCM
introduction/ background (why)	-excellent control structure of the organization -need corporate clarity due to globalization -adjusting the interests of the investor	-control of IT investment and risk -enforce strategic use of IT -complex IT environment management -enforce performance management of IT investment	-connect information security with the mission, the vision, and the strategy -efficient control of the internal/outward risks	-secure BC from internal/outward hazards
stakeholders (Who)	-director committee (CEO,COO,CFO, CIO,CTO,CMO) -planning & finance team -stockholders	-director committee (CEO,CIE,CFO) -IT committee -IT department -user department	-director committee (CEO,CIE,CFO) -CERT -user department	-director committee(CEO, CIO etc) -crisis management team -ER team, BR team etc -user department

management (what)	-adjusting the stakeholders' opinions and preparing an institution -enforce the controller's responsibility - human/IT/resource management -decision making process	-adjusting interests between management and IT department and prepare an institution -connect strategic objectives with IT activities -deliver values through IT -IT incident management/performance measurement -process of decision making on IT department	-management of internal Information Security system -response about requirements of the internal/outward information security	-minimize damage due to hazards -maintain a business operational environment
crisis management (whatII)	-BC crisis in terms of business due to the change of the law/institution, and the government policy	-BC crisis due to risk occurred by IT investment, plan, and operation	-BC crisis due to violation of integrity, secrecy, and availability of information	-business continuity crisis due to disasters
framework (how II)	- BASEL II - SOX ()	- EA - ITIL - CoBIT	- ISO 27001	-ISO/PAS 22399 -ANSI/NFPA 1600

OCM Governance

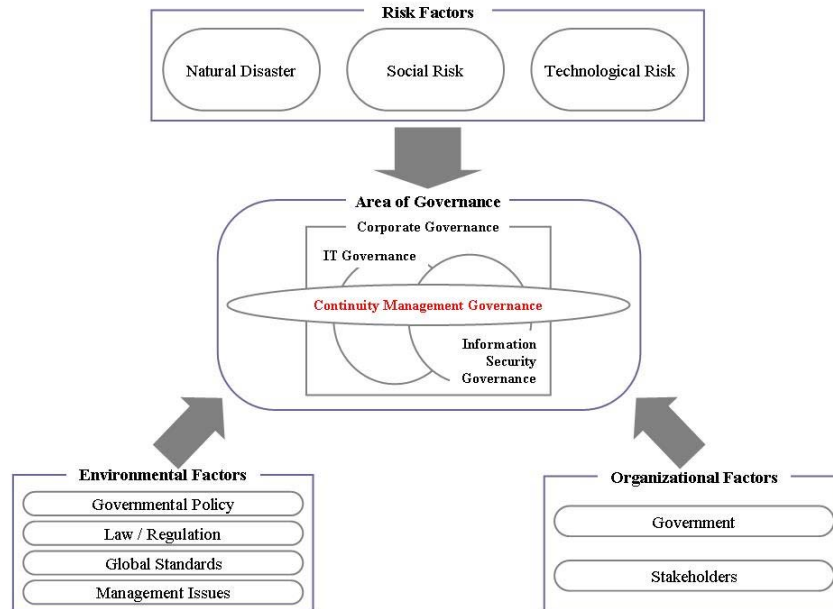
Relationship among each governance

The analysis of the relationship between each governance and OCM governance on the basis of a literature review of the three types of governance (corporate, IT, information security) is as of the following.

First of all, each governance connects the mission, the vision, and the strategy of a corporation with the internal and the exterior legal system, government policy, and internal policy. The main concept of the governance is to build up a system towards performance in considering organizational strategy and environmental factors. These come together with the framework and the activities of the business in the corporate business domains.

Secondly, each governance demands an integrated approach including crisis management. It is exposed to diverse hazards that impede operational continuity of the corporation. Therefore it means that the framework of crisis management on the corporate level is necessary.

In this paper, the crisis management framework is named the Operational Continuity Management Governance and its components are presented as part of a corporate governance. An individual governance approach to hazards is limited to responding effectively and also produces a problem that exceeds a control scope of each governance[Fig. 1]. For instance, the IT governance crisis management would deal with a natural disaster by utilizing human/physical resources. Also, they would cooperate with different organizations on business activities as well as use a recovery system with the backup on the IT governance.



<Figure 1> Positioning of OCM Governance

Thirdly, the overlapped items were found in the framework of each governance[Fig. 1]. It has to be studied enough so that each governance will be used individually in considering a corporate environment including its internal resources and its culture.

OCM Governance Status

The status of the OCM governance could be described in the governance areas on the basis of the relationship mentioned above among each governance. In order to understand its status exactly, risk factors, environmental factors, and organizational factors are studied.

Risk factors commonly has impact on three types of governance and OCM governance. However, the response plan such as risk removal, risk avoidance, risk mitigation, and risk transfer has to be built up by the OCM governance.

It maintains a continuing plan including the support of government and stake holders in considering organizational factors through OCM governance. It does this in order to respond to all hazards that could possibly occur in the corporation.

Environmental factors present a standard for developing an emergency plan through the framework of the OCM governance. It means that the plan strategically connects with the government policy, the law/institution, the international standard, and the management issues of the corporation.

OCM Governance Concept

OCM Governance Definition, Purpose, and Benefit

The OCM governance is a whole concept that includes a management process, a planning process, a performance reporting process, an evaluation process, and a decision-making process on crisis management[5]. It accurately defines and officially announces an authority of direction, responsibility, and decision-making[6][7].

The purpose of the OCM governance is as of the following.

- Connect business objectives with crisis management to get feasibility of its investment.
- Give priority to resource mobilization and measure the cost/benefit ratio on the investment for crisis management.
- Take responsibility to manage properties and resources for crisis management.
- Build up a crisis management system within a fixed time and budget, and agree on its functions.
- Precisely define where the person will take responsibility and authority of the decision-making.
- Manage various hazards that threaten the corporation's existence according to the priority level.
- Improve the performance and the functionality of crisis management, and educate human resources for it.
- Improve responsiveness for any corporate crisis.

Effective OCM governance is an essential process that secures the corporate's existence from many problems and provides the following benefits.

- Carries out effective crisis management because of accurately defined direction, responsibility and roles.
- Develops a crisis management plan that requires the enterprise's participation and communication, and improves the plan's performance.
- Analyzes the cost/benefit on the investment of the crisis management, and sets up the priority level while supporting resource mobilization, authorization, and management.
- Announces coordination and cooperation among the outward organizations.
- Optimizes properties and human resources.
- Improves the maturity level of the crisis management.
- Enforces the law observance and audits through documentation of the crisis management.

Essential Factors of Effective OCM

Effective OCM governance is based on three factors. The factors includes (1) leadership, organizational structure, and decision-making authority, (2) flexible and extended process, and (3) supporting technology[6][7][8][9].

The first factor will be precisely identified for rapid situation management when the crisis occurs.

- Define the organizational structure, responsibilities, roles, the decision-making authority, and the common vision and interfaces.
- Define the responsibility and roles related to the process for investment authorization, problem-solving, regular feedback, direction, and evaluation.
- Accurately define where responsibilities are placed towards internal and outward activities, and towards completing agreement contracts among the organizations.
- Top management support and interest for crisis management are needed.

The second factor is important for prompt emergency response when there is a crisis and when situations change.

The process is defined, documented, evaluated, and reformed continuously.

The interface process between the departments is defined, and the work flow among the organization, the local area, the stake holders, and the technology is described for an effective link.

The process is flexible, can be extended, and used consistently at the standard.

The third factor is advanced technology and software to support the major items of the OCM governance.

Prepare the advanced technology for warning, evacuation, crisis communication, and public information etc.

Develop a software tool for risk-based decision making, forecasting, commanding, controlling, and managing.

The OCM Governance Framework and Road map

The framework and the road map of the OCM governance includes the following items for improving the maturity level of crisis management:

- a. strategic/tactical planning for crisis management
- b. demand management including the portfolio, choices of investment, and the priority level
- c. execution management including the program, the process, the resources, and the situation etc
- d. performance management, evaluation, control, outward coordination, development of human resources, and continuous process improvement

These items are compatible with the corporate business objectives. Figure 2 shows the work areas of the OCM governance and its related contents.

Work Area	Description/Component	Output
Understanding of Organization	<ul style="list-style-type: none"> •Scope of CMG Program •Environmental Factors (Technology, Customer, Market) •Business Process •Resource (Man, Material, Finance, Information) •Consequence of Business Vulnerability and risk 	<ul style="list-style-type: none"> •Business Vulnerability Analysis
Policy	<ul style="list-style-type: none"> •Business Leadership and Commitment •Policy Development and Review •Enterprise Rule and Guideline •Structure of organization 	<ul style="list-style-type: none"> •Policy Report
Planning	<ul style="list-style-type: none"> •Requirement of CMG •Risk Assessment and Impact analysis •CMG Program •Mitigation Program •Emergency Response Program 	<ul style="list-style-type: none"> •Risk Assessment Report •Impact Analysis •CMG Strategy •Emergency Response
Implementation and Operation	<ul style="list-style-type: none"> •Resource, Role, Responsibility and privilege •CMG Program on Organizational Culture •Training, Education and Awareness •Warning and Publication •Operational Control •Finance/Administration 	<ul style="list-style-type: none"> •EOP/SOP •Learning Plan •Finance/Administration •Crisis Communication
Performance Assessment	<ul style="list-style-type: none"> •System Assessment •Performance Monitoring •Test and Simulation •Revision and Prevention •Maintenance •Internal Control and Self Assessment 	<ul style="list-style-type: none"> •Assessment Report •Training Plan •Maintenance Manual
Enhancement and Management Review	<ul style="list-style-type: none"> •Periodic Review of Top Management •Maintenance of Review Record 	<ul style="list-style-type: none"> •Lesson/Learning

<Figure 2> OCM Governance Framework and Roadmap

Understanding organization

In order to introduce the OCM governance to the corporation, business activities are first identified and the business impact of a corporate crisis is measured. The scope of the OCM governance is determined by identifying business activities and its program course is decided by the business impact analysis which is shown in Table 4.

<Table4> Detailed Contents for Understanding Organization

Activity	Task	Method	Input	Output
scope of the OCM governance program	<ul style="list-style-type: none"> • define the scope of the OCM governance - identify the corporate business <ul style="list-style-type: none"> * service, product etc - identify the corporate resources <ul style="list-style-type: none"> * human/physical resource information, finance, and process - identify the corporate environment (customer, market etc) 	<ul style="list-style-type: none"> • analysis of present status • identify scope & items by presenting status analysis • top management decision about the scope 	<ul style="list-style-type: none"> -organizational structure - job description -business description - product list - service -financial documents -business process etc 	documents about scope of the OCM governance program
impact analysis of OCM governance	define asset of the OCM governance	• interview & questionnaire about asset identification of the OCM governance	questionnaire about the asset of the OCM governance	asset list of the OCM governance
	evaluate asset priority of the OCM governance	• impact to business by each item of the OCM governance	result of impact analysis of the OCM governance	evaluation documents of asset importance of the OCM governance
	identify & evaluate hazards/vulnerability related to the individual asset	• identify hazards related to the specific asset	list & measurement of hazard/vulnerability of the OCM governance	evaluation documents of hazards & vulnerabilities of the OCM governance

	impact analysis of the individual asset	<ul style="list-style-type: none"> • build up formula related to the impact analysis (ex :$\text{impact} = \text{OCM G asset value} + \text{OCM G risk}$) 	formula about the impact analysis	Impact analysis of the OCM governance
	list of the focused object	<ul style="list-style-type: none"> • decide the class by impact analysis and response about hazards on the basis of the class 	report of the impact analysis of the OCM governance	Important list of the OCM governance
	prepare a response program related to the focused object	<ul style="list-style-type: none"> • prepare a response program related to the individual asset to minimize impact due to the hazards 	report the impact analysis of the OCM governance	Response program of the OCM governance

The process to determine the program course's scope of the OCM governance is to connect the corporate business objectives with the crisis management system. The assessment of the OCM governance is to choose hazards that directly threatens the corporation, and it is a process that decides on an integrated response program that deals with those hazards.

Policy Development

The policy for the OCM governance is developed, and the related department and officers understand this policy. Also, there is education and public information is released. Table 5 shows the policy, the education, and the public information for the OCM governance.

<Table 5> Detailed Contents for Policy Development

Activity	Task	Method	Input	Output
development of OCM	develop the policy document	<ul style="list-style-type: none"> • develop high level policy & organize structure to execute 	<ul style="list-style-type: none"> -result of impact analysis -result of response program 	Policy documents
	develop guidelines of the individual field	<ul style="list-style-type: none"> • develop guidelines to execute the policy 	- policy document	guidelines of individual field

	develop a process to execute policy and guidelines	<ul style="list-style-type: none"> develop a process to execute guidelines *standard : describe who, when, how, what in detail and R&R on the process 	- policy document of individual field	procedures of the OCM governance
	approve & announce the policy of the OCM governance	<ul style="list-style-type: none"> approval of top management announce to officers & employee 	- policy guidelines procedures	approval of top managers
Public Information OCM	educate management & officers	<ul style="list-style-type: none"> educate policy, guidelines, Procedures 	-notify policy guidelines procedures to management & officers	<ul style="list-style-type: none"> roll book of education evaluation table of education
	public information about the policy	<ul style="list-style-type: none"> develop communication methods such as electronic board etc 	-policy guidelines procedures of OCM governance	<ul style="list-style-type: none"> bulletin brochure

The policy development for the OCM governance includes a process to develop a high level policy, operation guidelines, and detailed procedures. The developed policy is approved by the top management and the officers conduct policy observance as a result. The goal of education and public information is to inform the policy to the officers, and also raise awareness.

Founding Plan

In order to introduce the outputs (being produced by the two processes above) to the corporation, a detailed plan will be implemented as shown in Table 6.

<Table 6> Detailed Contents for Founding Plan

Activity	Task	Method	Input	Output
Plan Development	<ul style="list-style-type: none"> identify items and detailed tasks 	<ul style="list-style-type: none"> identify the items from the result of the impact analysis identify the items from policy, guidelines, and procedures 	<ul style="list-style-type: none"> documents of impact analysis documents of policy, guidelines, procedures 	detailed tasks of the OCM governance

	<ul style="list-style-type: none"> • evaluate priority level of the items 	<ul style="list-style-type: none"> • decide a standard for evaluating a priority • measure a priority by the standard 	-detailed tasks	priority list of the OCM governance
	<ul style="list-style-type: none"> • build up the detailed plan 	<ul style="list-style-type: none"> • divide into each phase • define the items on each phase • allocate the officers in charge to the items and set up the time schedule • define R&R and the tasks for the officers in charge 	- priority list of the OCM governance	Action plan of the OCM governance

The plan defines an activity for implementing the OCM governance system to the corporation. The priority level of the tasks demands, the procedure, and the tasks methods are included in the plan.

Operation

The tasks are allocated to the officers in charge because of their roles for the operation of the OCM governance. Their roles are to monitor and control continuously.

<Table 7> Detailed Contents for Operation

Activity	Task	Method	Input	Output
Operation of OCM governance	<ul style="list-style-type: none"> • define the tasks related to the OCM governance 	<ul style="list-style-type: none"> • add the tasks related to the OCM governance to the current job description 	current job description	New job description
	<ul style="list-style-type: none"> • create the operation manual 	<ul style="list-style-type: none"> • write operation manual according to the tasks 	OCM governance plan	operation manual
	<ul style="list-style-type: none"> • control the change of the OCM governance 	<ul style="list-style-type: none"> • control the changed things 	changed things	results to handle the changed things
	<ul style="list-style-type: none"> • monitor the OCM governance 	<ul style="list-style-type: none"> • monitor the tasks regularly 		monitoring report
	<ul style="list-style-type: none"> • control the operation of the OCM governance 	<ul style="list-style-type: none"> • administrator controlling the operation 		- result report - operation diary

The tasks that are allocated to the officers in charge must be added to their job description, and an operation manual must be created in order for them to execute those tasks. The manual would instruct the officers how to carry out their tasks. By doing this, the OCM governance can be operated without any problems.

Evaluation

Policy observances, tasks, and operations are evaluated regularly. The derived problems are solved, and the necessary items are modified and upgraded. Table 8 shows the process for improvement through evaluation.

<Table 8> Detailed Contents for Evaluation

Activity	Task	Method	Input	Output
performance evaluation of the OCM governance	<ul style="list-style-type: none"> • create the program of the performance evaluation 	<ul style="list-style-type: none"> • build up the detailed program of performance evaluation related to the tasks - evaluation method 	<ul style="list-style-type: none"> - indicators - standard etc 	performance evaluation program
	<ul style="list-style-type: none"> • execute the performance evaluation 	<ul style="list-style-type: none"> • exercise and evaluate the performance 	<ul style="list-style-type: none"> - evaluation program - exercise plan 	evaluation report
	<ul style="list-style-type: none"> • feedback the result of the performance evaluation 	<ul style="list-style-type: none"> • feedback of department & officer about performance result • reflect on the result 	evaluation result	evaluation result report
Improvement of the OCM governance	<ul style="list-style-type: none"> • regulate the reformed activities 	<ul style="list-style-type: none"> • reflect upon the reformed activities to the business processes & guidelines • develop the procedure to be authorized by the management 		rules of the OCM governance
	<ul style="list-style-type: none"> • improve the OCM governance 	<ul style="list-style-type: none"> • Create the team to execute the reformed activities • Define the object to reform - policy/guidelines - business process - plan - job description etc 	<ul style="list-style-type: none"> -documents related to the OCM governance -exercise results 	<ul style="list-style-type: none"> -improvement ideas -result of improvement -authorization
	<ul style="list-style-type: none"> • education/public information about improved ideas 	<ul style="list-style-type: none"> • recognize the contents by the officers - educate - bulletin & public information 	<ul style="list-style-type: none"> -documents related to the OCM governance -exercise result 	<ul style="list-style-type: none"> -education results -report of the improvements

It is difficult to introduce the OCM governance to the corporation and to operate it on the corporate business. Because its effectiveness is hard to judge before the corporate hazards occur, it is important to exercise it on a number of made up scenarios. The top management and the officers should become aware of the importance of these exercises and objectively accept the exercise results.

Critical Success Factor of the OCM Governance

Necessary Condition of the OCM Governance

The framework of the OCM governance connects the corporate business with crisis management and provides the optimized capabilities of internal and outward resources on crisis situations. If the corporation considers the following conditions, there will be an increased level of maturity and the effectiveness of the OCM governance.

The top management makes an effort to implement and maintain the OCM governance environment.

Study the best practices of the past, the present, and even the future.

The organization shares a value and an objective of the OCM governance.

The framework of the OCM governance that is suitable to the corporation improves upon using the best practices or using the international standard like the ISO/PAS 22399.

The current status like the functionality of the OCM governance's maturity level is evaluated using the BCMM method and other methods.

"To be model" of the OCM governance defines the future and the corporation is always focused on the model.

The items of the OCM governance are systematically classified into the well defined tasks. Then they are to be allocated to the person in charge. Based on those tasks, the priority road map and the action plan must be established.

Support the certification in terms of the organizational and the personnel dimension of the OCM governance.

Need a flexible and an extendable policy and process for the OCM governance.

Efficiently manage the operation of the OCM governance using a software solution.

Leadership and Change Management of the OCM Governance

The corporation introduces refined and restrictive principles for change and innovation of the OCM governance. The principles can be arranged as of the following five things.

First of all, the OCM governance program must be managed. The top management's interest and participation are necessary to fix the OCM governance as an organizational culture. The vision of the OCM governance should be developed and the corporation should share it.

Secondly, the participation and the proper incentive for the OCM governance program are necessary. For the corporation's safety, strong efforts by the top management, the internal experts, and the other officers are required.

Thirdly, the crisis chaos must be minimized through the regulation of proper choice, escalation reporting, and decision making. The OCM governance is a complex and continuous procedure, and it needs a timely choice. Finally, it must answer the question of how much is enough.

Fourth, the corporation takes charge of responsibility and support of the continuous change of the OCM governance.

Finally, the tasks are monitored and the performance of the OCM governance must be regularly evaluated. In order to do this, lessons must be learned from the process and the related technology.

Conclusion

Summary and issues

Crisis management of the corporation on the current society is an essential factor and its importance will be enlarged in the future. The OCM governance for crisis management is accordingly integrated into the corporate governance.

This paper proposes the framework and road map of the OCM governance. It is composed of an organizational understanding, policy development, planning, operation, and an evaluation phase.

The corporation can define a suitable approach to develop the strategy, the priority, the capability, and the available resource for crisis management using the proposed framework.

Research Limitation

Because the paper logically presents the framework, the road map, and the principles for crisis management in the corporation, the research is limited to be practically verified.

First of all, it does not verify the items that the framework includes to generalize in an order that any corporation can use. Also, it does not verify to provide enough items for crisis management.

Secondly, it lacks the best practices for introducing this framework to the corporation. Thus, the OCM governance must be continuously evolved by the case study.

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