



## A Hybrid Model by Utilizing SOM Neural Network and K-Means for Clustering: The Quality of Responsiveness and Accountability at the Central Library of Science and Research University

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### ABSTRACT

The present study seeks to find ways to get rid of the use of qualitative data in the assessment of goods and services hence it has presented a new method for this subject. Also it has presented a hybrid model for achieving the proper number of clusters in clustering and it has studied the technique of SOM clustering. Statistical population of doctoral students of Science and Research University is determined through specific circumstances. The tools which have been used are SOM neural network and K-means. Also average silhouette was used and eventually, the number of clusters was considered to be three. Finally, data was clustered and correlation coefficient was obtained as 90.23.

**Key words:** Clustering, SOM Neural Network, K-means.

### INTRODUCTION

In this paper, with the aim of providing a new method to avoid the use of LIKERT spectrum, a new method is presented to measure the independent variables. Also we have sought to find ways to realize the appropriate number of clusters hence we have combined k-means method and SOM neural network together. In continue a summary of the articles in this study is presented.



**Ehsan Abolfathi et al.**

## LITERATURE REVIEW

G. S. Uttreshwar, A. A. Ghatol in article by name, Hepatitis B Diagnosis Using Logical Inference and Self-Organizing Map presents analyzed the application of artificial intelligence in conventional hepatitis B diagnosis. In this research, an intelligent system that worked on basis of logical inference utilized to make a decision on the type of hepatitis that is likely to appear for a patient, if it is hepatitis B or not. Then Kohonen's self-organizing map network was applied to hepatitis data for predictions regarding the Hepatitis B which gives severity level on the patient. Results: SOM which is a class of unsupervised network was used as a classifier to predict the accuracy of Hepatitis B. Conclusion: We concluded that the proposed model gives faster and more accurate prediction of hepatitis B and it works as promising tool for predicting of routine hepatitis B from the clinical laboratory data.

Ferdinando Giacco, Silvia Scarpetta, Luca Pugliese present paper by name An application of the Self Organizing Map Algorithm to computer aided classification of ASTER multispectral data

In this study we employ the Kohonen's Self Organizing Map (SOM) as a strategy for an unsupervised analysis of ASTER multispectral (MS) images. In order to obtain an accurate clusterization we introduce as input for the network, in addition to spectral data, some texture measures extracted from IKONOS images, which gives a contribution to the classification of manmade structures. After clustering of SOM outcomes, we associated each cluster with a major land cover and compared them with prior knowledge of the scene analyzed

Jian-Hua Zhao and Wei-Hua Li (2009) present study by name Intrusion Detection Based on Improved SOM with Optimized GA.

In this paper to improve the effectiveness of supervised self-organizing map (SSOM) neural network, a kind of genetic algorithm is designed to optimize it. To improve its classification rate, a real number encoding genetic algorithm is provided and used to optimize the learning rate and neighbor radius of SSOM. To speed up the modeling speed, a binary encoding genetic algorithm is provided to optimize input variables of SSOM and reduce its dimension of input sample. Finally, intrusion detection data set KDD Cup 1999 is used to carry out experiment based on the proposed model. The results show that the optimized model has shorter modeling time and higher intrusion detection rate.

S.PitchumaniAngayarkanni, .V.Saravananhave presented an article titled SOM Based Visualization Technique for Detection of Cancerous Masses in Mammogram.

They got a fair segmentation is obtained. The artificial neural network with unsupervised learning together with texture based approach leads to the accuracy and positive predictive value of each algorithm were used as the evaluation indicators. 121 records acquired from the breast cancer patients at the MIAS database. The results revealed that the accuracies of texture based unsupervised learning has 0.9534 (sensitivity 0.98716 and specificity 0.9582 which was detected thorough the ROC. The results showed that the gabor based unsupervised learning described in the present study was able to produce accurate results in the classification of breast cancer data and the classification rule identified was more acceptable and comprehensible.

SmrutiSouravaMohapatra, Prasanta Kumar Bhuyanhave presented an article titled Self Organizing Map of Artificial Neural Network for Defining Level of Service Criteria of Urban Streets in this study, Defining LOS is basically a classification problem and application of cluster analysis is found to be a suitable technique to solve the problem. Self-Organizing Map (SOM) a type of Artificial Neural Network (ANN) used to solve this classification problem. For this study, lot of speed data is required for which GPS is found to be the most suitable method of data collection and hence extensively used. Free flow speed (FFS) and average travel speed during peak and off peak hours inventory of





road segments are used in this study. FFS ranges for different urban Street Classes and speed ranges of LOS categories found to be lower than that mentioned in HCM-2000.

Shafaatunnur Hasan, Mohd Noor in article by name , Pest Clustering With Self Organizing Map for Rice Productivity presents intelligent solutions by implementing spatial analysis and Kohonen Self Organizing Map (SOM) to cluster types of pests for better agricultural rice pest management in Malaysia And they SaidSOM suitable for clustering.

## **MATERIALS AND METHODS**

In the present study, we did not have any materials. Statistical population of the study consists of PhD students who had visited library at least 10 times a season and have experienced the particular state in library at least 5 times a year. The purpose of the particular state is circumstances, such as repair, congestion and mobility and... in the central library. By using the exploratory study, the number of members of the community was estimated to be 123 individuals and by using Morgan Cochran formula number of samples was considered to be 93 samples. Three independent variables were considered for assessing the quality of responsiveness and accountability that were calculated as follows:

### **Accountability and responsiveness in normal state**

Sample members were asked that how many times they have been waited less than three minutes for the deliverance of book in ten times of visit in a season. The number of times that they had waited less than three minutes was taken into account, for example, for 9 times they had waited less than three minutes (If the number of visits in each season was more than ten times, we would use proportions and then we would round the resulted number to closer integer number. Also according to employees three minutes is considered as normal waiting time)

### **Accountability and responsiveness in particular state**

Sample members were asked that how many times the response time was less than 5 minutes, for example, if in 5 times of reference they have been responded in less than 5 minutes for 3 times, then the number of 3 was considered. (If the number of visits in particular state was more than five times a year, we would use proportions and then we would round the resulted number to closer integer number. Also according to employees five minutes is considered as normal waiting time in particular state)

### **Satisfaction with accountability and responsiveness of staff**

Sample members were asked that if they were satisfied by the attitude of the staff at each visit? The number of times that they were satisfied was specified with yes and the figure related to the number of yes was entered. (If the number of visits in each season was more than ten times, we would use proportions and then we would round the resulted number to closer integer number. Also the questions were asked in Yes or No form). Finally, we asked members of the sample that with respect to the three mentioned questions to choose a level for the quality of accountability and responsiveness from three levels of moderate, weak and strong. After collecting data through the described method and not using the LIKERT spectrum, which is the strong point of the work, we used K-means method and silhouette values for finding the appropriate number of clusters. Thus, three and four clusters were considered in K-means method and then the silhouette values and also average silhouette values were obtained for three and four clusters. In this way, we were able to estimate the number of proper clusters SOM method, but this estimation was not definite, rather it was used as a guide, it means that it was not sufficed to the value obtained for the number of





clusters. Then by using SOM neural network we created the architectures of hundred and three and four neurons and we selected the best architecture and then we carried out clustering according to it and ultimately we compared results obtained from clustering with neural network with the results obtained from the direct questioning of the sample members about the quality of accountability (the same strong and the weak and moderate levels). Finally we have used the MATLAB software

## RESULTS AND FINDINGS

Figure 2 shows the data for the first question. The remaining data is also observable in this form.

According to the values of silhouette and its average, we considered that three clusters are better than four clusters. More values of three clusters were closer to one and the mean values for the four clusters were 0.78 and 0.864 for the three clusters and because the average which is closer to one is considered to be better, it would be more appropriate to consider neural network with architecture of two clusters and three clusters and four clusters (figures close to three clusters).

Figure 3 shows the weights for the three entries, as it can be seen at least for the second and third entries the yellow color and a bit darker yellow color indicate that four clusters cannot be appropriate. Of course, this is not definitive, and it is resulted by comparing other diagrams related to this architecture and also diagrams related to other architectures.

As it can be seen in Figure 4, for all entries, the area is marked with a yellow and black color, so we have two specific areas, which show two clusters and the third area may include one or more of the separate clusters. If we consider the third area as a cluster, it would be three-cluster architecture and, if we consider it as two clusters, the architecture would be four neuronal. Due to obtained average silhouette value for the four clusters, the value of four clusters is not more appropriate than three clusters; this matter becomes definitive when we compare the diagrams related to three-cluster architecture with diagrams related to four-cluster architecture. In Figure 5, for the first two entries, we have considered the three colors of red, black and yellow and for the third entry we have considered the three colors of yellow, brown and yellow which is better than the figure 3. Figure 6 shows the architecture of three neurons.

Figure 7 shows the distance of neurons from each other, as it can be seen the three neurons are completely separated. So according to what was mentioned, three neural architectures is better than four neural architecture

Figure 8 shows the number of samples in each cluster, there are 29 members at the first cluster and 29 members in second cluster of and 35 members in third cluster. Now we carry out clustering in three groups with neural network and then for each data in sample we select the number of cluster and we minus it from the number of cluster which was provided by respondent for the quality of accountability, if the difference between the number of clusters is equal to zero, for that data, it means that data with neural network is clustered in the same group that the respondent has placed it. Note that there has never been a model for the training. It has been shown in Figure 9. The correlation coefficient between the neural network clustering and clustering by asking respondents is equal to 90.23.

## DISCUSSION AND CONCLUSION

The advantage of this method is that it has not used LIKERT spectrum and qualitative data; in fact data have been obtained experimentally. Other discussion is the use of the hybrid model to find the appropriate number of clusters, which is the most important issue in clustering. The model had a good performance. This method can also be used for



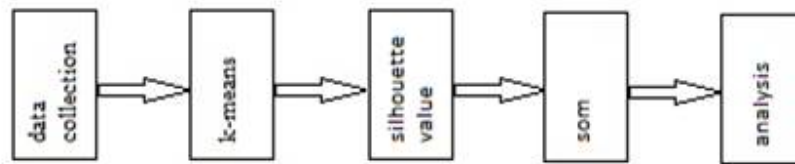


**Ehsan Abolfathi et al.**

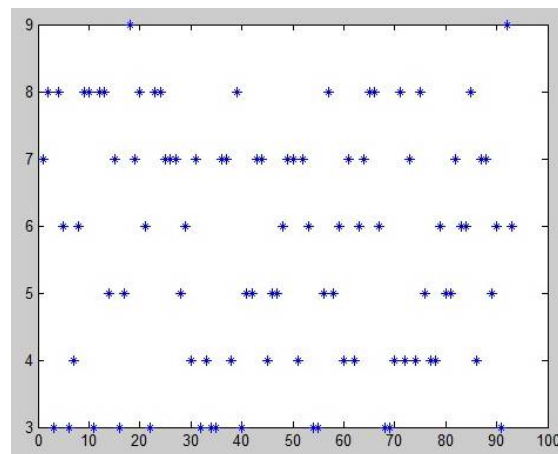
clustering the opinions of customer about the goods. Finally, the present study, like other mentioned studies, considers that the use of SOM is an appropriate method for clustering.

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**Figure 1. A conceptual diagram of the data flow**

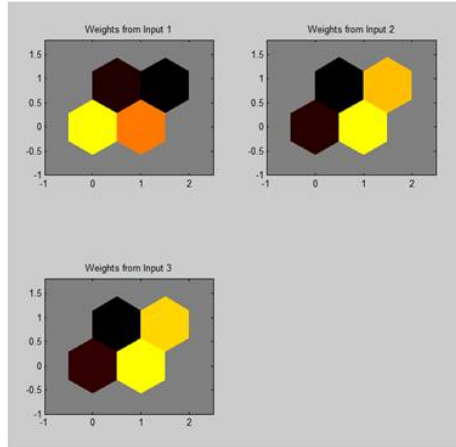


**Figure 2. The data obtained from the first question**

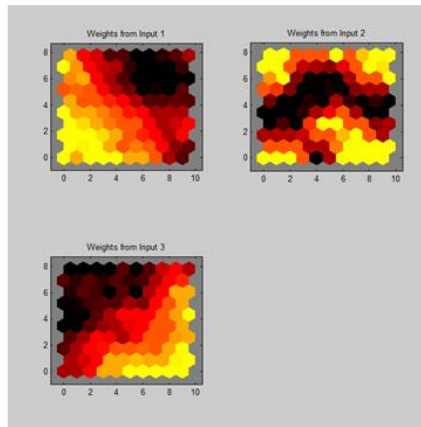




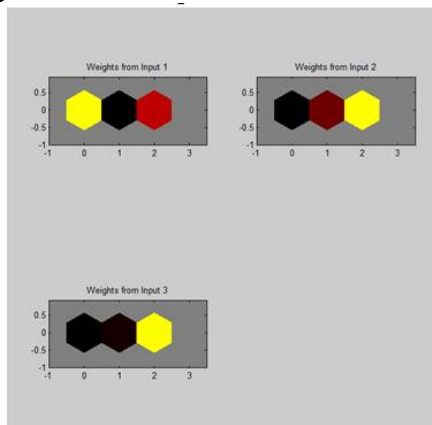
**Ehsan Abolfathi et al.**



**Figure 3. Weights for the three entries in the four neuronal architectures**



**Figure 4. Weights of entries for hundreds of neuronal architecture**



**Figure 5. Weights of entries for the architecture of three neurons**





Ehsan Abolfathi et al.

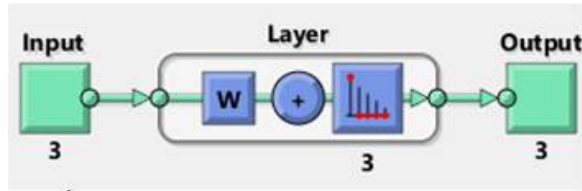


Figure 6. Three neuronal architecture

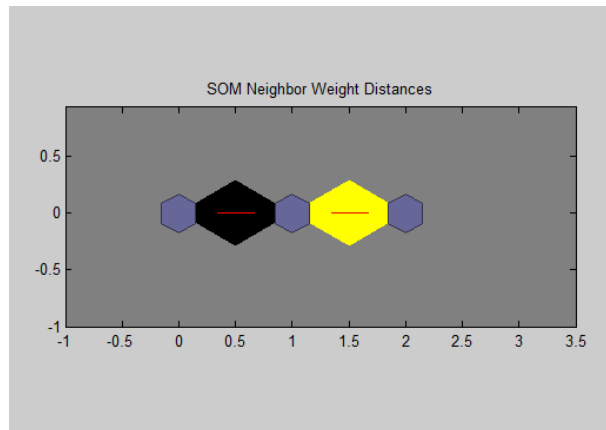


Figure 7. Distance of neurons in a three neural architecture

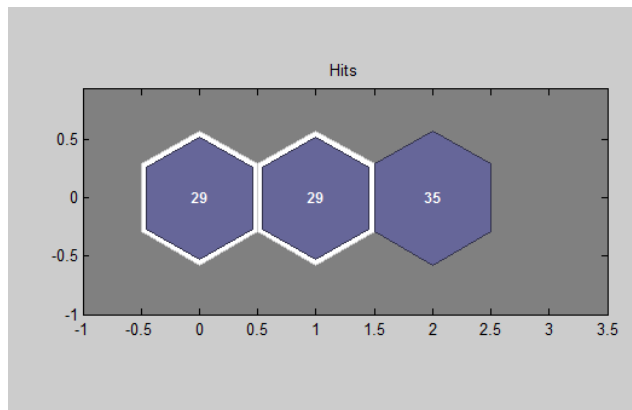
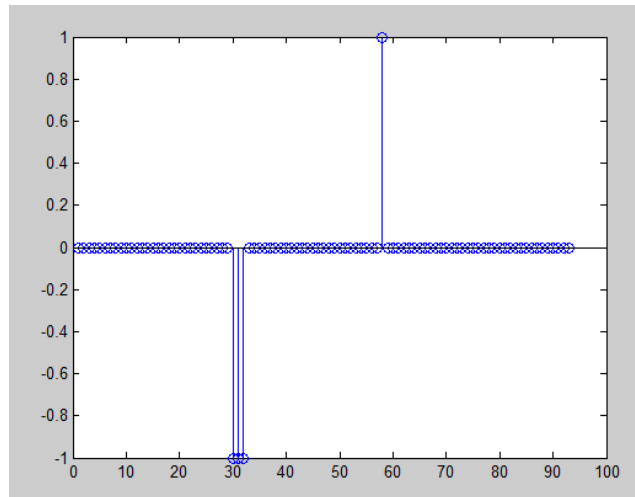


Figure 8 Number of members in each cluster in three neural architectures





**Ehsan Abolfathi et al.**



**Figure 9. Chart of comparing the neural network clustering and clustering by asking respondents**







## Optimization of Supply Chain Using Genetic Algorithm

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### ABSTRACT

Optimization refers to methods that are used to enhance the quality of the product. Optimization is used to find the solutions for complex problems; the solutions must have the highest achievable performance, and they must also be cost-effective. This is done by minimizing the undesired factors and maximizing the desired. Management is defined as a process of utilizing retailers, warehouses, manufacturers and suppliers in order to produce and deliver the goods at the appropriate quantities and the right time while minimizing cost. The whole procedure should be directed towards satisfying the needs of the customers. Managing the supply chain is a major factor for the success of any business. In this report, the solution of a supply chain networking is found by applying the genetic algorithm. The suggested framework of the genetic algorithm provides several advantages, for instance, it is a multiple search technique that studies various solutions. The report discusses the optimization of the supply chain network of a firm by reducing the operating cost of various constraints.

**Key words:** genetic algorithm, operating cost, supply chain network, suppliers and optimization.

### INTRODUCTION

Cost of quality is an essential in the field of quality. Better quality does not necessarily need higher costs (Brinkhuis&Tihomirov, 2013). Most industries have failed to invest on quality cost programs. Good quality results to reduced quality cost, increased production, increased penetration of the market and hence, higher profits. Improving quality can, therefore, reduce the overall cost in the firm (Rao, 2012).



**Ehsan Abolfathi et al.**

Supply chain management can also be stated as the extension of the downsizing and re-engineering that is conducted by the past organizations. Downsizing and re-engineering changed the past organizations into a lean and competitive units (Mentzer, 2013). These procedures involved optimization of the time taken, the number of people who are involved and the difficulty of the work. These strategies lead to increased productivity and profitability of the firms, but their benefits were levied off. Hence, there was a great need to change the approach (Kim, 2012).

**Supply chain management**

The success of any firm is based upon the management of the supply chain. Supply chain uses ideas about integrated business planning that has been suggested by the logistics experts and strategists. The current, integrated planning is very easy and possible due to the presence of the advance information technology (Kim, 2012). Many organizations are still learning on how to implement the analytical tool that is required to achieve it. In the world of today, most organizations have realized that a poor relationship with the customers and suppliers, non- integrated manufacturing and distribution process are not adequate for their success.

Supply chains have various steps that add value through material transformation, place and time. Physical locations that are included in the supply chain include storage warehouses, distribution centers, retail stores, transport carrier, the suppliers and the manufacturing plant. The modes of operation in the supply chain include; cargo planes, container ships, trains and trucks. The systems that is used to improve and manage the supply chain include: warehouse management systems, optimization tools, supply chain visibility, replenishment systems, supply chain visibility, inventory management systems, strategic logistic modelling, transportation management systems and warehouse management systems (Andreas & Robert, 2013).

**Genetic Algorithms**

Genetic algorithms were first used in the 1970s in the University of Michigan. Genetic algorithms work best on combinatorial problems. They do not easily get stuck at the local optima (Gen et al., 2012). They are always used in a computer simulation in a population of abstract, for instance, the chromosomes. In the past, the solutions were shown in binary strings of 0s and 1s. Genetic algorithms are mostly used in the field of chemistry, physics, mathematics, manufacturing, economics, bioinformatics, computational science and other fields. The figure below shows a genetic algorithm flow chart (Vose, 2012)

The report discusses modeling and optimization of the network of the supply chain using the genetic algorithm. The four major stage that are used in the study is retailer zones, distribution centers, plants and suppliers. The objective of the study is to capture the dynamics of a single product that is manufactured from three different components. There are six zones of retailers, three distribution centers, two manufacturing plants and three suppliers in the industry that is under consideration. The report deals with the assessment of the vendors, reducing the total operating cost and maximizing the profits in the industry with the help of a mathematical model. The model is performed using the genetic algorithm.

**MATERIALS AND METHODS**

The study uses genetic algorithm technique. The study uses MAT LAB 7.5 software to conduct the research. The genetic algorithm parameters are generation =50, population =20, migration fraction =0.02 and crossover fraction =20. The equations of the objective function is provided in the following equations.

Total Operating Cost (TOC)= TC+SC+MC+DC (equation 1)





### Ehsan Abolfathi et al.

Transportation Cost (TC) =  $\sum_c \sum_s \sum_p (a_{c,s,p} \times TSP_{c,s,p}) + \sum_c \sum_s (CS_{c,s} \times a_{c,s,p})$  (Equation two)

Manufacturer cost (MC) =  $\sum_p ((MP) \times (\sum_d b_{p,d})) + (\sum_p (IC_p \times \sum_c I_{c,p}))$  (Equation three)

Suppliers (SC) =  $\sum_c \sum_s (CS_{c,s} \times a_{c,s,p})$  (Equation four)

Distributors cost (DC) =  $\sum_d \sum_r (C_{d,r} \times TCD_{d,r}) + \sum_d (ICD_d \times ID_d)$  (Equation Five)

Profit = (Demand  $\times$  Selling Price) – TOC (Equation Six).

Where p-plant, s-suppliers, c-components, r-retailers, d- distribution center, TPD- Cost of transportation from plant to distribution center, CS- cost of making a component by the supplier, TCD d, r cost of transportation from distribution center to retailer zone per unit, I c p – inventory of component at plant, I c, cost of carrying inventory of plant per unit, M p- cost of manufacturing per unit, ICD- cost of inventory of distribution center per unit, ID – Inventory at distribution center(Knjazew, 2012). The samples of the costs of the parameters from the industry are shown in the following tables

## RESULTS AND DISCUSSIONS

Several costs that are involved in the industry for the manufacturing of the product were optimized. The results were then as shown in the following tables. Optimization of the supply chain network by use of the genetic algorithm led to the reduction of the total cost of production and hence, an increase in the profit margin(Taherdangkoo et al., 2012).

## CONCLUSION

The optimization of the supply chain is obtained by the use of the non-traditional techniques for instance genetic algorithm. The major advantage of this technique is that the optimal solution is obtained in a few minutes. The effectiveness of the technique is determined through computer simulation for the real life challenges and it is found to be effective. Genetic algorithm satisfies the requirements of the customers and it is also cost effective.

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**Ehsan Abolfathi et al.**

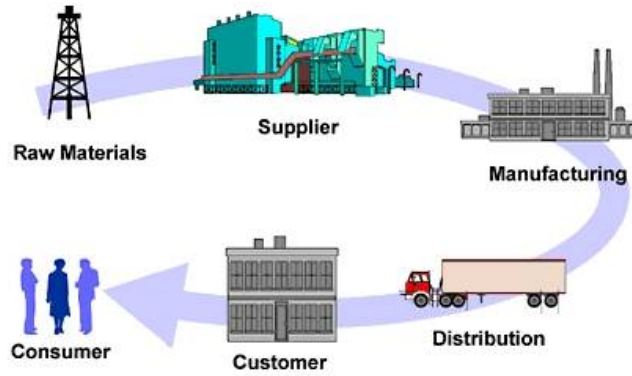


Figure 1. Supply chain management (Andreas & Robert, 2013)

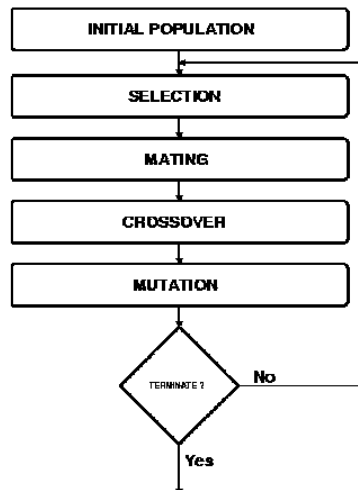


Figure 2. The aim of the report

Table 1. Cost of transportation of all the three components from the suppliers to plant 1 per unit

	C1	C2	C3
S 3	10	12	13
S 2	8	7	10
S 1	10	15	12

Table 2. Cost of transportation of the three components from all 3 suppliers to plant 2 per unit

	C 1	C 2	C 3
S 3	15	16	14
S 2	12	9	6
S1	14	18	19





**Ehsan Abolfathi et al.**

**Table 3.A variable- existing values of plant one**

	<b>C 1</b>	<b>C 2</b>	<b>C 3</b>
S 3	22	10	18
S 2	20	72	20
S 1	85	70	90

**Table 4.A variable- existing values- plant two**

	<b>C 1</b>	<b>C 2</b>	<b>C 3</b>
S 3	80	30	72
S 2	150	130	120
S 1	30	100	60

**Table 5.PD values for the existing values**

	<b>D 1</b>	<b>D 2</b>	<b>D 3</b>
P 2	13	14	16
P 1	15	14	16

**Table 6.B variables for the existing values**

	<b>D1</b>	<b>D 2</b>	<b>D 3</b>
P 2	135	60	55
P 1	49	55	35

**Table 7.Cost of the transportation from all the three distribution centers to all the six retailer zones per unit**

	<b>R 1</b>	<b>R 2</b>	<b>R 3</b>	<b>R 4</b>	<b>R 5</b>	<b>R 6</b>
D 3	8	6	4	3	2	4
D 2	10	8	12	4	11	9
D 1	7	9	8	5	6	4

From the tables MP: M1 =1800; M 2= 1760

ICP: IC1 = 50; 1C2 =55

ICD 1 =70; ICD 2 = 85; ICD3 =90

ID: ID 1 =150; ID 2 =180; ID 3 =165

The existing retailer zone require: 100, 25, 50, 80, 90, 60

The existing selling price at the retailer zone: 2000, 2500, 2750, 3000, 3200, 3500.





**Ehsan Abolfathi et al.**

**Table 8.Existing cost and profit details**

Serial number	Cost	Existing cost
1	Transport cost	19, 695
2	Supplier cost	2,04, 501
3	Manufacturing cost	7, 11,576
4	Distribution cost	43,682
5	Total operating cost	9,79455
6	Cost of profit	1,56,946

The coding is done using MATLAB software and a sample MATLAB window

**Table 9.Optimized costs of transportation of all the three components from all the three suppliers to plant 1 per unit**

	C 1	C 2	C 3
S 3	9.6	9.2	12.2
S 2	12. 05	5.63	12.92
S 1	8.7	12.0	10.1

**Table 10.Optimized cost of transportation of all the three components from all the three suppliers to plant 2**

	C 1	C 2	C 3
S 3	17.0	11.0	11.0
S 2	12.0	8.9	5.8
S 1	9. 3	11. 2	10. 0

**Table 11. The a variable – the optimized values –plant 1**

	C 1	C 2	C 3
S 3	21.2	8.1	15.4
S 2	21. 0	74.0	20.6
S 3	13.0	98.0	85.4

**Table 12.The variable for the optimized values- plant 2**

	C1	C 2	C 3
S 3	77.3	28.0	70.1
S 2	148.7	125.4	90.0
S 1	13.0	98.0	85.4





**Ehsan Abolfathi et al.**

**Table 13. The PD values for the optimized values**

	<b>D 1</b>	<b>D 2</b>	<b>D 3</b>
P 2	11.0	14.4	17.23
P 1	12.1	13.8	16.0

**Table 14. The b variable for the optimized values**

	<b>D 1</b>	<b>D 2</b>	<b>D 3</b>
P 2	134.0	55.1	56.0
P 1	45.0	58.2	31.8

MP: M 1 =1706, M 2=1605

IC P: I C 1= 47.52, IC 2 =50.75

ICD: I C D 1 =50.746

ICD 2 =75.491, ICD 3 =153.43

**Table 15. Optimized cost details**

<b>Serial Number</b>	<b>Cost</b>	<b>Existing Cost</b>
1	Cost of transport	19 550
2	Cost of supplier	187960
3	Manufacturing cost	619600
4	Cost of distribution	32011
5	The total cost of operation	871799
6	Profit	266201





## Systematic Palaeontology Albian Ammonites of Kazhdumi Formation in Khartang Section, East of Bushehr (Zagros Zone)

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### ABSTRACT

Given the importance of the ammonite fauna in biostratigraphy and interpretation of the history of sedimentary basins and also because of the limited number of studies on ammonite fauna of Kazhdumi Formation, Khartang stratigraphic section of Coastal Fars, located in South East of Khormonj (East of Bushehr) was selected. Kazhdumi Formation has thickness of 105 meters in this section and contains a sequence of limestone with beige to brown color and reddish-brown marls. With discontinuous type of contact this formation has been located on Dariyan Formation and it has been covered gradually by Sarvak Formation through continuous contact. Among 480 samples of macrofossil taken from this section 51 ammonite samples, 181 bivalvia, 101 gastropoda, 141 echinodermatous and 4 corals were collected so that 3 species of 1 genus of ammonites were identified which are as follows: *Knemiceras* sp., *Knemiceraspersicum*, *Knemicerasdubertreti*, *Knemicerassyriacum*. Considering the identified fossil set, the age of Kazhdumi Formation is the upper EalyAlbian to LateAlbian.

**Key words:** Biostratigraphy, Kazhdumi Formation, Ammonites, Zagros

### INTRODUCTION

Ammonite faunas are one of the most important biological faunas that especially have prominent presence in sedimentary rocks of various regions in Mesozoic period and are globally expanded. By examining these faunas the





**Akram Asadi et al.**

relationship between sedimentary basins in different regions can be studied, on this basis by studying certain parameters of ammonites and detection of different genus and species more detailed information can be obtained regarding the paleogeography, for this purpose Khartang stratigraphic sections have been selected to study ammonites of Kazhdumi Formation in Coastal Fars that mostly contains *Kenemiceras* sp. and its species.

**Geographical and geological location of the studied stratigraphic section****Geographical location**

Khormoj is located about 90 kilometers (55 miles) east of Bushehr that after traveling 45 kilometers from the city in the southeast direction via a tarmac road we arrive to Khartng section. Geographic coordinates and lithostratigraphy of the examined stratigraphic section is shown in Table 1.

**The stratigraphic status**

The thickness of Kazhdumi Formation is 105 meters in stratigraphic section of Khartang. Lower contact of Kazhdumi Formation with Dariyan Formation is in the form of disconformity in the studied section and its upper contact with Sarvak Formation is gradual. Lithology of Kazhdumi Formation in this section consists of a sequence of thin to medium limestone with beige to brown color and reddish-brown marls containing abundant molluscs especially ammonite taxons, bivalvia, gastropod, echinoderms, corals and orbitolinic benthic foraminifera (Figures 1).

**LITERATURE REVIEW**

From among the most important studies conducted on ammonites of Kazhdumi Formation in Coastal Fars (South-West of Iran) the following studies can be mentioned:

In addition to ammonites, Collignon (1981) has studied other macrofossils including bivalvia, gastropods and orbitolina, but due to lack of accurate data, he has reported the age of fossils of this region as Albian or Cenomanian according to reports of James and Wynd (1965).

Kennedy (2009) has simultaneously studied *Knemcers* sp. and its species in more details in some areas of Syria, Lebanon and South West of Iran. In Iran, by examining the ammonites of three section (Bidkhan, Bandu, Bardikhan) between Bushehr and Hormozgan with thicknesses of 30, 6/36 and 8/16 meters, he has introduced genera and species and in general he has studied structural differences of identified species. Luc G. Bulot (2010) has study systematic micropaleontology of Aptian - Albian ammonites of South West of Iran in Bangestan section.

**The stratigraphic status**

The thickness of Kazhdumi Formation is 105 meters in stratigraphic section of Khartang. Lower contact of Kazhdumi Formation with Dariyan Formation is in the form of disconformity in the studied section and its upper contact with Sarvak Formation is gradual. Lithology of Kazhdumi Formation in this section consists of a sequence of thin to medium limestone with beige to brown color and reddish-brown marls containing abundant molluscs especially ammonite taxons, bivalvia, gastropod, echinoderms, corals and orbitolinic benthic foraminifera (Figure 2 - 4).





**Akram Asadi et al.**

### Description and biostratigraphy of examined ammonites

#### Description of ammonites

In the studies that have been conducted on ammonite samples in Khartang section, some samples were identified like *Knemiceras* sp., *Knemiceraspersicum*, *Knemicerasdubertreti*, *Knemicerasasyriacum* according to suture lines, form of span, back section and tubercles available in the surface of the shell and the back edge (Figures 4 and 5).

#### Description

The section form is almost oval to round, deep navel with rounded walls, the edge of navel walls contain sharp tubercles, the main thick ribs are bulgy among which there are one or two intermediate ribs alternately, flat and bulgy part has fine, soft and symmetric claws in both sides, also the back part at the round end has a little convexity. Corrugated, complex and distinct suture lines are among the prominent features of these species.

#### Occurrence

This species is widespread in Lebanon, Syria and Oman and its age is middle Albian. In Iran (Kennedy, 2009) beginning of middle Albian and upper subzone of *Lyelliceraslyelli* are identified for these species.

#### Species *Knemiceraspersicum* Collignon, 1983

- (Pl. 1, Figs. 1, 2, Pl. 2, Figs. 1, 2, Pl. 3, Figs.1-3, Pl.5, Fig. 1, Pl. 6, Fig. 1)
- 1983 *Knemicerasasyriacum* von Buch- Collignon, p. 254, Pl. 1, Fig. 3, Pl. 2, Fig. 2; Pl. 6, Figs. 4.
  - 1983 *Knemicerasiraniense* Collignon, p. 254, Pl. 1, Figs. 1; Pl. 2, Fig.1.
  - 1983 *Knemiceraskazhdumiense* Collignon, p. 255, Pl. 3, Fig. 1.
  - 1983 *Knemiceras* cf. *attenuatum* Hyatt- Collignon, p. 256, Pl. 6, Fig. 2.
  - 1983 *Buchicerascompressum* Hyatt- Collignon, p. 256.
  - 1983 *Knemiceraspathi* Mahmoud- Collignon, p. 257.
  - 1983 *Knemicerasaegypticum* Mahmoud- Collignon, p. 257, Pl. 4, Fig. 2.
  - 1983 *Knemicerascollegnoni* Mahmoud- Collignon, p. 258, Pl. 4, Fig. 3.
  - 1983 *Knemiceras* (*Iranoknemiceras*) *douvillei* Basse- Collignon, p. 258, Pl. 4, Fig.1.
  - 1983 *Knemiceras* (*Iranoknemiceras*) *persicum* Collignon, p. 259, Pl. 5, Fig.1.
  - 1983 *Parengonoceraselegans* Renz- Collignon, p. 260, Pl. 6, Fig. 1.
  - 1983 *Parengonocerasaff. duplicatum* Renz-Collignon, p. 260, Pl. 3, Fig. 2.
  - 1983 *Parengonoceraszagrosiense* Collignon, p. 261, Pl. 7, Fig. 1.
  - 1983 *Perotengonocerasdufaurei* Collignon, p. 261, Pl. 5, Fig. 2.
  - 1983 *Perotengonocerasprestati* Collignon, p. 262, Pl. 6, Fig. 3.
  - 2009 *Knemiceraspersicum* Collignon-Kennedy, Reyment, MacLeod & Krieger, Pl. 5, Fig. 5; Pl. 7, Fig.6; Pl. 10- 13; Pl. 14, Fig. 2; Pl. 15-18, text-Figs.9, 10.
  - 2010 *Knemiceraspersicum* (Collignon, 1983) - Bulot, p. 173, Pl. 1-2 to 1-5.
  - 2014 *Knemiceraspersicum* (Collignon, 1983) - Kamyabishadan, pl. 8i, Figs. 1, 2.

**Material** OUM K1, 2, K4-8, K10-13, K15, 16, K19-23, from 19 m above the base of the Kazhdumi Formation, and OUM 86 m above the base of the Kazhdumi Formation, Khartang section, SE of Khormoj (E of Bushehr) province, Iran.



**Akram Asadi et al.****Description**

In some cases section form is almost oval to round (Pl. 5, Fig. 1), involute curve, deep navel, round navel walls and possess large and bulgy tubercles. Massy lateral surface, short and completely bulgy ribs, among which there are one or two intermediate ribs, the back part is flat and bulgy and it has large to medium tubercles on both sides that are seen alternately and in symmetrical form with outward sharpness. In other samples (Pl. 2, Fig. 2, Pl. 3, Figs. 1, 3) with trapezoidal cross-section, and a deep round navel and fine and sharp tubercles on edge of navel walls, in the edge of navel the main ribs are divided into two or three sub branches, lateral surface has a slight bulge, back part is almost compressed and slightly sunken and on both sides a large number of stretched and symmetrical claws are observed with an upward sharpness.

**Occurrence**

In Iran, Kazhdumi Formation, which is belonged to uppermost part of the lower Albian (Fars and Khuzestan) (Bulot, 2010) and in BangestanFahliyan, Anne and Gosh (Khuzestan) sections, it has been reported to have the age of highest part of the lower Albian and also the age of Nahrumr Formation of Oman is the lowest part of middle Albian. (Kennedy, 2009).

**Species** *Knemicerassyriacum* VON BUCH, 1848

(Pl. 3, Fig. 2, Pl. 4, Fig 1.)

-1903 *Knemicerassyriacum* (VON BUCH)-HYATT, p. 146, pl. 16, Figs. 4-8.

-1966 *Knemiceras syriacum* (VON BUCH)-WRIGHT, Pl. 388, text-Fig. 507, 1.

-1966 *Knemicerassyriacum* (VON BUCH)-WRIGHT, Pl. 130, text-Fig. 100, 3.

-2004 *Knemicerassyriacum* (VON BUCH)-ROBERT & BULOT, text- Figs. 8, 3-5.

-2009 *Knemicerassyriacum* (VON BUCH)-Kennedy, Reyment, MacLeod & Krieger, p.6, Pl. 1, Figs. 1,2,4-6, Pl. 5, Figs. 1-4, text-Figs. 4,5.

**Material** OUM K14-11, K15-11 from 19 m above the base of the KazhdumiFormation,Khartang section, SE of Khormoj(E of Bushehr) province, Iran.

**Description**

The trapezoidal short section, involute curve, concave navel with rounded wall, navel edge with fine and almost sharp tubercles, convex lateral surface, direct , fine and compressed ribs that alternately a short and bulgy ribs with a slight convexity exist between them, compressed back part, fine, symmetrical claws are observed with an upward sharpness in both sides of back edge.

**Occurrence**

From Lebanon, Syria, Egypt and Iran in Kazhdumi Formation, it has been reported with Lower to MiddleAlbian age by (Kennedy, 2009).





**Akram Asadi et al.**

### Biostratigraphy of ammonites of Khartang section

In total, considering the identification and study of the mentioned ammonites and their comparison with ammonite zones of Aptian- Albian stages (Reboulet et al., 2011) and Barremian- Albian stages (PJHoedemaeker et al., 2003), the studied faunas in this section are as follows: *Knemiceraspersicum* species: According to Bulot, (2010) in Iran this fauna represents the upper part of the D. mammillatum to H. Dentatus zone and according to Kennedy, 2009, if this species is associated with *Tegocerascamatteamum*, it will represent the upper part of lower Albian. *Knemicerasyriacum* species: According to Kennedy, 2009 in Lebanon, Syria, Palestine and Egypt it represents lower to middle Albian. *Knemicerasdubertreti* species: According to Kennedy, 2009 in Iran, it has been found in the beginning of middle Albian and under the *Lyelliceraslyellizone*. These ammonites are similar to ammonite zones of northwestern Europe (Reboulet et al., 2011). Considering the ammonite fauna of Kazhdumi Formation in stratigraphic section of Khartang, the age of lower Albian to upper Albian is considered (Figure 6).

### CONCLUSION

In this section, 111 meters of sedimentary sequence was examined that 2 meters of it belonged to the top of Dariyan Formation, 105 meters to Kazhdumi Formation and 4 meters belonged to Sarvak formation, bottom line of Kazhdumi Formation is in disconformity with Dariyan Formation and its upper line is conformable and gradual with Sarvak formation. Ammonites study led to the identification of 1 genera and 3 species. Given the presence of species such as *Knemiceraspersicum*, *Knemicerasdubertreti*, *Knemicerasyriacum* the age of lower Albian to upper Albian is considered for Kazhdumi Formation in this section. With respect to identified ammonites and their expansion in Egypt, Lebanon, Palestine and Iran, a relationship can be considered between the examined section and mentioned regions. The genus and species introduced in the stratigraphic section of Khartang are related to Albian period and are globally expanded that this indicates the relationship between the Zagros basin sedimentary basins with sedimentary basins of North Africa and also northwestern Europe during the Albian period and is compatible with European ammonite zones. In this section the completely obvious biodiversity of macrofossils and their frequency implies the existence of abundant food, enough sunlight and shallow sedimentary basins that this issue requires further examination.

### ACKNOWLEDGEMENTS

The Authors would like to express their sincere gratitude to Professor Kennedy and Bulot, also Mr. Dashtban and Dr. KamyabiShadan for their valuable instructions and companionship with Mr. FarhadAsadi in field operations. Also authors are deeply thankful to Research department and honorable management of Oil Company Exploration for using the relevant facilities.

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**Akram Asadi et al.**

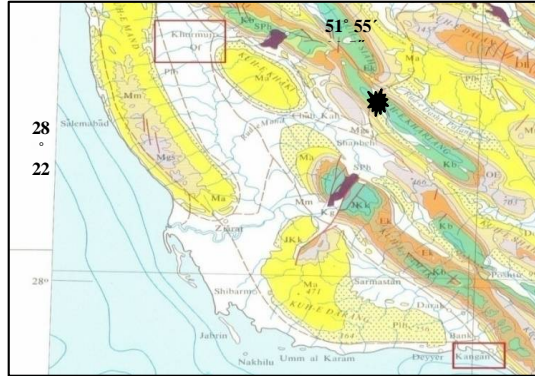


Figure 1. Geographical location of the studied sections (1: 100000 map of Kangan, Muhammad Fakhari (1372), National Iranian Oil Company, geological exploration

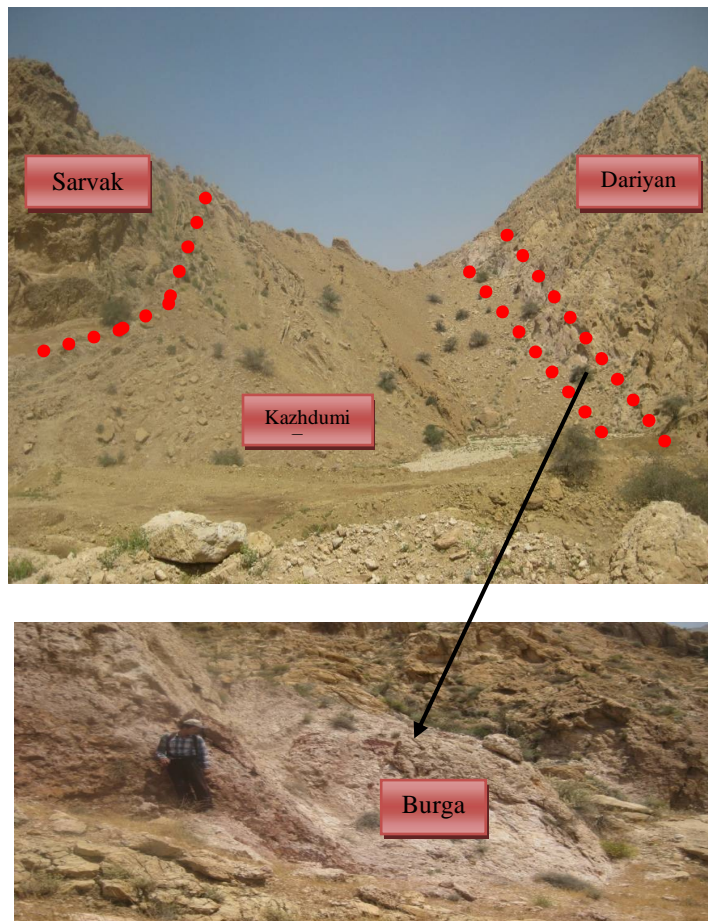


Figure 3. Red sandstone of base of Kazhdumi

Figure 2. View of Kazhdumi Formation with the lower and upper contacts in Khartang section





Akram Asadi et al.



Figure 4. The suture line of *K. persicum*, Khartng section (sample, K6-15) (Photo by Asadi 1393)

Figure 5. The suture line of *K. dubertreti*, Khartng section (sample, K16-32) (Photo by Asadi 1393)

SystematiPalaeontology

(w.j. KENNEDY)

Order: Ammonoidea ZITTEL, 1884

Suborder: Ammonitina HYATT, 1889

Superfamily: Hoplitoidea H. DOUVILLE, 1890

Family: Engonoceratidae HYATT, 1900

Genus: Knemiceras BOHM, 1898

Species: Knemiceras duberterti BASSE, 1940

(Pl. 7, Fig. 1.)

-1983 Knemiceras kazhdumiense COLLIGNON, p. 255, pl. 3, Fig. 1.

-1991 Knemiceras duberterti BASSE, 1940- KENNEDY & SIMMONS, p. 132, pl. 1d

-2009 Knemiceras duberterti BASSE, 1940- KENNEDY, REYMENT, MACLEOD & KRIGER, Pl. 6, Fig. 1-5, Pl. 7, Fig. 2-5, Pl. 8, Fig. 1,2, Pl. 9, Fig. 1.

Type: The lectotype, by the subsequent designation of Kennedy & Simmons, 1991, p. 132, is the original of Basse(1940, Pl. 1, fig. 4), from Jebel Dourra, Wadi Rmeide- Nebi Ham, Zebdani region, Syria.

Material: OUM K3-11, from 19 m above the base of the Kazhdumi Formation, and OUM 36.6 m above the base of the Kazhdumi Formation, Khartang section, SE of Khormoj(E of Bushehr) province, Iran.

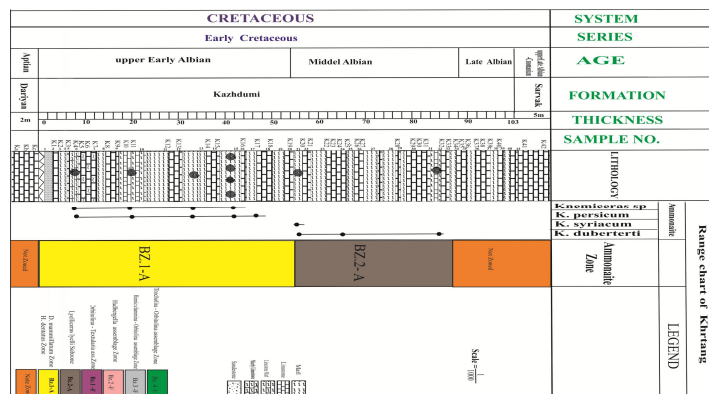
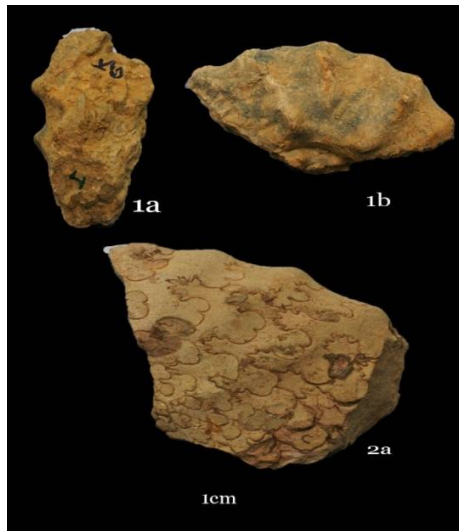


Figure 6. Biostratigraphic pillar of Kazhdumi Formation in Khartang section



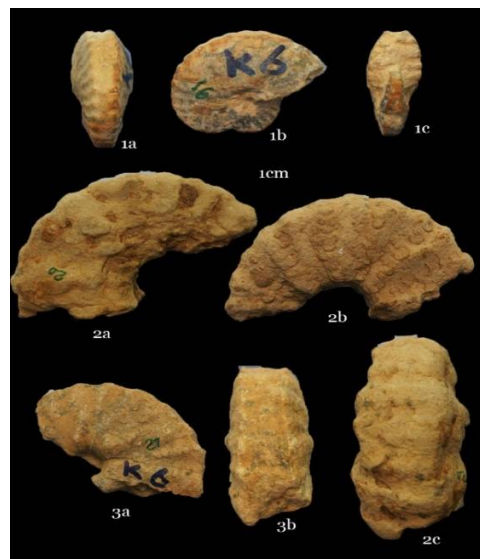
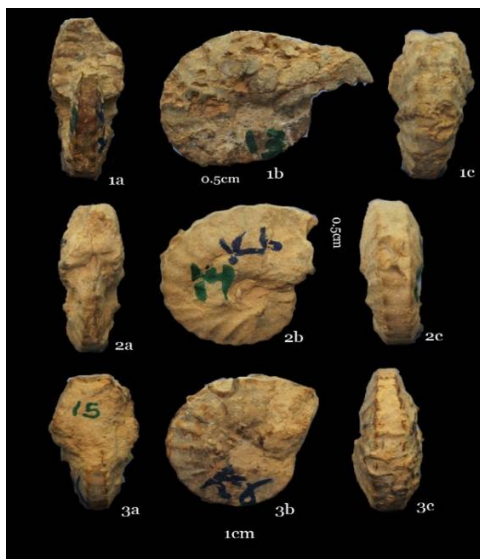


**Akram Asadi et al.**



**Plate 1. Figs. 1, 2, Knemiceraspersicum (Collignon, 1983), kazhdumi Formation, (Bed 21), upper Early Albian – lower Middle Albian, Location: Khartang.**

**Plate 2. Figs. 1, 2, Knemiceraspersicum (Collignon, 1983), kazhdumi Formation (Bed 31), Location: Khartang**







**Akram Asadi et al.**

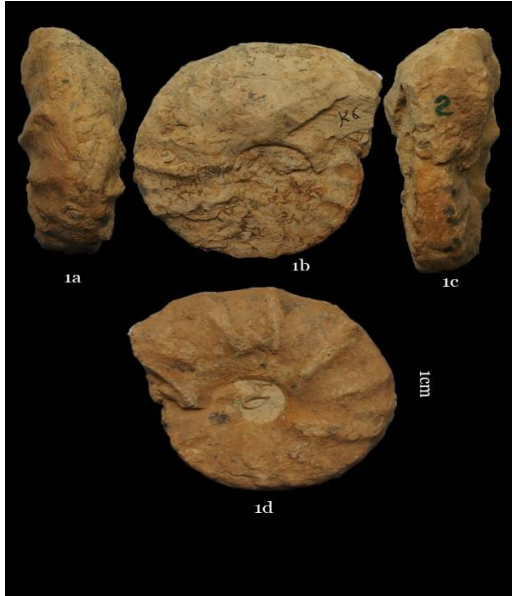


Plate 5. Figs. 1a-d, Knemiceraspersicum (Collignon, 1983), kazhdumi Formation (Bed 13), Location: Khartang.

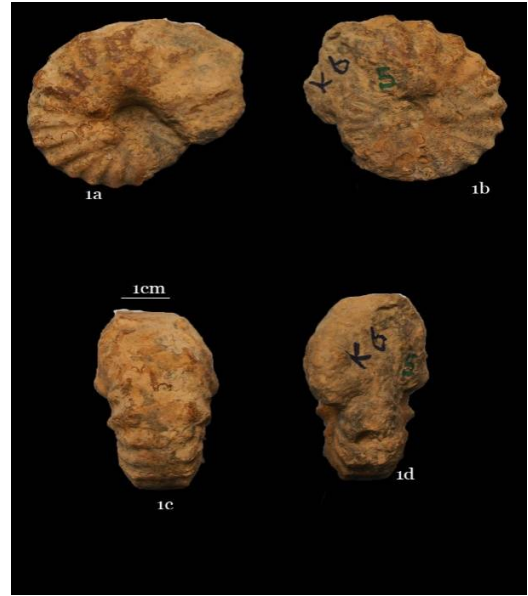


Plate 6. Figs. 1a-d, Knemiceraspersicum (Collignon, 1983), kazhdumi Formation (Bed 13), Location: Khartang

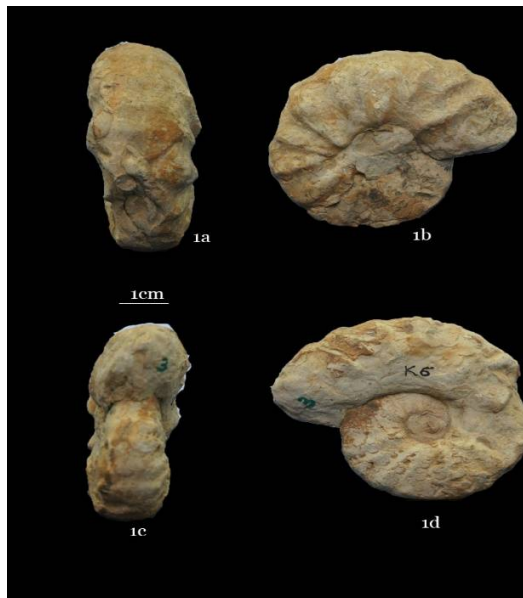


Plate 7. Figs. 1a-d, Knemicerasduberterti (BASSE, 1940), kazhdumi Formation (Bed 13), Location: Khartang





**Akram Asadi et al.**

**Table 1. Geographic coordinates and lithostratigraphy of the examined stratigraphic section**

<b>Formation</b>	<b>Dominant Lithology</b>	<b>Coordinate U.T.M</b>	<b>Lower Limit</b>	<b>Thickness (Kazhdumi)</b>	<b>Upper Limit</b>
Dariyan Kazhdumi (Sarvak)	Limestone Alternation Limestone & marly Limestone	"N= 28° 22' 01 E= 51° 55' 23/5"	Dariyan	105	Sarvak





## The Conditions of the Right to Defense in Administrative Law: A Comparative Study of the Iranian Legal Systems and the EU

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### ABSTRACT

Implementation of the right of defence in the modern administrative law is very important. As widely recognized in the world's important legal systems. The object of this paper is to determine the conditions of this right and Then, to compare its situation in European Union and Iran's legal system. The conditions of this right are hearing, access to file and Knowledge of the reasons of the Administrative decisions. These are the fundamental right of citizenship and component of characteristics of good administration in the Europe Union legislation and jurisprudence. In the legal system of Iran these conditions are in some of the laws and jurisprudence of Administrative Justice Court, but it is not in general and prevail over all administrative decisions. So the recognition of the right to defense and it's the conditions by legislator is necessary.

**Key words:** Right to Defense, Good Administration, Hearing, Access to File, Awareness of reasons for the decision, Iran, Europe Union.





**Mohammad Javad Rezaiezadeh and Famarz Atrian**

## **INTRODUCTION**

Good administration is one of the modern concepts of administrative law which in the Charter of fundamental rights of EU, is considered as a fundamental right of citizens and it was explained in The European Code of Good Administrative Behavior and some of the rules of the Committee of Ministers of the Council of Europe. In the EU legal system, the concept of good administration by using three rights hearing, access to file, and awareness of administrative decisions, have provided on the realization of the right to defense. The present paper consists of three parts, each of which would be in the order of the hearing, access to file and providing the reasons for the administrative decisions, first in the Union Europe and then in Iran will be investigated.

### **The right to be heard**

The first part of this research is dedicated to analyze the first pillar of right to defense, i.e., the right to be heard, first the meaning and scope of the mentioned right will be checked, and then its place in Europe Union legal system and then in Iran will be explained.

The first tool which good administration has used and introduced for realizing the right is hearing, i.e., the administrative authority has to provide the opportunity for addressed decision and or beneficiaries to remark, and consider these remarks, and in fact provide the opportunity for defending of their interests (Milecka, 2011, P. 51).

### **The rights to be heard in EU**

This Article tries to explore Europe Union Charter of fundamental rights, The European Code of Good Administrative Behavior, rules of the Europe Council of Ministers and the procedure of Europe court, analyzed and investigated the rights to be heard position in EU in the light of the clarification of the concept of good administration.

### **Article 41 of the EU Charter of Fundamental Rights**

The right to be heard may be the most important right in EU legal system and it is the concept of good administration (Bignami, 2003, p.1). The most important sources and documentation of the right to be heard in the EU legal system, is the Article 41 of The Charter of fundamental rights of the European Union.

In Article 41 of the Charter, which consists of 4 Sections, in the second paragraph takes into account the main characteristics of good administration which the first one, is the right to be heard. The phrase is this "This right includes: the right of every person to be heard, before any individual measure which would affect him or her adversely is taken;" The first point here which must be considered is the phrase « measure which would affect him or her adversely». In paragraph 2 of Article 41 of the Charter, the right to be heard for any person who the administration action, may be adversely affected him, has been appointed. so the right to be heard according to this Article shall not be limited to addressing decision or administrative action, but anyone who is interested i.e., in the possibility of damage to the interests of the individual, the truth is, he will be entitled to be heard (Milecka, 2011, p.51).

### **The European Code of Good Administrative Behavior**

The next documented that in EU, about the right to be heard in line with good administration, is the Article 16 of the European Code of Good Administrative Behavior adopted by the Parliament of Europe. In this Article, again, the



**Mohammad Javad Rezaiezhadeh and Faramarz Atrian**

right to be heard has been emphasized, and its framework has been drawn. In the first and second paragraphs of this Article, the right to be heard for persons affected by administrative decisions is required. In this Article, the right to be heard scale is only effect on rights and interests of persons. Therefore, we can say that Article 16 of Good Administrative Code has drawn a wider range of the right to be heard with respect to Article 41 of the Charter (Ponce, 2005, p.572), because, the right to be heard in any decision affecting the interests of the people, is binding. It is clear that, also here, such as Article 41 of the Charter, the right to be heard is not belong to audience of an administrative decision, everyone affected by this decision or in other words, every interested person, will have the right to defend and the right to be heard.

**The Recommendations of the Committee of Ministers of the Council of Europe**

In relation to the right to be heard, the Recommendations of the Committee of Ministers of the Council of Europe is also important. One of approvals which have been paid to the right to be heard is the Council's Resolution (77) 31 on the protection of the individual in relation to the acts of administrative authorities. The first of these guidelines is devoted to the right to be heard and in the first paragraph with the words; the people deserve to be heard to be believed. Then, in paragraph 2 of the first Article of the act discussed, it is emphasized that in any case, interested parties have the right to be informed conveniently of their rights and know that they will be given an opportunity to be heard and defend their interests.

The next act of the committee that is important in this context, is the Recommendation CM/Rec (2007)7 of the Committee of Ministers to member states on good administration. In Article 14 of this Recommendation, the right to be heard has been written about the individual administrative decisions.

**The case law of the European Courts**

The right to be heard, years before considering it as a fundamental and as a part of good administration in the EU legislation, the courts have recognized it as a general principle of law. In judicial procedure of these courts, the right to be heard was introduced in the issues such as competition, and anti-dumping, and then spread to other areas of administration. In multiple files with competition issue, the ECJ stated that the parties should be allowed to comment on the evidence and the reasons for the decision of the Commission of Europe that decision was based, express and they have a right to defend their interests in the administrative process (Bignami, 2003, p.6). But the most important case with respect to this was established at that point in time at which explicitly refers to the principle of the right to be heard, *Transocean Company* was the case in 1974. In this case, the Commission, the conditions for exemption from the implementation of Article 81(3) about the contracts limiting competition was not declared in full to the company, counselor, violated his right to be considered, and also the Court of Justice endorse it (Stott and Felix, 1997, p.274). Apart from the issue of competition, in other areas of Europe Court of Justice gradually, the rights to be heard was recognized. Followed and stressed court rules was so that anywhere EU institutions can effect on the rights of others, the right to be heard shall be observed. For example, the Court, in 1994, in the case of a Swedish fishing company, read the sentencing voted failing to observe the right to be heard, because the company claims that the Europe Commission of the fishing activities of Europe for illegal fishing, remove this company and re-work it has been banned in this area, without wishing to make a statement and defense before making a decision to hear (Bignami, 2003, p.8). In another case in the same year, due to the absence of the right to be heard in the Court's decision process to reduce the financial assistance, issuing attempt to vote in favor of the plaintiff and the Sentencing Commission's Europe. They issuing attempt to vote in favor of the plaintiff and the Sentencing against Europe Commission. Technical Munchen University also is a notable case. In this case, also the Court condemned the Commission because failing to provide the opportunity to comment to the University. The point of this was to be the case that the university to enter a microscope from Japan to Europe was exempt from paying customs duties. Under this exemption, was because of the exclusive use of the microscope in science and no similar production in Europe.



**Mohammad Javad Rezaiezadeh and Faramarz Atrian**

Phillips claimed that produces the same microscope. Therefore, the Europe Commission because of the possibility of a similar domestic product revoked the university exemption. In this regard, the court stated that the Commission should gave the University the opportunity to comment and defense because maybe this University could prove that the similar product produced by Philips, have not the required capabilities as Japanese and not adequate for scientific purposes (Bignami, 2003, p.9).

**The right to be heard of the Iran's legal system**

The right to be heard has been discussed in some laws of Iran's administrative legal system. Among the laws which have recognized the right to be heard, is the Act of Preserve National Monuments which was enacted in 1930. In Article 3 of the law, before making a decision on a property listed on the National Monument, for its owner the right to protest and defend of their interests has been considered, and administrative officers must consider a statement of owner of monument in their decision. Another documentary on the Iranian legal system which exists for the right to be heard is the Article 238 of Direct Taxes Act which was enacted in 1987. Employee shall listen to payer's comments and defense, and if is correct, he must apply them. Among other rules which can be seen as an affirmation of the right to be heard on Iran's legal system, is the Article 138 of the Customs Act that was enacted in 2011. In this article it is anticipated that the audience of demand, prior to certainty, can submit their objections to the Customs Department and the institution will be obliged to hear it. Also, it has been predicted that the right to be heard for both parties is considered in the case of quasi-judicial authorities. Including the Article 18 of the Code of Administrative Violations adopted in 2004 and a law passed in 2013 cited Article 60 of the Rules of Procedure in which, have been predicted the right to be heard where the parties in the investigation of violations of administrative authorities and authorities of dispute settlement workers and employers.

**Right to access to file**

The Right to Access to Files means a person who is about him-her decision in all of the stages of the decision must be taken access to all documents and files (Milecka, 2011, p.52). In legal systems that recognize the right to be considered, government agency may not exercise and use of the evidence that was not available for the respondent (White, 2009, p.60).

The rationale for access to files, is the right of defense (Hofmann, 2012, p.198) and is closely related to the right to be heard because the defense requires, the person affected by the decision of the government let his-her voice be heard and the right to be heard and the right to be heard, require the person have permission to view the papers of file as well, because if he-she does not have access to these documents, there will not be the possibility to comment and defense for him-her.

**Right to Access to the files in the EU**

Europe Union Right Access to files as one of the pillars of good administration is reflected in the rules and judicial procedure and it was recognized as a basic right of citizenship.

**Article 41 of the Charter of Fundamental Rights of the EU**

The most important legal document of right Access to the file is Article 41 of the Charter of fundamental rights. In this material clearly the right Access to the file was considered as one of the fundamental rights of European citizens and the characteristics of good administration. In paragraph 2 of this article clearly mentioned that one of the rights enshrined in good administration, is "the right of Access Anyone to his-her files respecting the legitimate interests of confidentiality and trade secrets, and career ». In this paragraph two pillars of the right of defense in administrative



**Mohammad Javad Rezaiezadeh and Famarz Atrian**

law have been stated. If at first, the right to be heard has been stated that without it, the defense does not mean and immediately, access to the files has been stated that without it, the right to be heard cannot happen. The file or files phrase in this article refers to all documents produced during the administrative process was used (Milecka, 2011, p.52). The extent of the importance of this issue is such that the government can't manage the documents inaccessible to the beneficiaries, in his or her decision (Hofmann, 2012, p.207). Exceptions login on the right, under Article 41 include legitimate interests and job secrets. It is obvious that this diagnosis should be justified and documented and public officer could well justify his-her action (White, 2009, p.67).

**Judicial Procedure of European courts**

In Judicial Procedure of EU court, it was first introduced in topics such as competition and officially listed as one of the pillars of the defense. For example, in a case it was stated as: "Although the right to defense requires that the beneficiary is able to offer their views on the documents used by the Commission, but there are not any legal materials to require the Commission to offer the contents of the cases of a law to beneficiary". In the Judicial Procedure of the courts, the right Access to the files, in the Administrative Decisions duties, such as competition and custom that which had a significant impact on the rights and interests of individuals, recognition was considered. If the Court of Justice of European on a case decided in 1998 that in order to fulfill the right to be heard, the Commission shall provide access to unclassified documents related to the contested decision on the request of the beneficiary. It may be documents beneficial to the individual, but the Commission ignores them. In this respect also the case Aalborg is interesting, in which the Court has clearly established that the Commission ought to provide beneficiaries the opportunity to review all documents that may be used to help protection of his-her interests.

In the procedure of The Court of First Instance of Europe Union is also a significant vote with respect to Right Access to files. The Court stated in one of its judgments that "access to file is a ritual guarantees aimed at protecting the rights of the defense, which effectively guarantees the implementation of the right to be heard". The importance of the right Access to court files in Europe procedures is so that the court clearly stated, only documents that they have access to the decision-making process, can be a document, the decision maker is used and cited reference. Peak of The First Court support of the right to Access to files, is the court emphasized that if Administrative Decision which is taken without considering the case made by the beneficiary, the decision shall be voidable.

**Right to Access to Files in Iran's legal system**

In Iran's legal system, the right Access to Files, where an independent citizenship is recognized in administrative processes. Such as Article 62 of the Rules of working Procedure on permit for both parties access to files and obtaining copies of the papers in proceedings of workers and employers Boards of Dispute Resolution and under Article 17 of the Code of Administrative Violations, which indicates Right to View documentation of raised file in Board to Handle Administrative Violations by employees accused. Apart from that stated, in paragraph 18 of Article 8 of the law on administrative offenses, failure to provide documents to persons who are entitled to receive, administrative offenses were mentioned as one of them. Due to the time the law was passed in 2003, which is still legal in Right to Access to official documents were not approved in view of the practical procedures in public administration, granting the owners of administrative files for access to documents that existed, it can be concluded, legislators here has been postulated access to files for the audience and its owners and it is considered a failure of administrative violation.

**The principle of state reasons of administrative decisions**

Principle of motivation reasoning of Administrative decisions or Obligation to state reasons and bases of decision is that the authorities should base their decisions are clearly stated, in accordance with this principle, every person is



**Mohammad Javad Rezaiezadeh and Famarz Atrian**

entitled to be informed the reasons by General and administrative authorities (Hadavand and Mashhadi, 2012, p. 203). For example, if a citizen's request, to obtain an administrative license is rejected by the authorities, just saying "no" or "rejected" adequacy does not have a legal basis for the refusal of permission to be expressed (Wiener, 1969: 781), explaining the reasons for administrative decision is the right to defense tools (Milecka, 2011: 53), because primarily beneficiary with examining the reasons for its decision and tarnishing it, about the decision can, stating Opinion and the right to self-defense, and otherwise simply with respect to administrative decision, it can't be assessed, commented.

**The principle of state reasons in EU**

The principle of obligation to state reasons is one of the pillars of good administration and right to defend in the EU legal system.

**Article 41 of the Charter of Fundamental Rights of the EU**

Under Article 253 of The Treaty Establishing the European Community, the duty to state reasons in the Charter of Fundamental Rights of the Europe Union is also reflected in paragraph 2 of Article 41 of the Charter, the duty to provide reasons for the decisions of the administration, was considered one of the pillars of good administration. Pursuant to the provisions of Article 41 of the Charter, providing a basis for government decisions and administrative requirements of the EU institutions and authorities are obliged to comply with the characteristics of good administration are considered. introduction of the principle in this Act, shall be the sign of a great place for the principle that the EU legal system and the constraints placed it next to the other two pillars of the defense, as well as the task reflect the views of one of the pillars of the Charter of the defense.

**European Code of good administrative behavior**

The second source of the duty to provide reasons for the decision, within the framework of good administration, is the European rule of good administrative behavior. According to the first paragraph of Article 18 of the said Act, any institutional decisions that may have a negative impact on the rights or interests of a private person should be determined its foundations by expressing clearly the related factors and related legal documents.

Article 18 of the Law on good administrative behavior after recognizing the principle provide the reasons for the decision as one of the characteristics of good administration, standards for the implementation of this principle is stated, as in paragraph 2, rules that employees must avoid of making decisions based on vague or abstract principles or without personal reasons. The third paragraph of Article 18 of the Law of good administrative behavior predicted a case that is similar decisions for many people are adopted and their principles and the legal arguments are very similar to each other. In this case, exceptionally, the authority is allowed to regulate the same type responses. But in this case also, if a citizenship requests, the authority is required specifically and individually, expresses the reasons and documents for the decision, along with detailed documentation, for him-her.

**The decisions of the Committee of Ministers of the Council of Europe**

Recipe 31/77 on the protection of individuals with regard to the administrative authorities, an Article is devoted to this topic. In accordance with Article 4 of this Recipe, when an administrative action, has the detrimental impact on the rights, freedoms and interests of the person concerned must beneficiary person be awarded of reasons and principles of this action. This process is done either by mentioning the reason of administrative action or by his-her request for a written notice and reasonable time to take Accepts. Other legislation is the Council guidelines for the exercise of discretionary powers of administrative authorities. In this guide, one of the limiting and controlling levers





**Mohammad Javad Rezaiezhadeh and Famarz Atrian**

of optional competencies of public officials, the obligation to provide reasons for the decision was considered. According to paragraph 8 of this Act, If exercising the optional competencies of public officials have a detrimental effect in the rights, freedoms, or interests, freedoms or interests have a devastating impact, the reasons for the decision must be notified to him. This notification is done by stating the reasons for the action or his-her request, by written notice given to him within a reasonable and acceptable time.

**Cases lawof the courts of EU**

European courts in several cases have emphasized necessity for documentation and justification of decisions of administrative agencies of the Union for the realization of the right to defend and also for judicial review. For example, in a case, Europe Court of Justice such commented:

"Since in effective judicial review, the court must be able, to examine legality of the contested decision, the competent administrative authority may be required to provide reasons for its decision. But where, as in this case, the issue is providing effective protection of a fundamental right (the right to freedom of movement) This right Should be defended, under the best of circumstances, and the court is aware of the factors and related parameters, be able to make decision. Consequently, in such circumstances, the administrative authority shall inform the Information about the reasons and basis for the decision". As can be seen in this opinion, the Court of Justice of Europe considered the main function of the impact and the need to provide reasons for its decision in review. Therefore, the judicial authorities to assess the legality of administrative acts have to review the evidence and the principles of administrative action of protested. The second function of the vote, which is stated for the reasons of decision, is the right of defense. Because the audience is informed of the reasons for the decision and possibly their tarnishing, they can defend their interests. In this context, the sentence issued by the courts in some European emphasis was the reason for the violation of that principle, if an administration decision, but creates a duty on the basis of reasons that are not clear. For example, in the case, the Court expressly stated that "the reasons for the court's decision must also be said to be capable of beneficiaries, actors and factors influencing the decision to explore". In another case, the Court expressly stated that the respondent the decision must be in a position to know the real reasons for the decision to investigate. In addition, the authorities believe to be the reasons for the decision to be communicated to the audience so he can gauge the likelihood of their success in protest to administrative decisions.

**Principle ofstate reasons in Iran's Legal System**

Under Iranian law, this principle is recognized in some rules and laws and also Administrative Court consider that principle in some decisions.

**Rules and Laws**

Including laws that recognized this principle is the press law. In this Act, the applicants for publishing journal shall receive authorization from the Supervisory Committee referred to in Article 10, and in accordance with Article 11, this Committee is qualified to diagnose and license applicants. Legislator in Article 13 provides that the Supervisory Board's decision to accept or reject the application for a license is according to the "reasons and evidence". Another witness of the reasons provided in the rules of the Islamic Republic of Iran, is the parliamentary elections and the need to consider carefully the Single Article for the requirement of careful handling complaints of ineligible volunteers in elections to the Parliament Act 1999. In the remark of Article 50 of the law on parliamentary elections, evidence and credible evidence to disqualify the candidates have been mandated by the executive council. Note that this remark states:"Rejection of Parliament candidate must be documented according to the law and valid documents". In the Single Article for requirement of careful handling complaints of disqualified candidates in various elections, also predicted that all competent authorities to consider candidates in elections, ought to notify him-her by



**Mohammad Javad Rezaiezadeh and Famarz Atrian**

writing documentation and evidence required to disqualify a candidate. In this regard, Article 58 of the organization, duties, and elections of state and municipal elections and its notes are also given. Article 58 of the law stipulates that "the annulment of the vote must be documented and accompanying with valid documentation" Here's also the requirements for providing reasons of the decision have been predicted by legislator clearly. Also, in Article 9 of the formation of the General Inspector's Organization, it is predicted that inspectors' decision to suspend the employee should be "reasonable".

Another decision that principle of providing reason, is governed it by the legislator, was the decision in taxation from payers. In paragraph 237 of the Direct Tax Code was asserted That paper of tax assessment must "supported by sufficient reasons and information" and will not necessarily be communicated to the taxpayer.

**Judicial Procedure of Administration justice Court**

The General Assembly of Administration justice Court in some of his views has agreed on the need to provide reasons for Administrative decision. For example, the vote of 187- No. 186 dated 2009 is noteworthy. In this petition, the General Board, has Justified the need and justification of the detailed plan changes established by Article 5 of Iran's Supreme Council for Planning and Architecture Commission. This vote is of great importance in relation to the reasons for the provided decision. Because it is issued with respect to optional Jurisdiction and the necessity of its reasoning. That can be inferred of the issued voting the general staff of court, has been that despite of the Commission's optional jurisdiction to modify and approve the plans, but that would be change of any kind without a reason, and unjustified, rather this legal act must be "reasons explanation and legal directions". Some petitions issued by the administration court's decision to respect the principle of providing reasons are interesting. In one case, the Court, Branch 18, in complaints relating to the annulment of the decision of the Executive Board paralegal and attorney's disqualification and licensing, legal advice and representation, stressed the need for office Documentary and the decision is reasonable. Other votes in this branch were verdict by court in which, due to the government's failure to provide a basis for the complaint. For example, the Court Branch 14 of the Complaints of Medical Sciences and Health Services, Isfahan Province and the demands of having to pay extra for contract employees is noteworthy.

**CONCLUSION AND RECOMMENDATIONS**

The concept of good administration in the EU using the right to be heard, access to file and Knowledge of the reasons for Administrative decisions provided on the realization of the right of defense in administrative decisions. These three parts are of the defense tools. If no right to be heard, respondent's decision to defend the rights and interests of their own, and no access to the files and be aware of the reasons and bases the decision, the citizen's opinion about administration act is not possible. The authorities and institutions of the EU are required to follow them in all actions and decisions that affect their rights and interests of individuals. The notification of the decision of the administrative authority for citizen awareness and action in defense of their interests is to defend the logical implications of supplies, which are not explained thoroughly in good administration references and it seems that it is neglected. This is also the case in the Iranian legal system, reflected in some laws and judicial decisions and administrative officials on specific issues have been obliged to follow them. But in general, it is not recognized in this legal system and perhaps its reason, is the lack of a specific comprehensive legal for administrative procedures. The proposal is in the first step in the process of quasi-judicial authorities and in the second step of the topics dealt a huge impact on the rights and interests of the people, such as the internment of the annulment of permits and licenses Office, with correction Right to legal requirementsforeseenbythel legislator. In the last step of the administrative requirements in the form of a comprehensive law on reporting a decision Administrative ruling is employed.





### Mohammad Javad Rezaiezadeh and Famarz Atrian

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## Studying the Effective Factors on Performance Evaluation; Case Study: Rural Water and Waste Water Employees of Bushehr

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### ABSTRACT

Nowadays, skilled and self-sufficient manpower is known as the most important factor of mobility in an evolved and advanced society. This paper examines the effective factors on the evaluation of Bushehr rural water and waste water organization employees performance. This study is a descriptive survey and data collection tool was a questionnaire. The research population was all the 80 employees of Bushehr rural water and waste water organization. Since the whole statistical population was examined in this study, there was no need to perform sampling and sample selection. Two-domain Pearson correlation coefficient was used to test the research hypotheses. The results showed that enhancing the capabilities of individual employees, employee tendency toward training, improving the relationship between the boss and subordinate, improvement of human resources and employee creativity and innovation with the CI of 95%, significantly affects the evaluation of Bushehr rural water and waste water employees performance.

**Key words:** Performance Evaluation, Rural Water and Waste Water Organization, Improving Human Resources

### INTRODUCTION

Due to the expansion of economic and industrial activities, organizations have to provide, maintain and operate a pluripotent large-scale and diverse workforce. Nowadays, skilled and self-sufficient manpower is known as the most



**Mohammad Ghaedi and Mahdi Nasouri**

important factor of mobility in an evolved and advanced society. Organizations cannot work without a sustainable discipline. In order to achieve remarkable success and realizing human aspirations, organizational managers have to use various principles and concepts of management and apply them with appropriate logic. Performance evaluation is one of the most important tasks of the management. It is considered as a subset of resource development processes and it aims to manage the operations of organizational units for the purpose of the objectives and strategies of the organization. One of the key components of performance management is performance assessment of the organization which is defined and implemented in three levels of organization, units and staff performance evaluation. In performance evaluation process, staff are investigated and reviewed periodically and formally. Performance evaluation as a periodic assessment is formal and often written on the job performance of the staff and it may be used for various purposes. In general, evaluating job performance is a process by which the organization evaluates and investigates the performance of human resources in performing responsibilities and assigned tasks. When this is done accurately, employees, supervisors, managers and especially the staff of the organization will benefit from its results.

Little research conducted on evaluation of performance in Iran suggests that despite the scientific and rational importance of staff evaluation, due to the indifferent attitude toward this management attempt, in all organizations, especially in public institutions, evaluation has failed and it has been criticized by staff and even managers for various reasons. Annual performance evaluation of those working in rural WWC of Bushehr is performed by a questionnaire developed by Management and planning Organization. The questionnaire consists of three parts: performance measures, measures of job behavior, standards of ethical behavior and total score of the employee. Each part is marked with indicators and unit managers are asked to evaluate the individuals under their supervision at the end of each year. It should be noted that staff evaluation is a specialty and its proper, accurate and complete implementation requires full consciousness of the respondents. It seems that lack of reliable standards, lack of awareness of managers of scientific evaluation system and their different attitudes in this field are the reasons for the failure of their evaluation program, in a way that its implantation not only does not motivates the staff, but also provides greater dissatisfaction and is one of the concerns of the managers. Therefore, the main issue of this study is how to identify and analyze the effective factors on performance evaluation of rural WWC employees of Bushehr in order to enhance the performance of the company.

## LITERATURE REVIEW

### Concepts and theories

#### Performance evaluation

In order to provide a clear definition of performance evaluation concept, first we need to state what performance is and what actions are called performance. In referring to the concept of performance, two different aspects of the action (behavior) and the outcome should be considered together. Behavioral aspect refers to what a person does in a workplace. However, not all behaviors can be considered a subset of performance concept. Only behaviors that are associated with organizational goals and the person is hired for doing them are considered performance. So performance is not determined only by action but by a process of evaluation and judgment. Outcome aspect refers to the results or consequences of one's behavior (Kont and Johnston, 2013).

Evaluating performance is a formal and systematic process to identify, observe, measure, record and enhance the strengths and weaknesses of employees (Palayvlgvs et al., 2011).

Background check of performance evaluation represents two main stages or phases: the first phase which includes late 1880s until 1980, when emphasis was on financial indicators such as profitability, return on investment and





### Mohammad Ghaedi and Mahdi Nasouri

productivity and the second phase which began in the 1980s around the world. After checking and evaluation of management accounting systems, Johnson and Kaplan in the early 1980s demonstrated many inefficiencies of this information to evaluate the organizations performances. Therefore, the management accounting systems which were traditionally used as a tool to measure organizations can no longer meet the requirements of today's organizations.

#### The main reasons for this are

Being past-oriented

Creating a deviant behavior in employees

Lack of flexibility to adapt to different situations

Absence of communication with organizational strategy

questioning placement of components and not targeting improvement

Focus on machine and employee efficiency, regardless of effectiveness

These problems raised and developed the new systems that can comply with the new requirements and daily changes since 1980s. Different organizations have started using these systems and now most American, European and Japanese organizations are using them. The comparison of new and traditional performance evaluation systems are presented in table 1 (Kont and Johnston, 2013).

#### Improvement of Human Resources

The operational definition of human resource development belongs to Walton. He defines it as "a set of organizational activities which are done in a certain period of time and are designed to make behavioral changes in personnel." (Saebi, 2003). In human resource development concept, the goal is creating skills to help the individual to prepare for higher position or heavier responsibility. Therefore, development of human resources training programs are for growth of individuals without a connection with current or future occupations of the organization. The main strategic resource of any organization or society is human resources. Those societies which develop their human resources appropriately will succeed in the long run and among reinforcement of knowledge and necessary technical skills, create hardworking and faithful workers (Mirsepasi, 1999). Organizations should also generate success conditions for their national production by developing and training their human resources.

#### Characteristics of the organizational resources development

Includes changes that are already planned and doesn't include accidental changes.

Includes efforts that take place to improve the organization.

It's a kind of change that lasts 2 to 3 years in big organizations, unlike expected immediate results.

Focus on working groups distinguishes it from traditional management improvement. Remarkable attention is given to group works in comprehensive programs.

Using consultant - facilitator (change factor) as someone who recognizes the characteristics of organizational development is in targeted definition.

Intervention model, a principle which is used in many attempts, is a practical research model. Because of the high potential of this model, organizational development can be done through participatory practical research (Esfandiari et al., 2011).





**Mohammad Ghaedi and Mahdi Nasouri**

**Reviewing records of research**

Jeffry Spence (2011), in a study entitled deliberate distortion of grading the evaluation, investigates this phenomenon in which managers grade their employees through motivation not accuracy. In short, monitoring theory is used to study grading of performances.

In the field of foreign research, in an article about performance evaluation of employees in the public sector banks in 2011 which is published by Palaiologos et al. (2011), indicators such as age, gender, quality of education, the role, total services, service management, personnel's monthly income and organizational characteristics were studied (Palaiologos et al., 2011).

In a research titled offering the model of effective factors on staff performance regarding brand in the banking industry, Azizi et al. (2012) stated that brand development has been one of the most important research priorities in the field of marketing management in recent decades. These results suggest that the clarity of the brand objectives has a positive impact on employee commitment to the brand but it doesn't have any effect on their loyalty to the brand.

Kont and Johnston (2013) believe that managers and their subordinates hate the evaluation activities. Therefore, to address this challenge, a kind of performance evaluation should replace performance assessment based on power. This evaluation emphasizes on a win-win manner. This method provides the best picture of you through writing and creates ways to be better and helps you to find your abilities from subordinates.

**Conceptual model of the research**

Based on the literature and history of the subject, the variables of the present study were determined and the following conceptual model was created:

**Research hypotheses**

Enhancing the capabilities of individual employees effects the performance evaluation of Bushehr rural water and waste water company.

Employees' tendency toward training effects the performance evaluation of Bushehr rural water and waste water company.

The improvement of relations between boss and subordinate effects the performance evaluation of Bushehr rural water and waste water company.

Employees' empowerment effects the performance evaluation of Bushehr rural water and waste water company.

Creativity and initiative of employees effects the performance evaluation of Bushehr rural water and waste water company.

**RESEARCH METHODOLOGY**

This study is a descriptive research and in terms of aim it is applied research.

**Statistical population**

The statistical population of this study was 80 formal and treaty employees and the entire population was studied.





## Mohammad Ghaedi and Mahdi Nasouri

### Data collection method

Theoretical Principles and scientific resources needed for this research were collected in library and by searching the Internet and electronic resources. Also, the quantitative data, regarding statistical analysis, was collected by a questionnaire.

### Data collection tools

The main tool to collect the required data was a questionnaire survey. This questionnaire is designed with Likert scale with five ranges from very low to very high option.

### Validity and reliability of the questionnaire

In order to check the validity of the questionnaire, opinions of supervisors and advisors and guidance of some professors and experts were used. Also, in order to evaluate the reliability, Cronbach's alpha coefficient was calculated, which for this questionnaire is 0/89 (greater than 0.7 is acceptable).

### Data Analysis Method

In this study, descriptive statistics and inferential statistics were used for data analysis and hypothesis testing. Pearson's correlation coefficient was used to test the hypothesis in this study.

## RESEARCH FINDINGS

Research hypotheses were examined using Pearson correlation test and the results are presented in the following table:

## DISCUSSION AND CONCLUSION

Since the value of the correlation coefficient is positive for the first hypothesis (0/39), it can be said that there is a direct and significant relationship between enhancement of individual capabilities and performance evaluation. According to this result it should be noted that due to the importance of the capabilities of individual employees, the managers must be aware of the effects of the capabilities on improving staff's productivity, and to encourage employees, they should use financial rewards other than salary.

Also, given that the correlation coefficient is positive in the second hypothesis (0/44), it can be said that there is a direct and significant relationship between tendency to training and performance evaluation. According to this result, it should be said that the improvement of the management has a history of science which emphasized the need for management education. Management improvement is a set of efforts which aim to educate managers and increase their efficiency and it is used as an important tool in organization improvement. The combination of these views doesn't exist by itself; rather organization people create it with training and development. On this basis it is necessary that the staff at all levels of the organization be equipped with these skills. Training should be provided continuously during the working life so that people will be able to respond to changes in technology, processes, customers and the requirements of the job.





**Mohammad Ghaedi and Mahdi Nasouri**

Since the value of the correlation coefficient is positive (0/31) for the third hypothesis, we can say that there is a direct and significant relationship between the improvement in relations between the boss and subordinate and performance evaluation. According to this result it should be noted that performance evaluation can be performed in a more realistic way by improving communication. Therefore, a framework is created for the communication between upstream (assessor) and downstream (being assessed) by the process of assessing and understanding of personal and professional activity is improved interactively. Strengthening the communication improvement duties of boss and subordinate enhances the understanding of the goals of the organization, improves decision making, provides information to support activities of human resources and also helps to identify opportunities for improvement.

Also, since the value of the correlation coefficient is positive in the fourth hypothesis (0/48), it can be said that there is a direct and significant relationship between development of human resources and performance evaluation. Based on this result, human resources improvement aims to create those skills that help the individual to prepare himself for higher positions or greater responsibilities. Therefore, the training programs to improve human resources will make individuals grow with no connection to present or future jobs of the organization and it can influence performance evaluation. Since the most important strategic resource of any organization is its human resources, an organization which develops its human resources according to principles, and with strengthening the necessary knowledge and technical skills builds active and devoted individuals, will succeed in long term. On the other hand, the concept of developing human resources means producing ideas by staff and its new concept requires that the staff is equipped with those skills and fulfill the mission of the organization with compassion and commitment of their capabilities, energy, expertise and mind and permanently create new quality and intellectual values. Therefore, this will improve the performance evaluation of the staff.

Since the correlation coefficient is positive for the fifth hypothesis (0/52), it can be said that there is a direct and significant relationship between creativity and initiative of the staff on performance evaluation. Based on this result it should be said that the information obtained by the evaluation system can accurately and correctly reveal the strengths and weaknesses of the organization forces. In this regard, the evaluation will determine whether the individual has the specialty, commitment and skill and also other conditions necessary to have a higher position and whether the context for improvement and promotion of the work dignity is ready. After clarification of this issue it can be said that indeed those who have high creativity and innovation can play an important role in organization's performance evaluation. Since one of the major challenges that organizations face is creating interaction between the clear goals of the organization and personal goals of the staff, the managers need creativity of the staff to accomplish this. In fact, the power of creativity and innovation in organizations means that the way to do the job is paved and the time to achieve organizational objectives is shorter.

The present study's hypotheses test result is consistent with the research conducted by Azizi et al. (2012).

These practical suggestions are presented based on the results of the research:

Reviewing the duties of the job according to the company's current needs and organizational tasks and missions

Job rotation in order to use individuals in appropriate organizational responsibilities and empowering human resources

Creating specialized committees and working groups and using employees who fit these committees in order to improve and empower staff

Providing the platform of research and study in the company by the private and consulting sectors and using human resource capacities in the process of research projects and studies

Promoting the job knowledge of the staff through specialized training courses

Providing the condition of assigning the manager from existing capacities in the organization and motivating employees to achieve promotion in higher responsibilities.





**Mohammad Ghaedi and Mahdi Nasouri**

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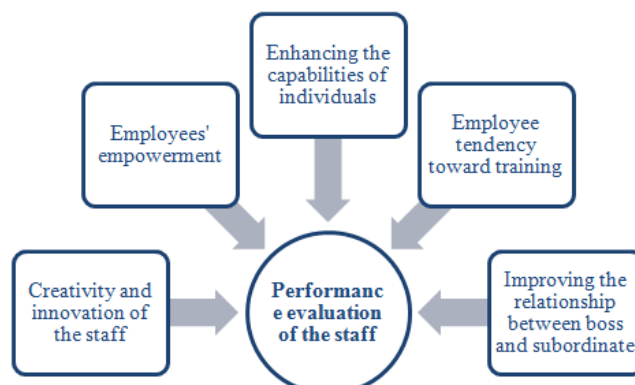


Figure 1. The conceptual model of the research

**Table 1. Comparison of new and traditional performance evaluation systems**

Traditional criteria for performance	New criteria for performance
based on traditional accounting system	Based on the company's strategy
Mainly financial measures	Mainly non-financial measures
Attention to high and middle managers	Considering all the staff
Poor and incomplete standards (weekly and monthly) complex, contradictory and misleading	In time measures (according to hour or daily), simple, accurate and easy to use
Leads to failure of the staff	Leads to employee satisfaction
operating level of the factory or company is forgotten	Often used in operating level
fixed frame	No fixed frame (depending on needs)





**Mohammad Ghaedi and Mahdi Nasouri**

No difference in opportunities and conditions	Different in opportunities and conditions
Doesn't change over time	Changes over time based on the needs
The main objective is monitoring the performance	The main objective is performance improvement
Cannot be applied for JIT and TQM, FMS, etc.	Practical and applicable in all cases
Doesn't Contribute to achieve continuous improvement	Contributing to the continuous improvement

**Table 2. The results of examining the research hypotheses**

Research hypotheses	r	R <sup>2</sup>	Sig
Enhancing the capabilities of individual employees effects the performance	0.39	0.15	0.00
Employees' tendency toward training effects the performance	0.44	0.19	0.00
Improvement of relations between boss and subordinate effects the performance	0.31	0.10	0.00
Employees' empowerment effects the performance	0.48	0.23	0.00
Creativity and initiative of employees effects the performance	0.52	0.27	0.00





RESEARCH ARTICLE

## The Principle of Judicial Propriety in Bangalore Document and Criminal Judicial Provisions of Iran

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### ABSTRACT

Iranian judicial system that has undergone major developments after the glorious Islamic Revolution and has placed the Islamic principles as the basis for the preparation and regulation of the law, by following the Islamic jurisprudence has employed fundamental principles as a basis for legislation and litigation. The principle of judicial propriety, or in other words preservation of judicial affairs is one of the basic principles of each judicial system and specifically the Islamic states. In this research, in addition to the comparative study, this result is obtained that the change and adoption of multiple laws in criteria and what is proposed regarding the rules of judicial conduct is due to incorrect interpretations of Islamic jurisprudence, because Islamic jurisprudence is very dynamic and criteria of judicial conduct are consistent with the principles of sacred religion of Islam and regarding the instances, by considering the changes in society and transformation of customs and traditions, attention must be paid to the customs and the norms of the international community to avoid the approval of laws that violate these rules. According to the mentioned results, it has been tried to use comparative studies to provide context for modification of laws by using comparative studies with the international and accepted documents of rules of judicial conduct and offer of necessary suggestions.

**Key words:** Judicial Conduct, Judicial Propriety, Observance of Affairs, Bangalore Document



**Habibollah Jamadi and Farahnaz Jamadi****INTRODUCTION**

Existence of a reliable justice system is a fundamental principle which is essential for ensuring basic rights of the people and rule of law. When reliable judicial authorities guarantee the other ineffective organizations, they will be considered a shelter for the general public against any rights violations and legitimate freedoms. If courts want to play their role to support the constitution and the rule of law, existence of the righteous judges who are bound to maintain judicial affairs would be necessary. Therefore, in a democratic and advanced society, public confidence in the judicial system and the moral authority and integrity of the judicial system is of utmost importance. Bangalore principles regarding the judicial conduct have been the result of work and consultations of the group which is consisted of senior judges from different countries, known as the group of "Strengthening Judicial Integrity" which was constituted in 2000 following the Tenth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, with the aim of regulating set of uniform rules for strengthening judicial integrity. For this purpose, the mentioned group examined and analyzed rules of judicial conducts of various countries and in a meeting in February 2001 in the city of Bangalore, India, an initial draft of rules of judicial conduct was regulated. But given the fact that the majority of the members of the draft regulating group were from states belonging to the common law legal system, the mentioned text was approved after some modifications in November 2002 at a meeting of senior judges of a number of countries with a civil law judicial system. Because the rules were regulated in Bangalore of India, this document is known as Bangalore document. In Iran, from the beginning of the fourteenth century, the first legislation was adopted in connection with the conduct of judges and in 1301 in the National Employment Law some provisions were included regarding the offending employees of administration and one year later with the adoption of a single article, the provisions of Article 37 of the mentioned Law about the Justice and officials were extended and implemented. In 1308, the employment law of judges and an independent law replaced this law and the last law was passed in 1390 as the bill of monitoring on the behavior of judges. In this study, the principle of judicial propriety in Bangalore document is compared with the criminal judicial regulations of Iran and the strengths and shortcomings of regulations and possible requirements of revision in domestic criminal law is made clear.

**The concept of the principle of judicial propriety**

Propriety has different meanings in different cultures that we refer to a number of these meanings: 1. politeness, delicacy and beauty, observance of customs (Ensafoor, 1994). 2. Cleanliness, politeness, good-temper, good behavior (Amid, 2007). 3. Delicacy and elegance, subtlety, softness, slowness and politeness (Nafisi, 1939). It seems that in idiomatic meaning and according to the Bangalore document judicial propriety means observing a series of behaviors by the judges that these behaviors must be consistent with customs of the region and observance of these customs, guarantees the dignity of judges and the judiciary. Note of Article 17 of the law of monitoring the conduct of judges in the definition of the behavior contrary to the judicial dignity states that:

The conduct contrary to the judicial dignity includes performing of any action which is considered intentional in the criminal law or it is contrary to certain common law of judges in a way that judges consider it blameworthy. According to this definition not only the behavior which is contrary to the dignity is considered as the crime, but also for the detection of behavior contrary to the dignity, it should be referred to certain common law of judges and what is common between them. Detection of these behaviors and disregarding it is on the Court and Supreme Disciplinary Court of Judges.

**The principle of judicial propriety in Bangalore document**

In this section, we are going to examine the concept of judicial propriety and explanations about this section and in the next section we will examine the efficiency and functionality of this principle and some cases of behaviors that are considered as indelicacy in international judicial conduct documents.



**Habibollah Jamadi and Farahnaz Jamadi****Concept**

Propriety and its manifestation are one of the essential elements of the judges' life. What is more important is not what the judge does or does not, but rather what matters is that what impression do others have of what the judge has done or might do. For example, when a judge speaks with a litigant in private and for a long time about the case, from the perspective of society, it seems that a privilege is given to that party, even if the conversation is completely unrelated to the case. Since the society expects a high standard of conduct from the judges, when he is skeptical about entering an event or receiving a gift, though small, he must ask the question, "how it may seem from the perspective of society?" (Shah HeydariPour, 2010). According to the principle of judicial propriety in Bangalore document it appears that more than anything else, the perception and the view of public is considered as the criterion and behaviors and interactions of the judges with the community, such as lawyers, parties to the case and others judicial fellows should be measured from the perspective of society and reasonable and impartial member. Even if the judge does not have any bad intentions and purpose, he should not do something that might be thought to be inappropriate from the perspective of society. More than anything, perception and opinion of the public towards the judicial system is important and all efforts of judges and members of the judiciary should be to improve this vision and perception.

**Performance****Avoidance of indelicacy**

Indecency criterion is that does the expressed behavior jeopardizes the ability of judges to carry out judicial responsibilities with judicial integrity, impartiality, independence and competence, or is it likely that, in the mind of a reasonable observer, it would create an impression that might damage judge's ability to carry out judicial responsibilities. For example, treatment with a government official in a way different from other members of the public, through providing a distinctive place of sitting, for an ordinary observer, would create the impression that the public official has a relationship with the judge. The judge should avoid contacts that in the minds of society may create the impression that there is a special relationship between him and the individual that the judge may be tempted to secure his favor. For example, the judge must refuse to be transported by the police officers or lawyers or when using public transportation, he must avoid sitting next to a litigant or witness (Ibid). According to this clause, it is observed that the judicial propriety is the basis of other principles of judicial conduct and more than anything, the ability of judges to perform the judicial responsibilities is intended. A judge may do all his responsibilities in the best way possible, but if he does not respect the dignity of the judiciary, the vision and perception of the society changes towards him and therefore confidence in the judicial system is damaged. Because in addition to fair judgment, the judge is obliged to maintain appearances and being righteous and true judgments should also be shown in this way.

**Social and political rights of the judge**

Since judges live in the real world not in the ivory tower, they cannot be expected to cut all their relation with members of the juridical profession by accepting the judicial position, depending on the circumstances, entry to community is acceptable to some extent. Generally, for the judges in the judicial process it is not beneficial to separate themselves from the rest of the community, including school friends, associations and former colleagues in juridical profession. Having a social relationship with a lawyer who regularly visits the judge is along with the risk and requires a balancing process. According to Bangalore document the criterion is that whether the social relationship interferes with judicial obligations and whether a non-beneficiary observer, who is fully aware of the nature of social relations may reasonably, feel that there is a significant doubt about the administration of justice. The judge, like any other citizen, has the right of freedom of speech, belief, formation of association and assembly, but in exercising such rights, he must always act in such a way to maintain the dignity of the judicial position and the impartiality and





### Habibollah Jamadi and Farahnaz Jamadi

independence of the judiciary. In determining the appropriate level of judicial involvement in public debate, there are two basic considerations. The first consideration is that whether this involvement of judge can reasonably weaken the confidence in his impartiality. The second consideration is that whether such involvement can put the judge at political tumult or be incompatible with the dignity of the judicial position. If any of the above items is raised the judge should refrain from such entry. Judge should accept personal limitations that may be considered by ordinary citizens as a difficult and hard task and he should do it freely and voluntarily. Among people the judge should behave with sensitivity and continence which is necessary for judicial position, because the non-conservative temperament undermines justice processes and it is incompatible with the dignity of judicial statue. This section of the Bangalore document is one of the key sections and it is realistic. Judges are also from the public and they cannot be expected to act as a supernatural being, and certainly they are not free from errors and mistakes. Judges like other members of the community need to communicate with other members including lawyers and this document emphasizes that judges should be very cautious in their relations and should not be attached to social interests. According to Bangalore document the criterion is that whether the social relationships influence the judicial obligations and whether a non-beneficiary observer may feel dubious regarding the administration of justice (Ibid).

#### The cases of disqualification of a judge

- A: If a member of the judge's family, "including his fiancé" is involved in a lawsuit or is involved as a lawyer, the judge is usually obliged to disqualify himself.
- B. The judge should refuse to handle the case which is raised by a law firm and one of the relatives of the judge is the beneficiary in that institution.
- C: When a judge is socially involved in a romantic relationship with a lawyer usually he should not judge the case that is raised by the mentioned lawyer (Ibid).

The cases of disqualification of the judge are listed in this paragraph and here the relative or friends (love) relationship form the centrality and focus of disqualification and it seems that the document is not perfect here and there are many items to disqualify the judge and it may be said that, Code of Criminal Procedure of Iran is more complete and more comprehensive in this regard, because it has included other cases such as the 1. Previous comments on the subject 2. The proposed criminal claims between a judge and one of the parties and...

#### Prohibition of the use of judicial authority to advance the private interest

The judge must distinguish between proper and improper use of the status and position of judiciary. It is improper for a judge to use his position for personal advantage or discriminatory treatment. If the judge was stopped for traffic violation, he should not misuse his judicial position against law enforcement. When the judge calls a prosecutor to investigate about the fine which is given to an officer of the court for traffic violations and asks that "is there anything that can be done?" then this reveals his indelicacy, even if no attempt is made to use the judicial position to influence the outcome of the case. It is not necessary for a judge to hide the fact that he has a judicial position, but he must be careful to avoid creating such an impression that judicial statue is used for a sort of discriminatory behavior. When a judge writes an article or issue for a publication, whether related or unrelated to the law, there are certain considerations. The judge should not allow any of the related publications to misuse his judicial statue. In contracts related to the publication of the writings of the judge, in order to prevent the abuse of the judicial statue, he should have control over these advertisements. Depending on local custom, in providing mediation and judgment services the retired judge may refer to his previous occupation as a "judge", because this information expresses the experience of a judge as a former truth finder. However this title should be along with phrases as "retired" or "former" to reveal that he is not working as a judge. According to this clause, the judge can use his statue in the society, but the improper use of this position is prohibited and it should not be used to advance personal interests. One of the most common cases which have been mentioned in this clause is at the time of the traffic violations that judges prevent





### Habibollah Jamadi and Farahnaz Jamadi

being penalized by showing judicial card and especially in the current situation and increase of the fines for driving violations in our country, definitely the identity cards of the judges are used frequently at these times! More than anything, prevention of it, requires culture-building practices in the society and the judges and police officers need to understand that judges should be penalized in the case of infringement (Ibid).

#### Obligation to maintain judicial confidential data and prohibition of taking gifts and bribes

In the course of performing judicial duties, a judge may obtain business information or other valuable information that is inaccessible to the public. The judge should not disclose or use such information for personal gain or for any other purpose unrelated to judicial duties. Performing legal work, includes the work which is done out of court and has no direct relation to the court. Attitudes about the scope of this prohibition vary according to different local conventions. In some countries with a civil law system, even the judges working in a final court are allowed to work as a judge or intermediary. At least in countries with a common law system, judges should not perform judicial duties privately as a referee or intermediary or otherwise, unless they are explicitly authorized by law. A judge should not give legal advice, however, in the case of close family members or close friends, judge can offer personal advice according to friendly, informal and unpaid basis. A judge and members of the judge's family shall neither ask for, nor accept, any gift, bequest, loan or favors in relation to anything done or to be done or omitted to be done by the judge in connection with the performance of judicial duties. A judge shall not knowingly permit court staff or others subject to the judge's influence, direction or authority to ask for, or accept, any gift, bequest, loan or favor in relation to anything done or to be done or omitted to be done in connection with his or her duties or functions. Subject to law and to any legal requirements of public disclosure, a judge may receive a token gift, award or benefit as appropriate to the occasion on which it is made provided that such gift, award or benefit might not reasonably be perceived as intended to influence the judge in the performance of judicial duties or otherwise give rise to an appearance of partiality. To give gifts of great value to the judge or member of his family that live at his home, raise some questions about the impartiality of judge and reliability of judicial position and may entail disqualification of the judge in some cases. Therefore, such gifts should not be accepted. The judge may politely refuse accepting such gifts or the offer of a gift. According to this clause, it becomes clear that a judge must keep secret. Within the field of judiciary, judges may obtain much information about the occupational issues that public access is not authorized to them and are required to protect this information. Judges are prohibited from performing other non-occupational legal activities unless the law of each country has granted this authority to judge. They should be very cautious and careful in accepting gifts and only in the case of legality of the gift they can accept it, because these gifts may be as bribes and for abuse. Even in legal cases, they should make sure that these gifts are not provided for influencing them (Ibid).

#### The principle of judicial propriety in Islam and regulations of Iran

Judgment is of great importance in Islam in a way that Islam has placed strict conditions for judges. On the other hand, judgment possesses a series of behaviors that judges are obliged to observe them, by considering these rules and conditions, it becomes clear that since Islam is concerned with honor, dignity and lives and properties of people, it has placed strict conditions for the judges. In other words, the conditions and principles that Islam has considered in this regard show the high position of these issues in Islam, because by imposing these conditions and practices error rate of the judges are lowered and honor and dignity and...of people are protected from intentional and unintentional mistakes of the judges. Article 17 of the law of monitoring the conduct of judges in the 6<sup>th</sup> clause of it has defined the behavior contrary to the dignity of the judiciary and considers it punishable by eight to thirteen levels. These penalties include: 8. the temporary suspension of one month to eight months. 9. The temporary suspension of six months to one year. 10. Termination of service through retirement, with at least twenty-five years of service and redeem of service in the event of less than twenty-five years of service. 11. The change of the administrative state and about the military judges, abolition of judicial authority and restore to the servicing unit. 12. Suspension of judicial service 13. Permanent dismissal from governmental service.







### Habibollah Jamadi and Farahnaz Jamadi

As seen in this law the heaviest disciplinary punishments are considered for behaviors against judicial dignity. Regarding the preservation of judicial dignity, reference is made to following votes of high disciplinary court of judges:

Criminal prosecution and detention of the secretary of the doctor's office with the command of the judge, because of not visiting his wife by the mentioned office, is inconsistent with dignity of the noble job of judiciary and defenses of the mentioned person that: "as far as he remembers he has sent his wife's complaint to intelligence department for preliminary investigation and the secretary of the office after testifying to police force was freed by my forgiveness and without the formation of file" is considered improper for the position and statue of a judge. By considering this matter, the authorities can degrade the judge by virtue of Article 24 of the Constitution relating to diagnosis of types of the faults of judges. This vote is verifiable within the period of one month from the date of notification in the Board of Disciplinary Appeals. As mentioned in the report, the basis for the indictment which has been remained defenseless by the judge is a violation (Karim Zadeh, 2007).

1. The Head of branch 18 of the General Court has directed one of his relatives to a petition writer for writing his complaint, in the absence of the intended person another petition writer has ventured to write the complaint and immediately the head of the mentioned court has called the petition writer and impeached him that why he has written the petition (it has led to the argument between them), in this case the judge has committed an act which is contrary to the dignity and integrity of the judiciary. Therefore according to Article 24 of the Constitution relating to diagnosis of types of the faults of judges the mentioned judge was condemned to be degraded. This vote is objectionable within the period of one month from the date of notification in the Board of Disciplinary Appeals.

2. The Head of branch 10 of the General Court has also committed an offense in condemning the accused to temporary exclusion from petition writing as the completion of the punishment and according to Article 609 of Islamic Penal Code in determining the main punishment of the accused without compliance with the mentioned article, even without considering his instigation by the private complainant (Head of Branch 18) (Ibid).

Thus according to Article 20 of the Constitution the mentioned person is condemned to one fifth deduction of the monthly salary for 4 months. This decision is definite. Muslim jurists have divided conditions and customs of judgment into four parts of obligatory and recommended and detestable and forbidden that in following sections we are going to discuss them.

#### Obligatory behaviors

##### Equality

If both parties are Muslims or both pagans the judge is obliged to behave equally between the two parties in the following affairs:

- 1- Considering equality in saying hello.
- 2- Considering equality in sitting and talking and paying attention to both parties
- 3- Listen equally to the statements of the parties.
- 4- Sitting place should be in a form that both parties sit on the same level.
5. If the judge acts brutally, in a way that causes the judge to apologize the parties, he should observe equality in apologizing to the parties (Allameh Helli, 1989).





### Habibollah Jamadi and Farahnaz Jamadi

This clause considers that the sameness of the religion of parties is a requirement for equal treatment of judge and it seems that in the area of judiciary and treatment with the parties discriminatory attributes such as language, culture, religion, etc. should not be involved and influence the behavior of judges.

#### Hearing and being silent during the speech of litigants

If one of the parties, precedence the other in raising complaint, the judge must hear his claims and not all the various claims. In this way that, if the other party says: "I am claimant" the judge disregards his claims until the judgment on the claim of the first one ends. But if both propose claim together, there is a dispute among the jurists, in this way that Shahid Awwal stated that the judge must initially hears the claim of person who is sitting on the right side of other one and then listens to the claims of other person and his reason for such a theory was a narrative of Muhammad ibn Muslim from Imam Baqir (AS), but the opinion of some jurists is that they should act according to draw, because "Drawing lots is solution to every complex problems" (Shirazi, 1972). Regarding hearing of the complaint, the reference is made to the vote of Supreme Disciplinary Court of Judges:

"With regard to articles 44, 45, 54, 60, 63, 125 and 162 of Civil Procedure Code and clause one of the Article 28 of the Act of constitution of the General and Revolutionary Courts, violations of the judge of the general court in negligence of mutual plaintiffs, and also lack of obtaining a clear understanding regarding the matter of his accusation and also the lack of stating any comment about the discovered opium (about the size of a pea) is indisputable. The head of the general court has also committed a violation in by neglecting the complaint of the accused about being kidnapped and threatened and lack of adequate investigation on the accuracy of the case and lack of any comment about the discovered opium and destroying Methamphetamine and also in inability of revision or the certainty of the vote following it (Karim Zadeh, 2007).

#### Issuing command at the time of clarification of claimant's right

A judge is obliged to investigate and question the parties when a claim is proposed unto him and he has to examine the arguments of each party and eventually, when it becomes clear that who is right he should issue a command. In this regard, the Code of Criminal Procedure of Iran adopted in 1378 in Article 212 states that:

"After the termination of the examination, with the help of Almighty God and relying on the honor and conscience and according to the contents of the case and the available evidences the court passes verdicts at the same session unless determination of the sentence requires some preliminary preparations, the court order will be issued within a week at the very maximum."

Regarding the prolongation of procedure, the reference is made to the votes of Supreme Disciplinary Court of Judges:

The judge of the general court from the date of 01/03/75 to 24/11/77 has not performed any effective action in the case with the excuse of multiple tasks which does not have any legal justification. Therefore according to Article 20 of the Constitution relating to diagnosis of types of the faults of judges and according to the degree of responsibility, each one condemn the first one to the deduction of monthly salary for 2 months and the second one to the deduction of monthly salary for 6 months. The issued vote is definite. The violation of the head of the General Court, in terms of delay in handling the case is for 3 constant months. Therefore according to Article 20 of the Constitution relating to diagnosis of types of the faults of judges the mentioned is condemned to the deduction of monthly salary for 3 months. The issued vote is definite (Ibid).





### Habibollah Jamadi and Farahnaz Jamadi

#### Recommended behaviors

#### Prohibition of the defendant (accused) from confession about God's law

When the defendant (accused) wants to confess to the right of claimant and the judge prevents him from confession, in this case the judge has committed an unlawful act, but if the defendant wants to confess about God's law, in this case, it is recommended for the judge to do something to prohibit the person from confessing about God's law and interpret his action until his crime is proven. Perhaps it can be said that, it is due to desirability of this act that in Islamic Penal Code, in most cases, the limits of the legislator has considered 4 times of confession as necessary for proving the crime (HorrAmeli, 1967).

#### Encouraging the parties to the peace and reconciliation

It is recommended that before issuing a command the judge invites the parties to peace and reconciliation, so if peace was not established, he should order what the religious requires and if the order is not known to the judge, he should delay his issuance until it becomes clear for him and he is required to make efforts to obtain the command (Ansari, 1994). Article 195 of the Code of Criminal Procedure adopted in 78, in this regard, provides that: "In cases where there is a possibility that the parties can reconcile, the court will make all possible efforts to make peace between the two, and if this does not occur, the case will be investigated and the respective sentence issued accordingly".

According to the above article, it seems that the primary task of a judge in matters concerning the peace of parties which leads to termination of the case is to make efforts to reconcile the parties and in the case of failure, he will proceed to examine and issue the command.

#### Strictness in oath

It is recommended for the judge to be strict in oath; strictness in oath is performed in three forms:

A) In terms of the statement of the oath: As if they ask him to swear as follows: "I swear to God, that no god is except Him, Most Gracious, Most Merciful, He is punishing the wicked ones and dominant on everything and favoring the ones who obey him and he is aware of the interior and exterior of everything."

Article 153 of Code of Criminal Procedure adopted in 78 states in this regard:

"The investigation's witnesses and those with knowledge should give an oath as follows before disclosing information:

I swear to Almighty God that the testimony I shall give will be the truth, the whole truth and nothing but the truth."

The above article indicates strictness in oath.

B) In terms of place: it is like to swear him in Kaaba or the Sacred Mosque.

C) In terms of date: He must swear on Friday- the day of Eid al-Fitr and Eid al-Qurban (Tousi, 1960).

Article 281 of Civil Procedure Code in this regard states that: "The oath must be consistent with the decision of the court and with the term of Majesty (Jalalah) (والله جلاله - تالله) or the name of the Almighty God is uttered in other languages and if there was a need for the control and strictness, the court determines the quality of its utterance in terms of time, place and the words." As it can be observed in this article, in the case of need for control and strictness regarding the oath, the judge of the court determines appropriate place and time for its utterance.





### Habibollah Jamadi and Farahnaz Jamadi

#### Preaching the swearer before swearing

It is recommended that before swearing, to commemorate the name of God or fear of punishment and retribution, on the assumption that swearer may swear untruthfully, the judge should preach and advise the swearer and encourage him to quit swearing (Ibid). Article 649 of Civil Procedure Code adopted in 75 states that: "Everyone who has untruthfully sworn in legal or criminal dispute will be condemned to prison from six months to two years". The above article illustrates the consequences of false oath and the judge should warn the person before swearing.

#### Detestable behaviors

##### Having chamberlain

Mohaghegh Helli in the book of Sharayih al-Islam states that:

One of the abominable and detestable practices is that the judge during the process of judgment provides a chamberlain and concierge. Abomination of assigning chamberlain that people visit them is known, because the reference of the needs of the people is among the blessings of God on officials and they are prohibited from making people in trouble. Especially if accountability and solving of the problem is an individual duty on the authority, it means that if there is no one that would suffice, in this case creating barrier and chamberlain is forbidden (Mohaghegh Helli, 1969). The mentioned issues are true when the meaning of "chamberlain" is the person or persons who prevents the contact of authorities with the public and prevent the connection of people with someone that they need him and can meet their needs. But if "chamberlain" means the concierge that does not prevent people's access to their needs, but as the person who regulates the time of visitors, to prevent the entrance of those who have come later or vice versa, and the main permission must be obtained from the person who is responsible and he gives permission or decides about the meeting and concierge is only careful about the observation of turns, such a chamberlain is not detestable, but rather it is obligatory when there are many visitors and it is necessary to respect the priority and the turns. Of course there are some exceptions including urgent cases such as the loss of right in the absence of timely access to the judge, or at special events such as murder, rape, or when it is necessary to preserve the crime scene. The result is that if the existence of an obstacle and chamberlain lead to loss of the right of the visitors, while the responsible person can meet the needs, if there are other individuals who can meet the needs, is detestable and abominable; otherwise, having chamberlain is forbidden. But if existence of a chamberlain is to manage and sort things, it is not detestable but because of preserving the rights of the needy it would be objectively obligatory. Sometimes in other ways, such as maintaining the safety and dignity of the judge, existence of chamberlain is necessary for him, because he issues commands about the lives, property and dignity of people and every guilty does not accept that the verdict is right and fair but rather sometimes unjustly denies it and wants to take revenge from the judge, so existence of a chamberlain in this case prevents the occurrence of crime.

#### Prohibition of judgment at the time of anger and similar cases

Mohaghegh in the book of Sharayih al-Islam says that: "Judgment of the judge, when he is enraged, is detestable, it is also detestable at any mode and state that makes person angry like hunger and thirst and sorrow, joy and vice disposal and overcoming of slumber and sleep, if he makes judgments in this case, but it was right and just, the sentence will be in effect and valid." (Ibid).

#### Narratives also imply this issue

First Sokoni quotes from Imam Sadiq that the holy Prophet (PBUH) said: Whoever was responsible for judgments should not make judgments when he is in anger (Horr Ameli, 1967).





### Habibollah Jamadi and Farahnaz Jamadi

**Second** Ahmad Ibn Abi Abdullah narrated that the Commander of the Faithful (AS) told judge Sharih that: "Do not consult with anyone at the court, and if you get angry get up and do not judge at the time of being angry." (Ibid)

In other narrative it has been stated that: "Do not judge, unless you are fed and watered." (Ibid)

The above narratives stipulate the prohibition and prevention of the judgment in the mentioned circumstances. The prerequisite of the judicial dignity is also the same, because anger prevents man from precision and reflection and mental health at the time of issuing judgments, while the verdict indicates that the man has control on himself, he has knowledge about the aspects of sentence to remain protected from the mistakes and slip.

#### Unlawful behaviors

##### Prohibition of induction of an issue to the parties and taking bribes and gifts

Judge should not suggest an issue to parties which will lead to the victory of him. This behavior causes damage to the principle of impartiality of judge. Bribery occurs when a judge receives money from one of the parties or someone else other than the two and instead issues a command in the favor of one of them. Bribery is one of the most immoral things that from long ago has affected collective moral health in the field of diverse human relationships. In some traditions, the bribe has been considered as blasphemy.

The Prophet said: "avoid the bribe which is like the blasphemy and the one who takes bribes will never see the heaven." (Mohammadi, 1995)

Bribe has various faces and sometimes it is presented in the form of gift and offering (Saket, 2003). Imam Ali (as) in the case, where considers the gift, which is given after the termination of the work, as an instance of a bribe, says that: "(About these words of Almighty God) «اكالون للسحت» (unlawful bribers) he is someone who sentence in favor of his brother, and then accepts his gift." (Ibid).

Article 589 of Civil Procedure Code has stipulated that: "If judges of courts, due to receiving a bribe, give a harsher punishment than that provided by law, he shall be sentenced to the same excessive punishment he has given, in addition to the punishment provided for receiving a bribe."

This article states the prohibition of bribery and has intended a punishment for it.

##### Prohibition of making the witness dubious and persuading the uncertain witness

Encourage or persuade of a witness, who is skeptical of his speech is forbidden to judge or making the witness reluctant for testifying and discourage him from giving testimony or when the defendant (accused) wants to confess to the right of the claimant (plaintiff), the judge prevents him from confession (HorrAmeli, 1967). For example, the witness says: claimant purchased whatnot and a judge in the middle of testimony asks him did he buy it 100 Tomans or at a certain place?

Unfortunately, it is very common in our country and judges ask empathic questions from witnesses and defendants and this way of justice, is not appropriate for an Islamic society. Of course this method has been banned in our laws but still we can observe such a practice in police stations and the justice where the judges by their behaviors and statements make the witnesses and defendants dubious in their confessions. Not only in terms of international instruments, but in terms of our legislation such a confession does not have any effect.





### Habibollah Jamadi and Farahnaz Jamadi

## CONCLUSION

According to the rules, judicial conduct known as Bangalore document is an international and accepted document by most of the countries. Indecency jeopardizes the ability of judges to carry out judicial responsibilities with judicial integrity, impartiality, independence and competence and this document considers the propriety of the basis of these principles. According to this document, propriety is the acts and omission from the acts that the judges should observe in relations with the community, friends, lawyers, family and personal lives and also he should accept personal limitations that should be considered as difficult by ordinary citizens. In Islam judicial propriety is the acts and omission from the acts that have been divided by the Muslim jurists into four categories of obligatory and recommended and detestable and forbidden. In the law of monitoring the conduct of judges adopted in 1390 the conduct contrary to judicial dignity has been defined as follows: performing any action, which is considered intentional in the criminal law or against the certain customs of the judges in a way that the judges consider it blameworthy. In some of the rules and regulations of our country, these behaviors are included and some of these norms have not been included in any legislation, due to richness of Islamic jurisprudence, this source is very effective for understanding these behaviors, of course as it has been considered in the law of monitoring the conduct of judges for recognizing the behavior contrary to the dignity of the judges, Court and Supreme Disciplinary Court of Judges should consider general population to understand issues and its application to specific cases. It is suggested that in order to further ensure the principle of judicial propriety and other legal principles and ensuring the rights of those who are being judged, with respect to the many positive points of the international document of Bangalore, Iranian lawmakers adopt this document and for better compliance with the principles of this document they should regulate some rules and regulations.

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RESEARCH ARTICLE

## Manufacturing System Optimization with using Discrete-Event System Simulation; Case Study: Profile Door and Window Manufacturing

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### ABSTRACT

Considering the importance of optimization of the manufacturing system, in the present study, by using discrete-event simulation, we have examined the manufacturing system of door and window profiles in AghGhala Factory. For this purpose, initially, the existing manufacturing system was identified. The components of system, arrangement, the relationship between the units, arrival rate and servicing of each of the machines were identified. Then, in the form of the simulated model, the collected data was designed in ED software. After the implementation of the model for one year, the state of created queues and bottlenecks was specified. Then for several times, some modifications were applied in the functional model for improving the current system. Finally, on the basis of four criteria of cost, number of production, productivity and average latency, the optimal model was evaluated. The obtained results showed that the optimal model had a weaker performance than the current model only in cost index, that given the growth in other three indices will cover the increase in cost.

**Key words:** Simulation of Manufacturing Systems, Queue, Discrete-Event Simulation, ED Software



**Sadegh Sharifi et al.**

## INTRODUCTION

In today's world, considering the advancement of technology, organizations are trying to outdo their rivals and this would not be possible unless by accurate planning and proper use resources and facilities. Therefore, given the complexity of the system, administrators should use the appropriate tools such as linear programming, dynamic programming, integer programming, simulation, and queuing theory and... which are available for the analysis of systems and also they should do proper planning and prevent the wasting of resources. All the above methods, except simulation, try to simplify the system and cannot consider many complex relationships and random factors of the real system and reduce accuracy of the system and modeling is also difficult by application of the above methods. Therefore simulation can be considered as one of the most powerful analysis tools, available to persons responsible for the design and operation of processes. Management must make decisions about the type of required equipment, acceptable output, and use of a variety of materials between the stations and fixity or flexibility of the line. By using simulation in the planning of production, we can help managers and organizations in achieving the predetermined objectives. Production line of Golestan insulation factory has been divided into three main parts: measurement of profile pieces, cutting and welding of profile. In the welding section, factory does not encounter particular problems due to very advanced machines (CNC) with very high volumes. Most of the problems occur in measuring and cutting section. Therefore, the problem in this study is the balance of the number of workers, manufacturing equipment, and identification of bottlenecks and improvement of the layout of production line by using simulation. The necessity of examining the queuing and simulation of production lines in this factory is to improve the manufacturing process, reduce queuing and enhance the performance of the factory. If management and the factory fail to reduce queues and bottlenecks in manufacturing systems, this may lead to loss of a part of production capacity, reduction in production system efficiency, reduced orders and loss of clients. Due to the competitive nature of the profiles market, both domestic production and imports of these products from Turkey and China, the loss of customers cannot be oversimplified. Considering the intensity of activities of competitors, loss of customers can constitute a threat to the survival of the factory. For this reason, the examination of manufacturing system and efforts to reduce and eliminate queues and bottlenecks in the production line of Golestan insulation factory is essential. The basic and general purpose of the study is to improve manufacturing system of Golestan insulation factory. To this end, the overall objective of the study is divided into more detailed objectives: identification of manufacturing system of Golestan insulation factory and evaluation of bottlenecks in this system. Study of the arrival rate of goods and service rates in each of the sectors will result in the formation of the queue. An effort to meet these problems and study by simulation model

### Description of the model

Insulated door and window manufacturing factory of Golestan, which is located in the province of Golestan in Industrial Estate of AghGhala, is presented as one of the most important beneficiary organization according to the results of this study. To simulate the production process at the factory, initially we divided the production process into two major parts. The first part is the unit of the mixing and preparation of the profile and the second part is the unit of manufacturing doors and windows. Of course, these two parts are physically separated from each other. It means that a factory shed has been considered for production of profiles. After preparation and packaging of profiles, products are sent to another factory shed for cutting and performing the required activities. PVC is mixed according to the type of model and number of orders. The ratio of raw materials that must be added is of great importance. Because of having a very advanced mixer device, this unit mixes at least 4 times greater than the current daily production capacity. Due to the high capacity of hot and cold mixer device, no problem is felt in this unit. But in order to prevent the effects of unpredictable failures and probable problems, this part is always two days ahead of extruder unit. The PVC produced in troughs is kept for at least 24 hours. Usually, by considering the type of requested profile, various product lines are used. There are three processes of profile manufacturing in the factory: a normal profile, two-layer profile and specific profile. By examining the arrangement of the extruder unit, we have







### Sadegh Sharifi et al.

found that there are totally 37 stages in this unit. For each of these stages there exists a specific device. Some of the machines are multifunctional, while others are only able to perform an activity. There are totally 37 machines in the extruder unit that contain 10 types of machines. The most widely used machine is DDL that in total 14 machines of this type are used. For the production of a normal profile, we need to perform 15 activities in the production line, two-layer profile production unit consists of 6 stages and completion section of specific profile has been formed of 8 stages and an inspection unit. Profiles are average and active that in the first part, the average normal profiles pass through 16 stages and two-layer and specific profiles, in some parts, are in common with average normal profiles. By studying the documents of the mixing and design units it was revealed that 25% of the profiles follow the same pattern. Prolific normal profiles have been formed of very time consuming stages. This type of model accounts for 15% of production volume. This type of model greatly reduces the volume of production, but forces market demand for the manufacturing sector to place this model in its own production program. Prolific normal profile has been formed of 17 stages. Arrangement of the machines at the factory is approximately constant and does not change according to the type of profile.

#### Operational development model

Stages of conducting the research in operational model have been designed according to systemic model. Points 1 to 4 are related to weighing, mixing, extruding and packaging. Two points of 5 and 6 are related to process of doors and windows that each one possesses pores, dimension, handles and specific locks. Then these two parts are linked together in the rubber sealant stage at the point of 9 and debarring and welding are done at points of 10 and 11.

#### Data collection

In the first phase of research, initially, the arrangement of devices and main model of factory was designed. In second phase, when the initial arrangement was specified, timing must be performed for determining the arrival rate, service rate and type of distributions governing the parts and various machines. In order to collect data related to the rates of service and raw materials and goods arrival, an objective observation shall be done. Thus, the different parts are identified and periodically at different times, objective observation and timing occurs. Times are noted and finally, after several timings, the average time is defined as the average time of service or arrival.

#### Sample size determination

In any study or research planning, we would face the question that how much is the sample size. The above question is an important topic that should never be underestimated. Selecting a sample, larger than the required extent for achieving the desired results, leads to waste of resources, while the selection of very small samples, often lead researchers to the results that lack the scientific use. The formula to determine the sample size depends on the type of need. In general, the sample size formulas are related to measures of data that they will be divided in terms of quantity and quality and by estimation of average and success ratio, specific methods will be used for determining sample size. To obtain each sample for different machines, we have acted as follows:

1. Since we were not really sure that distribution of the devices is a normal distribution or not, as a start, we assumed the sample size approximate to 30.

2. We consider the initial sample size as the degrees of freedom for the t distribution and we have calculated the

value of  $t_{1-\frac{\alpha}{2}, n-1}$  from the table.





### Sadegh Sharifi et al.

3. The variance of the sample was calculated.
4. The following formula was used to determine the sample size:

$$n = \frac{s^2 t^2}{\varepsilon^2} \frac{1 - \frac{\alpha}{2}}{n-1}$$

If the  $n$  obtained from the formula was same with the hypothetical sample size, then we would stop calculations.

In this study,  $\alpha = 0/05$  and  $\varepsilon = 0/1$  have considered.

#### Determining the distribution of each of the devices

After obtaining the required sample size, the distribution of samples must be determined. To do this, we should use fitting tests which were explained on details in second chapter. Since our data are discrete and we have used large samples, we will employ chi-square test to determine the distribution of the machines. To ensure the accuracy of selection of appropriate distribution for each of the machines, we will conduct all the tests on each of them. To do this, the Show Flow software is used, which is able to simultaneously test data with 50 different distributions and rank them according to their appropriateness.

#### Modeling

##### Evaluation of mixing and preparation unit

In this section, PVC is mixed according to type of model and number of order. The ratio of raw materials that must be added is of great importance. Because of having a very advanced mixer device, this unit mixes at least 4 times greater than the current daily production capacity. Due to the high capacity of hot and cold mixer device, no problem is felt in this unit. But in order to prevent the effects of unpredictable failures and probable problems, this part is always two days ahead of extruder unit. The PVC produced in troughs is kept for at least 24 hours. By studying the documents and evidences of October and November of 2014, the production rate of necessary profile and PVC was extracted from mixing and preparation unit. This amount was calculated between 680 and 1000 kg. Then by using the Easy Fit software and the chi-square test, distribution of the cutting unit was obtained  $\alpha=0.05$ , and the data were classified into 5 categories. After classification and integration of data, Table 1 was resulted.

Furthermore, by referring to Table we found the following equation  $\chi^2_{0/95,2} = 5/99$  and since  $2/46 < 5/99$ ,  $H_0$  is approved; this means that data related to mixing and preparation unit, with  $\mu = 810/8$  and  $\delta = 60/8$ , follow a normal distribution.

##### Specifying the existing arrangement in extruder unit

Usually, by considering the type of requested profile, various product lines are used. There are three processes of profile manufacturing in the factory: a normal profile, two-layer profile and specific profile.





**Sadegh Sharifi et al.**

By examining the arrangement of the extruder unit, we have found that there are totally 37 stages in this unit. For each of these stages there exists a specific device. Some of the machines are multifunctional, while others are only able to perform an activity. There are totally 37 machines in the extruder unit that contain 10 types of machines. The most widely used machine is DDL that in total 14 machines of this type are used. Table 2 identifies the name and number of each of these machines.

For the production of a normal profile, we need to perform 15 activities in the production line, two-layer profile production unit consists of 6 stages and completion section of specific profile has been formed of 8 stages and an inspection unit. Profiles are average and active that in the first part, the average normal profiles pass through 16 stages and two-layer and specific profiles, in some parts, are in common with average normal profiles. By studying the documents of the mixing and design units it was revealed that 25% of the profiles follow the same pattern. Prolific normal profiles have been formed of very time consuming stages. This type of model accounts for 15% of production volume. This type of model greatly reduces the volume of production, but forces market demand for the manufacturing sector to place this model in its own production program. Prolific normal profile has been formed of 17 stages. Arrangement of the machines at the factory is approximately constant and does not change according to the type of profile.

Figure 1 shows the simulation of extruding unit and figure 2 shows the simulation of doors and windows unit.

After the initial model was created, we must enter the required information of the model. Data are like the raw material which is injected into the model that if accurate information is not entered to the model, it cannot be expected to receive correct and precise response from the model. Before discussing the way of collecting data, we should identify the essential data that that the model requires. Since we did not have enough information about the sample for the study of the distribution function of machines, we assumed the sample size approximate to 30 according to randomized times. We have considered the initial sample size as the degrees of freedom for the t

distribution and we have calculated the value of  $t_{1-\frac{\alpha}{2}, n-1}$  from the table. In the next stage, the variance of the sample was calculated.

$$n = \frac{s^2 t_{1-\frac{\alpha}{2}, n-1}^2}{\epsilon^2}$$

In this project we have considered  $\alpha = 0/05$  and  $\epsilon = 0/1$  to make the sample size determination be done with high accuracy. For example, in the case of LH2, we determined the sample size. After obtaining the initial 30 samples, the variance of the sample was calculated. According to the Table the value of  $t_{0/975, 29} = 2/045$  was obtained and then we calculated the value of n.

$$n = \frac{0/81 * (2/045)^2}{(0/1)^2} = 338/7$$

For this machine, timing was performed for 339 times. For every single extruder machines, this voluminous and time consuming operation was repeated. These operations were completed with the assistance of factory employees after two months and about 14000 samples were obtained from different parts.





### Sadegh Sharifi et al.

#### Determining the rate of arrival to the machines

After determining the sample size for each of the machines, the arrival rate was calculated. This process was carried out with respect to the timing of arrival between the two machines. Then the collected data was placed in Show Flow software and arrival distribution function of each machine was calculated. An example of the timing and process of identifying the arrival distribution and service in one of the machines is mentioned as follows:

Timing to identify the distribution of the rate of raw materials (PVC) of LH2 to DDL machine in extruding unit is specified in the table below. Only 160 data have been shown in this table.

In order to obtain the distribution of the arrival rate, Show Flow software was used as follows. Of course other software such as Excel or MATLAB can be used. Sampled data are entered into the software as follows.

As it can be seen, the proposed distribution for the arrival rate is a negative exponential with the parameter of 5.36.

#### Calculating the setup time

Another time which must be applied in the model is the setup time of machines. Setup time is mostly related to warm up of the devices. This time is different for various machines. For applying different machine stoppages, some arrangements have been considered in the model. These two times have been obtained from repair request sheets of technical parts. Table 4 presents data on different machines and time related to them. It should be noted that all times are according to second.

#### The results of solving the model and conclusion

After validation of the model of the system, the results of the model can be evaluated by approved percentage of confidence and they should be analyzed by using the data, in order to adopt appropriate decisions adopted for achieving certain objectives. ED software can present the results as the output resulted from running the model in various forms and fields. ED can present results in the form of text, tables, or different forms, for example, it can show the expected product time for different machines or it can specify the level of activity of operators. The runtime of the model was done for 2000 hours equal to 250 working days equivalent to one working year.

#### Selection of indicators

To assess the current executed model and subsequent corrective models, some indicators were determined by experts. By considering the indicators, different models can be classified. Experts have considered 4 indicators of cost, number of production, productivity and average latency for the production of each product.

#### Cost index

This index is of very high importance for all managers. All managers want to reduce their fixed and variable costs. In each of the models, the model was run for 250 days, which is equal to one year. Fixed and variable costs were calculated and the annual cost of the current model and subsequent corrective models were calculated separately. As it is clear, the cost index is a negative index.

Overhead costs+ materials + salary and wage = total cost

The amount of salary × number of staff = cost of salary and wage





### Sadegh Sharifi et al.

The cost of each unit × number of manufactured doors and windows = cost of materials  
 Depreciation cost + cost of maintenance+ cost of electricity + cost of water = overhead costs

#### Index of production rate

This index is easily observable by referring to the Sink section in the simulated model. At the end of the simulation time, by referring to simulation storage which is the same element of Sink, we can obtain the intended number. It is clear that this is a positive indicator and managers seek to increase the number of production.

#### Productivitycoefficient index

In fact, productivity coefficient is the ratio of arrival rate to servicing rate. This ratio is practically equal to the rate of arrival of work into the system to work maximum rate that system can perform that work.

$$\frac{\text{Average total demand for receiving service}}{\text{Total capacity of the system for providing service}}$$

It is obvious that, whatever  $P$  is greater, the demand to receive services is higher and system performs more work and idleness rate of operators will be reduced. After the implementation of model, this coefficient exists on each device and to obtain  $P$  of any machine, we would not face a problem. When we want to calculate  $P$  of the total system, we should use arithmetic mean, it means that we have divided the total  $P$  on the number of devices. Productivity coefficient index is a positive indicator like the indicator of production rate.

#### Average waiting time index

At first glance, this index may not seem so important. Whatever the average waiting time for production is reduced, it will make production unit more powerful to reduce the interval between the start and end of production and as a result, causes the factory to respond to orders quicker. On the other hand increase in average waiting time lead to more entrance of productive patterns into the production line and hence the possibility of error of operators increases and causes a greater damage to the production system. This index is a negative indicator like cost index and managers want to reduce it. This index can be calculated easily. After the end of simulation, in the menu of the results, the average waiting time for each of the machines and waiting queues can be seen and from the sum of them, average waiting time can be obtained.

#### Examining the current model

After the validity of the model was demonstrated, the model was run for 2000 hours which is equal to 250 working days. The number of manufactured products at the end of 250 days is observable in the Sink section which is equal to 168387 products. Average waiting time is equal to the sum of the waiting time of each element. In the real model implementation, the average waiting time is equal to 27930 seconds for each installable profiles of window and door unit. To calculate the efficiency coefficient of the system, we need to calculate the efficiency of individual devices and then find their mean. Efficiency coefficient during and at the end of the simulation is observable on the device. Table 5 shows the efficiency coefficient of individual devices. In this state, the efficiency coefficient of the total system was obtained as  $P = 37.19\%$ . Summary of results for the real model is presented in Table 5:





### Sadegh Sharifi et al.

#### Optimized models

Considering the identified bottlenecks in the real model, some improvements were created in the system and after the review, the following results were obtained, which indicate the optimization of the system.

After the implementation of modifications and record and study of the results of optimal model, it was revealed that by increase in the cost and expenses of the factory, it is expected to obtain following benefits:

1. 53% increase in the rate of productivity coefficient.
2. 40% reduction in the average waiting time for each unit.
3. 2% increase in manufactured product.

The only indicator of the current model, which has priority over the optimal model, is the cost index that other three indicators cover it completely. Cost of model is 33% more than the current model. Therefore, it is recommended to managers and supervisor of production to use optimal model instead of current model. The difference between optimal model and the current model is in the following points:

1. Allocation of 40% of activities of DDL2 to DDL3.
2. Assignment of 35% of activities of LH3 to LH2.
3. Passing 30% of activities of MO2 to MO1.
4. DDL10 must share its tasks with DDLV.
5. DDL1 must allocate part of its activities to DDL4.
6. MH2 must assign 35% of its activity to MH1.

One of the advantages of optimal model is that there is no need to add a new machine and operator. Even in this model there is no need for overtime work and due to its multi-skilled operators, from any moment that management wants the model can be implemented easily and without consuming time and subsidiary expenses.

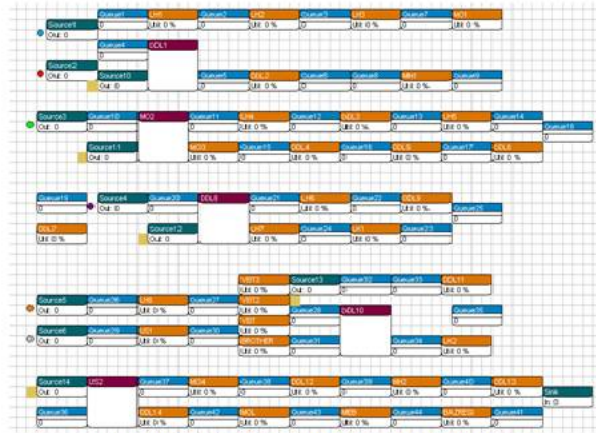
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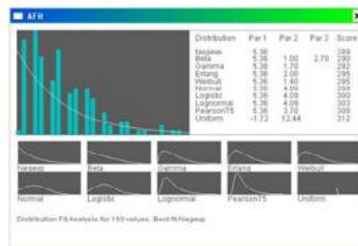
**Sadegh Sharifi et al.**



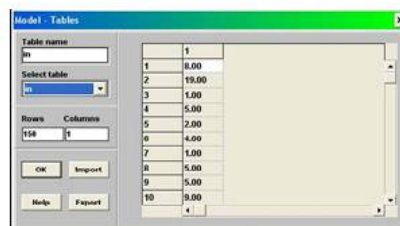
**Figure 1. Simulation of extruding unit**



**Figure 2. Simulation of doors and windows unit**



**Figure 3. Entering the data of arrival rate from LH2 to DDL machine in extruding unit**



**Figure 4. Distribution of the arrival rate from LH2 to DDL machine in extruding unit**





**Sadegh Sharifi et al.**

**Table 1. Collected data**

$\frac{(m_i - m'_i)^2}{m'_i}$	$m'_i$	$m_i$	$X_i - X_{i+1}$
0.55	9.25	7	680-760
0.31	11.15	13	761-800
0.67	12.66	12	801-840
0.19	9.32	8	841-880
0.74	7.62	10	881-1000
$X^2=2.46$	50	50	

**Table 2. Machines related to extruding unit**

Row	Machine	Volume
1	DDL	14
2	LH	8
3	MO	4
4	MH	2
5	LK	2
6	VEIT	2
7	US	2
8	EBARA	1
9	MOL	1
10	MEB	1

**Table 3. The interval between two arrivals from LH2 to DDL machine in extruding unit**

1	2	3	4	5	6	7	8
8	1	4	5	8	5	3	2
19	5	3	5	8	2	4	4
1	6	3	11	3	3	1	18
5	2	12	7	10	8	3	20
2	6	2	4	5	2	1	1
4	15	4	2	4	1	5	8
1	6	1	12	4	11	6	17
5	2	3	5	2	7	3	2
5	1	9	9	8	9	5	2
9	3	7	1	1	5	7	10
4	2	6	14	13	6	2	3
1	5	9	2	9	3	2	9
5	9	5	2	2	6	4	7
3	10	8	10	3	12	1	6
3	1	1	7	3	6	10	9







**Sadegh Sharifi et al.**

7	7	1	8	2	7	3	5
8	1	7	5	5	1	13	8
3	1	2	4	3	2	4	1
13	1	2	0	1	2	17	1
9	2	6	5	7	5	8	7

**Table 4. Data on different machines and time related to them**

Row	Machine	Setup time	MTTF	MTTR
1	DDL	180	1.200.000	18000
2	LH	120	3.600.000	24000
3	MO	145	3.600.000	12000
4	MH	60	3.600.000	12000
5	LK	45	2.400.000	18000
6	VEIT	-	-	-
7	US	100	2.400.000	18000
8	BROTHER	50	3.600.000	12000
9	MOL	30	3.600.000	12000
10	MEB	30	1.200.000	12000

**Table 5. Results for the real model**

Indices	Cost	Volume	Efficiency coefficient	Average waiting time
Real Model	2243670	168387	37.19%	27930

**Table 6. Results for the optimal model**

Indices	Cost	Volume	Efficiency coefficient	Average waiting time
Optimal Model	3004960	244516	53.76%	20026





RESEARCH ARTICLE

## Evaluating the Effect of Human Resource Management on Strategic Orientation and Organizational Performance; Case Study: National Iranian Drilling Company - Kish branch

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### ABSTRACT

In this research the relationship between human resource management systems as independent variable, strategic orientation as mediator variable and organizational performance as a dependent variable has been studied. For this purpose the study has been done in the Kish Branch of National Iranian Drilling Company. Data collection tool was a questionnaire that includes some items for each variable. After distribution of questionnaires among 350 employees, hypothesized of the research were investigated. Obtained results shown strong effects of human resource management systems on strategic orientation (0.63), Also effects of human resource management systems on organizational performance (0.2) and strategic orientation on organizational performance (0.95).

**Key words:** Human Resource Management, Strategic Orientation, Organizational Performance, Motivation, Investment, Involvement

### INTRODUCTION

In last two decades, organizational performance is became an interesting and attractable issue, and this tendency led to be updated in both research and applied contexts (Seyed Taghavi et al., 2012). Therefore, it is necessary to identify effective factors for successful evolution of organizational performance. In this paper, human resources management and strategic orientation systems' effect on organizational performance were reviewed. Human resource planning require participation in decision-making in both qualitative and quantitative conditions that



**Aboutaleb Khoobyari and Sirous Tadbiri**

should be as an effective support in order to identify organizational strategic goals achievement related to performance methods and performance success (Lepak, 2006). The way that human resource provides sustainable competitive advantage and increase organizational effectiveness is an important research context. We know very little about how these relations are created (Ahlestrum, 2012). Human resource management strategy emphasizes on importance of integration between human resource management and a strategy for reaching best performance (Lepak. et.al. 2006). Integrating human resource with strategic orientation makes achieving strategic goals more possible (Chow, Teo and Chiu, 2013). The most common tendency in research about the relation between human resource management and organizational performance of systemic view of human resource management is watching human resource management techniques (Lawler et.al. 2011). Dyer and Holder (1988) identified three different human resource management systems, i.e.: investment, involvement and motivation. Motivation emphasizes on the relation between employees work and payment (Dyer and Holder, 1988). Performance-based payment is used as an effort for controlling and monitoring employees' performance. This kind of incentive causes to increase productivity and profitability and to decrease employees leave (Birokatz, 2003). Sabramonie et.al, (2008) found that competitive payment as a form of motivation could be used to improve company performance. Involvement based on an industrial democracy and self-managing work teams needs more autonomous, more task variety and more effective usage of knowledge and skill (Jones and Wright, 1992). Investment human resource management system aims to emphasize on employees evolution in association with extensive training and continuous learning. This system is searching human resource evolution through encouragement and employees support for developing their competent. Studies about relation between human resource management systems and company performance show that there is a positive relation between them (Lowler, 2011). Another critical variable in improving organizational performance is strategic orientation (Ferarsie et.al, 2012). Strategic orientation is defined as management understanding and awareness of organizational external and internal characteristics, skill and tendency readiness, motives, tendencies and wishes that guide strategic planning and strategic development process. In another word, strategic orientation is management understanding of competitive environment and their quick and comprehensive reaction in terms of long-term objectives (Spanjolo et.al. 2012). Company strategic orientations create its readiness for super reaction with phenomenon and internal and external changes and it enables managers to make decisions correctly and through which can be effective on organizational performance (Grifith et.al. 2012).

This study main issue is to review the effect of human resource management (HRM) systems and strategic orientation on organizational performance in order to increase richness of empirical and research literature in this context and take a step in improving organizational performance. For reaching objectives, at first, studies and research literature are reviewed. Then methodology is expressed and then study results and findings are presented. Finally, discussion and conclusion are presented.

## LITERATURE REVIEW

### Reviewing Concepts and Theories

#### Human Resource Management

HRM is emerged in 1980s and it was evolved as a new chapter in man power management by its advocates. Now there is an agreement that HRM will not replace employees' management but it looks differently to employees' management processes. Also, its main philosophy is considerably different from traditional concepts of employees' management. Nonetheless some special approaches of employees' management and employees'relation can be defined under the title of HRM approaches as they are consistent with HRM main philosophy (Armstrong, 1993).





### Aboutaleb Khoobyari and Sirous Tadbiri

HRM is a comprehensive approach for strategic management of organizational key resources that is human resources. HRM is not only an approach for profitability of employees' management but also is an especial approach for employees' relations with an emphasis on commitment and mutual relations.

#### Strategic orientation

Strategic orientation points out to company's strategic direction in line with establishing appropriate behavior in order to achieve superior performance. Strategic formation vision extensively studied the role of strategic orientation. Organizations invest their resources in activities that reflect strategic orientation. Strategic orientation is usually placed at the center of organizational decision-makings. Strategic orientation formation is influenced by environmental factors such as structure, culture and organizational system (Murray, 2012).

#### Organizational performance

Performance as result and output is amount of work. Also, in another definition, it is results gained by an individual, team, organization or process. All qualitative and quantitative features of companies or organizations in terms of profitability, customer satisfaction, and productivity are referred as business performance (Chu et al., 2006).

Organizational performance indicators are dividable in two categories of objective and subjective indicators. Here, different approaches of organizational performance measurement and its indicators are considered in this total category. (Devine et al., 2004).

#### Objective indicators

Objective indicators are organizational performance indicators that are measured really and based on objective data. This type of indicators could be defined in several categories of accounting indicators, financial market indicators and mixed indicators of accounting and financial market. Among organizational performance accounting indicators, some profitability indicators such as asset efficiency, efficiency of shareholders rights, investment efficiency and benefit per share could be mentioned. Among concerns related to using accounting indicators as evaluation indicator we can refer to calculation mistakes, indicators back-looking, accounting policies effect, and factors like this. (Devine et al., 2004).

#### Subjective indicators

Organizational performance subjective indices mostly include indicators that are formed based on management judgment and trade company owners and also extracting subjective judgments of beneficiary groups. Customer satisfaction, employees' satisfaction, sales managers' surveys, disturbance channel surveys, etc could be mentioned among other indicators.

#### Research background

Rahim Nia and Sadeghian (2011) conducted a research on export companies located in the city of Mashhad and they found that strategic orientation has a positive impact on export success and the expected future export success.

Alipur Darvishie, Sardar Duniqi and Lotfie Dehghankharghanie (2011) in their study addressed the mediator role of intellectual capital on relationship between HRM tasks and organizational performance. The results showed that HRM activities through intellectual capital have a significant impact on organizational performance. In





### Aboutaleb Khoobyari and Sirous Tadbiri

fitness model of this research, performance evaluation, selection and recruitment have the highest load factor in HRM activities and among intellectual capital, structural capital, the highest load factor is in capital collection.

Theodosiou, et al (2012) investigated the relationship between strategic orientation and company performance. The results showed that there is a significant correlation between these two variables.

Ferrasy et al (2012) investigated the impact of knowledge management and strategic orientation on organizational performance. Their findings suggest that effective knowledge management and strategic orientation have a significant impact on performance and strategic orientation has an intermediary role between knowledge management and test performance.

Cho, Theo and Chiu (2013) investigated the relation of HRM systems and company performance with intermediary effect of strategic orientation. The results showed that HRM systems have indirect effect on organizational performance through strategic orientation. In addition, strategic orientation has a positive direct and significant effect on organizational performance.

#### Research Hypotheses

1. HRM systems have an effect on strategic orientation implementation in National Iranian Drilling Company.
  - 1-1: HRM motivation on strategic orientation implementation
  - 1-2: HRM investment on strategic orientation implementation
  - 1-3: HRM involvement on strategic orientation implementation
2. HRM systems on organizational performance
  - 2-1: HRM motivation on organizational performance
  - 2-2: HRM investment on organizational performance
  - 2-3: HRM involvement on organizational performance
- 3: Strategic orientation on organizational performance
- 4: HRM systems have an effect on organizational performance among National Iranian Drilling Company staff with mediating role of organizational strategic orientation.

#### Research model

Research conceptual model is seen in Figure 1. In this figure, HRM systems (incentive, investment and involvement) are considered as independent variables, strategic orientation as a mediator variable and organizational performance as dependent variable.

#### Research Methodology

This study is applied, descriptive, survey and correlation.

#### Methods of data and information collection

Desk methods (books, articles and online texts) as well as questionnaire are used in this study. Desk method is used for desired study literature. Main method for collecting data in this study is questionnaire. In questionnaire used in this study, 63 items were used that questionnaire items discrimination is as follows:





### Aboutaleb Khoobyari and Sirous Tadbiri

#### HRM questionnaire

The questionnaire items were designed using Burshaid questionnaire (2007) (Burshaid, 2007).

Accordingly, HRM has three human dimensions including: 1. Human resource motivation, 2. Human resource investment 3. Human resource involvement

#### Strategic orientation questionnaire

Items of this questionnaire were designed using Voss & Voss questionnaire (2000) (Voss & Voss, 2000). Based on this, strategic orientation has three dimensions which include: 1. Strategic orientation based on products and services, 2 strategic orientations based on competitors, 3. strategic orientation based on customers.

#### Organizational performance questionnaire

Organizational performance questionnaire "Achieve" has 42 items and seven components as follows (Sanford, 2009):

1. Ability, 2. Clarity, 3. Help, 4. Incentive, 5. Evaluation, 6. Validity, 7. Environment.

#### Validity and reliability assessment

To ensure content validity, we should act while designing so that questions forming measurement tools represent parts of the selected content. Therefore, content validity is structural feature that is measured at the same time with test establishment. Content validity of a test is usually determined by expert people in the subject matter. In the questionnaire, valid resources are used for items extraction that is a confirmation of questionnaire validity.

In this study, Cronbach's alpha was used for questionnaire reliability coefficients whose results are shown in table below:

#### Sample and population

Statistical population of this research consists of 880 employees of National Iranian Drilling Company- Kish branch. Given the inability of author to review all population and its limitation, Cochran's formula was used for limited population.

$$n = \frac{Z^2(1 - \alpha/2)pq N}{e^2(N - 1) + Z^2(1 - \alpha/2)pq}$$

According to the above formula, the sample size for a population with 880 members and 95 percent of confidence is equal to 350 people.

#### Data analysis method

Inferential statistic and structural equation modeling method was used in this study in order to describe data analysis and hypothesis testing. In the primary analysis of this study, Kolmogorov-Smirnov test, correlation test, t-test with





### Aboutaleb Khoobyari and Sirous Tadbiri

independent samples and one way ANOVA were used and then structural equation modeling was used for conducting the confirmatory factor analysis.

## FINDINGS

### Assessing data normality

Before examining the hypotheses of study, normality of variables was examined. To check the assumption of normality of study variables one-sample Kolmogorov-Smirnov test was used. The results of this test provided in the following table. Parametric methods were used to evaluate research hypotheses to establish the normality assumption.

### Reviewing research hypotheses

According to data normality, parametric methods were used to evaluate the hypotheses that results will be provided in the following:

Given the assessing assumptions and results, it is clear that the null hypothesis is rejected in all research hypotheses and author claim about significance of variables relationship is notable.

Structural equation modeling and LISREL software were used to evaluate above relationship. According to fitness goodness criteria, the fitness model has an occasion. RMSEA value is equal to 0.052 that represents model good fitness.

## DISCUSSION AND CONCLUSION

The results show that simultaneously relationship of HRM systems and organizational strategic orientation is .63, also relationship between HRM systems and organizational performance is .20 and the relationship between organizational strategic orientation and organizational performance is .95. The regression coefficients are interpreted as follows: for example, the regression coefficient between HRM systems and organizational strategic orientation indicate that per one unit increase in the amount of HRM systems, the amount of organizational strategic orientation will have .63 unit of standard deviation. These results could be totally in line with researches of Cho, Theo and Chiu (2013). In their study, these researchers examined the relationship of HRM systems and company performance with mediate role of strategic orientation that research main model was also taken from this article model. Their results show that HRM systems have indirect effect on organizational performance through strategic orientation. In addition, strategic orientation has a significant and positive impact on organizational performance. The results in this study is equivalent to the results of Cho and colleagues (2013) study. Continuing education and utilizing direct people participation in the organization is related to grow and flourish employees' potential talent and can play a major role in developing human resources. In addition, today offering necessary knowledge and changing and directing it in human resources is easily done via information technology and it develops personnel of an organization or society in different aspects of development. Clever strategies mainly resulted from strategic thinking, but a stepwise process of strategic management is also able to lead organizational managers' mind into strategic thinking. Taking steps of this process lead to close organizational planners' minds and by exercising planning from strategic viewpoint, in case that all links of this chain are covered, gradually an organization can take a correct path.





### Aboutaleb Khoobyari and Sirous Tadbiri

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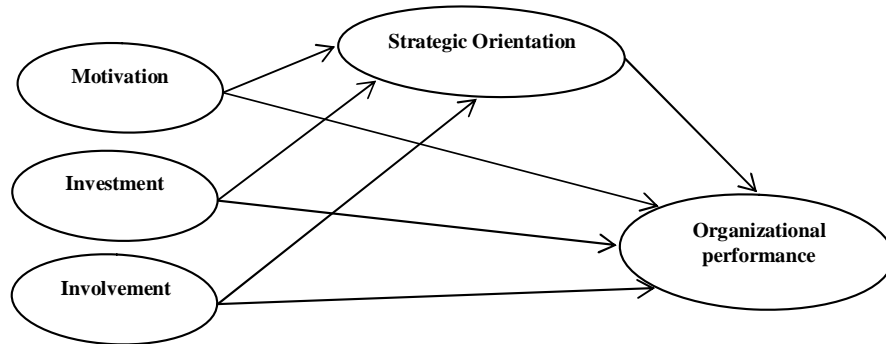




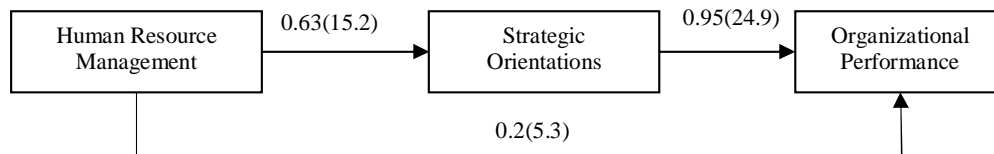


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**Figure 1. Research conceptual model**



**Figure 2, Standardized coefficients values resulted from structural equation modeling to examine the conceptual model**

**Table 1. HRM questionnaire components**

Dimensions	Items
Human resource motivation	1, 2, 3, 4
Human resource investment	5, 6, 7, 8
Human resource involvement	9, 10, 11, 12





**Aboutaleb Khoobyari and Sirous Tadbiri**

**Table 2. Strategicorientation questionnaire components**

Dimensions	Items
Strategic orientation based on products and services	1, 2, 3
Strategic orientations based on competitors	4, 5, 6
Strategic orientation based on customers	7, 8, 9

**Table 3. Organizational performance questionnaire components**

Dimensions	Items
Ability	1, 2, 3, 20
Clarity	4, 5, 6, 7, 8, 38, 39
Help	9, 11, 12, 13, 15
Incentive	16, 18, 19, 21, 22, 25
Evaluation	23, 30, 31, 32, 33, 34, 35, 36, 37
Validity	17, 24, 26, 27, 28, 29
Environment	10, 14, 40, 41, 42

**Table 4. Coefficients of research reliability**

Variables	Coefficient
Human Resource Management	0.85
Strategic Orientations	0.81
Organizational Performance	0.86
Total	0.83

**Table 5. Results of Kolmogorov-Smirnov test for reviewing normality acceptance**

Variables	Dimensions	Sample Size	Statistics	Sig	Result
Human Resource Management	Human resource motivation	350	1.331	0.058	Normal
	Human resource investment	350	1.316	0.063	Normal
	Human resource involvement	350	1.284	0.074	Normal
	Total	350	0.909	0.380	Normal
Strategic Orientations	-	350	0.900	0.393	Normal
Organizational Performance	-	350	1.078	0.195	Normal

\* Significant at 0.05 level





**Aboutaleb Khoobyari and Sirous Tadbiri**

**Table 6. Summary of research findings**

hypothes es	Independent variable	Dependent variable	correlation coefficient	Sig	R <sup>2</sup>	Result
1	Human Resource Management	Strategic Orientations	0.640	0<0.01	0.409	H <sub>0</sub> Rejects
1-1	Human resource motivation	Strategic Orientations	0.497	0<0.01	0.247	H <sub>0</sub> Rejects
1-2	Human resource investment	Strategic Orientations	0.514	0<0.01	0.265	H <sub>0</sub> Rejects
1-3	Human resource involvement	Strategic Orientations	0.517	0<0.01	0.268	H <sub>0</sub> Rejects
2	Human Resource Management	Organizational Performance	0.409	0<0.01	0.165	H <sub>0</sub> Rejects
2-1	Human resource motivation	Organizational Performance	0.330	0<0.01	0.109	H <sub>0</sub> Rejects
2-2	Human resource investment	Organizational Performance	0.375	0<0.01	0.141	H <sub>0</sub> Rejects
2-3	Human resource involvement	Organizational Performance	0.340	0<0.01	0.115	H <sub>0</sub> Rejects
3	Strategic Orientations	Organizational Performance	0.838	0<0.01	0.703	H <sub>0</sub> Rejects

**Table 7. Research findings results in fourth hypothesis**

Path	Path Coefficient	Statistic t	Relationship	Direction	Total Effect
Human Resource Management→Strategic Orientations	0.63	15.2	Yes	Direct	0.63
Human Resource Management→Organizational Performance	0.20	5.3	Yes	Direct	0.80
Strategic Orientations→Organizational Performance	0.95	24.9	Yes	Direct	0.95

**Table 8. Fitness indices for model**

Indices	Chi Square	RMSEA	GFI	AGFI	CFI	NFI	NNFI	IFI
Calculated Amount	1.43	0.052	0.9	0.85	0.98	0.95	0.98	0.98
Acceptance Amount	<5	<0.1	<0.9	0.8<	<0.9	<0.9	<0.9	<0.9
Result	Fit	Fit	Fit	Fit	Fit	Fit	Fit	Fit





## The Indicators of Adaptability of Imami Jurisprudence to the Modern Needs

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### ABSTRACT

Coordination with modern needs and capacity to respond to new needs, are among the indicators of an effective legal system. Imami jurisprudence also always claims that this can be better than any legal system, and a better answer to these needs and afterthought thinking of legal requirements. However, if this claim is not based on effective benchmarks and capacities, Shiite legal system is gradually put aside and voices its deficiency kettledrum among other legal systems. Therefore, in this research we seek to answer the question that whether basically any such capacity and capability exists in the imami jurisprudence which could respond to modern requirements or not? Especially as this legal system such as public jurisprudence not believe in things like Astslah or reclamation and Maslaha or public interests and does not accept analogy except in limited cases. We believe, however, accepted interest of Islam Sharia and especially St. Innocent of rationalism in the inference of provisions and views such as the gap region (Manteghatolfaragh) and the role of place and time in diligence (ijtihad) in addition to secondary provisions could be important indicators for adaptability to the needs of the modern legal system.

**Key words:** Imami Jurisprudence, Rationalism, The Gap Region (Manteghatolfaragh), Time And Place, The Secondary Provisions





### Ghafour Khoeini and Omid Mohammadinia

## INTRODUCTION

Rapid progress of the modern world and the emergence of new needs require the legal system with the ability to keep pace with these needs and facilitates legal affairs of entities and governments. In the meantime, Imami jurisprudence claims that in the shadows of verses like, "this Koran guides to the straightest way. It gives glad tidings of a great wage to the believers who do good deeds," (AL-ISRA (ISRA') / 9), "with him are the keys of the unseen, none knows them but he knows that which is in the land and sea. No leaf falls except he knows it, and there is no grain in the darkness of the earth, fresh or withered, but is recorded in a clear book." (AL-ANAAM (CATTLE) / 59), "in the messenger of Allah you have a fine example for he who hopes for Allah and the last day and remembers Allah abundantly" (AL-AHZAB (THE CLANS) / 21) access to the richest and most rich scientific and intellectual capital and can extract the rules of human life in this storm of change and evolution from its real resources. Principles such as "Islam prevail, not second to none" (لا يعلو ولا يعلى عليه) (Hor Ameli, 1403, Vol. 17, p. 367) also reinforces the idea.

The system theorists also like martyr Motahari believe that "The Islamic legislation is strange and therefore can be coordinated with the progress of time and the conductor and guidance. Because Islam is a system which the creator of the world has set it and it is in coordination with the creation, and as in the creation, there is a continuous change and evolution, also there is the ability of change and evolution in this legislative system" (Motahari, 1380, p. 50). However, the lack of such a feature there is always the question that which capability is there in this legal system that can synchronous it with the modern requirements? Legal system that was formed thousands of years ago, today, how can be responsive to the needs of the present century? Of course, there is followed by the resignation of jurisprudence from the realm of legal issues and this result, when the Imami jurisprudence in the light of Islamic Republic system has the opportunity to take political and social form brings negative impact. Especially, this branch of Islamic law, contrary to the public jurisprudence is not interested in issues such as Astslah or reclamation and Maslaha or public interests and does not accept analogy except in limited cases (Khoee, 1418, Vol. 3, p. 10). While the jurisprudence of the public claims to fit the modern needs on the basis of such issues and rejecting such cases shows the importance of this question that which indicators could be effective in accordance of Imami jurisprudence with the modern needs?

While others have written about this, but everyone only have looked at a part of dynamic capabilities of jurisprudence have made it left to its own. While the necessity of introducing a dynamic legal system is considering all of its dimensions and components. So, the author's effort of this brief has been pointing the most important adoptability indicators of Imami jurisprudence with the modern needs, may have be able to draw some lines of this dynamic system with a comprehensive look. Therefore, we have examined this study in four sections. At the beginning, we speak of rationalism within the derived rules field and in the next three steps, we have analyzed the theories of gap region (Manteghatolfaragh) and the role of place and time in diligence (Ijtihad) with the emphasis on Imam Khomeini view and secondary ordinances.

### Rationalism in derived rules

The legal system of Islam not only has not any incompatibility with rationalism, but also always loves rationalism and reasoning (AL-MULK (THE SOVEREIGNTY)/10, AL-HAJJ (THE PILGRIMAGE)/19, AL-E-IMRAN (THE FAMILY OF 'IMRAN)/19, AL-RAD (THE THUNDER)/4, MUHAMMAD (MUHAMMAD)/24, AL-GHASHIYA (THE OVERWHELMING)/17 and 21), in this way he takes steps that consider indiscretion as atheism (Majlesi, 1410, vol.74, p.158) and consider it beside appearing prophets, knows it as prophet inner (Koleini, 1429, vol.1, p.56). For this reason, also known Imami jurisprudence believes that wisdom could enter to the derived rules, and like as an independent resource in addition to the Book and Sunnah forges religious commandments (Feyz, 1391, pages. 40-45). For this reason, also famous Imami jurists and mufti in their fatwas, sometimes refer to the wisdom and set their





### Ghafour Khoeini and Omid Mohammadinia

documented rule as rational reason. Sheikh Ansari respect for little sale, donations to the oppressors, insult and ridicule believers and keep misguided books with the rational proves and the judge Ibn Braj issues such as respect for abuse of animals attribute to make rationality. During contemporary issues such as the necessity of preserving the Islamic government, the obligation to maintain the boundaries and Islamic state, respect to the obligation of trespass and the obligation of enjoining the good and forbidding the evil, has been proven with the aid of rational reasoning (Lotfi, Summer 1375, pp. 342-344).

However, the question is how can wisdom enter to the derived rules? The answer to this question is based on two prefaces. First preface, insists on this fact that Islamic rules, especially in the field of transactions in broader meaning depend on interests and corruptions. The Quran clearly indicate the purpose of the Law for the purposes of sending messengers and dropping off books counts some goals (AL-BAQARA (THE COW) / 129 151 213 and 183, AL-E-IMRAN (THE FAMILY OF 'IMRAN) / 164 AL-ARAF (THE HEIGHTS) / 157-AL-ANFAL (SPOILS OF WAR) / 24, AL-HADID (THE IRON) / 9 and 25, AL-JUMUA (THE CONGREGATION) / 2, AL-MAEDA (THE TABLE) / 97, AL-TAWBA, BARA'AH (REPENTANCE) 103 / and AL-ANKABOOT (THE SPIDER)/45). Islamic scholars also believe that any judgment from the Almighty God is not sent futility and legal rules are functions of interests and corruptions. (Razi, 1400, vol. 2, pp. 242 and Naini, 1404, vol. 3, pp. 59-62 and Sadr, 1410, pp. 251 and himself, 1420, vol. 2, pp. 416 and Motahari, 1377, vol. 2, p. 27, and himself, Bi Ta, Vol 21, p 484 and Jannati, Bi Ta, p. 241 Sobhani, 1419, pp. 162 and Meshkini, 1416, Pp. 173 and 208 himself, 1418, pp. 18 and Taleghani, 1304 Paper, p. 15 and Feyz 1391, pp. 47-50). And the second preface is that the wisdom understands these interests and corruptions and on this basis on which there can be issued a warrant to do interests or prohibit a corrupt job (Jannati, Bi Ta, pp. 241 and Makarem Shirazi, 1416, vol. 2, p. 541, Hakim, Bi Ta, pp. 403-405, and Javadi Amoli 1377, p. 42 and Lahidji, 1383, pp. 345 and Feyz, 1391, 61-58). Thus, the wisdom in the field Shiite jurisprudence has the opportunity to play a huge role in creating modern rules by understanding the real interests and corruptions of activities. For this importance, Imami jurists have prompted talk of a rule entitled necessitation (Molazemeh) rule. This rule that is known with the phrase "Whenever Rule by the mind Judgment by Shara And all that Judgment by Shara Judgment by the mind" among the jurisprudence rules, knows the mind judgment as Shara Judgment and respect the mind judgment equivalent to Shara Judgment (Bahrani, 1405, vol. 1, p. 125 and Kashani, 1404, p. 19, Kooch Kamari, 1409, p. 459, Khoee, 1418, vol. 3, p. 10 and Makarem Shirazi, 1422, p. 507, Helli, 1424, vol. 1, pp. 13 and Behbehani, 1424, p. 19).

In this way, Wisdom can open the way for change and evolution of the world in Imami jurisprudence, and by understanding the real interests and corruptions of the issues explore the new provisions. If we consider the fact that this element contrary to two elements of scripture and tradition changes with the social evolution, and sometimes create changes, then, we understand its importance more and more. So, this is not worthy to limit the effectiveness of wisdom in the margins of the discovery a few general issues such as incumbency obligatory introduction, nastiness of the punishment of without statement, understanding of good justice and injustice nastiness (Meshkini, 1416, and Sobhani pp.171-172, 1419, pp. 162-163), and to forge sentence in the shadow of the influence of press intrusion. So it is worthy that before they hit the kettledrum of the inefficiency of Imami jurisprudence, open the path of exploring Shara rules for this driving element and based on its conclusive and suspicion evidence, present new rules and expand the Shara rules boundaries to modern issues. When, the wisdom could prove the existence of the Almighty God and issues such as hostile and the prophecy as Shara rules, then it is not true, if we recognize it as ineffective in the fields of jurisprudence (Feyz, 1391, p. 58). Pure wisdom is equivalent to reliable quote and it is as a reason for the God existence, and has not any difference with the other Shara reasons (Javadi Amoli, 1381, p. 81) and perhaps it is for this reason that Ali (peace be upon him) knows the Shara as rational exterior and rational as Shara (Jannati, Bi Ta, p. 239).





### Ghafour Khoeini and Omid Mohammadinia

#### Theory of gap region (manteghatolfaragh)

We believe that with a little manipulation of the gap region (Manteghatolfaragh) theory, this theory could be accounted as one of the characteristics of Imami jurisprudence in keeping pace with the new requirements. This theory which is introduced by Shahid Sadr and during the discussion of economic issues raised in the book *Iqtisaduna* for the first time would be an important point for a huge evolution. In his opinion, where Sharia has not the necessity and exact rule about respect or obligation, the legislature can enact any law which interests on it and its territory is said the gap region (Manteghatolfaragh) (Sadr, 1410, Ss62-63 and himself, 1417, p. 380 onwards). In his opinion, it is necessary that Islamic ruling empties some area of mandatory sentences till in this way, he could fill the empty area with regard to his time vessels with the required rules (Sadr, 1417, pp. 723 and 725). He believes that that the prophet's decision within the gap region (Manteghatolfaragh) are not eternal commandments, because the Prophet in such cases not as revelation advertiser and divine judgment but acted as the leader and president and should not include the rules in this region as fixed rules (Sadr, 1417, p. 443). This theory has been criticized by some jurists who believe that obeying this theory can bring into question the integrity of Imami Jurisprudence. They believe that Imami jurisprudence have rules for all of the issues and could not find any region without Shara rules (Makarem Shirazi, 1413, vol. 1, p. 553 and himself, 1427, p. 223, and Bahrani, 1426, p. 292). However, Shahid Sadr, for rejecting this problem, stipulates that this theory does not ruin the religious comprehensiveness, and does not ignore the religious comprehensiveness, but, the purpose of emptying a region of Shara rule, is being empty of obligation rule, it is not meant that it is empty of any rule, because, there is not any issue that any of Shara rule does not belong to it (Sadr, 1410, pp.18-19). Thus it is better to consider this theory free of any obligation rule. Today this theory is accepted by some jurists and a few of them have been interested to this theory (Tabatabai, 1393, papers, Vol. 4, pp. 129 and Haeri, 1424, p. 25, and Alidoost, 1388, p. 202 and Naini, 1424, pp. 130-135, and Mahalati Gharavi pp. 90 and 539 and Khalkhali, Bi Ta, p. 298). Therefore it is suitable that consider this theory as a theory which can guarantee keeping pace with the needs of modern jurisprudence. If the legislative branch of the Islamic government could legislature in matters which there is no binding Shara rule with respect to time requirements, has taken a huge step in the dynamic of jurisprudence.

However, we believe that the gap region (Manteghatolfaragh) could not be thought broadly as Shahid Sadr believes on it and that each rule which is ordered in the time of prophet and innocent Imams is temporary. Because, at first, there is not any reason that the provisions of the legislation by them are temporary and also the principle is that the Shara rules are fixed and secondly the element of innocence and description of the source of revelation in the forged orders by the prophet of God and guiding Imams should not be ignored. Since, if that is the case, other traditions have meaning except in matters of worship. It is true that the Messenger of Allah as a Muslim ruler, regulates the rules, but comparing him in this position or every Islamic government, or any legislature is measured with a difference. So we believe that the gap region (Manteghatolfaragh) should be considered in era disappeared and about the transactions and issues that were not in the legislator time and there is not mandatory sentence. This is the region which the Islamic government could regulate suitable laws with respect to time requirements. Many issues were not relevant for this reason that they are without warrants in tradition essentially at that time, but today, which are considered in the social field, Islamic government forced to remedy for such problems. This is the case which the gap region (Manteghatolfaragh) theory becomes an effective tool for Islamic government who beneficiaries of it in synchronizing jurisprudence with the modern requirements. However, the question that could be raised here is what should be done about the issues which exist a law in tradition for them. If we accept that the rules in tradition are not temporary and are done also today, might in some cases which these rules are not compatible with the modern requirements, then Imami jurisprudence will encountered with reduction. This is the point which Ijtihad theory based on the time and place could be guidance and in the next section we will briefly talk about it.

### Ghafour Khoeini and Omid Mohammadinia

#### Theory of ijthad based on the time and place





Although the discussion of the elements of time and space is not a new debate in Imami jurisprudence and discussion of "accidents of incident" in the jurisprudence refers to this idea (Tabarsi, 1403, vol. 2, p. 469), however, we did not inundate if we know Imam Khomeini as the originator of the idea. Because he spoke in this regard more than any jurist and as a fatwa considered the element of time and space. He believed unlike the Shahid Sadr that "Islam considers laws with respect to all of the human needs. The rules which are legislature at the time of Islam, political rules, governmental rules, rules about people, and rules about Islamic culture, are all consistent with the human needs" (Khomeini, 1378, vol. 4, p. 177). And in this field express that, "I believe in traditional and natural jurisprudence and I do not know permissible the violation of law and Ijtihad in that style is appropriate, but this does not mean that Islamic jurisprudence is not dynamic. Time and space are two determining elements in Ijtihad. "An ordered issue in the past, apparently that issue in the current relations of politics, and community, and economics of a system, may have a new order. This means that, by thorough knowledge of economic, social, and political relations of the same first issue which apparently has not any difference with the past one, is really a new issue and necessarily needs a new order" (Khomeini, 1378, Vol. 21, p. 289).

So, He believes that to ensure the dynamic of jurisprudence, the Mujtahid must have attention to time and place elements in driving rules, Because, the current existence of the ruler is consequential to the current issue (Khoee, 1419, Vol. 1, p. 191). In other words, the issue may be accompanied by the order change, and the issues will be changed according to the necessity of time, and this change will be followed by order change. For this reason, Mujtahid who is aware of his time, and knows completely the issues which give advisory opinion on them, could introduce more progressive provisions into human society (Motahari, 1361, p. 10). That is where the Imam Khomeini convinced that on such titles as anatomy of body of Muslims (Khomeini, 1380, Vol. 2, p. 563), punishment tool (Khomeini, 1380, Vol. 2, pp. 483 and 491), blood money issues (Khomeini, 1374, vol. 12, pp. 217- 218), hoarding (Khomeini, 1380, vol. 1, p. 461), dealing with blood (Khomeini, 1382, vol. 1, p. 38), chess game (Khomeini, 1378, Vol. 21, p. 15), the sale of weapons to enemies of religion (Khomeini, 1380, Vol. 1, p. 456), and the issue of ownership and extraction of oil (Khomeini, unique, p. 587); despite of specific provisions in Imami jurisprudence and because of changing their issues, he then proceeded to issue fatwas that had been in coordination with his time requirements. However, it should be noted that there is a conflict between Imam's opinion and that which Shahid Sadr named it the gap region (Manteghatolfaragh). Shahid Sadr considers an empty region of obligation rule in Islam, and Imam does not accept it. However if the gap region (Manteghatolfaragh) theory is considered as our interpretation, there is not any confliction between these two theories, and each of them could be supplement of each other. About the issues which there was not any provision at the time of Sadr Islam, or essentially this issue had not any subjectivism, the gap region (Manteghatolfaragh) could guarantee the coordination of jurisprudence with modern needs, and about the fixed provisions that has been changed only their subject in the time interval, Imam theory could be helpful.

So in terms of the Imami jurisprudence, changing provisions for its subject change is possible, and Mojtahid is able to present new Fatwas which are compatible with new needs to human society by studying provisions issues. Because of the importance of the time element, Ali (AS) said, "in human cognition, it is sufficient to know his time" (Majlesi, 1410, vol. 78, p. 80) and Imam Sadiq says: "scholar who knows the time, never defeated by confused and cheater events" (Harrani, 1404, p. 261).

Thus, if in the Islamic religious community, the leaders who know their time, and trying to see the provisions both from personal and social views; the Islamic community will be met by a progressive jurisprudence which meets many of the requirements.

However, there may be some provisions in Shara which their subject has not changed at this time, and the same past subject has a provision, but its order may not be possible, so, the question which rises is what must we do with this







### Ghafour Khoeni and Omid Mohammadinia

assumption? Imami jurisprudence also has some solutions for this issue, and tools such as “secondary judgments” are ready for Mojtahid. We have explained this issue in the next section.

#### Secondary provisions

The absolute Shara provision is commands or legislations that have been placed by the Shari'ah rulings, whether or not these ordered provisions are binding for the duties. So, all of the fifth provisions: necessity, respect, Mustahabb, abomination, and permissible are Shara provisions and related to Shari'ah (Khorasani, 1407, p. 123, and Helli, 1387, AH, vol. 1, p. 8). Shara provision in a general division is divided to the first real provision and secondary real provision. In terms of methodology, the first real provision is a provision that it is extracted initial titles and names of actions or other things in their subjects such as: obligatory prayer and fasting, while the real secondary provision is a provision which in their subjects, is extracted the secondary titles such as: loss, hardship, error, forgetfulness, necessity, and reluctance (Meshkini, 1416, p. 121). Therefore, the first provision is a provision that is set for duty regardless of the circumstances of duty and has a permanent feature, while, the second provision is set for duty's action, if one of the secondary titles have been occurred in the external universe. So, these provisions are temporary and are valid till the time which the secondary title is continuous. The secondary titles are various titles which among them, can refer to necessity, loss, hardship, denied the way, keeping system, expediency, reservation, reluctantly, judge and so on (Makarem Shirazi, 1366, p. 18, and himself, 1413, p. 540).

Therefore, when there is a Shara provision and its subject has not changed, but its employment, one of the secondary titles is hardship and impossible, the first actual provision is put and is replaced by the secondary provision that is more adopt with the employment time of action. So, the secondary provisions could play a key role in the convergence of Imami jurisprudence with the new needs. The scope of these provisions is not limited to religious orders and transactions are included in them (Bojnordi, 1389, p. 176). Therefore, the Great scholars have described this argument and believe to the existence of such a feature in Imami jurisprudence (Naini, 1404, Vol. 3, pp. 348-349 and pp. 414 and Esfahani, 1361, p. 192). Sheykh Ansari in debate "Provisions of the healthy condition" and dissertation *رسالة الموسعة و المضائقه*, has declared detailed descriptions about the secondary provisions (Ansari, 1367, pp. 277 and 354), and Akhond Khorasani also in his valuable book *كفاليه الاصول*, Adequacy of Principles explains the lines of these provisions (Khorasani, 1363, Vol. 1, p. 348 and Vol. 2, pp. 269 and 376), which for briefness, not mention them.

So what is clear is that the jurist can by understanding the secondary title, convert the first provision to the second one and run the juridical order to suit its own time.

#### CONCLUSION

After reviewing the subjects of this research, now, exactly can declare that Imami jurisprudence could accompany with new needs, and for this accompanying, there is no need of the issues such as Astslah or reclamation and Maslaha or public interests as is obeyed by public jurisprudence. In the Imami jurisprudence, rationalism is respected, and the jurist and Mujtahid not only must be wise, but also, the most wise man must be placed in this position. Because, by necessitation (Molazemeh) rule, the provision which the wisdom understands by considering the real interests and corruptions of actions, is accepted by Shari'ah, and is the same as provisions which the legislature has ordered it, and its obeying is necessary.

The gap region (Manteghatolfaragh), also could have a significant impact on the pace. Although, in our opinion, the existence of such region could be considered in the absence time that Islamic legislature could forge the provisions, when there is not necessity provision, and principally, these provisions as the types of new issues, also obeys of new provisions. Also, sometimes, although there is fixed provisions, because of interfering the time and place elements in the determination of the subject of provisions, can expect new provisions which are compatible with new needs.





### Ghafour Khomeini and Omid Mohammadinia

Where also, there is fixed provisions with the past subjects, entering the secondary titles could forge the secondary provisions that suits the employment of the first provision with time and place conditions.

So, the Imami jurisprudence is capable of adopting with modern requirements. However, this capacity could be seen in the field of action at that time which Islamic jurists say Fatwa with a social view beside attention to personal issues, and knowing new issues, and in the shadow of rationalism and avoiding of every journalism influence.

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## Human Rights Challenges and Restriction of Security-Oriented Criminal Policy

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### ABSTRACT

Security orientation is a strategy the admissible and successful influence of which on the dominant area of criminal policy in the society implicates consistency and agreement with restrictive human rights criteria as well as adherence to privacy and inherent dignity of human beings. Thus, in case the security orientation discourse fails to ensure the human rights principles underlined by the international law for any reason, then it may not be considered a justified policy as it would face failure and defeat in the battle in the long run. Taking into account the various temporal and spatial circumstances and adhering to the contents of international documents and conventions are propositions considered as the main provision for positive consequence of the quality of interaction between security-oriented criminal policy and human rights principles and criteria which may contribute significantly to obviation of many obstacles blocking such interaction.



**Eslam Mondani and Mohammad Ashouri**

This article seeks to address the question on the status of interaction between human rights principles and the security-oriented system of thought and to discover, in general, the human rights restriction on this pattern.

**Key words:** Criminal Policy, Security, Security-Orientation, Human Rights

**INTRODUCTION**

The ever-increasing number of social crimes and deviances all over the globe in current times has granted the policy makers the opportunity and excuse to legislate and enact more strict rules and regulations based on policies such as the "zero tolerance", thereby at least responding as extremely as possible to abnormal and illegal behaviors. Transformations and evolutions in the structure of adopted criminal policies are observed along this way most of which represent the maximization of latent suppressive aspects of their nature. In addition to security orientation, the overall orientation of criminal policy is in fact also inclined toward a trend of discarding many norms and principles human rights criminal system. The refining of initial presumptions of value judgement and negative stereotyped thinking of criminals and perverts in the criminal policy and development of authority and intervention of civil society parallel to increased intervention of government in prevention of and response to criminal phenomenon are among the most important empirical instances of these principles and norms which are more or less overshadowed by the infiltration of security-oriented strategies in the reality of criminal policy. Therefore, it may be declared that human rights in its criminal aspect enjoys a certain framework and system of thought that must be taken into consideration in the design of any pattern in the area of criminal policy such that it does not interfere with them. Criminalization of human rights envisages the extent of this area of fundamental law system which is consistently and brilliantly present nowadays in every aspect of social life. Thus, the positive interaction of criminal policy with the criminal system of human rights is mandatory which of course calls for its specific conditions whereas it also deals with certain problems and restrictions.

Indeed, the criminal policy which is universally defined as the knowledge applied by the community to contrive criminal phenomenon in terms of response and prevention is in direct interaction with many legal jurisdictions including the applied scope of human rights which have been reflected in a systematic framework in form of universal declaration of human rights as well as other regional and international documents. The universal declaration of human rights has mainly served the natural rights through development a common criterion for measurement of achievement by all human beings and nations in line with realization of fundamental rights and freedoms of mankind, however, by inflicting fundamental international upheavals and reiterating the moral-humane values, it transformed the current times into a period of transition and tension in order to restore balance between the cosmopolitan claim of human rights and relativist challenges while it also challenged many concepts such as independence, sovereignty and eligibility of governments in countries.

At the same time, the criminal law which according to the classic concept of criminal law recommends practical strategies in response to the criminal phenomenon has not remained intact as a result of these trends. In fact, the principles and criteria of human rights have significantly been considered a criterion for adjustment and refining of criminal policies and they have notably contributed to improvement of their aspects in many aspects. Indeed, the experiences of today's world suggest that the human rights doctrines such as the need for adhering to individual freedoms, holding respect for individual privacy, abstaining from intervention in privacy of people, unconditional engagement of citizens in social activities have on the one hand led to the adoption of a compromising and reconciliating spirit by the macro logic of criminal policy as it will be satisfied with the adjustment its strategies according to temporal and spatial conditions and on the other hand, the criminal policy and its practical strategies serve as the criterion for measurement of extent of criminal aspect of factualism in human rights doctrines which may



**Eslam Mondani and Mohammad Ashouri**

result in restriction and cribbling of their unenforceable idealistic and utopian abstract aspects in the current situation of societies. The criminal policy of social system in fact considers the criminal phenomenon as a normal rule and thus seeks to provide solutions to restrain this phenomenon up to a level tolerable by the social system.

For instance, the criminal policy may clarify and introduce the desirable and necessary level of resorting to force majeure and repression in the face of various crimes such as simple, terrorist or violent crimes while taking into account the threat imposed by convicts, disturbed order and peace of society, and the level of support from public opinion such that it paves the way for disregarding of merely abstract and utopian human rights doctrines that mostly not only lack the necessary applicability in the battle against crimes and deviances in many different and numerous communities but also depict the adopted strategies as mere slogans, and therefore establishes a realistic logic. Moreover, the influence of criminal policy on human rights criteria may be noticed in other numerous areas which has really led to their empirical modelling and more discipline. Crime prevention is a topic to be mentioned from among these areas. Of course, this is while many advocates of human rights discourse claim that majority of crime prevention models in the context of adopted criminal policy plans contradict the fundamental human rights. They have explicitly considered turning to groundbreaking crime prevention solutions and plans the same as situational prevention in the direct challenge with human rights and thus they lack the capacity to withstand and tolerate them. For example, in situational prevention where the focus is on amplification of crime waves and complication of its perpetration based on derangement of economic and computational rationality of the delinquent, the supporters of human rights claim that plans such as installation and application of surveillance cameras in the streets, public and private places with recourse to the logic of the prevention model is an explicit violation of human rights and a disruption of citizens rights to willingly show up at various social levels, Whereas the proponents and theorists of security oriented parameters in the area of criminal policy in every region of the world, while disregarding these doubts, have tried to consolidate the justified basic of resorting to such technologies in the crime prevention and battle against felony.

Therefore, the main issue of this article is about: explanation of security orientation in the area of criminal policy and highlighting of its interaction and/or challenge or possible contrast to intellectual and paradigmatic basic of human rights.

**Semantics of criminal policies and security oriented approach**

Criminal policy is a set of methods by means of which the community organizes the response to criminal phenomenon. This definition is much closer to the scientific concept of criminal policy as a little scrutiny given to it reveals that criminal policy considers on the one hand the reaction to deviances in addition to crime and that the response is not merely retributive and on the other hand, the civil society also plays a direct role alongside the government in the response to criminal phenomenon.

Ensuring the value system of society while repelling the threats and fears towards them through application of various tools such as criminalization, punishment and others is a notion that different countries have made attempts for its cause. Establishment of social security is a valuable objective for realization of which governments have incurred extravagant expenses and are even ready to disregard some statutory limitations. In the vicious circle of efforts to establish security, the materialization of a level of restriction and astringencies always seems expected for the actors of social system which may lead them to implementation of plans and measures which may be in challenge with and opposed to the fundamental rights of citizens. To this end, imposition of any restriction beyond the minimum rules and principles of democratic social management of citizens promises irregular extremist institutionalization and development of security orientation in the community which yields nothing but the ever-increasing passivity of the process for protection of social value system and infringement of fundamental rights of people. Nevertheless, security orientation does not necessarily appear to be a thoroughly negative and misleading



**Eslam Mondani and Mohammad Ashouri**

strategy, yet if the human rights are breached under it and states turn to it as a means of inquisition and pursuit of minimum social movements of citizens, then it is no more considered a vindicable process and may even have a reverse effect.

Rules of international law and documents such as the universal declaration of human rights which regulate the relationships and interaction between states, organizations and citizens in the global village have verified this fact that unless it has a flexible and minimum identity, the security orientation strategy may be excluded from the standard cycle of human rights and turn into a political and promotional tool which may even contravene the most axiomatic regulatory and international rules and norms at the discretion of rulers. Therefore, these issues and dichotomies must be taken into account in line with the better perception and study of the subject of security orientation. The government in each society is the symbol of public expediency and it is not substantially an ethical, religious and economic institute in spite of the ethical, religious and economic aspects of it as it has distinct functions such as maintaining order and security, protecting the essential rights of individuals in society, etc. The coercive aspect of government is underlined in some theories. Hence, some realists and Marxists have regarded state as a means of coercion. Realists have well-realized that man seeks insurgency and belligerence in the absence of governmental and social authority and compulsion. As a result of utilizing the aspect of authority which is one of the essential and consistent features of this institute, the actions and attitude of government has always been a compulsory phenomenon in the first place. Each state must on the one hand provide its citizens with the conditions required for realization and retention of their basic rights in accordance with its domestic commitments to its citizens and based on the international and human rights requirements. On the other hand, the government may resort to its most extreme tools or coercive force in order to salvage and retain its political integrity. No freedom or privacy may be envisaged through extremist securitization but we need to apply security mechanisms to at least ensure these two subjects. Therefore, how is the balance and equilibrium restored between these two? How far a society can go in the name security without sacrificing freedom? How much intervention in the lives of citizens is justified in order to maintain order and solidarity in a society? Maintaining the public order and security and in a broader sense, the national security and non-invasion of privacy are two of the most necessary rights for survival of citizens in a democratic society. The most important topic in debates related to security is the nation-government security founded on the two bases of state and people since the government is elected by the nation and it is the nation which is the subject of national security and all the threats targeted at national security are inextricably related to the existence and solidity of that nation. All told, national security is the most prominent value of governments in today's world. Democratic government bring up the issue of national security due to their fear of intervention and manipulation by non-democratic states, while non-democratic consider the invisible penetration of democratic states in the inclusive system of government as a threat. Any assault from the outside would be considered a threat against national security in democratic states while authoritarian governments consider every threat whether internal and external as security issue.

Psychological projection among the government authorities is a common means of disclaimer and justification of legitimacy in the latter form of government. For instance, even adverse social upheavals such as economic and cultural disarray, unemployment, poverty, drug abuse, divorce and others are considered external issues instigated by the inimical and foreign factors. Public freedom and fundamental rights of individuals have been disturbed in the name of protection of national security. The intimidating atmosphere following the humanitarian catastrophe of September 11 was an obvious and well-known example which included the application of a set of controlling measures that have restricted and deprived civil freedoms in the name of domestic security to the extent that some have referred to this transformation as an "exceptional situation, but it is interesting to see that this exception has turned into a normal trend in the current administration. The applied austerity measures on civil freedoms and propagation of extensive monitoring trends have inappropriately targeted some minority groups such as the Arabs and Muslims. Policing policies of intolerance, extensive use of video surveillance and the variety of techniques applied nowadays in the fight against terrorism are all being used in order to establish order and security and to ultimately preserve public interests that call for no justification. The tightened security atmosphere following the



**Eslam Mondani and Mohammad Ashouri**

September 11 has served as a platform for introduction of new technologies to the world and has become a part of daily lives of citizens. In case not the sole purpose of government and not even its major goal from taking security oriented measures is to establish and protect the security of nation and state, there is even uncertainty with regards to government achieving just a minor portion of its objectives. Terrorists seek instilling fear and panic among the citizens and governing body. With just a little superficial reflection on this it may be found out that they have easily accomplished their objectives and aspiration. Excessive use of situational methods in crime prevention has not only led to formation of a patriarchic retributive government in practice, but has also provoked the establishment and continuity of horrific security atmosphere and this is exactly what the terrorist are looking for. Increased fear of crime due to various measures of situational prevention persuades citizens that they are living in hazardous ambient. Increase in conspicuous security measures causes the ordinary citizens to manifest different psychological reactions due to fear of victimization while their distrust and suspicion in others is also increased whereas their social and individual interactions are weakened whereby they become secluded and dissociable and more isolated from society. On the other hand, citizens must become aware of preventive measures such as application of surveillance cameras in order to mitigate the breaching of their rights to least possible. How is it possible to justify and aggregate these contrasts? We need to accept this fact that development of preventive measures with extremist security approaches has turned the cities and neighborhoods into military fortresses. This may to some extent lead to decrease in acts of crime but the price paid for it is too high such that the damages to indulgence in practice of these measures seem not to be less than the loss resulted from the crime. Psychological and social damages due to fear of crime may even gain more significance since they are important factors in changing of quality of life. Political consequences caused by fear of crime are considerable. Undoubtedly, the heads of state are responsible for maintaining the security of society and its members. One of the most important demands of people from these authorities especially in democratic societies is to maintain public security and order. This is while the feeling of insecurity and panic as a corrupted consequence of applying extremist security oriented measures may jeopardize the legitimacy and admissibility of sovereignty and pave the way for commitment of crime.

Therefore, in spite of numerous efforts to compile a justice-based criminal policy following the September 11 event, this policy was directed toward a more security-oriented criminal policy due to drastic deviation of many countries and the implications that security strategies are no longer responsive to criminal law for enforcement of justice led the strategic objectives toward castration-such that the person has no chance of committing crime- in order to always protect the security and this is a transformation in the face of a set of rules targeted at enforcement of justice. Security orientation is the so-called foundation of rules and regulations of criminal law laid on rule of security even though it calls for breach of justice, inequality in adjudication, and disregarding of rights of the accused. Security orientation as a legal term refers to sacrifice of rights of accused and convicts in return for establishment of security.

However, it seems that a few countries have decided to obliterate some basic human rights such as the right for hearing in case of some certain crimes in order to establish security. Generally, the principles of justice-based or citizenship-based criminal law and criminal policy are the presumption of innocence, ensuring the rights of the accused and fair trial, whereas many principles of citizenship-based criminal law are undermined in the principles of security-oriented criminal law and criminal policy which are both founded on security orientation. The thematic scope of security-oriented criminal law is constituted by transnational organized crimes, terrorist crimes and all the crimes targeted at domestic and foreign security whereby principles such as precedence of presumption of culpability over presumption of innocence, secrecy of trial, special support for the witnesses and expansion of liability may be adopted.

**Challenges and restriction of utilitarianism of security-oriented strategy**

The most important question to be addressed by the security-oriented criminal policy is whether the practice of these security-oriented measures in society as a means of battle against crimes may necessarily implicate benefit and gain





**Eslam Mondani and Mohammad Ashouri**

for the society. This calls into question the philosophy of this type of criminal policy as it considers any withdrawal from this criterion a reason for discarding or at least restricting the scope of these security oriented measures. Social utilitarianism claims that the practice of regulatory and judicial measures would be useful once publicly announced prior to execution and that their practice calls for contextualization beforehand. Thus, the predetermination and notification of criminal regulations to individuals is a completely logical and rational principle since it is one the most important rules that ensures the protection of individual rights and freedoms in a society. Protection of the rights and freedoms of a nation requires them to always be safeguarded against the transgressions and infringement of government agents while establishment of invariant laws by means of which people may freely, dauntlessly and with no concerns expand their social interactions is the prerequisite to ensure the aforesaid freedom and rights. Legality of measures ensures the most important right of citizenship i.e. freedom. The aforesaid principle specifies the prohibited acts and confines the reaction of government to the freedoms of nation to merely the predetermined acts which implicates that the individuals in a society are free with regards to other affairs and nobody has the right to attack them.

Increase in various crimes such as terrorism, sabotage of public facilities, cyber-attacks against the confidential information system of country, organized and transnational crimes have clearly threatened the structure of societies and entity of states. These crimes are great threats for the human society that have plunged both nations and states into anxiety and stress. Thus, governments have no choice but to resort to extraordinary security and repressive measures and they inevitably invalidate some of the individual rights of citizens as they practically sacrifice individual interests for the sake of security interests. This aspect of utilitarianism is exactly the same thing that security-oriented criminal policy is intrinsically linked with.

In line with practice of security-oriented measures and maintaining of the system for social benefits, statesmen are on the one hand concerned with remarks about political phenomena such as leading the country and controlling of administrative affairs, occupations and public institutions while on the other hand, they are simultaneously worried about security measures with minimum expenses and consequences to restrain hazardous crime. This situation inevitably affects the criminal policy and ignores the profound reality of criminal phenomenon as it seeks security from the government. This cycle leads to occurrence of a series of economic and utilitarian calculations in practice of criminal measures whereby some crimes may substantially be disregarded and some others have been targeted by judicial and criminal invasions. Such a u-turn is problematic since when there is no consistency in execution of major criminal measures and policies, the possibility of interference of statesmen and politicization of these measures and their subsequent passivity and inefficiency will manifold, which in turn would lead to growth in rate of committed crimes and failure to defeat them. Such a failure disrupts the rights of a nation and causes a wave of incertitude in the society which in turn is one of the factors that lead to decrease in social efficiency of social capital and individuals in a society. Interest-based view on sovereignty and security as well as sacrifice of individual freedom for its sake is more compatible with utilitarian theories. The utilitarian normative theory is one of the dominant points of view in contemporary ethical, legal and political literature and the orientations of legislators and politicians which originally does not justify and advocate the contemporary human rights. Utilitarian theories are the most evident examples of result-oriented viewpoints in the area of ethical norms. From this perspective, the assessment criteria of security-oriented criminal policy measures are the justified act and the profit gained from it. Therefore, orientation of legal system in utilitarian will only be justified if it maximizes the social benefit and restores social security and welfare. The advantage of setting the majority interest within the scope of legislation are the centrality of interest and public interest. Therefore, this breach of rights appears to be justified when the interest of majority lies in ignorance of fundamental rights of individuals and minorities. Therefore, the utilitarian ethical theory may not necessarily have faith in human rights as it considers the violation of these rights in the name of maintaining order, security and the benefit of majority of public permissible and legitimate.





### Eslam Mondani and Mohammad Ashouri

#### **Challenges and restrictions in terms of violation of human rights rules and commitments related to civil and political rights as well as economic, social and cultural rights**

##### **Extensive Security in Society and Fear of Crime**

Indulgence in practice of security-oriented measures in a society leads to direct increase in extent of fear from crime among citizens as a regulatory and castellated society will be forms that is exposed to remonstrance in spite of all the formidability claims. This may subsequently lead to increase in fear of crime among citizens.

On the one hand, measures such as public practice of punishments and astringency in retribution of delinquents whose committed crimes is somehow reflected in contrast with public and security interests is intimidating in itself since citizens would have the feeling that dangerous criminals are in ambush and that one day either themselves or their families will become victims of these crimes. On the other hand, some techniques of situational prevention may lead to establishment of a castellated and extraordinarily secured society. Exorbitance in application of situational prevention tools such as surveillance cameras, patrolmen in the streets, control gates and other turn a society into an enclosed space wherein everything is under control and supervision. This leads to increase in fear of crime among citizens. In other words, application of situational prevention techniques may serve as the cause of panic among citizens instead of feeling secure. The more an environment is protected, the more increase in fear and the individuals constantly feel the danger lurking and that neither the government nor police are capable of controlling and maintain the security of citizens. Therefore, indulgence in application of situational prevention methods causes fear of crime in the society and among a major group of citizens. Indeed, it seems that the variety of prevention techniques and especially the highlighted presence of police forces is like a two sided coin. On the one hand, these measures lead to increase in feeling of security among citizens. On the other hand, it seems that the society is a manifestation of a castellated community wherein citizens barely leave their homes due to fear of crime as social communications and vicinage become disjointed. In fact, the practical measures of security prevention from crime are exactly opposed to the objective of consolidating social bonds.

##### **Invasion of Individual Freedoms and Privacy**

Security-oriented criminal policy allows for and develops turning to various measures such as controlling of individual information and communication, installation of surveillance camera, physical inspection and inquisition and hacking personal profiles in the cyber-space in the fight against crimes that are considered contradictory to public security and order. Undoubtedly, extremist resort to an institution such as unjustified temporary arrests directly leads to infringement of individual rights and freedoms and cancels out the most fundamental human rights of individuals who are accused of committing crimes. When law enforcement officers arrest and detain individuals who have demonstrated the least possible behaviors in the name of probable connection with terrorist and sabotage networks especially under circumstances in which there is no explicit accusation but also there is no appropriate explanation provided during detention.

It is possible that application of some situational prevention techniques is a tool for invasion of individual privacy of people in a society since the basis of such protection is to control the behavior and attitude of people which may impair their privacy and quality of life. Modern technologies such as surveillance cameras are among the techniques used in regulatory and vigilant situational prevention that are considered a threat for the privacy of people.

Telephone tapping and inspection of postal consignment are among the measures taken for situational prevention from crime. This is in contrast to the right of freedom of human beings. Article 12 of the universal declaration of human rights and clause B of article 18 of the Islamic declaration of human rights have prohibited the telephone tappings. Article 25 of the constitution while forbidding this act states that: inspection and failure to deliver mails,





### Eslam Mondani and Mohammad Ashouri

recording and disclosure of phone conversations, disclosure of telegraphic and teleprinter exchange communications, failure in transmission, eavesdropping, and any other act of espionage is prohibited unless permissible by law.

On the other hand, items such as the credit card numbers, bank accounts, digital and virtual information and others also constituents of individual privacy which may be confiscated or infringed by intelligence and police forces in line with the practice of security-oriented criminal policy. Therefore, security-oriented criminal policy may even lead to violation of the most private and axiomatic rights of people and citizens as a result of which a policing atmosphere would dominate the society wherein privacy has lost its status and position and even conspicuously desecrated and offended.

Privacy is considered among the rights that all the people in every government are required to be familiar with since awareness of privacy leads to adherence to citizenship while administrations also contribute a lot to this cause.

One of the responsibilities of governments and legal systems is to regulate the legal and criminological measures adopted in line with the fight against crime and intervention in the social life cycle and to update the set of rules ratified with regards to privacy of citizens: Items such as telephone tapping or creating a security-based cyber-space, confiscation and inspection of postal consignments, physical inspections, and others are all among measures related to privacy of citizens and the legislator is supposed to compile a particular legal system about them. Invasion of privacy is considered unethical since the individual would be dissatisfied with his/her private data becoming accessible by others, whether these data are related to property and home appliances or in the cyber-space. The right to privacy or in other words, the right of having a private life as one of the fundamental rights of citizens is strongly linked to protection of dignity, munificence, character, autonomy, development of personal relationships, development of intimacy and stable psychological security as well as other important humane values. But unfortunately, none of the existing laws in Iran have provided a definition for privacy and hence the concept and meaning of privacy and the extent of its boundaries are vague: Nevertheless, numerous principles in the constitution of Islamic Republic have recognized protection and non-invasion of privacy of citizens. Some criminal rules such as the act on punishment of individuals engaged in illegal audiovisual activities, the article 640 of the Islamic Punishment Law, and articles 16, 2, 1 and 17 of the Law for Computer-based Crimes have legally supported the prestige of citizens and indeed, have indirectly provided punishment protection for the privacy of citizens even in the cyber-space.

#### **Application of Protective Discrimination for and Imposition of Addition Costs on Citizens**

Security-oriented criminal policy has no choice in either legal or criminological terms to adopt measures which are directly related to economy, public budget and individual status of citizens. Practice of formal and suppressive measures as well as brutal punishments may never ensure the success of criminal policy plans as its legislators are supposed to pave the way in the society to turn the practice of such measures into acceptable one in the eyes of the public. One of the measures taken with this regard is to establish and manage information networks that has turned into a secure database for the governments while it provides a variety of programs in line with the support for brutal and security policies of the ruling government in addition to reflection of hazardous criminal events. Such media networks are undoubtedly expensive and compel governments to make double investments which may not have been given much heed in the initial calculations.

In terms of criminology and situational prevention of crimes, by focusing on a certain group of crimes and making attempts to lower the rate of committing them, the governments have on the other hand inadvertently transmitted the rate of crime to other regions with less history of crisis and thus they have less been exposed to situational security and prevention policies. This phenomenon that has resulted in relocation of crime commitment scene gradually generates insecurity in different regions at the expense of control in another region and mitigation of crime



**Eslam Mondani and Mohammad Ashouri**

commitment in that region. In line with development of preventive measures, governments also encourage citizens to make investments in procurement of security equipment such as surveillance cameras and other hi-tech instruments the procurement and supply of which is not simple and possible for a wide range of citizens. Therefore, the self-vigilance policy by citizens gradually turns into a more calculative topic such that the citizens are always enforced to plan for provision of technical requirements. This is while many people are not simply capable of affording these equipment, thus expression of dissatisfaction and the subsequent challenge for major security measures seems an expected possibility at any time. The example set forth in this regard is the automotive tracking systems. These systems enable the police to trace stolen expensive cars through the concealed signals in the body of cars. There is no objection as long as these tracking systems are considered a private service and exclusively distributed by private retailers, but the police forces in some countries such as the U.S. have been coerced by the private retailers to use these receivers in their patrol cars since they are regarded as public pillar of criminal justice.

This has led to police attention being more drawn to stolen cars equipped with such tracking systems rather than those lacking such systems because the financial crime is deemed more important when it is related to the opulent class of society as the police forces also have enough reasons and incentives to take the matters more seriously. Such issues are like unwritten law in capitalist societies since the experiences from the past suggest that the rich class of society pull the strings in elections and political decisions and thus their dissatisfaction leads to more extreme and dangerous consequences. Therefore, government agents try to meet their satisfaction and protect their benefit as much as possible, the satisfaction which officially results in discrimination in a variety of aspects such as protection and vigilance.

**Restricting the Cultural Rights and the Right to Social Security**

Security orientation of criminal policy has destructive effects on social and cultural aspects of human rights. These rights include the right of enjoying domestic security, social security, and free participation in political and cultural activities and communities. When the intellectual framework of security-oriented criminal policy is established in a society, many social and cultural rights of citizens may either be restricted or breached. On the other hand, security-oriented prevention tools may in turn be highly efficient in reduction and prevention of crime. But the overemphasis on their application leads to ignorance of obviation of economic, social and cultural causes in a society. To this end, the development and practice of a realistic model of criminal policy with a more comprehensive view of all the causes of crime on a society may better serve as a means of providing public security and welfare. In addition to prevention of uncalled and local extremes, such a trend also establishes a consistent and effective approach in line with response to crimes. Adoption of a hybrid approach in prevention yields more tangible and useful results. Many crimes may be prevented through adoption of appropriate social and cultural measures. When the social services system plays its role efficiently and the least welfare and cultural guarantees are established in the society for a peaceful living, the same reduction in the rate of crimes may be expected since many of these crimes are due to discrimination and the inability to provide public cultural and social services to the citizens which calls for a more appropriate management to exclude it as a crime-generating center. Establishment of rights such as layoff insurance, fair occupational wages, funding public expenditure, provision of support for low income and needy classes and measures such as this may altogether be effective in reduction of crime rate but the security-oriented criminal policy does not incorporate these rights into its situational prevention is it even debilitates and reduces the public expenditure system related to these areas. The government may turn to building new prisons as an excuse for maintaining security, the daily management of which calls for extortionate costs. Experience gained from a country such as the U.S. in formation and creation of Guantanamo prison for detention of security convict suggested an annual administrative expenses of over two hundred billion dollars inflicted on the U.S. society which is equivalent to the public expenditure of some of the states in this country. Such measures would undoubtedly cause disruption in the service provision system of government and debilitates mechanisms such as social insurances which may in turn appear more disgusting and intolerable in the view of citizens than the crime and its subsequent losses.





**Eslam Mondani and Mohammad Ashouri**

**Provisions and Rules for Application of Restrcitions on Human Rights within the Framework of Security Orientation**

In the wake of the covenant between the civil and political laws (article 4), human rights are considered inherent, uninterrupted and infrangible rights. But in spite of such emphasis, the realities of today's communities and especially the spreading of brutal and organized crimes which are in contrast with the security of different states and nations have to an extent resulted in definition and description of the abovementioned rights within a certain framework which could be regarded as an imposed restriction. On the one hand, the maximum respect to the human rights is necessary and binding while on the other hand, advocacy of these rights should not turn into a cache to take refuge in from the hands of justice following the commitment of a crime. Accordingly, the governments have nowadays been forced to disregard and restrict these rights in areas where there is perceptible fear of infringement of major social interests. Nevertheless, no justification, even the necessity to provide for the majority of society may not and must not lead to exclusion of the overall concept of these rights. Application of restrictions requires acceptable provisions but exclusion and elimination human rights principles are not acceptable at all.

In a two-sided equation it may be declared that the human rights is inherently a contradiction with necessities such as repulsion of crime and exclusion of crime opportunity and/or severe clashes with the convicts (based on merits and on a fair basis).

On the other hand, practice of judicial justice and criminal policy measures does not necessarily undermine the human rights but since on some special occasions there is no choice but to deprive some individuals whose behavior has led to their own accusation from some of these rights, some restrictions may in practice be applied to this legal regime. These restrictions that generally occur due to security-oriented criminal policy provided that all the following provisions are deemed acceptable otherwise they may not be admissible.

In case a crime is a real public hazard: When crimes such as organized crimes have nature a which would impair the entity and integrity of a nation and state, then there is no choice but to severely treat the convicts and accused and to limit some of their rights. Therefore, only an exceptional public hazard may allow for imposition of restrictions on human rights.

Legislation in application of restrictions: Even at times when imposition of restriction on some of the human rights of convicts seems a necessity, the legal principles and criteria must still be revered regardless of whatever measure is taken. International documents and criteria must be taken into account and their contents must be conformed to in practice. Peril of no crime permits the commitment of any illegal act against the outlaws.

Commensurability of security-oriented measures and extent of experienced restrictions: This incontrovertible principle must be taken into account in the practice of security-oriented criminal policy that a balance and proportion must be maintained between the executive measures and level of restrictions i.e. a relatively perilous crime must not be considered an authority to foreclose on the right to defense for the accused and the human rights principles encountered by the criminal justice system.

**Realism in the interaction between human rights and security-oriented criminal policy**

Criminal policy which in its universal definition was introduced as the science of contriving criminal phenomenon by the community in terms of response and prevention is in direct interaction with many legal scopes and especially the applied scope of human rights which is reflected in the universal declaration of human rights as a systematic format. Through creation of a common criterion for measurement of accomplishments of all human beings and nations, the Universal declaration of human rights served the natural and legal rights in realization of the fundamental rights and



**Eslam Mondani and Mohammad Ashouri**

freedoms of mankind and in the meantime transformed the current times into an era of upheaval and tension to create balance and parity between the cosmopolitan human rights and relativist challenges through creation of fundamental international evolutions and emphasis on ethical-humane values as it defies many concepts such as independence, sovereignty and legitimacy of states. In these times, criminal policy which parallel to the classic regime of criminal law proposes practical strategies in line with response to criminal phenomenon has not remained intact from these movements. In this horizon, the criteria and doctrines of human rights have significantly been turned into refined and adjusted criteria of criminal policies and have contributed to the evolution of many of their aspects. On the one hand, human rights doctrines have led to compatible and pacifist spirit of the major logic of adopted criminal policy as is the case with the necessity of observing individual freedoms, holding respect for privacy of individuals, abstaining from intervention in privacy of others, free participation of citizens in social programs, etc. accordingly, human rights criteria have served as a dominant criterion that have paved the way for realization and advent of retreat and restriction strategy for intervention in criminal law and the subsequent adjustment of adopted criminal policies. This suggests that the criminal policy embraces to a significant extent the requirements derived from human rights doctrines as it inherently has not contrasts to them and thus this level of interaction between them may be regarded as "positive and altruistic interaction" type. On the other hand, the criminal policy and its practical strategies serve as the criterion for measurement of extent and scope of realism in human rights doctrines in terms of crimes which may result in restriction and filtration of sheer non-executive abstract and utopian aspect of human rights doctrines within the communities. Since many human rights doctrines have nowadays been challenged by realistic approaches by being accused of having slogan, passive and unreachable nature, the knowledge of criminal policy which has a completely practical and applied character has been able to clearly illustrated the level of alloy of such issues in the area of fight against criminal phenomenon and has led to marginalization of descriptive possibilities and embellishment of the context of adopted plans and programs of social system in this area through adopting executive strategies commensurate with today's realities of various communities.

The criminal policy of social system indeed considers the criminal phenomenon as a "normal rule or law" and thus tries to provide solutions in line with restraining of this phenomenon to a tolerable level for the social system through a realistic approach. For instance, the criminal policy may clarify and introduce the desirable and necessary level of resort to suppression and force majeure with the scope of different crimes such as simple crimes, terrorist and violent crimes on the one hand, and by considering the danger of offenders, the scope of disrupted order and welfare of society, and the level of support from public opinions on the other hand such that it paves the way for transition from merely abstract and utopian human rights doctrines that mostly lack the required applicability in the area of fight against crimes and deviances in numerous and different societies since they represent a slogan entity of adopted strategies, and thus establish a realistic logic. Moreover, the infiltration and effectiveness of criminal policy on human rights criteria may be observed in other areas which has led to increased discipline and experimentation of them. One of these areas is the prevention of crime.

Nowadays, many extremist and utopian advocates of human rights claim that majority of crime prevention models contradict the fundamental right of human beings. They have explicitly considered the resort to crime prevention solutions and programs such as the situational prevention in direct challenge with the human rights and thus they lack the potency to tolerate and come to terms with them. In terms of situational prevention of crime where the focus is on amplification of potential waves of crime and hindrance of committing crimes on the basis of disrupting the economic and calculative rationality of delinquent, supporters of human rights contend that programs such as installation of surveillance cameras in the streets and other public and private places as a means of applying such model of prevention is the explicit violation of human rights and a disturbance of citizens' right of freely participating in social activities. This is while the preventive criminal policy has nowadays well-elucidated the fact that this issue does not disturb the order and security of citizens in the first place and in contrast, it is one of the causes of enhancing their security. Justification of criminal policy and its developers is usually based on the ground that the executives of installation of cameras in situational prevention warn the entire citizens of the cameras and the possibility of being monitored in advance through a variety of announcements. Moreover, probing for the findings



**Eslam Mondani and Mohammad Ashouri**

and recorded data of these cameras is only carried out only to discover and demonstrate possibly committed crime or crimes and thus it never intervenes in the ordinary interactions of people or does not probe for the contents of these interactions. Furthermore, assuming “a consistently standard behavior by majority of citizens” not only excludes the unusual and false concern of extremist and non-realistic advocates of human rights, but also approves this assertion more than ever.

**CONCLUSION**

Security orientation of the adopted criminal policy in a society does not necessarily appear to be a totally negative and reprehensible strategy, but if it leads to violation of human rights and in case governments are outfitted by tools whereby they prosecute and inspect the minimum social movements of citizens, then it is not regarded as a vindicable process as it may have a reverse effect.

Rules of international law and documents such as the universal declaration of human rights which regulate the relationships and interaction between states, organizations and citizens in the global village have verified this fact that unless it has a flexible and minimum identity, the security orientation strategy may be excluded from the standard cycle of human rights and turn into a political and promotional tool which may even contravene the most axiomatic regulatory and international rules and norms at the discretion of rulers. Therefore, these issues and dichotomies must be taken into account in line with the better perception and study of the subject of security orientation.

Numerous events and incidents have consolidated the concept of security orientation in today's world. The intimidating atmosphere following the humanitarian catastrophe of September 11 was an obvious and well-known example which included the application of a set of controlling measures that have restricted and deprived civil freedoms in the name of domestic security. The applied austerity measures on civil freedoms and propagation of extensive monitoring trends have inappropriately targeted some minority groups such as the Arabs and Muslims. Policing policies of intolerance, extensive use of video surveillance and the variety of techniques applied nowadays in the fight against terrorism are all being used in order to establish order and security and to ultimately preserve public interests that call for no justification. The tightened security atmosphere following the September 11 has served as a platform for introduction of new technologies to the world and has become a part of daily lives of citizens.

One of the most important and tangible features of infiltration of security orientation concept into the context of criminal policy within the territory of different nations are the majority and offensive criminalization in case of violent crimes as well as political and terrorist crimes in the territories of countries such as France and the U.S., disobedience criminalization in Iran's law, extreme and over-indulgent resort to temporary detention, violation of right to defense of the accused, practice of completely security-oriented and technical models including the situational and technical prevention, consolidation of autonomous measures in prosecution of crimes and terrorism in the U.S., inattention to the rights of the prosecuted accused in case of security-related crimes in Iran, etc.

These phenomena all contradict the fundamental and humane rights of the convicts and accused. Security orientation of criminal policy leaves destructive effects on various aspects of human rights including economic, social and cultural ones. These rights include the right of enjoying domestic security, social security, and free participation in political and cultural activities and communities. When the intellectual framework of security-oriented criminal policy is established in a society, many social and cultural rights of citizens may either be restricted or breached. On the other hand, security-oriented prevention tools may in turn be highly efficient in reduction and prevention of crime.



**Eslam Mondani and Mohammad Ashouri**

But the overemphasis on their application leads to ignorance of obviation of economic, social and cultural causes in a society. To this end, the development and practice of a realistic model of criminal policy with a more comprehensive view of all the causes of crime on a society may better serve as a means of providing public security and welfare.

Security policies must follow some of the restrictions of human rights within the context of security-oriented criminal policy. In other words, human rights principles must inspire the criminal policy. The price paid for inattention to the criteria of fundamental rights of individuals although does not become evident immediately, but will ultimately leave some destructive effects on order and security of the society. Fight against crime is carried out for revival of virtues that have been violated by the delinquent through commitment of crime. The fight against crime must not lead to infringement of fundamental values and human dignity which are the most important statures of ademocratics society.

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## RESEARCH ARTICLE

## Combination of Palaeoenvironmental and Geochemical Studies in Sequence Stratigraphy of the Kazhdumi Formation (Albian), in the Soroosh Oil Field, Northern Persian Gulf based Palynology and Rock-Eval Pyrolysis

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### ABSTRACT

In this study, Palynological evidences, Palynological facies and Rock-Eval pyrolysis are used to analyze the Kazhdumi Formation of Soroosh Oil Field, in a sequence stratigraphic framework. 124 samples from 147 m core were collected and prepared for palynological and palynofacies studies. Accordingly four palynofacies (I, II, VI, IX) were determined, the ratio of terrestrial to marine elements is high in most samples, indicating a nearshore sedimentary environment. Palynological data are used to draw paleoecological inferences for the Kazhdumi Formation, northwest of Persian Gulf, southwestern Iran. All samples examined yield well-preserved, diverse palynofloras consisting predominantly of miospores; dinoflagellate cysts and foraminiferal test linings occur as minor constituents. Forty-one species of spores & pollen (78 genera), and 28 species of dinoflagellate cysts (51 genera) are recognized. According to studies reported in other sides of the world and their comparison with the data obtained from the samples examined in this study and record the index microfossils, age of this Formation in Soroosh field have been determined Albian age. Based on the palynofacies and changes in percentages of the three major constituents of organic matter and correlation of all data, five third-order sequences were defined. Twenty-two samples from the one well were also selected for geochemical analysis using Rock-Eval pyrolysis. The results obtained from Rock-Eval pyrolysis indicate that the Kazhdumi Fm. in the studied Oil Field has entered oil window and can be considered as a potential source for hydrocarbon.



**Zeinab Rezaei et al.**

generation. Organic facies shows depositional in a deltaic oxic environment with moderate to rapid rate and mixed terrestrial & marine organic matter. The results obtained from organic facies confirm the results gained from diagram of Dean et al. (1986).

**Key words:** Palynofacies, Palynological Evidences, Kazhdumi Formation, Rock-Eval Pyrolysis

## INTRODUCTION

Many factors have been used for sea level analysis. A relatively new method is using palynological elements and factors such as biological degradation of palynological particles, roundness and homogeneity of equidimensional phytoclasts (Gorin & Steffen, 1991), the relative abundance of opaque and semi opaque to transparent phytoclasts, the marine palynomorph/terrestrial particles ratio, relative abundance and diversity of dinoflagellate cysts and Chorate/Proximate, Proximochorate, Cavate (C/PPC) morphotype ratio (Ghasemi-Nejad et al., 1999). These factors were used for sequence differentiation in this paper. The aim of this study is to use palynofacies analysis and Rock-Eval pyrolysis to investigate depositional environment and role of the Kazhdumi Formation as a hydrocarbon source in Soroosh Oil Field.

### Geological setting

The Bangestan Group in southwestern Iran and northern Persian Gulf is composed of the Kazhdumi, Sarvak, Surgah (Laffan) and Ilam formations and contains major oil and gas reserves. The lower part of the Kazhdumi Fm. also provides the seal for the underlying Dariyan carbonate reservoir in most of the fields located in this basin. The upper contact shows a gradational transition to the base of the Sarvak Formation. The Mid Cretaceous began with another regression of the seas and subsequent exposure of the Arabian Shield area resulting in widespread deposition of the Burgan and Nahr Umr clastic Sediments. The Arabian Shield once again became the source for the clastic sediment of the Nahr Umr or Burgan Formation in coastal Arabia, southeast Iraq, Kuwait and northward to the middle of the present Persian Gulf. From the Arabian Shield to the Iranian coast these clastics pass into the neritic marls and shales of the Kazhdumi Formation (Murriss, 1980). So it is clear that the Kazhdumi Formation has been influenced by a large amount of terrestrial material (Ghasemi-Nejad et al., 2009).

In this study, Kazhdumi Formation in wells SR-X (Soroosh oil field), has been studied. Kazhdumi Formation in wells SR-X, with 147 meters of sandstone lithology (sand) with the layers of black marine shales and siltstones with disconformity boundary is placed on Dariyan Formation. The upper contact shows a gradational transition to the base of the Sarvak Formation. The Soroosh Field (Fig. 1) is located in the northwestern part of the Persian Gulf and near the Kuwait and Saudi Arabia offshore border. This field is a domal structure located about 80 kilometers west of Khark Island (Internal Report of Iranian Offshore Oil Company, 2000).

### Method of study

#### Palynological preparation

One hundred and twenty four core samples from the well SR-X, were prepared in the palynology laboratory of the Department of Geology of Science and Research Branch, Islamic Azad University, Tehran. Their palynomorph content study using standard palynological processing procedures (Traverse, 2007). Cold hydrochloric (20%) and hydrofluoric (50%) acids were used to dissolve carbonates and silicates. No oxidants or alkalis were used. The residue was neutralized and centrifuged in  $ZnCl_2$  (specific gravity 1.9), then sieved at 20  $\mu m$  using a nylon mesh and mounted on microscope slides using liquid Canada balsam. The microscope slides were examined with a Zeiss



**Zeinab Rezaei et al.**

Axioscope microscope. Palynofacies analyses were also performed on these microscope slides. A total of 300 organic particles were counted and classified per sample and their proportions calculated.

**Geochemical analysis**

The Rock-Eval pyrolysis was carried out at Research Institute of Petroleum Industry, Tehran, Iran (RIPI). Twenty-two samples of mainly sandstone lithology were pyrolyzed for this purpose. The acquisition parameters S1 (free hydrocarbon), S2 (pyrolyzed hydrocarbon resulting from the decomposition of kerogen), S3 (expulsion of CO<sub>2</sub>), and Tmax (the temperature at which the S2 peak occurs) were measured. Rock-Eval analysis is a standard screening technique used for evaluating the source rock potential of a sedimentary rock (Laforgue et al., 1998) and consists a computer-controlled, temperature programmed pyrolysis oven and oxidation oven (Behar et al., 2001). An approximately, 100 mgr sample of pulverized whole rock was placed in the pyrolysis oven (which has a nitrogen atmosphere).

**Palynological basis for determination of sequence stratigraphy units**

The LST is the lowermost systems tract in a sequence (VanWagoner et al., 1988) which is characterized by a progradationalparasequence set. Owing to their progradational nature, the deposits are mainly characterized by marine proximal facies which formed during periods of rapid but decelerating sea-level fall (Tyson, 1995). Many authors agree that terrestrial particles (phytoclasts) increase in abundance during deposition of the lowstand systems tract (e. g. Steffen & Gorin 1993b; Tyson, 1995). According to Tyson (1995) the highest amounts of phytoclasts are recorded in the lowest parts of the LST. As a result of terrestrial input, the relative abundance of marine palynomorphs, especially dinocysts, decreases in lowstand deposits. Generally, the geochemical parameters are characterized by the lowest values of total organic carbon (TOC) and hydrogen index (HI) in comparison with other tracts (Hart et al., 1994). The C/PPC ratio decreases (Ghasemi-Nejad et al., 1999). The TST is the middle tract distinguished by retrogradationalparasequence sets (Van Wagoner et al., 1988). This tract is bounded at the base by a transgressive surface and at the top by the maximum flooding surface. These surfaces are also recognized through kerogen distribution. According to Van Wagoner et al. (1988), the TST is related to increasing acceleration in sea-level rise and marked by a progressive decrease in relative abundance of phytoclast particles, with the particles becoming more rounded (Steffen & Gorin, 1993b). Phytoclast reach their lowest values however, percentage of opaque particles increases up to the maximum flooding surface and, according to Tyson (1995), may continue into the early HST. The abundance and diversity of marine palynomorphs increase during deposition of the TST. Normally, the highest diversity of marine palynomorphs (especially dinocysts) is recorded at the maximum flooding surface (Tyson, 1995). The relative abundance of amorphous organic matter (AOM) depends on the nature of the environment. In oxic condition, the AOM is at a minimum due to very poor preservation, whereas in anoxic conditions the group reaches high percentages. According to Hart et al. (1994), the TST may contain the highest values of TOC and HI; however, the peak TOC and HI do not necessarily occur at the maximum flooding surface as emphasized by Tyson (1995, 1996) as it depends on both dilution and paleo oxygenation trends. The C/PPC ratio increases. The HST is the uppermost systems tract distinguished by one or more aggradationalparasequence sets followed by progradationalparasequence sets (Van Wagoner et al., 1988). This tract is related to a decreasing rate of sea-level rise and initial sea-level fall. According to Steffen and Gorin (1993b), the HST is characterized by different trends with respect to the LST. The major difference between the systems tracts is that the shelf is not exposed during HST development. This was based on the observation that the terrigenous phytoclasts were less degraded. The HST can be subdivided into two parts, consisting of early and late part. The early HST often shows almost the same characteristics as the TST especially at distal locations. The abundance of marine palynomorphs and the geochemical parameters TOC and HI are still high, if oxygen trend keeps on low levels; however, the parameters all decrease progressively upwards (late HST), whereas the percentage of phytoclasts increases.





**Zeinab Rezaei et al.**

### Palynostratigraphy

The samples examined yield diverse, well-preserved palynomorphs, including, in descending order of importance, miospores, dinoflagellate cysts, fungal spores and foraminiferal test linings. Forty-one species of spores & pollen (78 genera), and 28 species of dinoflagellate cysts (51 genera) are recognized. Presence of certain miospore and dinoflagellate species indicates that the Kazhdumi Formation can be dated as the Upper Cretaceous (Albian). Index palynomorphs are illustrated in Plate 1.

The presence of Florentinaberran indicate late Albian age. They have been recorded previously from the northern Western Desert (El Beidly, 1993; El Beidly & Geol, 1994; El Beidly, 1995).

*Subtilisphaerasenegalensis* was recorded from Albian sediments by many authors (e.g. Omran et al., 1990; Ibrahim et al., 2000; Ibrahim et al., 2002). The dinoflagellate assemblage *Coroniferaoconica* is indicating Albian age (Mahmoud & Deaf, 2007). This zone is described as the *S. senegalensis* – *C. vannophorum* Interval Zone of Albian age of Schrank and Ibrahim (1995) and as Zone D3 *C. oceanica*–*Oligosphaeridium* spp. – *S. senegalensis* Assemblage Zone of Albian age (Mahmoud & Deaf, 2007). *Gardodinium trabeculosum* was found in the lower Albian of South-East France (Van Erve et al., 1980), also it was found in the upper Albian (Stover et al., 1996). It should be noted that this material has not been reported in younger sediments of Albian age. *Gleicheniiditessenonicus* was described from the upper Albian to Cenomanian of Senegal and Ivory Coast (Jardiné and Magloire, 1965). *Cicatricosisporites* spp. occurs in Senegal in the lower Albian (Jardiné & Magloire, 1965). *Araucariacites australis* was recorded in the northern western Desert, El Shamma et al. (1997). Bassiouni et al. (1992) noted an increase in number of *A. australis* pollen grains in Albian. The pollen of the genus *Ephedripites* spp. and *Retitricolpites* spp. are known from Albian deposits of Brazil (Herngreen, 1973). Pollen of the genus *Retitricolpites* seems more or less throughout the world from the lower middle Albian, and its abundance and diversity increase in the upper Albian and Cenomanian. In West Africa and South America, the first grains of the tricolpate type also first appear at this level (Jardiné and Magloire, 1965; Muller, 1966; Herngreen, 1973). The first tricolporate (*Tricolporopollenites*) grains of angiosperms are detected not earlier than the late Albian (Doyle, 1969; Dettmann, 1973). The tricolporate grains first appear in West Africa and Brazil in the Albian to Cenomanian (Jardiné and Magloire, 1965; Herngreen, 1973).

The data suggest that the supply of spores and pollen feeds the area of Kazhdumi Formation in Soroosh Oil Field very likely, North America, West Africa, Brazil, North Western desert Egypt and Black Sea. This assumption is based on the presence of typical genera and species, as well as pollen of bisaccate conifers and some spores *Cicatricosisporites* spp., *Gleicheniiditessenonicus* pollen *Araucariacites australis*, *Ephedripites* spp., *Retitricolpites* spp., *Tricolpites* spp. which is not known from Cretaceous sediments of Africa, but is found in Eurasia and North America. The assemblage studies are well correlated to ones of Eastern North Atlantic ocean. In addition, a much lesser content of most genera and species of Dinoflagellates, as compared to the assemblages from the near-shore basins of North Western desert Egypt. They include *Coroniferaoconica*, *Florentinaberran*, *Gardodinium trabeculosum*, *Oligosphaeridium* spp., *Subtilisphaerasenegalensis*. According to studies on reported in other sides of the world and their comparison with the data obtained from the samples examined in this study and record the index microfossils, age of Kazhdumi Formation in Soroosh field have been determined Albian age.

### DISCUSSION

Tyson (1995) developed a ternary kerogen plot comprising the kerogen constituents AOM, phytoclasts and palynomorphs. Tyson (1995) based his ternary plot found that palynological kerogen of similar composition and palaeoenvironmental settings tends to occupy the same area in the ternary plot. The resultant palynofacies plots indicating "relative proximity to terrestrial organic matter sources, kerogen transport paths, and the redox status



**Zeinab Rezaei et al.**

of the depositional environments that control AOM preservation" (Table. 1). This plot can also be used to determine oxic-anoxic conditions (Al-Ameriet al., 1999; Mustafa & Tyson, 2002; Al-Ameriet al., 2009), confirmed by comparing results with other physical parameters which assess the degree of preservation of AOM and hence, determine the oxygenation conditions of the depositional environment (e.g. Mustafa & Tyson, 2002; Al-Ameriet al., 2009). For each sample relative proportions of these groups were determined and plotted on Tyson-type ternary diagram (Fig. 2). Four palynofacies types (I, II, VI, IX) have been recognized using the relative proportions of terrestrial elements, marine palynomorphs and amorphous organic matter (AOM). The ratio of terrestrial to marine elements is high in most of the samples, indicating a near shore sedimentary environment. Also results show that the Kazhdumi Formation at Soroosh oil field is gas-prone (predominantly type III kerogen).

**Geochemical analysis**

Twenty-two samples were selected for Rock-Eval pyrolysis (Table. 2) in order to determine organic facies and condition of depositional environment. The parameters have been measured and averages of the factors in studied samples are presented in Table 2. The standard guidelines for interpreting these values are given in Table 3. Comparing the values of  $S_1$ ,  $S_2$ ,  $T_{max}$  and TOC based on Rock-Eval pyrolysis of the samples studied (Table 2) with standard guidelines (Peters & Cassa, 1994; Table 3), it can be concluded that the Kazhdumi Formation studied here is fair in terms of production potential and therefore could produce hydrocarbons in commercial quantities.  $T_{max}$  values for the Kazhdumi Formation range is between 425 - 461°C and consequently show the deposits in thermally early maturation stage. Values for TOC range from 0.72 to 1.66wt% (average 1.05) and are generally fair to good with respect to organic concentration. Organic facies were assessed on the basis of Jones (1987) diagram (Fig. 4). Plotting HI versus OI values most of the samples fall in C to CD restricts. These restrictions indicate predominantly gas prone, deltaic deposits. Also indicate marine to terrestrial oxic environment and their distribution state composing of organic and terrestrial matter. These environmental conditions confirm data distribution in Dean et al. (1986) diagram (Fig. 5). On the basis of this diagram, the Kazhdumi Formation shows a regressive trend.

**CONCLUSION**

Four palynofacies types (I, II, VI, IX) have been recognized using the relative proportions of terrestrial elements, marine palynomorphs and amorphous organic matter (AOM). Based on palynofacies analysis the Kazhdumi Formation in the Soroosh Field is shown to be gas-prone. The ratio of terrestrial to marine elements is high in most of the samples, indicating a near shore sedimentary environment. The study of samples has resulted in determination forty-one species of spores & pollen (78 genera), and 28 species of dinoflagellate cysts (51 genera) are recognized. According to studies on reported in other sides of the world and their comparison with the data obtained from the samples examined in this study and record the index microfossils, age of Kazhdumi Formation in Soroosh field have been determined Albian age. Based on the palynofacies and changes in percentages of the three major constituents of organic matter and correlation of all data, Five third-order sequence were defined. Rock-Eval pyrolysis that shows Kazhdumi Fm. has entered into the oil window, therefore could have produced hydrocarbons. In addition, in plotting HI versus OI values, most of the samples fall in C to CD restricts which indicate predominantly gas prone nature of the organic matter and shows depositional in a deltaic oxic environment with moderate to rapid rate. These environmental conditions is in consistency with data distribution in Dean et al. (1986). On the basis of this diagram, the Kazhdumi Formation shows a regressive trend in general. Also the results obtained from Rock-Eval pyrolysis confirm the results gained from palynological studies.





**Zeinab Rezaei et al.**

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Zeinab Rezaei et al.

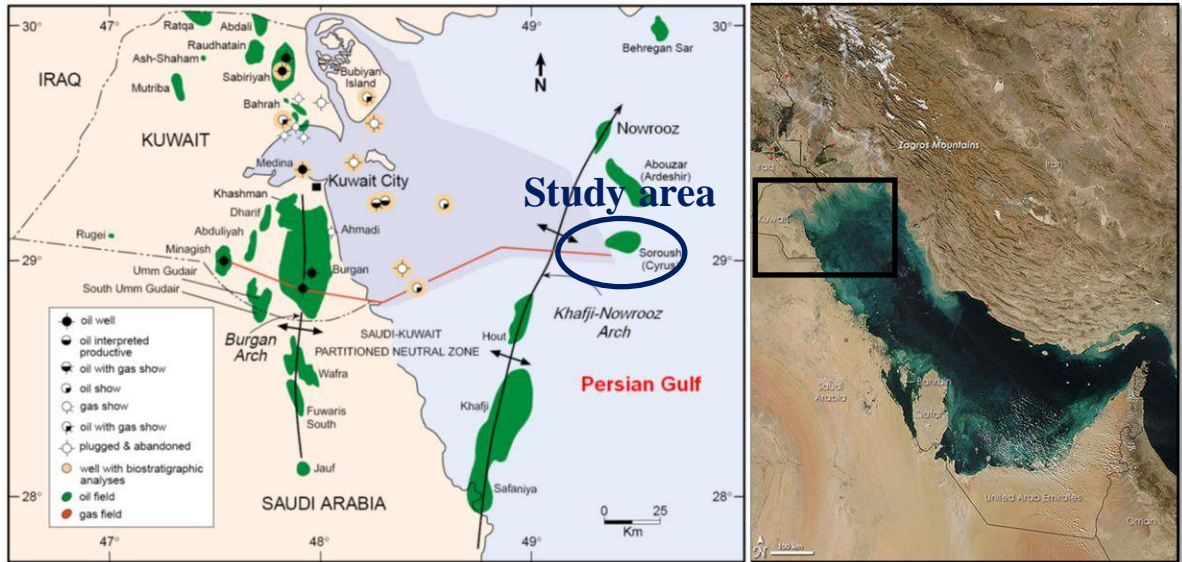


Fig. 1. Location of the Soroosh Field and well-studied

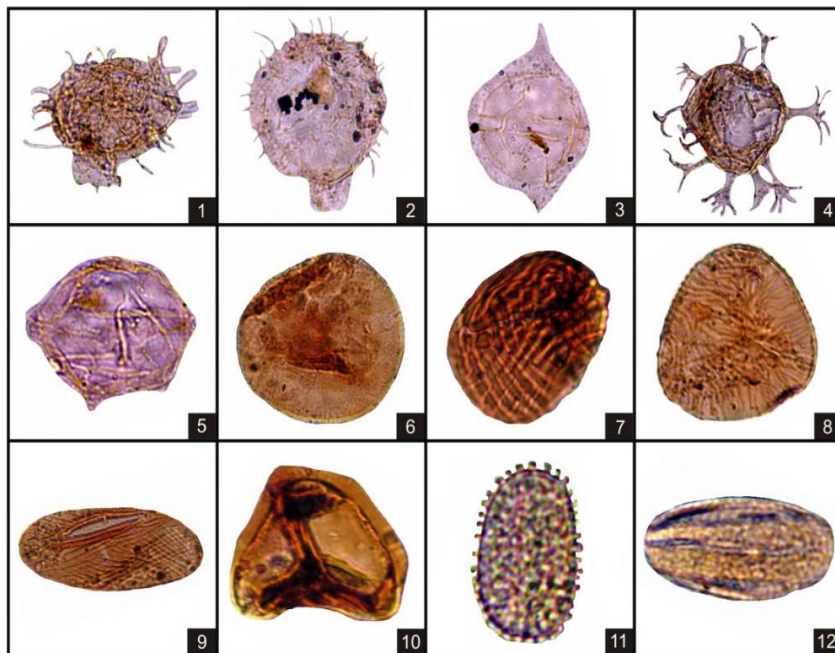


Plate 1: The Index taxa from the Kazhdumi Formation in Soroosh Oil

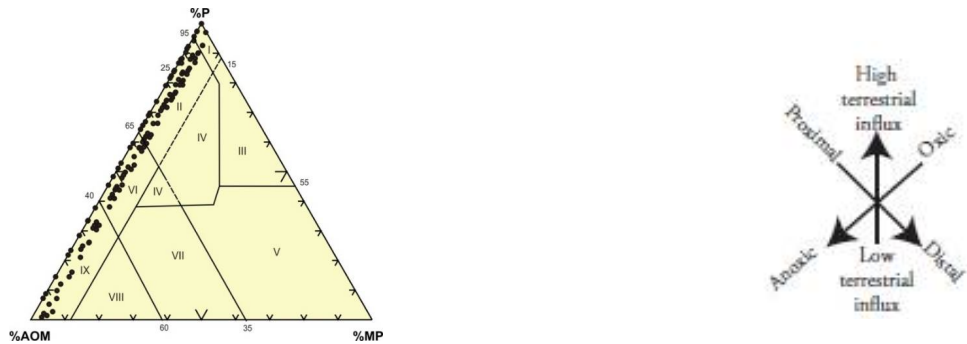
Field.1- *Coroniferaoconica* Cookson & Eisenack, 1958; 2- *Florentinaberran* Below, 1982; 3- *Gardodiniumtrabeculosum* (Gocht, 1959) Alberti, 1961; 4- *Oligosphaeridium* sp.; 5- *Subtilisphaerasenegalensis* Jain & Millepieid, 1973; 6- *Araucariacitesaustralis* Cookson, 1947; 7 & 8- *Cicatricosisporites* sp.; 9- *Ephedripites* sp.; 10- *Gleicheniiditessenonicus* Ross emend. Skarby, 1964; 11- *Retitricolpites* sp.; 12- *Tricolpites* sp.





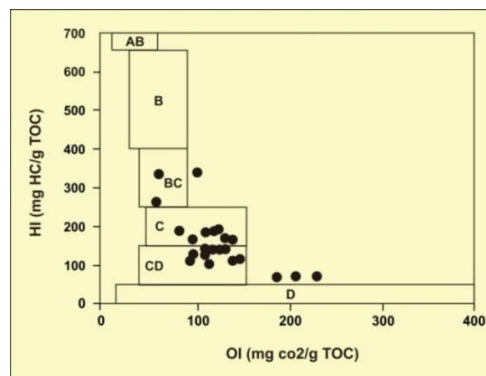


**Zeinab Rezaei et al.**

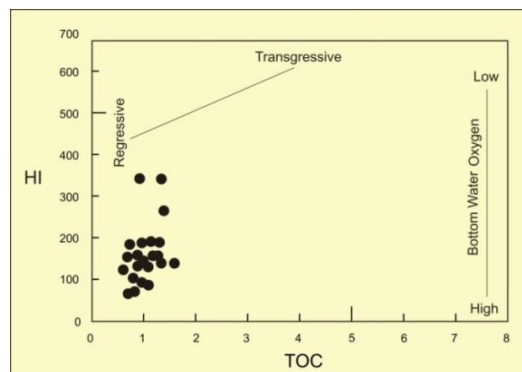


**Fig. 2. Tyson-type ternary diagrams showing distribution of principal palynological groups for the well under study.**

Other palynological factors such as the terrestrial/marine particles ratio, the chorate/proximate, proximochorate, cavate cyst ratio, differences in dinoflagellate assemblages (Sluijs *et al.*, 2005) and rarity and abundance of dinoflagellate cyst groups were statistically calculated and used for sequence stratigraphic analysis. Based on the palynofacies and changes in percentages of the three major constituents of organic matter and correlation of all data, Five third-order sequence with type II boundaries were defined (Fig. 3).



**Fig. 4. Differentiating organic facies by using HI versus OI values (after Jones, 1987).**

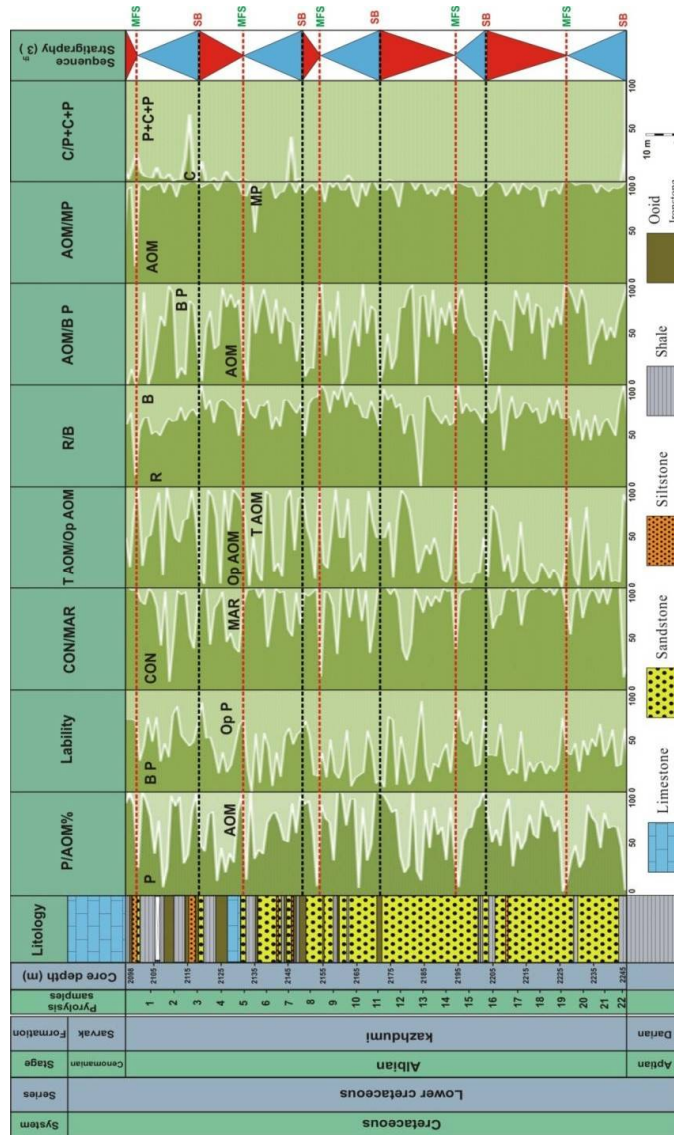


**Fig. 5. Total organic carbon versus HI values for the samples analyzed (after Dean *et al.*, 1986).**





**Zeinab Rezaei et al.**



(Lability), Terrestrial particle/Marine elements ratio (CON/MAR), Transparent AOM/OpaqueAOMratio (TAOM/OpAOM), rounded Phytoclast/Bladed phytoclastratio (R/B),Amorphous organic matter/Brownphytoclastratio (AOM/Bp), Amorphous organic matter/Marine palynomorphratio (AOM/MP), chorate/proximate, proximochorate and cavatedinocysts (C/PPC).





**Zeinab Rezaei et al.**

**Table 1. Key to marine palynofacies fields defined in the ternary kerogendiagram of Tyson, 1995.**

Palynofacies field	Environment	Kreogen type
I	Highly proximal shelf or basin	III (gas prone)
II	Marginal dysoxic-anoxic basin	III (gas prone)
III	Heterolithicoxic shelf (proximal shelf)	III or IV (gas prone)
IV	Shelf to basin transition	III or II (mainly gas prone)
V	Mud- dominated oxic shelf (distal shelf)	III or IV (gas prone)
VI	Proximal suboxic-anoxic shelf	II (oil prone)
VII	Distal dysoxic-anoxic shelf	II (oil prone)
VIII	Distal dysoxic-anoxic shelf	II >> I (oil prone)
IX	Distal suboxic-anoxic basin	II ≥ I (highly oil prone)

**Table 2. Rock-Eval results for the analyzed samples.**

SampleNO	Depth (m)	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>1</sub> /S <sub>3</sub>	TOC	T <sub>MAX</sub>	PI	HI	OI
1	1698	0.72	1.08	1.58	0.68	0.52	422	0.4	208	304
2	1715	0.25	0.76	1.18	0.64	0.46	423	0.24	165	257
3	1732	0.25	0.92	1.54	0.60	0.46	423	0.21	200	335
4	1749	0.27	1.08	1.69	0.64	0.57	433	0.2	189	296
5	1766	0.26	1.65	2.51	0.66	0.71	446	0.13	232	354
6	1783	0.18	1.11	1.77	0.63	0.58	440	0.14	191	305
7	1800	0.2	2.88	3.7	0.78	0.93	446	0.07	310	398
8	1817	0.37	1.99	2.34	0.85	0.79	352	0.15	252	296
9	1834	1.4	5.33	4.11	1.30	2.52	355	0.21	212	163
10	1851	0.24	1.37	2.4	0.57	0.46	346	0.15	298	522
11	1868	0.49	16.12	2.49	6.47	3.27	414	0.03	493	76
12	1885	0.23	2.12	2.11	1.00	0.78	414	0.1	272	271
Average		0.41	3.034	2.29	1.24	1.00	409.50	0.17	251.83	298.08





**Zeinab Rezaei et al.**

**Table3. Guidelines for pyrolysis parameters of quality, quantity and thermal maturity (Peters & Cassa, 1994).**

Quantity	TOC (wt.%)	S <sub>1</sub> (mg HC/g rock)	S <sub>2</sub> (mg HC/g rock)
Poor	0-0.05	0-0.5	0-2.5
Fair	0.5-1	0.5-1	2.5-5
Good	1-2	1-2	5-10
Very good	2-4	2-4	10-20
Excellent	>4	>4	>20
Quality	HI(mg HC/g TOC)	S <sub>2</sub> /S <sub>3</sub>	Kerogen type
None	<50	<1	IV
Gas	50-200	1-5	III
Gas and oil	200-300	5-10	II/ III
Oil	300-600	10-15	II
Oil	>600	>15	I
Maturation	R <sub>o</sub> (%)	T <sub>max</sub> ( °C)	TAI
Immature	0.2-0.6	<435	1.5-2.6
Early	0.6-0.65	435-445	2.6-2.7
Peak	0.65-0.9	445-450	2.7-2.9
Late	0.9-1.35	450-470	2.9-3.3
Postmature	>1.35	>470	>3.3





## A New Analysis of the Nature, Advantages, and Disadvantages of Request of Build Securities

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### ABSTRACT

Performing monetary policies as well as regulation of money supply in the market are among the main tasks of the banking systems. Request of Build (ROB) securities are appropriate instruments for performing the above tasks and a great help for financing big projects. However, these instruments like other securities could decelerate the participatory process in the economy.

**Key words:** ROB Contract, ROB Securities, Monetary Policy, Interest-Free Banking, Financing, Liquidity

### INTRODUCTION

In order to perform Shariah-compliant banking an extensive study has been conducted on the contracts defined in the Islamic law and their capability for proposing new financial instruments, in order to replace them with tools based on interests such as conventional bonds. These instruments can be subdivided into three main categories:

- a) The Islamic loan securities (qard-al-hasanah)
- b) Financial instruments with fixed interest rates (murabahah, ijarah, and ROB securities)
- c) Participatory instruments (mudarabah, muzarah, and musaqat securities).

ROB securities are based on traditional ROB contract. Well known Islamic scholars such as Shaykh Tusi in Al-Khelaf (Tusi, 1989), Shafei in Al-Om (Shafei, 1967) and Sarakhsi in Al-Mabsut (Sarakhsi, 1985) have spoken about this contract. Nowadays, many Islamic banks such as the Islamic Development Bank, Ar-Riyad, Al-Jazeera, Saudi Investment Bank,



**Mohammad Hadi Rostami et al.**

al-Balad, Qatar International Islamic Bank, State Bank of Kuwait, Ash-Shamin Syria, Baraka Bank of Bahrain, Yemen Islamic Bank, State Bank of Pakistan, Dubai Islamic Bank, and International Arab Islamic Bank of Jordan use ROB contract for providing investment plans.

This paper explains the nature of ROB contract and its legitimacy from the perspective of Islamic judiciary and compares it with other types of contracts. Furthermore, a new analysis about nature of this contract and its applications in the banking system as well as discussions about advantages and disadvantages of this contract are presented.

**ROB Contract****Definition of ROB contract**

ROB is a contract between two natural or legal persons upon production of a particular commodity or construction of a project in the future. Contractor is ordered to offer a particular commodity or make a plan with specific properties and receive its price at the specified times. In ROB contract all features of the product or plan are clarified in order to avoid the prohibited speculative risks (known as gharar in Islamic judiciary). The price can be paid either in cash or in installments at the specific times upon the mutual agreement of the client and the contractor. Moreover, the amount of each installment is proportional to the progress of the work, and after the end of each phase of the project, the outcome becomes the client's property. Usually, the contractor is responsible for providing raw materials and labor for the project. ROB contract is not applicable in producing natural products such as fruits, vegetables and cereals.

**Nature of the ROB contract**

If observed from different points of view and under various circumstances, ROB can be classified into different categories of more general contracts. For example, when completion of an unfinished project is guaranteed, its acquisition can be regarded as sale contract between the client and contractor. Moreover, in the case of accepting that sale contracts are valid for unfinished or non-existing products or projects, the ROB becomes equivalent with the sale, provided that at the start of the project partial ownership is transferred to the client and a specified fee is paid to the contractor (Mo'men, 1997).

In another case if the client takes responsibility of supplying the raw material, ROB can be regarded as a hiring contract. In this case, the contractor is agent of the client and is hired to build a specified project and receive its fee according to a certain schedule. In the event of cancellation of the contract, outcome of the project is possession of the client and client is responsible for paying price of the project (Hashemi Shahroudi, 1999).

Furthermore, if the contractor is responsible for supplying the raw material, it becomes agent of the client. In this case, the client offers the contractor to execute a particular project, and receive its price at certain times. Acquisition takes place in various stages of the work, and the price is paid at the end of each stage. In the event of cancellation of the contract, the outcome remains contractor's property, and the client is not responsible for paying any further fee. (Khomeini, 1990)

**Legitimacy of the ROB contract**

If no price is paid at the start of the project and there is no guarantee that the contractor executes the project, the ROB contract is not valid because of the prohibited speculative risks (gharar). However, when all features of the final product or project are specified and there are enough guarantees that the contractor is liable for finishing the project,





### Mohammad Hadi Rostami et al.

and partial price is paid by the client for buying the raw material, the ROB contract is legitimate (HashemiShahroudi, 1999).

There are some expressions in the basic Islamic teachings that may cause some misunderstandings about legitimacy of ROB contract if they are not interpreted and understood correctly. For example, performing transactions including exchange of the debts is forbidden in the Islamic teachings. In other words, when two parties are debtor with respect to each other, they cannot exchange their debts in the framework of a new contract. However, in ROB two parties are not debtor in advance, but they become debtor after signing the contract.

Moreover, according to the Islamic judiciary no one can sale something that does not belong to him or sale something with no guarantee of submission. However, in ROB it is possible to make enough guarantees even though the project is not finished at the time of contract. Therefore, the ROB contract is considered valid in Islamic judiciary (Taskhiri, 1989).

In the past, some scholars assumed that this contract is not legitimate due to the possible uncertainties and lack of knowledge about characteristics of the product (Tusi, 1989). However, nowadays the two parties can clarify all characteristics of the product or project from all aspects in terms of design, material, manufacturer, life, and price in such a way that there is no ambiguity. By making use of ROB contract in banking operations the required background for issuing ROB securities and applying monetary policies using this instrument becomes available.

## ROB SECURITIES

### Various models for issuance of ROB securities

Institutions that do not have the necessary funds for their projects at the time of initiation of the project can utilize ROB securities for providing the required finance, and pay the price after finishing of the project. There are several models for issuance of ROB securities:

#### First Model

In this model at the start of the project, the sponsor (client) issues securities with a specified nominal value (for example 1000 units) to the contractor. Contractor can sell these securities to the public at a lower price (e.g. 700 units) and obtain the required finance for the project, and the bondholders will receive a certain interest rate (e.g. 300 units) at the deadline. Although the securities can be sold before the deadline, their interest rate is decreased according to the discount rate and the time remaining to the deadline. After completion of the project securities are returned to the sponsor, and the sponsor pays the nominal price of the bonds. Figure 1 depicts a schematic of the first model.

#### Second Model

In this model, an intermediary body such as a commercial bank intermediates between the sponsor and the contractor. Firstly, a ROB contract is signed between mediator and the sponsor and mediator receives securities. After that, the second ROB contract is signed between mediator and contractor. In this model, mediator sells securities to the public and also pays the price at each phase according to the progress of the project. After completion of the project, the outcome is given to the client through mediator. On the other hand, bond holders, return securities to the client, and client pays nominal price of securities. Figure 2 is a simplified graphical representation of the second model.





### Mohammad Hadi Rostami et al.

#### Third Model

In the third model, the intermediary body issues ROB securities and sells them to public. Therefore, at the deadline, the intermediary body is responsible for paying nominal price of securities. In the figure 3 various elements of the third model are represented.

In all of the above models, ROB securities are successful instruments when a secondary market is available for them. In turn, a thriving secondary market for these bonds depends on availability of enough profit for the bond-holders.

In the case of high inflation it is impossible to estimate the cost of long-term projects, and therefore the bank cannot determine the cost of the project in order to issue appropriate amount of ROB bond to pay the contractor. In these cases the project is subdivided into smaller and shorter phases and a separate ROB contract is signed for each phase.

Risks associated with these securities include: loss of assets, bankruptcy of the intermediary party, failing to gather enough funds, lack of submission of assets to the intermediary party, rejection of the project outcome by the client, and failing in payment of the nominal price of securities. Insurance contracts can be employed to handle these risks appropriately.

#### Executive process of signing ROB contract and issuance of securities

Elements of an ROB contract will include (but may not be limited to) the following bodies: client, contractor, issuer, investors, trust companies, operating fund, insurance companies, auditor, and rating agency, and various steps of the contract can be summarized as follows:

- 1) Initial negotiations and selection of the contractor
- 2) Representative of the client refers to the stock exchange and obtains permission for issuance of securities
- 3) Selection of the intermediary body as issuer of securities
- 4) Signing contract with the contractor
- 5) Issuance of securities and gathering the required finance
- 6) Payment to the contractor according a pre-defined schedule by mediator
- 7) Gathering securities after conclusion of the project and payment of the client to the mediator

#### Nature, advantages, and disadvantages of the rob securities

##### Nature of the ROB securities

After the above discussions about ROB contract and ROB securities, some questions about the nature of the ROB securities should be answered. For example the following questions may arise:

"What is the legal nature of the ROB securities?", and

"What is owned by those who buy ROB securities?"

It is usual to consider the bondholders as joint owners of the property that will be constructed in the future (Nazarpour, 2005). However, this assumption is not actually true, as if the value of the final product or project is higher than the nominal price of securities, bond holders will not have any share in this profit. Therefore, purchasers of the ROB







**Mohammad Hadi Rostami et al.**

Securities are not partial owners of the capital and do not have any share in the capital gains. In other words, if bond holders share in the capital and profits of the project, securities become identical with ordinary stocks.

By detailed inspection in the nature of ROB securities, it can be said that these securities are some kind of credit: The institution which issues ROB securities, is liable for paying a particular price to the contractor at specified times. Contractor is owner of this credit and can sell it to the others before the deadline, making them owners of this credit. Therefore, it can be said that ROB securities are some kind of discountable bonds with no interest. Those who buy ROB securities before the deadline, benefit according to fixed and discount rate and remaining time to the deadline. Therefore, buying and selling these securities is based on a certain discount rate.

**Advantages of ROB securities**

ROB securities are of special interest for financing unfinished and new projects. When the government issues ROB securities and gives them to the contractor, it becomes liable of paying nominal price of the project at the specified maturities. On the other hand, when contractor receives these securities, it becomes responsible for finishing the project at a specified time.

In the case of lack of liquidity, the contractor can sell securities before the deadline with lower price than their nominal value, and after completion of the project, the lost liquidity returns from the outcome of the project. A booming market for ROB securities can help for completing unfinished projects and starting new initiatives without causing any budget deficit, and will lead the liquidity of the private sector to productive investments (Nazarpour, 2005). Moreover, because the nominal price of securities is proportional with the increase in the volume of goods or services, they shall not cause inflation.

ROB securities can be appropriate instruments for controlling the amount of liquidity in the market. In the case of recession, the government can increase liquidity by buying securities, and in the case of boom it can sell securities to decrease liquidity. However, the effectiveness of this instrument depends on thriving of the market for ROB securities. When the amount of these securities in the market is limited, it cannot be considered as an effective monetary instrument.

Some advantages of ROB securities are comparable with advantages of the ordinary participatory bonds. Government can either permit a public or private entity to issue participatory bonds, or it can issue bonds itself and by selling them to the public gathers the required funds for a particular project.

Interest rates of bonds make them more attractive for the bond holder, while absence of interest in the ROB securities makes it more attractive for the government. According to many Islamic scholars, legitimacy of participatory bonds is questionable because of the fixed interest rates. However, buying and selling ROB securities, which is based on the discounting, is legitimate.

**Disadvantages of ROB securities**

Purchasers of ROB securities benefit from a fixed discount rate, but they have no share in profits and possible losses of the projects. Buyers of ROB securities can be regarded as unadventurous people that have no incentive to engage in productive projects and share in their profits and losses. However, in order to form a blossoming Islamic economic system, it is essential to increase the degree of risk-taking of the people and encourage their participation in cooperative engagements.





### Mohammad Hadi Rostami et al.

Growth of the market for ROB securities can be equivalent with avoiding participatory incentives, and keeping away from risky (but potentially profitable) projects. It does not necessarily mean that the market is interested in funding productive projects, but it indicates interest of the market towards obtaining income by discounting. Therefore, development of the market for ROB securities can have adverse effects on development of stock exchanges.

Another deficiency of ROB securities is that in the case of inflation, there is no chance of booming for the secondary market of these bonds. The real rate of discount is the equal to the difference between nominal discount rate and inflation rate. For example when nominal discount rate of securities is 20% and inflation is 30%, the real rate of return will be -10%, and buyers will suffer losses. Therefore, when the condition of inflation persists over long periods of time, there is little chance of boom for the market of these securities unless the people are not aware of the real discount rates. In this case, prosperity of the market is the result of keeping the people uninformed and imposing loss on them, which is unacceptable and results in civil liability.

Proponents of ROB securities believe that boom in the market of these securities could reduce the budget deficit and can be effective in avoiding increasing liquidity and inflation. But, this effect is remarkable only if there are a large amount of securities in circulation, which seems impossible in the case of inflation and negative actual discount rates.

Another problem with these securities is that their duration depends on duration of the project. Each project has its own securities, and when the project is completed, its associated securities are also collected. Furthermore, the market of ROB securities will include different types of securities associated with various projects, in which each type can have a different discount rate based on the profitability of its project. As banks are engaged in buying these securities in order to earn a profit equal to the usual interest rates, it can be predicted that the discount rate of ROB securities will become equal with the market interest rates.

If an equal discount rate is issued for all ROB securities, it will hinder the competition among the different projects. In this case, the remaining time to maturity will be the only factor which determines the profit of securities. There will be no tendency in the market for purchasing ROB securities if usual interest rates are higher than the discount rate of securities. Besides that, due to the innovative nature of these instruments and lack of knowledge about them, there will be no inclination in the market for buying these securities unless their discount rate is higher than the prevailing interest rates.

Experience of the participatory bonds demonstrates that discount rate of ROB bonds will become close to or equal to the conventional interest rates in the banks. Therefore, unless no special advantage is associated with ROB bonds, it seems that the market for these securities couldn't be prosperous.

If interest rates of banks deviate from equilibrium rates, the discount rate of ROB securities which is expected to be almost equal to the interest rates ROB exchange rates will also deviate from the equilibrium rate. Therefore, ROB securities would not help to bring economic system in a state of equilibrium. Therefore it should be stressed that in addition to providing new monetary instruments such as ROB securities, the Islamic banking system has to find appropriate ways to bring equilibrium in the discount rates.

Whatever the time remaining to the maturity of these bonds becomes shorter, trend of purchasing these securities will reduce. Those who buy ROB securities know that by passing the time and approaching to the maturity, there will be fewer purchasers for securities. Therefore, these securities are not appropriate for short-term projects. However, as stated previously many long-term projects must be divided into smaller projects with separate securities. Therefore, it seems natural that market for these securities couldn't be prosperous. In addition ROB securities cannot be attractive in the stock exchanges. This is because of this fact that the only factor that determines benefit from these





**Mohammad Hadi Rostami et al.**

securities is time remaining to maturity. Therefore, attractiveness of ROB securities in comparison with the common stocks is questionable.

**CONCLUSION**

In this paper a discussion about nature, advantages and disadvantages of ROB contract and - ROB securities is presented. From the presented analysis it can be concluded that:

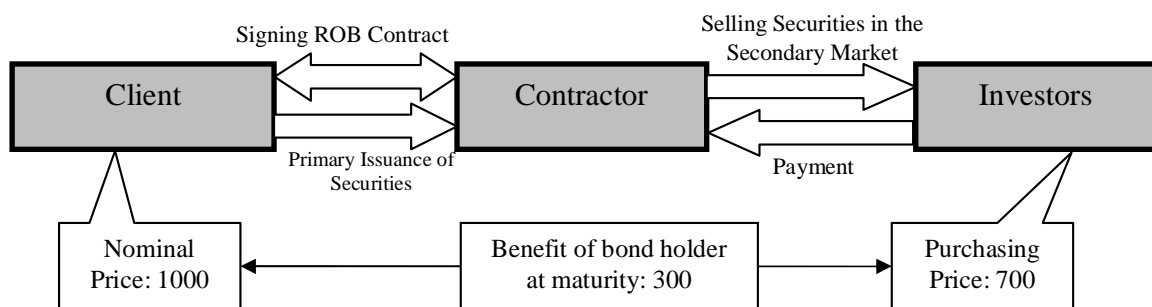
- ROB securities are legitimate from the perspective of Islamic judiciary.
- ROB securities can be helpful for financing unfinished and starting new projects.

Benefit from ROB securities is based on the time remaining to the maturity. Therefore, their potential for becoming a popular financial instrument is questionable.

- ROB securities can be attractive only for risk-evading people. Thus, these securities cannot help participatory process in the economy.

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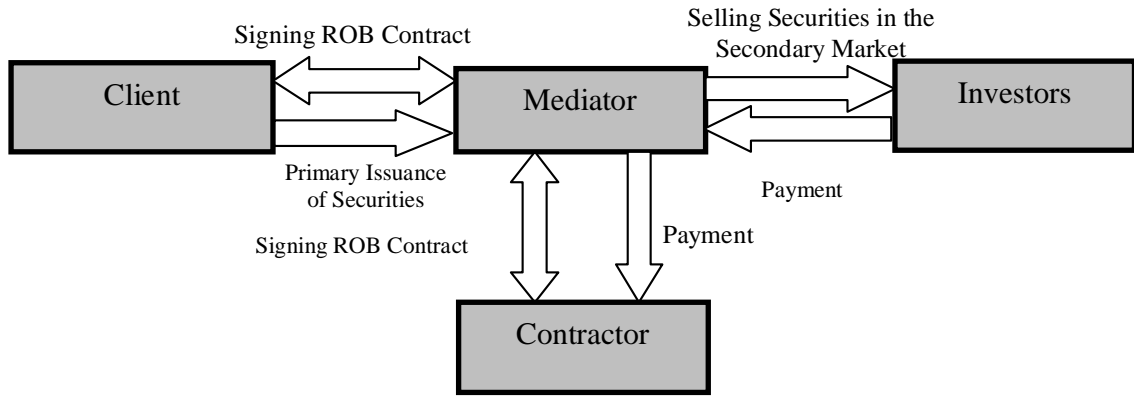


**Figure 1. First model for issuance of ROB securities**

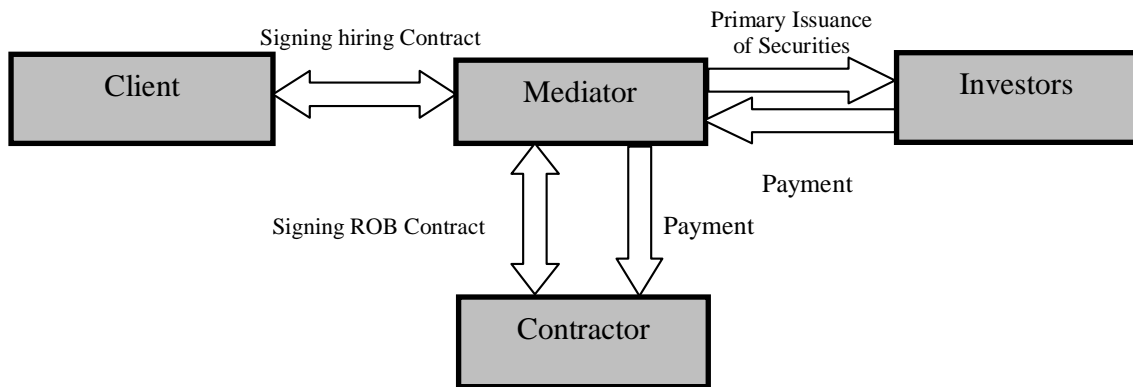




**Mohammad Hadi Rostami et al.**



**Figure 2. Second model for issuance of ROB securities**



**Figure 3. Third model for issuance of ROB securities**

