Pathology of Human Resource using Three-Dimensional Model (case study: Iran Khodro Company)

Rohollah Geraeeli, Rahimeh Farjami Sorkheh Rizi, Seyyed Abbas Tofighi

A B S T R A C T

Human resource is known as the best capital of the companies and industries. During the production and service processes, many ups and downs may occur for human resource and affect the human resource efficiency and productivity. Therefore, an exploration seems to be necessary to find the reasons for these problems and damages. This descriptive-survey study was an applied research. The population of this study was Iran Khodro Company. A sample of 96 employees (n=96) was selected using cluster and stratified sampling through Morgan table. A questionnaire was used for data collection in which included three behavioral, contextual, and structural dimensions of Aharanjani’s model. The questionnaire validity was confirmed by industrial and academic experts. The reliability was obtained above 0.7 using Cronbach’s alpha coefficient in SPSS software. The results indicated that the structural dimension entered the production and service processes, many ups and downs may occur for human resource and affect the human resource efficiency and productivity. Therefore, an exploration seems to be necessary to find the reasons for these problems and damages. This descriptive-survey study was an applied research. The population of this study was Iran Khodro Company. A sample of 96 employees (n=96) was selected using cluster and stratified sampling through Morgan table. A questionnaire was used for data collection in which included three behavioral, contextual, and structural dimensions of Aharanjani’s model. The questionnaire validity was confirmed by industrial and academic experts. The reliability was obtained above 0.7 using Cronbach’s alpha coefficient in SPSS software. The results indicated that the structural dimension entered the most damage into Iran Khodro Company compared to behavioral and contextual dimensions.

I N T R O D U C T I O N

Organizational pathology is often regarded as the most critical component of an organization’s improvement plan. Hence, accurate and timely pathology is one of the most important steps that successful companies and organizations take to improve their effectiveness. The accurate and timely pathology allows managers to be aware of their organizations’ current problems and to prevent them. Organizational pathology is a collaborative process among the organizational members and organizational pathology consultants in order to collect relevant and pertinent information about the organization’s underlying problems and their causes, to analyze the collected data, to conclude analyses and classify problems into two general and specialized levels, and to provide suggestions on the necessary guidelines for solving problems.

The problem is something that endangers the ability of the organization to achieve the goal i.e. the problem is a situation that prevents the organization from achieving one or more goals [1].

Both medical and organizational pathologies confirm the existence of a real problem and it is the art of using organizational outputs and its relationship with the function of the organization in the current situation. Pathology can eliminate the organizational defensiveness and positioning and it can also be a means for learning new behavioral patterns.

By applying three-dimensional model, this study aims to examine the factors affecting the human resource management (HRM) pathologies of the Iran Khodro Company.

T h e o r e t i c a l f r a m e w o r k:

“Pathology” means the identification of factors and causes that are involved in the crisis occurrence of different phenomena and these factors can disrupt the development and efficiency of the phenomena. The pathology’s goal is to find the cause or causes of the recession or crisis in the natural trend of phenomena and activities. Pathology is a systematic process of collecting data for effective and efficient interaction in order to solve environmental problems, challenges, pressures, and constraints in the organization [2].

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Pathology is based on understanding an organization’s performance. Intellectual frameworks which are applied by organizational change practitioners for organizational assessment are called "pathological patterns". The pathological patterns play an influential role in organizational change [3].

### Table 1. Types of organizational pathologies [4]

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Preliminary damages</th>
<th>Critical damages</th>
<th>Hazardous damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effects and Consequences</td>
<td>Short-term</td>
<td>Medium-term</td>
<td>Long-term</td>
</tr>
<tr>
<td>Type of damage</td>
<td>Damage to the organization’s growth and survival goals</td>
<td>Damage to the organization’s growth goals</td>
<td>Damage to the organization’s growth and survival goals</td>
</tr>
<tr>
<td>Scope of damage</td>
<td>Limited</td>
<td>In a certain scope</td>
<td>Vast, extensive and infinite</td>
</tr>
<tr>
<td>Diagnosis method</td>
<td>Diagnosis of simple signs</td>
<td>Diagnosis of not so simple and not so difficult signs</td>
<td>Diagnosis of difficult signs</td>
</tr>
<tr>
<td>Disorder in the structure</td>
<td>Superficial and low</td>
<td>Significantly</td>
<td>Deep and high</td>
</tr>
<tr>
<td>Dysfunction</td>
<td>Low quantitative and qualitative decline</td>
<td>Significant quantitative and qualitative decline</td>
<td>High quantitative and qualitative decline</td>
</tr>
<tr>
<td>Contextual prevalence</td>
<td>Failure to permeate into the context</td>
<td>Low permeation into the context</td>
<td>Permeation into the contexts</td>
</tr>
<tr>
<td>Priority</td>
<td>Third</td>
<td>Second</td>
<td>First</td>
</tr>
<tr>
<td>Treatment</td>
<td>Superficial and justified</td>
<td>Scientific with research, organizational analysis and recognition</td>
<td>Revolutionary, rapid and decisive</td>
</tr>
</tbody>
</table>

**Three-dimensional model:**

Organizational pathologies are underlying causes and problems that make the organization vulnerable to the crisis and they prevent the organization from appropriate and healthy growth. Organization and management phenomena can be examined and analyzed in terms of three behavioral, structural and contextual factors. The behavioral or content factors include all human resource (HR) factors that constitute the content of the organization - for example motivation, morale and job satisfaction. Structural factors include all systematic relationships governing the internal components of the organization that build its body - for example organizational structure, rules and regulations. Finally, contextual factors include external environment and conditions that underlie the behavioral and the structural factors [4].

The reason for naming the three-dimensional model is that the relationship between structural, behavioral and contextual factors is in a way that any organizational phenomenon or event cannot occur out of the interaction between these three dimensions. In other words, there is a close relationship between these three dimensions and they are actually inseparable. In fact, the type of relationships between these three dimensions is interdependent and the relationships between these three dimensions are as three branches of the body of the organization’s life [4].

Structure: the causes and factors that make an organization’s structure vulnerable to the crisis are called structural pathologies. Organizational structures are paths, channels and containers in which organizational processes and operations are streamed. The structural dimension contains all physical and inhuman elements, factors and conditions of the organization that are interrelated with a particular regularity and order and build the physical framework of the organization [4].

The structural pathologies which are the underlying causes and factors disrupt the "mixed order" or "sorting order" of the basic elements of the organization and they expose to crisis the main structures of the organization, including natural and physical structures, financial and economic structures, human structures and information structures. Behavioral pathologies that are underlying causes and factors expose to crisis the organization from various aspects of the human behaviors and thereby core functions. The contextual pathologies that are also underlying causes and factors disrupt the appropriate relationships and interactions and timely and accurate response of the organization to its environmental systems and they create crisis in these relationships. In such a relationship, the structural, behavioral and contextual factors are interacting in the form of continuous system relationships. These three dimensions are identical - mainly dominant context type- and there is not trifurcation between them. Therefore, differentiating and distinguishing these three aspects of the organizational life is purely theoretical and it is just for analyzing and understanding the organizational concepts of phenomena [4].

Content or behavior: as noted, the structure is as the container of organizational activities and movements. Content or material that falls within the organization is human work or behavior. Therefore, the human behavior constitutes the main content of the organization and human activities and behaviors also occur for achieving the predetermined organizational goals. The outcome of human work and energy and organizational goals and structures are manifested in main functions or tasks of the organization. Performance and functions are the focus of recognizing the behavioral pathologies and those factors should be considered that disrupt the organizational functions or distract normal human performance and they damage effectiveness so that they create a crisis in the organization and they prevent the organization from appropriate and healthy growth [4].
Context or environment: context has a special place in the three-dimensional theory and organizational pathology. The main feature of is the importance of the extent and dating back of this dimension compared to structure and content. On the importance of context and environment, two other dimensions are dependent on the environment. The context which in equivalent to the environment in theoretic system is so important that is developed from concept to theory. Today, organizational researchers and theorists have presented important theories on the environment. The main role of contextual or environmental factors is adjusting the organizational relationships to higher systems. Since each system or organization, in its own place, constantly interacts with its higher systems, it is a subsystem compared to higher systems. Therefore, all causes and factors that lead to establish, adjust and timely response to the main systems are called context or environment. In other words, contextual or environmental pathologies are impairments that disrupt appropriate or system interaction and timely response of the organization to its neighboring environmental systems and they cause crises [4].

All corporate events and phenomena can be studied and analyzed in terms of three-dimensional theory. This model is composed of structure, context and content. Structure means all physical and inhuman elements, factors and conditions of the organization that are interrelated with a particular regularity and order and build the physical framework of the organization. Therefore, all physical, financial, informational, and technical resources that are streamed throughout the organization are the components of the structural dimension and in fact, they are nonliving factors [5].

Fig. 1: Aharjani three-dimensional model.

Method:
Since this study has identified the organizational pathologies in the existing situations, it is a descriptive research. In descriptive research, the characteristics of the study population can be evaluated through a survey approach. At any time and depending on project needs, questionnaires or interviews are used for data collection in order to describe and explain the beliefs, attitudes and behavior of the sample group. Library method has also been used to collect data on the theoretical foundations of the study regarding its hypotheses.

The population includes Iran Khodro Company’s HR. According to most scholars, because of the large size of the population, sampling is performed and the more sample size is the more accurate results are achieved. Therefore, the sample must be representative of the population. The representativeness means the sample reflects the characteristics of the study population, especially those characteristics that are important regarding the research topic and its results can be generalized to the whole population. The generalizability of the results is also an important aspect of any scientific research. Generalizability means that the results of the study can be extended to other people, other groups, and other conditions of the population in which sample is taken [6].
The questionnaire is used for data collection. The questionnaire validity has been confirmed by industrial and academic experts. The reliability has been obtained above 0.7 using Cronbach’s alpha coefficient in SPSS software.

SPSS software is used for data analysis and Kolmogorov - Smirnov test and Friedman test are also used. Friedman test: this test is used for ranking of the variables. H0 and H1 are written as follows:

H0: the variables have an equal rank or priority.
H1: the variables don’t have an equal rank or priority.

The output of SPSS software includes two tables for this test. The first table is the mean ranks of variables and the second table includes the statistical characteristics and chi-square statistics of the variables. According to the significance level in the second table, the test result can be judged, if the significance level is less than 0.05 (Sig<0.05), i.e. the research hypothesis (H1) is supported and there is a significant difference between the ranks of variables.

Data analysis:

SPSS software is used for data analysis.

Cronbach’s alpha test for reliability

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.802</td>
<td>20</td>
</tr>
</tbody>
</table>

According to Cronbach’s alpha test, it is observed that alpha is higher than 0.7 (α>0.7), therefore, the questionnaire has reliability.

Kolmogorov-Smirnov test:

This test examines data normality based on the following hypotheses:

H0: data are normally distributed.
H1: data aren’t normally distributed.

Given Kolmogorov-Smirnov test table, the judgment is in a way that if the significance level (Sig.) is higher than the test level (0.05) for all variables, data will be normally distributed. The result of this test is shown in the following table.

Table 2: The significance level of Kolmogorov-Smirnov test

<table>
<thead>
<tr>
<th>Factors</th>
<th>Sig.</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural factors</td>
<td>0.04</td>
<td>Rejected</td>
</tr>
<tr>
<td>Behavioral factors</td>
<td>0.03</td>
<td>Rejected</td>
</tr>
<tr>
<td>Contextual factors</td>
<td>0.04</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

According to the result of the Kolmogorov - Smirnov test, since the significance level of this test is less than 0.05, all variables aren’t normally distributed. Therefore, H0 is rejected and Friedman non-parametric test is used for the analysis and prioritization of criteria.

The results have been analyzed using the Friedman test and SPSS software.

Table 3: The results of Friedman test for comparing each factor of the three-dimensional analysis model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean ranks</th>
<th>Total ranks</th>
<th>Mean</th>
<th>Standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural factors</td>
<td>3/62</td>
<td>237/00</td>
<td>3/76</td>
<td>0/35</td>
</tr>
<tr>
<td>Behavioral factors</td>
<td>2/75</td>
<td>166/00</td>
<td>2/85</td>
<td>0/55</td>
</tr>
<tr>
<td>Contextual factors</td>
<td>2/53</td>
<td>164/00</td>
<td>2/39</td>
<td>0/36</td>
</tr>
</tbody>
</table>

The comparison of mean ranks indicates that in HR, the structural factors are more important than behavioral factors and contextual factors.

Conclusion:

In their studies, Joneidi and Mohebbati [7] and Kamrani [8] concluded that structural and contextual factors had respectively most and least effects on HR pathologies. Regarding the effect of structural factors, their results are consistent with the results of this study.

The results of this study suggested that the structural dimension had a higher priority over two other dimensions. Structural factors such as regulations, decision-making procedures, plans, recruitment, payment system, appointments and promotions, performance evaluation, staffing and selection had the most effect on HR pathologies.

REFERENCES


