

SPECIFIC ELEMENTS OF SOME COMPONENTS OF THE MANAGEMENT SYSTEM ON THE LEVEL OF THE TEAM

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Abstract: This study analyses some management tools on the level of the team as: the „tree” diagram, the matrix diagram and the priority matrix. The study of this diagram is focused on the practical aspects of the diagrams and the analysis of the conditions of use in some branch of activity. At the same time some useful tools are pointed out for the practical activity. The problem of the study also deals with the matrix diagram. This tool allows the individuals from the team to identify and clarify the relations between two or more variables. The information is presented in a table and can be subjective or objective, with symbols with or without numerical values. There are four implementation criteria as one can see in the upper part of the matrix. The priority matrix is the most difficult of the management tools. This study analyses some management tools on the level of the team as: the „tree” diagram, the matrix diagram and the priority matrix. The study of this diagram is focused on the practical aspects of the diagrams and the analysis of the conditions of use in some branch of activity. At the same time some useful tools are pointed out for the practical activity.

JEL classification: O10, O29, D00

Key words: management tools, members, the „tree” diagram, the matrix diagram, the priority matrix

INTRODUCTION

An important accomplishment of the theory and practice from the 20th century were the fundamentals of management. This reality was generated by vast transformation which took place in a material and human space during this period. So, the diversification of the social life has lead to the emergence of some new management branches and that is why nowadays we can talk of cultural, sports, industrial, agricultural management, etc. Under these circumstances the different sides of management should be approached vertically or horizontally, on a similar macro and microeconomic level.

The focus is on the analysis of the different sides of the management on the level of the basic chains of the economy, sections, teams etc. That is how we can

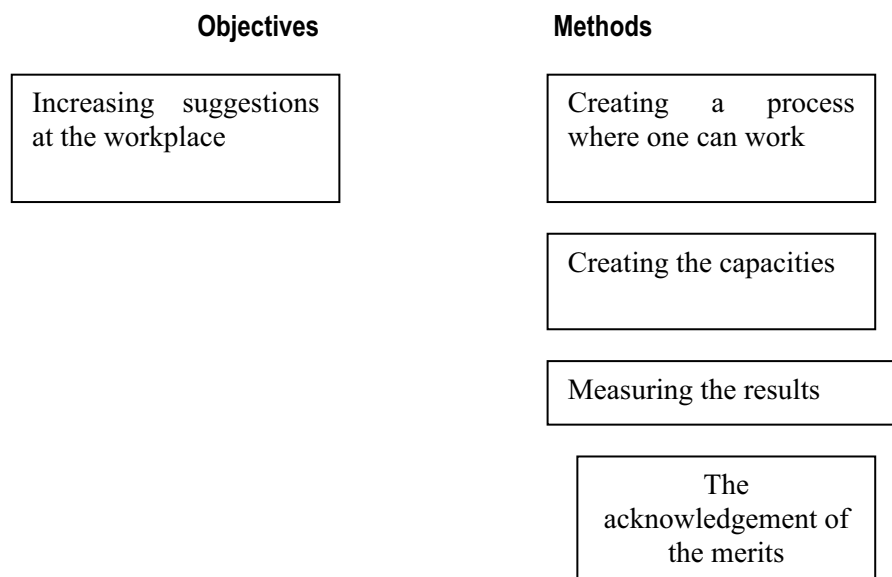
explain that this study analyses some management tools which are frequently used on the level of the team as: the "tree" diagram and the priority diagram.

THE "TREE" DIAGRAM

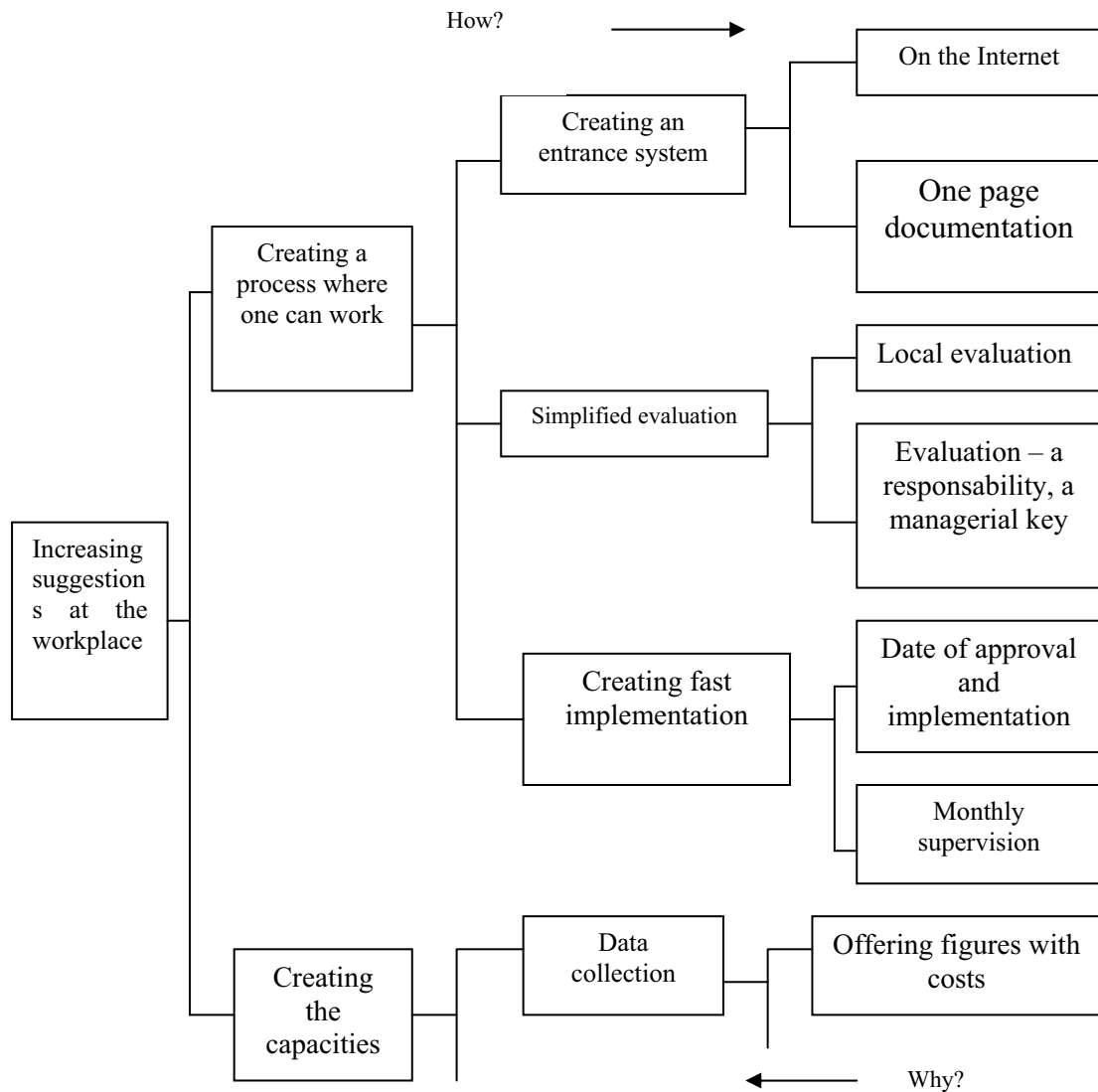
. This tool is used in order to reduce the excessive details for any general objective in order to reach that objective. The procedure starts by choosing an action-oriented objective from the ones presented in the inter-relational diagram or in the affinity diagram. Secondly, by using brainstorming we have to choose the main idea, as in figure 1, anything what is below methods.

The third step is to generate the next level by analysing the main titles. One should ask "What should be done in order to reach the objective?". Repeat this question for each level. Three levels below the objectives are usually enough to complete the diagram and make the necessary actions. The diagram should be revised in order to determine if these actions shave the anticipated result or if something has been forgotten.

The "tree" diagram encourages the members of a team to think creatively, to complete successfully large projects and to create an atmosphere to solve the problems.



(a) Objectives and modalities



(b) Complete diagram

Figure 1 The tree diagram

THE MATRIX DIAGRAM.

The matrix diagram gives the individuals of the team the possibility to identify, analyse and classify the relations between two or more variables. The information is presented in a table and can be subjective or objective with symbols with or without numeric values. The quality function development (QFD) is a relevant example of the way in which the matrix diagram is used. There are at least five standard forms: the L form (two variables), the T form (three variables), the C form (three variables) and the X form (four variables). Our discussion will be limited only to L, which is the most widely used.

Usefulness Tool	Creativity	Analysis	Consequences	Action
Affinity diagram	○		○	△
Inter-relational diagram		○	◎	○
Tree Diagram		◎		◎
Priority matrix			○	
Matrix diagram		○	◎	○
PDPC	◎	◎	◎	○
Network activity diagram			◎	○

Legend	
○	Always
△	Frequently
◎	Occasionally

Figure 2 The matrix diagram for the Seven Managerial Tools

Figure 2 shows the matrix diagram for the seven management and planning tools. The diagram procedure is for the team to select the factors which affect the successful plan. Then the suitable form is selected, which is the case of the L form of the diagram. This step is followed by the determination of the relational symbols. Any symbol can be adopted, but these have to be explained in the legend of the diagram. Figure 2 presents the matrix diagram for the seven management and planning tools. The procedure for the diagram is for the team to select the factors which influence the

successful plan. Then the suitable form is selected, which is the case of the L format of the diagram. This step is followed by the determination of the relational symbols. Any symbol can be adopted, and these have to be explained in the legend of the diagram. The numerical values are sometimes associated with the symbols as in the case of the Quality Function Development (QFD). The last step is to complete the matrix by analyzing each box and introducing the suitable symbol.

The matrix diagram clearly presents the relation between the two variables. It encourages the team to think in relational terms, according to their power and models.

THE PRIORITY MATRIX.

These tools set the priority of the problems, objectives, characteristics and others on certain criteria using a combination between the technical tree and matrix diagrams. Once an elements has been prioritized one can take efficient decisions. The priority matrices are conceived to reduce the options of the team in a rational manner before the intervention of the detailed planning. A combination between the tree and the matrix diagrams is used as in figure 3. There are 15 options of implementation; but only the first three of them starting from "train supervisors", and the last "purchasing trucks" are presented in the tree diagram. There are four implementation criteria as it is shown in the upper part of the matrix. The priority matrix is the most difficult one of the tools, and that is why we are going to mention the procedure steps.

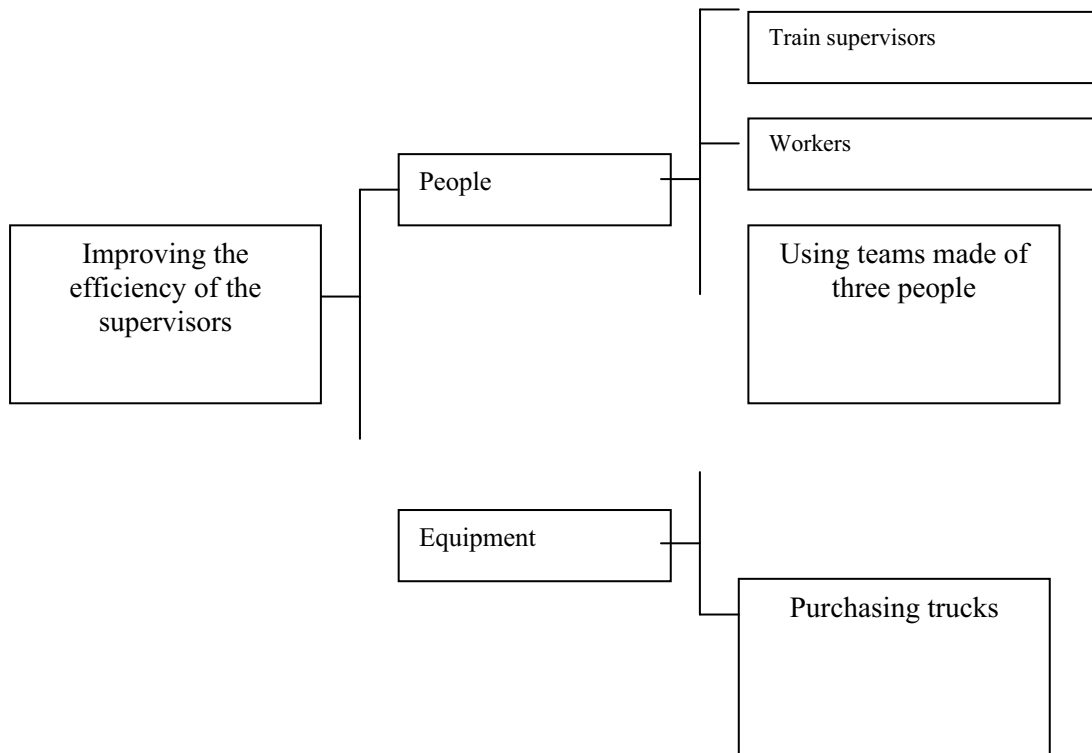


Figure 3 Priority matrix for the improvement of the efficiency of the deliveries

ANALYSES

1. An L matrix is built combining the options which are at the lowest detail level from the tree diagram. This information is given in table 1.

Table 1. Improving the efficiency of the deliveries using the Consensus Criteria Method

Options	CRITERII				Total
	Fast to implement	Accepted by users	Available technology	Low costs	
Train operators	13(2,10) = 27,3	15(1,5) = 22,5	11(0,45) = 5	13(0,35) = 4,6	59,4
Train supervisors	12(2,1) = 25,2	11(1,59) = 16,5	12(0,45) = 5,4	8(0,35) = 2,8	49,9
Using a team made up by three people	8(2,1) = 16,8	3(1,5) = 4,5	13(0,45) = 5,9	14(0,35) = 4,9	32,1
Purchasing trucks	6(2,1) = 12,6	12(1,5) = 18	10(0,45) = 4,5	1(0,35) = 0,4	35,5

2. Determining the implementation criteria using the Nominal Group Technique (NGT) or any other technique which will satisfy the selection criteria. Using the NGT, each member of the team will write on a piece of paper the most important criteria for him or her. These are listed on a table, and the members of the team are writing on another paper the importance of each criterion. These criteria with the highest value are the most important. The team decides which of the criteria to use. Under these circumstances, the team decides to use the criteria from the upper side of the matrix.

3. We prioritise the criteria using NGT. Each member of the team are evaluating the criteria taking into account that the total amount of the criteria should be 1, and the results are summed up for the entire team as in the example below:

Criteria	Member #1	Member #2	Total
Accepted by users	0,30	0,25 ...	1,5
Low costs	0,15	0,20 ...	0,35
Fast to implement	0,40	0,30 ...	2,10
Available technology	0,15	0,25 ...	0,45
	1,00	1,00	

By using NGT, one can set the order of the importance of the criteria, we are making the average of the result and we are rounding in order to reach the closest whole number. So this should be from 1 to the number of options.

We are calculating the importance of the criteria by multiplying the occupied place with the degree of importance of the criteria, as in table 1. The options with the highest total are the ones which should be first implemented.

There are two more techniques which are more complicated, and these can be determined by *Memory Jogger Plus+*.

CONCLUSIONS

The "TREE" diagram encourages the members of the team to think creative, to successfully fulfil large projects and to create an atmosphere to solve the problems.

The problem of the study also deals with the matrix diagram. This tool allows the individuals from the team to identify and clarify the relations between two or more variables. The information is presented in a table and can be subjective or objective, with symbols with or without numerical values. There are at least five standard forms: the L form (two variables), the T form (three variables), the Y form (three variables), the C form (three variables) and the X form (four variables). The general rules are that the directions are limited only under L, which is the most widely used.

The procedure for the matrix diagram is that the team should select the factors which comply with the success plan, and then to select the suitable form of the diagram. This step is followed by the determination of the relational symbols. The last step is to complete the matrix by analysing each box and introducing the corresponding symbol.

The matrix diagram clearly presents the relations between the two variables. It encourages the team to think in relational terms, according to their power and different models.

The last analysed tool is the priority matrix. This tool sets the priority of the problems, objectives, characteristics and others according to certain criteria using a combination between the TREE diagram and the matrix diagram. After setting the priorities for each element one can take efficient decisions. The priority matrices are conceived to reduce the options of the rational team before the intervention of the detailed planning.

There are four implementation criteria as one can see in the upper part of the matrix. The priority matrix is the most difficult of the management tools. In the end we analyse the elements which should be used for such a matrix using the L form.

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