Analysis of management factors determining the efficiency of dairy product companies in Golestan province

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ABSTRACT

The purpose of this study is to analyze the management decisive factors for efficiency of dairy product companies in Golestan province. Statistical society was the staff on two main dairy product companies in that province, Pegah pasteurized milk co & factories of Sabah cheese, which respectively have 219 & 239 & among the 512 staff, 200 were randomly chosen personnels to form the sample group (100 from each company). The method of gathering information was through library & field research & the device for collecting data was questionnaire. The questionnaire was designed with Likert scale (very much, much, medium, low and very low) & it is question about the effect of complexity, centralization, people oriented leadership, task oriented leadership, evaluation of performance, discipline, delegation of authority & motivation on the efficiency of the staff. After final validity test, the questionnaire was distributed among individuals. The results of factor analyzing showed that there were seven factors: organizational discipline, organizational structure, and leadership style, and complexity, motivation delegation of authority centralization & in total 66/067 percent of the whole variance factor which is related to the efficiency of dairy product companies. The effect of the organizational discipline on the efficiency of the companies' products was more. The study recommendations include the directors' attention to providing opportunities for the staff to coordinate with company regulations, establishing coordination in units & effective communication between them & having influence on employees so that they willingly try to achieve group’s goals.

Keywords: Centralization, organizational structure, motivation, efficiency, dairy industries, Golestan province.

1. Introduction

Organizations as one of the most important pillars of society must have output as a matter of fact efficiency means doing the task correctly which leads to system's output. With efficiency individuals and organization are looking for ways to do the right things which means that organization's resources can be used in better way and would be more useful. These are the things that will be evaluated in this study in fact. All of the faculties and human and material resources of the organization are used in the way that provide maximum outcome and profit for the society and organization. Efficiency is one of the factors affecting the performance of organization as far as the organization doesn't have suitable structure or management skills are not applied correctly and leadership style of manager is not accepted by all of the staff it can't reach at acceptable level of efficiency because efficiency is closely related to process control and the use of resources during the process implementation. In organizations managerial factors have crucial role in efficiency, and since the establishment always has an
uninterrupted effort for its improvement by taking advantage of past experience and current techniques and present methods of scientific progress and achievements of management schools increase efficiency and effectiveness of the organization.

Performance factors are divided into two broad categories of factors within the organization (available and organization power) and environmental or outside the organization factors that in the short term are out of control of organization. Internal factors include hardware factors (machinery and equipment and tools, technology, raw materials, financial resources and land), software factors (information, instructions, maps and formulas), human ware or brain ware factors (human resources: skills, expertise, experience, education, motivation, work environment and conflicts of management) management (management philosophy and style, access to information technology, etc.... and factors outside the organization, including factors that affect performance, but firms are not able to control them (Such as government policies, national and international laws and regulations, work environment, access to financial resources, electricity, water, transportation, communications, materials, etc)(Taheri.1999).

Faryadras in a study to determine the relationship between organizational structure and performance of the company's oil export terminals concluded that there is a positive relationship between organizational structure and performance but inverse relationship exists between mechanical structure and performance (Chelamirani, N. 1999). In this study the relationship between centralization and formalization was confirmed.

Ortega and colleagues in a study about the effect of formalization, complexity and centralization on functional knowledge of 164 large companies in Spain concluded that complexity and centralization have respectively positive and negative effect on functional knowledge of organizations, However no relationship was obtained between formalization and functional knowledge in another research Budding and Groot by studying administrative system in Nether concluded that Nether land's municipal office strongly was related to institutional decentralization and decentralization caused the efficiency to increase (Ortega, E.M.P., Zaragoza-Sáez, P. and Claver-Cortés,E. 2010, Budding, T. and Groot, T. 2008). Ford and colleagues in their study about the effect of organizational structure on the performance showed groups, structures with decentralization have undeniable positive effects on group performance in doing complex tasks (Ford, D. L., Cummings, L. L., Huber, G. P. 1973).

In another study, Cummings said that information age made advent of eternal liberation movement in distance of organization from centralized complex and with high recognition structure (Cummings, S. 1995). He concluded that in each organization there is a balance between the two poles of centralization & decentralization and choosing of centralization or decentralization depends on external environmental pressures such as management style and technical advances.

Chehlamirani in a study about analyzing the effect of relationship and task oriented style on the efficiency of high schools in Zanjan concluded that efficiency and effectiveness of relationship-oriented leadership style is more than task-oriented leadership style. Mohammadi in a study about managers' leadership style and efficiency of sport teachers in secondary schools in Sanandaj founded that the relationship oriented management was more effective (Chelamirani, N. 1999, Mohammadi, Z.2007). Fallah Osboo-Kolaee in his study about the impact of leadership styles on the employer performance in transport and terminals of the country showed that the units which used collaborative leadership style have greater efficiency compared to units that have used authoritarian style (Fallah Osboo-Kolaee,
M.2003). Koenea and colleagues in their study about the effect of different leadership styles on two measures of financial performance and organizational climate in 50 Dutch supermarket concluded that direct relationship exists between friendly local leadership style and financial performance and organization climate in the stores (Koenea, A.S., Vogelaarb, L.W. and Soetserb. J. L. 2002).

Zabihi in a study in a grain and commercial service company in the district of eight showed that increase in authority delegation is effective in increasing the efficiency of staff (Zabihi. S 2007). The study of Wolf indicated that authority delegation is mostly effective for increasing security (Wolf, P.J. 2004). The study down by Mousa Khani and colleagues about the effect of performance evaluation on the company efficiency showed that the performance evaluation system is effective in improving employee performance (Mousa Khani, M., Hagh Khah, D and Hashan Zadeh, R. 2009).

Djankov and Hoekman study the effect of discipline on companies efficiency and concluded that a positive relationship exist between the increase of discipline improvement of performance and productivity (Djankov, S. and Hoekman, B. 2000). Abbasi in a research fit identifying factors that strengthen and weaken the morale of employees and understanding effective incentives for increasing their efficiency concluded that between motivational factors and performance of employees, a significant direct relationship exists (Abbasi, D. 2005).

Knowing which structure is suitable for the system and what structure should manager use and How to treat the employees and when to redesign, improve and in what circumstances have the performance evaluation and how and to whom delegate authority or what disciplinary factors to apply, all of these factors are important & effective in the research and by using them we can overcome the problems. According to the theoretical issues raised and the results of the studies, it seems that a relationship exists between management factors of organization, including the type & size of structure leadership style and management skills and efficiency of organization. The overall goal of this study is to analyze management factors affecting the performance of dairy product companies Golestan province.

2. Materials and methods

The purpose of present research is practical and it uses survey type of descriptive method. Its statistical society was the staff of two dairy product companies, Milk company of Iran (Golestan Pegah with 219 employees and Sabah dairy product company (only the factories in the city of Gonbad) with 293 employees . The sampling method was random and time range was four years performance of these companies during 2005 until 2009. To determine the sample size Cochran formula is used. Considering the error in the questionnaire return 300 questionnaires were distributed in the two factories that due to different reasons including low tendency of this group for answering question and other problems, in 200 collected questionnaire the method of gathering information was through library and field research and the device for collecting information was through library and field research, the device for collecting data was questionnaire. The questionnaire was designed with Likert scale (very much, much, medium, low and very low). For determining validity of the questionnaire, it was given to management experts and after necessary correction of its context, they confirmed it. For the final evaluation of questionnaire the Cronbach's alpha method is used, its amount equal to 90 percent, which means that the questionnaire has enough reliability.
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3. Findings & discussions

Obtained results showed that 172 of employees were male and 28 were female. The average age of them was 37 and their average work experience was 13 years.

Education level of majority of them (96 person's equivalent to 48 percent) was BA and most of them (117 person's equivalent to 58/5% present) work in manufacture sector.

In order to determine the suitability of data for factor analysis, coefficient KMO and Bartlett test was used. KMO value was equal to 0/84, Bartlett statistic value was 2705/ 335 and at 1% percent significance level that indicates the suitability of the data for factor analysis. For determining the number of factors according to Kaiser-Meyer- Olkin's Criteria, the accepted factors were the one which their special value was equal to 1. So 7 factors whose special value was greater than 1, were extracted. The first factor has the highest portion (32/434%) and the seventh has the lowest portion in explaining the total variance of variable factors. In all the seven factors which have been mentioned could determine 66/067 percent of the total variance related to the performance of dairy manufacturing companies.

Table 1: The number and the share of the exploited factors

| Factor | Eigen value | Variation percentage of the Eigen value | The cumulative frequency of the Eigen value variation percentage |
|--------|-------------|----------------------------------------|---------------------------------------------------------------|
| 1      | 8.757       | 32.434                                 | 32.434                                                        |
| 2      | 2.285       | 8.464                                  | 40.898                                                        |
| 3      | 1.803       | 6.678                                  | 47.576                                                        |
| 4      | 1.539       | 5.700                                  | 53.276                                                        |
| 5      | 1.332       | 4.932                                  | 58.207                                                        |
| 6      | 1.104       | 4.089                                  | 62.296                                                        |
| 7      | 1.018       | 3.771                                  | 66.067                                                        |

With factor rotation based on Varimax method and by determining associated variables with each factor with factor loadings, each of extracted factors has following variables:

The variables which were in the first factor including $x_{27}$, $x_{23}$, $x_{27}$, $x_{20}$, $x_{18}$, $x_{17}$ and $x_{16}$ shown in table 1. The special value of this factor is greater than all other factors (8/757) and in total, allocated 32/434 percent of the total variables variance. Nature of related variables to these factors was in way that has been named organizational discipline. Organizational discipline is among manager's skill and in fact is providing situation in which employees of an organization harmonize themselves with organization's rules and regulations and standards, and behave according to it (Abtahi, S.H.2007). As a result the employees are motivated to work better and it increases the efficiency of the organization (Doaee, H. and Mortazavi, S.)
2005). The variables in the second factor were \(x_3, x_7, x_{13}, x_{14}\) and \(x_{15}\). This factor according to their variables is named the organizational structure-leadership style. The variables in the third factor were \(x_1\) and \(x_2\) and according to its nature of constituting variables it has been named “Complexity”. The variable in the fourth factor was \(x_{26}\) which according to its components' variables has been named “Motivation”. The variable in the fifth factor was \(x_{10}\) and according to the nature of forming variable it has been named “delegated authority”. The variable in the sixth factor was \(x_8\) and with respect to its nature has been named “formalization”. In the seventh factor the variable had a highly significant acceptable and meaningful loading and which based on its nature has been named centralization. Totally speaking all the factors have determined 66/067 percent of the total variance of variables and 33/933% of the remaining variance is related to other factors which is not possible to predict. According to special value and present of special value variance, it can be said that the most important factor explaining the performance of dairy manufacturing companies is the organizational discipline.

**Table 2: Variables related to each value and the coefficients gained from the rotated matrix**

| Variables | Coefficients value (the factor load) | Items | Factor name               |
|-----------|--------------------------------------|-------|---------------------------|
| \(x_{16}\) | 0.60                                 | The tact of relation of performance indicators with organization activities and staff jobs. | Organizational discipline |
| \(x_{17}\) | 0.79                                 | Mental level and personal performance evaluation of employees in the organization. |                         |
| \(x_{18}\) | 0.74                                 | Rate of realistic and objective evaluation of employees in the organization. |                         |
| \(x_{20}\) | 0.62                                 | The rate of manager use of positive and incentives measures for discipline. |                         |
| \(x_{21}\) | 0.71                                 | The rate of compliance with regulations of organization discipline by managers. |                         |
| \(x_{23}\) | 0.67                                 | The rate of the staff authority delegated by managers to accept responsibility for mistakes. |                         |
| \(x_{27}\) | 0.63                                 | The amount of promotions based on individual. |                         |
| \(x_3\) | 0.64                                 | The rate of coordination between the groups in an organization |                         |
| \(x_7\) | 0.62                                 | The rate of freedom to perform duties | Organizational structure-leadership style |
| \(x_{13}\) | 0.61                                 | The rate of manager's confidence and interest toward employees |                         |
| \(x_{14}\) | 0.73                                 | The amount of two-way and bilateral communication between manager & organization staff. |                         |
| \(x_{15}\) | 0.64                                 | The neglect of division of labor in the various components |                         |
| \(x_1\) | 0.89                                 | The rate of the division of labor in various components in the organization. | Complexity |
| $X_2$ | 0.84 | The rate of the grouping of tasks and responsibilities in the organization. |
| --- | --- | --- |
| $X_{26}$ | 0.78 | The amount of sufficient money and stimulus materials from the organization. |
| $X_{10}$ | 0.71 | The rate of authority delegation for making decisions in the lower ranks. |
| $X_8$ | 0.78 | The amount of no planned behavior in the organization. |
| $X_9$ | 0.84 | The rate of decision in the organization by higher manager. |

4. Conclusion and suggestions

The research results indicate that the 7 factors including organizational discipline, organizational structure-leadership style, complexity, motivation authority delegation, formalization and concentration has determined 66.067 percent of the total variance related to the performance of dairy product companies. Organizational discipline means coordination of employees with standards and rules of company and acting up on it. It is related to managers' skills & is the most important effective factor in the efficiency of Sabah and Pegah dairy product companies. Other factors such as organizational structure-leadership style, complexity, motivation authority delegation, recognition and centralization are on the next ranks. According to the mentioned findings and for efficiency durability of investigated production units it is essential for the managers to provide appropriate opportunities, harmonizing employees with company’s rules and regulations. Other subjects that should be considered by managers are establishing coordination and cohesiveness of the wits & attentions to the maintenance and establishment of effective communication between them and having influence on the employees so that they willingly try to achieve materialize the company’s goal.

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