Relationship Between Participative Management and Personnel Productivity: 
A Survey in Gachsaran Gas and Oil Company

Samad Ranjbar Ardekani and Shapour Amin Shayan Jahromi

Department of Management, Gachsaran Branch, Islamic Azad University, Gachsaran, Iran
Department of Management, Shiraz Branch, Islamic Azad University, Shiraz, Iran

Abstract: This survey explores the relationship between participative management and productivity of the employees in 2010 in Iran. The population includes the employees of Gachsaran’s Gas and Oil Company. Regarding the literature, a questionnaire designed by the authors was used in order to examine the participative management and productivity. The results of research hypotheses test show that there is a meaningful relationship between participative management along with its elements (autonomy, participative decision-making, objective by group, organization shift and changing, participation in problem solving) and Capital of personnel’s productivity in this organization.

Key words: Participative Management · Autonomy · Participative Decision-Making · Objective by Group · Organization Shift and Changing · Participation in Problem-Solving · Productivity

INTRODUCTION

Human capital is one of the most important assets in most businesses and increasingly so in a knowledge society. Employees, from the top of the hierarchical structure to the bottom are the present and future of a company’s potential success. A company needs to achieve maximum output out of its employees both physically and intellectually. The purpose of this review is to understand what role participative management plays in employee satisfaction and productivity.

Participative management is a process in which influence is shared among individuals who are otherwise hierarchically unequal. It is a system which encourages employees to participate in the process of making decisions that directly affect their work lives. Participative management is utilized to improve work practices, productivity and organizational performance [1]. Today, among the organizational issues and problems “participation” is a very important category by which the network relations are established. Generally, participation encourages persons to play main roles in the organizations and conveys their messages to the managers [2]. Participative management was regarded as an implicational attitude toward the employee’s motivation. Up to today, many researches have mainly emphasized on the importance and results of the employees’ participation in the organization. Due to the results of such researches, it is to say that democracy is the best way in administrative, executive and management systems by which the managers and the employees could enjoy the services. In order to use democracy, organizations should establish conferences during which the employees are under an obligation to take their responsibilities [3].

Participative Management: The term “participation” is rooted from religious and public thoughts. For example, consultation-based participation has been titled shora in Islam [4]. Roots of participative management could be founded in democratic, socialistic, Neoclassic and humanistic theories of the management. “Participation” is one of the main elements of democratic theory and by effort to create participative management; we mean the effort to present democratic meanings. Democracy causes the managers and the employees to participate in decision-making. The idea of participative management was presented by the American authors and it was used by Japanese, American and European commercial
Participative management was accomplished by the works of some authors such as Argeris, Macgregor, Likert, Hersberg and Lawler. It was presented by the titles objective-based management, suggestions system, quality improvement groups and self-management group.

Today, participative management has been presented as one of the elements of neoclassic theories. There are various management and organizational theories emphasizing on the participative decision-making among them are comprehensive quality management power theory and industrial democracy [6]. Participative management is an active process in which the supervisor the employees try to solve the problems [7]. Participative management could be regarded element by which the employees engage with their jobs. Employees may participate in decision-makings in various manners [8].

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Discussion about the management is aimed to make clear that humanity is well and participation is a democratic issue. Therefore, it is necessary to participate in decision-making. Some authors consider participative management as an ethical issue there are some other ideological viewpoints which present special logics based on the religious thoughts.

Instrumental Viewpoint: From the viewpoint of productivity and instrument, participation is a method by which expenses, inefficiencies, dissatisfaction and sabotages of the workplace are decreased. In this regard, participative programs are typically established at the lowest degree and participation boundary is defined so that it doesn’t include the decision making by leader. Those who regard this viewpoint, consider it as an instrument in order to satisfy the work force and establish a stable environment.

Democratic Viewpoint: This viewpoint presents the employee’s expectations as an instrument in order to divide the inter-organizational power. Those who support the democratic viewpoint know each power desirable. This viewpoint emphasizes on the spiritual values at the democratic work environment which is made through participation. Generally, democratic authors consider participation in work as the main part of creating democratic organization. Organizational democracy is referred to the management system in which the organization guides the persons who form the majority.

Human Viewpoint: From the human viewpoint, participation is a kind of help toward the human development. It emphasizes the job value in order to reach the high level of humanity. Human viewpoint emphasizes also on redesigning the work in order to explore potential abilities of the persons and to create meaningful work environments. Persons have a tendency toward reaching the goals and being trusted. They can have a loyal and suitable work force by organizing their values. Therefore, this is to say that the current viewpoint emphasizes on the growth of healthy persons in the organizational environment [10].

Philosophical viewpoint of participation from the philosophical viewpoint, authors have mentioned four attitudes proportional to the management:

- Participation critics
- The followings are the criticisms relative to the participative management:
- Increase of the expenses related to the decision-makings proportional to the increase of decision-makers.
Decrease of advantages of participative decision making by executive expenses
Creation of unreal expectations
Being time-consuming
leading to moderate decision-making
Ignoring the responsibility
Creating contradictions and destroying management stability.

Authors have presented the same classifications related to the aspects of participative management. Due to the literature, the fivefold aspects of participative management are: autonomy participative decision-making, objective by group, organization shift and changing and participation in decision making.

Productivity: Productivity refers to the change of products by use of resources. It is referred to the ratio of output on the input. Kendric and Kimer (1965) presented some definitions related to single and total productivity. Total productivity is referred to the ratio of tangible output on tangible input [11]. TLO (international Labor Organization) defines productivity as the degree of suitable use of each production factor [12].

At first, productivity is thoughtful perspective which improves what is currently available.

Regarding the key role of productivity in the socio-economic growth, this is to say that productivity promotion in organizations and companies determines the degree of use of primary materials by decrease of wastes [13].

Generally, productivity is an economic and cultural attitude through which one can act cleverly in order to reach the best result by the lowest expense [13].

Productivity promotion can improve the economic development of some economic changes and development of some countries including Japan, Germany and China are resulted from their productivity promotion and optimized use of physical and human resources [13].

Human Based Productivity: Human resource is the key capital of an organization. Otherwise, the materials, machines and buildings remain and none of which is valuable without human resource. Although “human” is the most valuable capital of an organization, there is no balance sheet or list in which we observe it. But “human” is the main factor of organizational success. Proper human resources are the main capital of an organization by which innovation is made [14].

Although achievement of gold or other natural resources was the basis of international health in past, today the skilled and capable human resource is regarded as the most valuable capital of each country. Therefore, many countries are not able to use these resources because of the lack of skilled human resources. On the other hand, there are some countries which have appeared successfully and their success is dependent on the human resources in order to reach the health and to develop [14]. Human resources should be respected because training of skilled persons has been time-consuming and has involved many expenses.

Organization can be damaged by the decision-making of its employees. In fact, they increase the organizational values and profits. On the other hand, unskilled human resources can increase the organization losses by incorrect decision-makings [15].

There are three factors affecting on success and productivity of human resources. These factors include relation, obligation and reliability. Improvement of human resource productivity is based on the support of the organization. Moreover, in order to succeed a productivity improvement program, personal obligation is needed and group members obligation should be made through planning and aiming. Obligation is appeared when the group overcomes crises [15].

Productivity Models of Human Resource
Heresy and Gold Smith Model: Due to Heresy’s &Gold Smith’s model (1980), called ACHIEVE model, the employees performance is the function of the following variables

\[ P = F(A.C.H.I.E.V.E) \]

\[ P = \text{Performance (fulfilled objectives)} \]
\[ A = \text{Ability (power of fulfilling a duty)} \]
\[ C = \text{Clearness (clearness of perception of work method, work place and how it is done)} \]
\[ H = \text{Organizational hold (the support which the employees need in order to be effective)} \]
\[ I = \text{intention (great interest and tendency for doing something)} \]
\[ E = \text{Evaluation (judgment about the way of doing work)} \]
\[ V = \text{Value (being legal and legitimate of the manager’s decision)} \]
\[ E = \text{Environment (the external factors affecting on the organization)} \]

Heresy and Gold Smith have regarded two objectives in order to analyze the human resources performance:
Determination of the key factors affecting the human resources performance.
Presentation of the model so that the managers can use it to improve the productivity of human resources [16].

Research Hypothesis

Main Hypothesis: There is a direct relationship between participative management and productivity

Minor Hypotheses:
- There is a direct relation between autonomy and productivity.
- There is a direct relation between objective by group and productivity.
- There is a direct relation between organization shift and changing and productivity.
- There is a direct relation between participation in problem solving and productivity.

MATERIALS AND METHODS

As illustrated in the meaning-based model of the research (Fig.1), the independent variable includes participative management and its aspects (organization shift and changing, participative decision making, autonomy, participation in problem solving and objective by group). A questionnaire designed by the researchers was used in order to examine the participative management. Productivity was regarded as the dependant variable and Heresy’s & Gold Smith’s questionnaire (1980) was used in order to estimate the questionnaire performances which are 0.85 and 0.89 for the participative management and productivity, respectively. The reliability of both of them has been estimated by the human resources managers of Iran’s national oil company and the universities masters. The Licret’s five-choice spectrum is used in both questionnaires. The participative management questionnaire includes five elements: autonomy, objective by group, participative decision making, participation in problem solving and organization shift and changing. The productivity questionnaire examines the following elements: effectiveness, efficiency, employee’s ability, job recognition, organizational support, motivation, performance feedback, reliabilities environmental adaptation and the quality of work life.

Population includes 1230 employees of various department’s of Gas and Oil company of Gachsaran. Regarding the Cochran (1977) formula, the sample number is 169 persons:

\[ n = \frac{Z^2 \cdot \sigma^2}{\sigma^2} = 169 \]

\[ Z: 1.96 \]
\[ \alpha: 0.05 \]
\[ \sigma_1^2 \text{ and } \sigma_2^2 \text{ were estimated } \% 3 \text{ and } 0.184 \]

Variance analysis Test, T-Test, Pearson correlation coefficient and stepwise regression test were used in order to test the research hypotheses.

Research Hypothesis Test

Main Hypothesis: There is a meaningful relation between participative management and productivity. Due to Table (1) which illustrates the result of Pearson correlation coefficient, it is hypothesized that there is a meaningful relation (error level=0.01, r= 0.538) between participative management and productivity.

Minor Hypothesis

Minor Hypothesis 1: There is a meaningful relation between autonomy and productivity

As illustrated in Table 2, there is a direct relation (error level=0.01, r=0.356) between autonomy and productivity.

<table>
<thead>
<tr>
<th>Participative Management</th>
<th>Pearson correlation</th>
<th>Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.538**</td>
<td></td>
</tr>
<tr>
<td>Sig.(2-tailed)</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>169</td>
<td></td>
</tr>
</tbody>
</table>

**p<0.01
Table 2: Relation between Participative management aspects and productivity

<table>
<thead>
<tr>
<th></th>
<th>Autonomy</th>
<th>Decision Making</th>
<th>Objective by Group</th>
<th>Organization Shift and Changing</th>
<th>Participation in Problem Solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity</td>
<td>0.356</td>
<td>0.194</td>
<td>0.273</td>
<td>0.247</td>
<td>0.153</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0.001</td>
<td>0.003</td>
<td>0.009</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>169</td>
<td>169</td>
<td>169</td>
<td>169</td>
<td>169</td>
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</table>

Pearson correlation

Sig.(2-tailed)

N

Minor Hypothesis 2: There is a meaningful relation between participative decision making and productivity. As shown in Table 2, there is a direct relation (error level = 0.01, r = 0.194) between participative decision-making and productivity.

Minor Hypothesis 3: There is a meaningful relation between objective by group and productivity. As seen in Table 2, there is a direct relation (error level = 0.01, r = 0.273) between objective by group and productivity.

Minor Hypothesis 4: There is a meaningful relation between organization shift and changing and productivity. As illustrated in Table 2, the result of person’s test shows that there is a direct relation (error level = 0.01, r = 0.247) between organization shift and changing and productivity.

Minor Hypothesis 5: There is a meaningful relation between participation in problem solving and productivity. As shown in Table 2, it is resulted that there is a direct relation (error level = 0.01, r = 0.153) between participation in problem-solving and productivity.

Research Question: Among the participative management factors, which one affects mainly on the productivity? The stepwise regression method was used in order to analyze the relations between the aspects of independent variable and dependent variable. The main advantage of this method is that it uses the aspects of independent variable in the regression equation and omits other variables whose meaningfulness level is not acceptable.

Formula 1 illustrates the result of stepwise regression analyses relative to the effect of various aspects of participative management on the productivity. As seen in Equal (1), the main variables affecting on the productivity include:

\[
Y = 1.007 + 0.138X_1 + 0.596X_2
\]  

\( X_1: \) Participative decision making  
\( X_2: \) Autonomy

CONCLUSION

Emphasizing the research main hypothesis, this is to say that there is a meaningful relation between participative management and productivity (table 1). Regarding the research sub-hypotheses, this is to say that there is a meaningful relation between productivity and participative management aspects (autonomy, participative decision-making, objective by group, organization shift and changing, participation in problem solving).

With regard to the result of Stepwise regression (Equation 1), we can maintain the effects of participative decision-making, autonomy and objective by group on the productivity and effort toward the increase of the effect of aspects such as organization shift and changing and participation in problem solving. Therefore, in order to improve the participative management, the followings are suggested:

Information Share: Participation methods are based on the information share. In fact, information share is the basic characteristic of participative activities. Having no information about the organizational performance and organization identity, the employees are depressed; because they are not obliged to the organization and they consider the organization’s goals separate from their goals. In reality, they act as the parts of a big machine.

Suggestion Systems: By this way, the manager prepares opportunities for the persons in order to present their thoughts, beliefs and creativities.

Work Committee: Work committees composed of the employees and their managers who are firstly selected in order to investigate the job problems. These committees which play main roles in union and non-union organizations are used since a long time ago.
These committees are also called management work committees, quality cores and etc. 

Regarding the training as one of key elements related to the creation of participative culture and the success of decision making programs, the employees should learn how analyze work processes using scientific methods. 

Description of organizational objectives and omission of work obstacles Organizational relations play the main role in decision making. These relations improve the social relations and organizational unity. On the other hand, employees should achieve the information related to the participative decision making in order to make decisions. Therefore, the managers are responsible for establishing relation among the persons and the members of the organization.

Autonomy is necessary to that extent it affects on the organizational performance positively. Autonomy causes the organizational structure and pyramidal structure to become balanced and the managers encourage the employees to reach the organizational objectives. 

Determination of group and team objectives in order to change the personal competition into the team competition: the support of the manager from the participation of the employees affects mainly on the achievement of organizational objectives and values.

REFERENCES