

Evaluation of Impact of Component Interactions and Control Cybernetic Model of the Physical Education Department of Isfahan

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ABSTRACT

The main objective of this study. The relationship between components of the control element interactions with the cybernetic model in Isfahan was the Physical Education Department study of the correlation method was applied to the statistical community, including 221 employees in the Department of Physical Education academic year It was 2011 when 132 people using stratified random sampling method proportional to size selected. Data collection instruments, questionnaires, 19 questions, depending on the cybernetic model based on the Likert rating scale with a reliability coefficient of 0/ 88 and the questionnaire. Data analysis based on inferential statistics (Hoteling test and Pearson correlation) were performed and the status of the subjects Kolmogorov Smirnov test was normal and heterogeneity of variance was also established. This study shows a significant level of $p < 0/05$ was considered. Results showed a Physical Education Department in the amount of control and interactions between components of the cybernetic model in organizing its activities, the place is pretty good and there are significant differences between the two components of the control and interaction with application of control components, the interactions are governed by physical education staff and contribute to the goals and motivation for employees to be more active in the organization. The results also suggest that the Physical Education office, trends are positive in this model. Seeder these results with findings of prior research (2008) seems to correspond to the application of this model should be more concerned authorities Physical Education should be.

Key words: Model Cybernetics, controls, interactions, physical education department.

Introduction

Management issue in Physical Education Organization of the main issues and macro-management of the country. Importance to this issue that there has been one of the last decisions of the parliament. Design and integration of two national youth organizations and physical education as "the Ministry of Youth and Sports" and opposing the views of many, especially the exercise of macro managers faced. The Physical Education Organization of Iran, like many other countries, with specific management issues such as separation and development of athletics and the public, short-and long-term plan to prepare athletes for national and international competitiveness, infrastructure development exercise, and expressed readiness to participate in the national tournament, ready to host the prestigious international competitions and other issues and concerns of these faces. Accordingly, the

management style used in the macro-level, intermediate, and organization of individual physical factors influencing the overall management of the organization. Among the issues raised in this context, the use of modern management theory in sports management in Iran. One of the theories of management, is a cybernetic model by Baoum [3] has been proposed as a science, relying on the guidance and supervision, and appropriate feedback, loose and hard graft, development of communication and interaction with the environment It provides for self-regulation within the organization [2]. Based on this definition, cybernetic management model, with six titles under the supervision and control components, loose and hard graft, supervision, interaction, and leadership is hierarchical [3]. In this study the two components and interaction models were Cybernetics. The findings of this study, the overall estimate of the state management system in the Department of Physical Education acquired in

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addition to determine the application level cybernetic model of how the Department of Physical Education.

The results of this study appears to be a model for the development of Physical Education provides office Cybernetics. This model can also paved the way for future studies to design models based on the cybernetic model for other agencies and governmental agencies and non government.

The overall goal of the study and application of the cybernetic model of interactions between components and the Department of Physical Education.. Also used to determine the part of the cybernetic model components (controllers, interactions) in the Department of Physical Education and cybernetic model of interactions between components and the Department of Physical Education.

The Research Question:

Cybernetic model of the interactions between components and the Department of Physical Education there is a meaningful relationship?

There are numerous definitions of knowledge work in Cybernetics model [5]. Cybernetics is a branch of mathematics that control issues, data integrity and dealing. The new science of Cybernetics focuses on the shape and model of the past with the science of matter and energy [10]. In this study, using the science of Cybernetics model, avoids emphasis on control related issues. In such a system of communication and control system is essential to maintain balance. The important point here is that the communication and control systems, without interference by external factors is performed. In contrast to some of Cybernetics, the universe consists of matter and energy are considered, and it is to emphasize the importance of communication and information exchange is another [2].

Interactions:

Instead of focusing on the director of the cybernetic model, the interaction of various organizational systems to maintain the effective functioning of the organization is emphasized. Coordination between sub-units of the limitations established in the upper levels of the organization, is institutionalized. If this arrangement is deemed to be inappropriate, the intervention needs to occur at higher levels of hierarchy. The intervention of the problem is minor. Cybernetics in the process (2-1) are shown.

This process begins when some changes in internal and external environment leads to a reactive organization. If it changes, some formal and informal groups (control unit) to monitor and change the variable that it is out of acceptable limits, the management group will attempt to change the

organization to respond when changing back to an acceptable range given position to enforce.

Control:

Rapid and cross-organizational solutions for problems with particular applications are limited and probably not applicable in the organization. As managers, and suspicious of unknown environments and experiences are affected by the limitations requires them to determine the conditions, and can not get to judge the usefulness or success of your organization measure directly, so the number of relatively decisions with little or no lining with unusual strategies they can confidently predict that the consequences.

Management issues in the sub-units, the "consecutive" not to pay the "integrated." This means that the units are sub-issues that are raised, to solve, their solutions without understanding the impact on the performance of other sub-units are. Their organizational structure is divided into small units, some of the issues assigned to these units and so they decide that this division of the reserved stay adorned Baoum [3].

Cybernetic systems, are fundamentally rooted in the concept of feedback control loops [6] and can only react to stimuli that are sensitive. For example, thermodynamic the temperature-sensitive and non sensitive to other environmental changes. Control or supervision exercised or actions indicate that the material on one or more phenomena, and these actions are performed based on that information to improve the operation or development of the phenomenon are used [8].

Keeney [7] considers that a system approach to feedback from past performance, and the information in this way, is trying to overcome their disorders. Supervision of large and complex social cybernetic systems to help such organizations, their activities and promote discipline. This means that members are self-correcting mechanisms and the occurrence of events that will lead to undesirable direction, negative feedback systems, identify errors and events that the organization returns to its original path, automatically starting the activity will.

According Schwaninger, in a study entitled "Effect of the cybernetic model of organizational enrichment" cybernetic view of the organization, supervision and communication science deals with the management and group synergy. In his study with a cybernetic approach, seeks to provide an orderly and organized structure for process planning, production and innovation in the organizational environment. In this study, saying how processes in organizations with an orientation Cybernetics are effective.

Assimakopoulos. N. & Dimitriou. & Dimitriou. N [1] in their study as "cybernetic framework for the success of virtual organizations" have asserted that

the application of the cybernetic model of virtual organizations, organizational efficiency increases. Cybernetic conceptual framework and principles for the mapping of virtual enterprises and organizations with the ability to adapt to structural changes have been encouraging.

BazrafshanMoghaddam[2] investigated the use cybernetic model to examine the model of Cybernetics at the University paid the findings suggest that in Iran (especially Ferdowsi University of Mashhad) in the amount of the cybernetic model in organized activities, the place is good and this is true cybernetic model of the component fields. In other words, the average views of Mashhad University of managers significantly from the average level of theoretical description of the data collection instrument is higher. The results also indicate that Iranian universities also tend to organize their activities in the framework of cybernetic models and trends in the components associated with the mean 4/7 is.

Methodology:

In order to describe the relationship between the components and interaction models in the Cybernetics Department of Physical Education, research methods, descriptive and to the correlation method is used.

employees of the provincial population of this study was the Physical Education Department, according to statistics provided by the personnel department of Physical Education in 2011 was 221

Table 1: Test the Kolmogorov – Smirnov.

Statistical indicators	Value	Significant level
Control	0/79	0/547
Interactions	0 / 01	0/263

* Meaningful level of $p < 0/05$.

Table 2: The correlation coefficient Components of control and Interactions in the Department of Physical Education.

Control	Correlation coefficient		
	n	p	r
Interactions	132	0/003	0/514

Based on the results in Table (2) The correlation coefficient between the control and interaction level between $p < 0/05$ was significant, so the control and decision making in physical education meaningful relationship is based on the ratio of 8% of the variance decision has joint control.

Conclusion:

Considering the results from the interaction data can be claimed for such personnel to improve the performance of the component Cybernetic model of the interactions with respect to most characteristics of the components of those efforts. The analysis concluded that the items can be controlled to improve and strengthen the control elements necessary to establish and strengthen supervision and

people. Due to the statistical community, managers and all staff are, therefore stratified random sampling method is used.

According to Morgan table, for the 221 seats in the 132 sample size and the number of classes due to the disproportionate allocation of finds.

Assess the normal distribution of data and the Kolmogorov Smirnov test for homogeneity of variance test was used to Levin. For data analysis, inferential statistics such as Pearson's correlation coefficient was used. And 18SPSS software was used for data analysis (Significance level of $p < 0/05$).

Data for this study included two questionnaires: the survey questionnaire and the cybernetic model of control components, the components of the cybernetic model of decision making has been developed by Bazrafshan Moghaddamin 2008. Reliability of measuring instruments is calculated using Cronbach's. Cybernetic model of reliability of 88% is achieved.

Results and Findings:

To determine the normal or non-normal data and control interactions of components of the test model Cybernetics Kolmogorov - Smirnov was used, the results in Table 1 are presented.

As in Table 1 is observed, the test statistic was used to control the data rate ($p = 0/547$), the interaction component ($p = 0/263$) follows a normal distribution, parametric statistics were used to test the hypotheses.

improve the negative feedback systems The system is continually done. Findings of cybernetic model (interaction, control) showed that employees in connection with the cybernetic model of the situation is favorable and the interactions between components and controls, and there is a significant relationship. Application of two-component model of interaction and control of Cybernetics at the Physical Education Organization is desirable. The results with the findings of prior research BazrafshanMoghaddam [2] does not match the findings suggest that the BazrafshanMoghaddam in most of the rest of the components of this research findings suggest higher levels of control components The higher level of control is based on this model, the interaction of both factors appear to increase the statistical difference in

the community are BazrafshanMoghaddam of different research results.

And interactions between the components, there are significant relationships found in this investigation appears to use a cybernetic model of interactions between staff and managers in the organization makes the most of the comments and the lead managers and employees in the Using this model, organizations and agencies can use to become an ideal model with the Department of Physical Education in their day and can be aligned with the industrial world to compete.

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