

Approach to VE for Maintenance Services

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Yoshio Sakagami is a Center Manager of VEC Promotion Center with Hitachi Electronics Services Co., Ltd. since 1990. (VEC : VE for Customers is a organization in charge of value engineering promotion.) He has had extensive experience in the area of computer maintenance services since the company was established in 1958. He has actively approached and practiced VE for the maintenance service industry which then had not much of implemented VE methods. He contributes as a Committee member of Society of Japanese Value Engineering (SJVE) Tokyo Branch, and also serves as a Deputy Chairman of Hitachi Group VEC Committee.

ABSTRACT

The method and practicing of the four functions (1) Motivation, (2) Operation, (3) Evaluation and (4) Support, which are essential in improving the customer satisfaction and management efficiency in the field of maintenance service.

Key words

Function, Value enhancement (improvements), corporate culture, Motivation

INTRODUCTION

Functions or features of the physical products are integrated in the products themselves. However, those of the maintenance services are materialized by each and every service personnel (core part of maintenance service) when they achieve the appropriate function to earn customer satisfaction. In other words, the maintenance service is the integration of continuous personal efforts or devotions. Therefore, individual service personnel needs to provide the services with VE objective "Customer satisfaction with management efficiency" in mind.

At first, each service personnel needs to start having the new sense of values: VE activities. This sense of values must be on the same coordination with various conventional improvements performed and must be aimed at the promotion of customer satisfaction, corporate performance and employee incentives. This thesis covers the functions essential to the maintenance service company, which must be observed by entire corporation from field offices to executive management and including the VE Promotion Section.

OBJECTIVE, PRINCIPLES AND FUNCTIONS OF VE ACTIVITIES

Objective

In Japan, Nikkei Computer (Monthly magazine) has been conducting a computer user survey on hardware, software and maintenance services since '84. And our company has kept being ranked as #1 in maintenance services in most of the years. As being so, the objective of VE activities is "Customer satisfaction with management efficiency", which is based on the traditional corporate policy of "Customer Satisfaction". It means that the "Management efficiency" must not be achieved at the price of "Customer Satisfaction". VE activity must have good balance between efficiencies and traditional corporate culture. To improve management efficiency, we have promoted quality improvements, work efficiency improvements, productivity improvements, office automation, cost reductions and expense cuts. The outcome, accumulated in money value, is then compared with the sales amount. We have set the object value of this comparison index and have been making efforts to accomplish it.

Principles

When the object index value was first presented, the field offices were confused and were not ready to accomplish the objective. So, we studied the status of field offices and presented them with the principals necessary for the accomplishment of the objectives as follows.

- (1) The aim of the VE activity is to create the corporate culture based on the new sense of values. They are value enhancement of service performance (Improving the CS, the quality or the function) and service procedure / method (efficient work process) which also bring Employee Satisfaction (ES) ^(Note 1).
- (2) Clarify and consolidate the type of improvements directly connected to the improvement of quality and efficiency which lead to the customer satisfaction. Have each field office know about those items thoroughly which serves as action guide and work incentive.
- (3) It is necessary to motivate participants (field offices) with the new sense of values, because one can not work voluntarily or positively without

- proper sense of values.
- (4) Clarify the method of the object value accomplishment.
- (5) Clarify the method of the executives evaluation.
- (6) Clarify the method of VE theme registration and budget control.
- (7) Traditionally, HES employees are very eager to achieve work improvements for the purpose of customer satisfaction and quality enhancement. This approach activates the work force and also brings Employee Satisfaction. However, such approaches also tend to increase work load and cost. It is a very delicate and essential matter to keep a good balance between the Customer Satisfaction and the cost control.

Organization and its Function

A VE promotion leader is designated at each department or branch to promote the VEC activities. The function of VE promotion leader is to hold the VE promotion meetings. See Figure 1 for the "A functional diagram of VE activities" ^(Note 2)

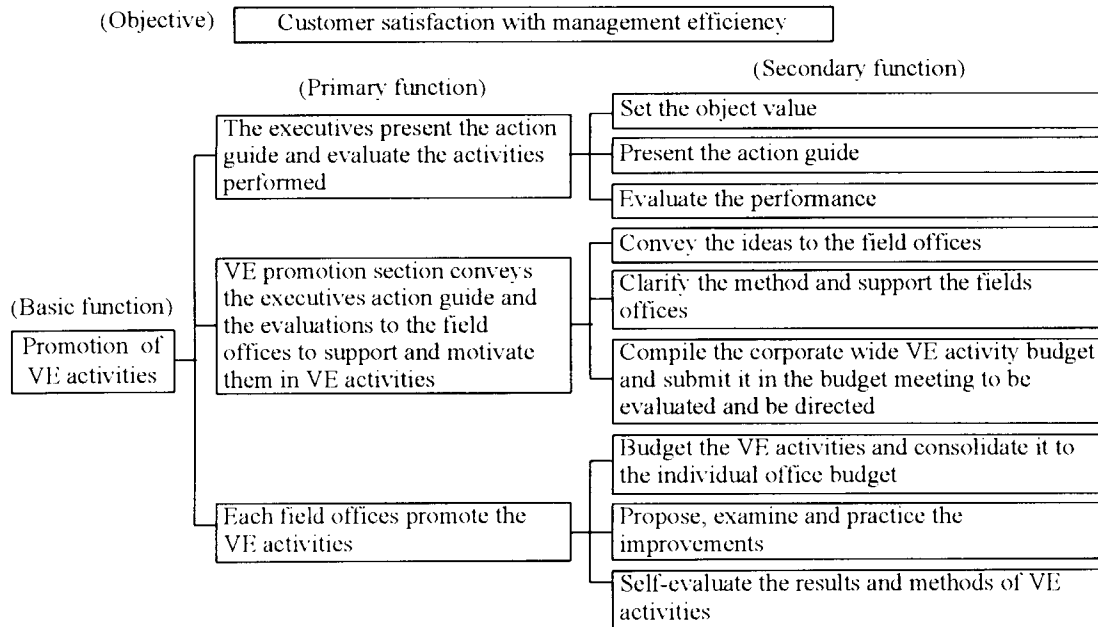


Figure 1 A functional diagram of VE activities

**SUBJECTS (Function) TO INCREASE
MANAGEMENT EFFICIENCIES**

Our improvement efforts have been aimed at various aspects including human resource development, R&D, customer satisfaction, quality, work efficiency, productivity, work load reduction, office automation, cost reduction, expense cut and office vitalization. These improvements are reported and evaluated respectively. These improvements themselves are the management improvements. Those improvement methods have been accumulated in years and have become a part of our corporate culture. In addition to the various conventional improvements, there are four necessary functions to increase management efficiencies. They are based on the principals as stated in "2.2 PRINCIPALS";

- (1) Motivation : Function to motivate participants of the extended improvement of the management efficiencies.
- (2) Operation : Function to materialize and operate the VE activities.
- (3) Evaluation : Function to evaluate the activities from the corporate point of view.
- (4) Support : Function to support the field offices solve the problems which may arise through VE activities.

**FUNCTIONS FOR EXTENDED
IMPROVEMENTS ON MANAGEMENT
EFFICIENCIES**

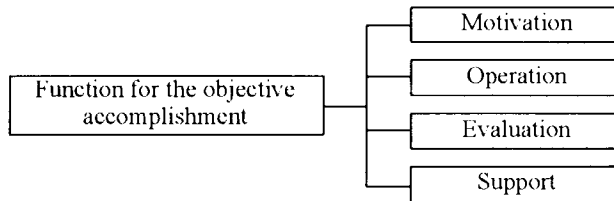


Figure 2 Function diagram for the objective accomplishment

Functions to Encourage Participants (field offices) to Improve the Management Efficiencies Further

The objective is accomplished during the process in which the object value is presented to the field office, a break through is achieved and further value enhancement is made. In order to do so, the four

The improvement of management efficiency is facilitated by practicing the four functions stated above. It is necessary to consolidate the various conventional improvements into information resources to improve the management efficiencies further. Various improvement information are stored in the VE Information System to be shared and utilized by other field offices or office regions. ^(Note 3) In our company, this technical transfer method (T.T.) is called as "N bai-ka" (N-times magnification). "N-times magnification campaign" is promoted in the style that each field offices acquire the improvement information voluntarily, in order to magnify the VE activity results in chain reaction.

Starting Point (Incentives) for the Extended Improvements on Management Efficiencies

It is necessary to have the function in which employee can share the feelings or the sense of values. It formulates the "Starting point (incentives) for the voluntary work" such as ;

- (1) Joy of work.
- (2) Acknowledgment by the management or executives through the VE budgeting process.
- (3) Utilization of the work place as improvement information exchange and practice center.

Function to Fulfill the Objectives of VE Activities

See Figure 2 for the functions to achieve the objective; motivation, operation, evaluation, and support.

functions (Motivation, Operation, Evaluation, and Support) need to be practiced in proper sequence.

(1) Motivation ^(Note 4)

- (a) Relationship between field offices and the VE Promotion section

In order to establish the new sense of values stated above, VE promotion center need to take a

lead on it. It is a motivation in which the performance is made based on the various and conventional improvements. VE promotion section motivate the field offices and each field offices functions toward the further improvement of management efficiency.

The work flow between two parties and their relationship is important. In the function diagram(Figure 2 Function diagram of VE activities; Primary function), it is explained in the style of "party A performs item B". However, "party A performs item B" type of situation is only

self satisfaction. To be really functional, each party has to fully recognize the necessity of the activity, take action and accomplish the result.

Figure 3 "Relation between VE promotion section and the offices" shows the functional relation between those two parties.

This function at first is applied to one of the field offices as pilot model. Then the improvement example is addressed to all field offices so that the function be applied corporate wide.

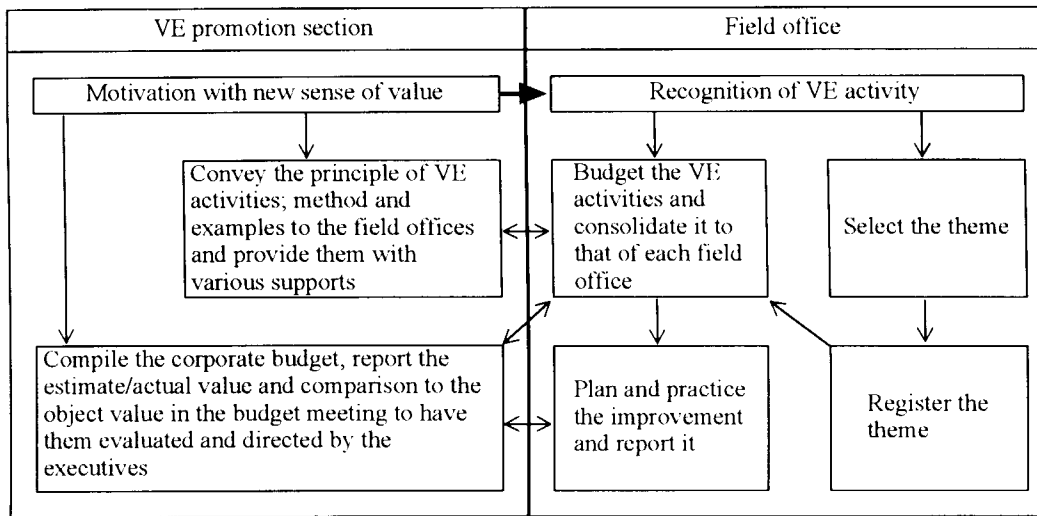


Figure 3 Relation between VE promotion section and the field offices

(b) Consolidation / management of VE information for effective utilization

The VE information must be consolidated / managed by the VE promotion section uniformly, so that field offices can utilize the information effectively. This VE information serves not only as information source but also as VE motivation.

(2) Operation (Construction of VE information system and VE operation using the system)

VE information system is essential in

utilizing the improvement information effectively. The information stored in the VE information system are shared for more effective processing and utilization. This approach motivates participants (field offices) to take and continue to take active roles in their jobs.

See Figure 4 for "Function diagram of VE information system".

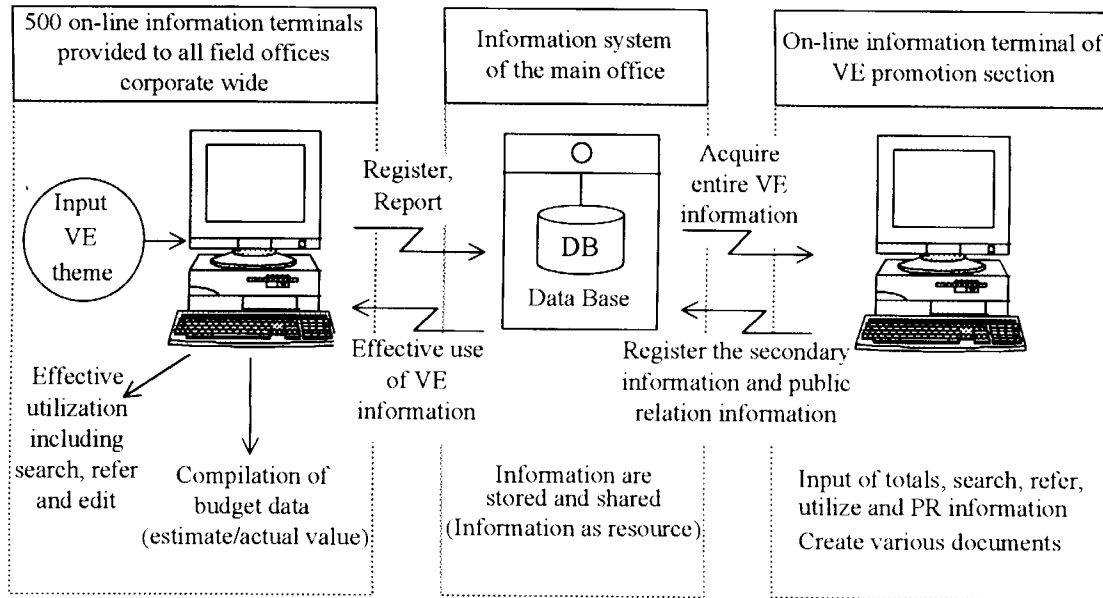


Figure 4 Function diagram of VE information system

(3) Evaluation

The result value is evaluated by the executives at the semi-annual budget meeting. Group member of excellent theme (VE activity) is prized and commended and their theme(VE activity) is commented by the executives. This whole procedure is publicized corporate wide. Comments and appreciation from the executives are important incentive factors to encourage the field offices.

(4) Support

VE promotion section supports the field offices and / or VE promotion leader. This function is a mental support in addition to the various mechanism or information provision. Support function is to support the field offices to solve the problems which may arise in their VE activities. This cooperation work is an important factor to

strengthen the human relationship between the field offices and the VE promotion section.

(5) Function summary of VE promotion section

Once the four functions(Motivation, Operation, Evaluation, and Support), which is necessary to accomplish the objective, have worked at one field office, they influence another office and expand further more. Repetition of this mutual influence contribute to achieve the result. This new sense of values and methods are established and fixated as corporate culture.

Figure 5 "Function diagram of VE promotion section" is based on the four functions. These functions will be reconstructed and fixated as VE activities and will be expanded coping with the management changes.

**RESULTS OF EXTENDED IMPROVEMENTS
ON MANAGEMENT EFFICIENCY**

(1) Quantitative result

Quantitative result is indicated in the comparison index. It is a comparison between the money value equivalent of entire improvements and the sales amount. Actual index value for '90/Kami* period is set as 100. The object value (guideline) for each of 6 month period is set as 200 at '92/Shimo* period. Achieving these objectives led each field office to have confidence in the VE activities.

*Kami : 6 month period between Mar.21 - Sep.20

*Shimo : 6 month period between Sep.21 - Mar.20

(2) Qualitative result

VE activities have become a part of the corporate culture and is fixated firmly to the current organization, operation and management system. VE activities have become the core function to improve the management efficiency.

CONCLUSIONS

It is necessary for the VE promotion section to understand the "current status" and "traditional corporate culture" in maintenance service to achieve the objectives; "Customer satisfaction with management efficiencies".

These four functions are necessary for field offices to achieve the objectives.

(1) Motivation

(Sense of Values, understanding and awareness)

(2) Operation

(Effective use of information, methods and ease of activities)

(3) Evaluation

(Evaluation by executives)

(4) Support

(Problem solution through close communication between the field offices and the VE promotion section.)

Objectives can only be fulfilled by clarifying (defining individual function and mutual relationship between those functions) and exercising (actions based on the clear instructions) each function.

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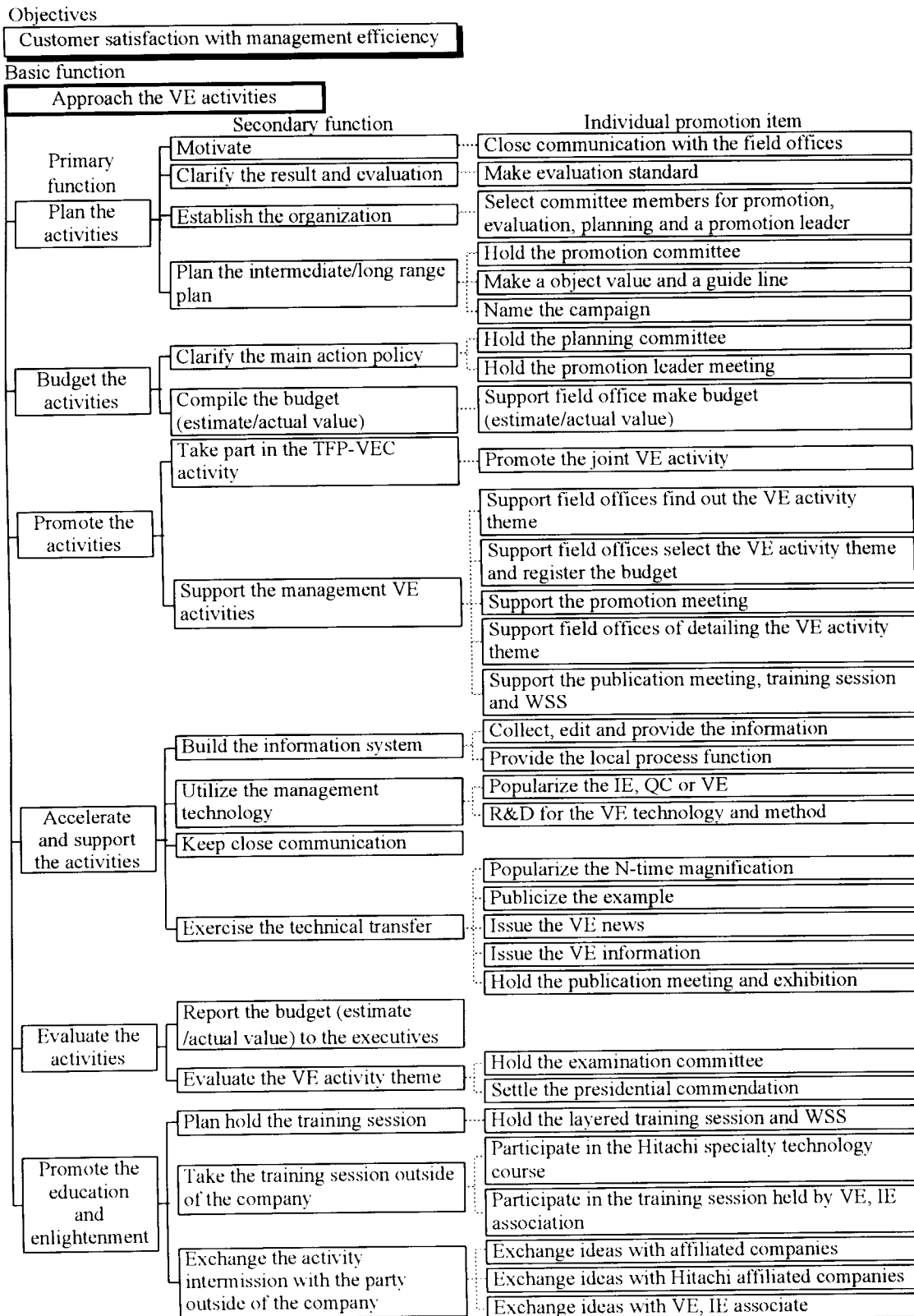


Figure 5 Function diagram of VE promotion section