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**JOURNAL AND OTHER ARTICLES**

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

**CONFERENCE PAPERS**

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**OPTIMAL RESOURCE ALLOCATION EARLY RETURNS BUSINESS USING GOAL PROGRAMMING MODEL (GP)**

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**ABSTRACT**

The main goal of this study provides a model for optimizing resource allocation early returns business to different activities and banks. The proposed model based on "Goal programming" could achieve the targets relating to compliance with legal requirements and limitation of available resources. The first priority of this model is increasing employment and second priority is improved budget allocation to banks and activities. Model results data have been examined for five years (2005-2009) by Deputy Governor and Planning Department of Labor and Social Affairs of the Gilan. The results of the model will be compared with political-regulatory package Central Bank. We will show that the allocation of resources to Early returns business with political-regulatory package Central Bank has not been optimized and cause problems to reaching higher levels of optimization to allocate the total credit of early returns business. Results also show the proposed model is able to allocate the optimal basis for certain specified limits and increasing employment in the province and so reach the goals.

**KEYWORDS**

Allocation, optimizing, Early returns business, Goal programming.

**INTRODUCTION**

Development of the insignificant institutions makes fair distribution of resources at the different areas of the country and among the variety levels of people. It also makes increasing of the non-oil exportations, reinforcing economic movement and increasing of the bank facilities.

The strategy of "small is beautiful" that be said by (Schumacher), believes that: employment chances must be created in the rural areas and the small cities. These chances must be cheap. Also product policies must use from local resources, so above goals can be results from creating small industries. Also large companies have less flexibility, but this is not true for insignificant institutions. Some benefits of the small or average institutions are: having abilities for increasing employment. Attraction ability of limited and dispersed capitals, providing more paves for participating of private activities, quick returns of the capital and less using of capital, and increasing employment.

So Iran is a vast land, needs to vast programs of the employment expansion. Thus must choose a way that results quickly. The model of creating early returns institutions has been successful model in the other country and its success in Iran requires to the Time.

Creation of the small and average institutions is the important economic strategy to provide employment in the country and the model of the early returns institutions expansion is created with the goal of increasing employment and recognition of the chance.

Allocation of results is the main manager instrument to execute long term strategy and programs. In other world, policies and goals of each programs, reflects in improved allocation of results and also limitation of our resources persuades us to think about what of more productivity and less wasting.

In chapter 3. Chapter of credits- political-regulatory package bank, charges bank with this duty about allocation of results of granted to the water and agriculture sector. Distribution of all bank facilities in the other economic sectors is as follow:

**TABLE 1: ALLOCATING RESOURCES IN CLOSED FACILITIES GRANTED POLITICAL- REGULATORY BANKING NETWORK**

Section	Share
Mining and Industry	Thirty-five percent
Housing and Building	Twenty percent
Services (including commercial)	Twelve percent
Export	Eight percent

The current method about allocate of results has defects that decrease the effectiveness and efficiency. The main defect is allocation of resources to early returns business to each of activities based on managers and experts experiences and reasons which deviate from math language. There are deserving models in the activities which are not any allocation for them and on the contrary, about the activities which have credits the designs were not enough or deserving.

The first pace to decrease the current problem of resources allocation, is using of goal programming models. We can decrease the probable deviation of program executing using modal, vague data via controlling results of the programs execute and returns activities to program and allocation model.

**IMPORTANCE AND OBJECTIVES OF THE RESEARCH**

In Iran, the unemployment is one of the important socio-economic problems, decreasing of that had been one of the main country apprehensions of programs and also as a main goal. Because of this, government makes its idea on investment and support of production. Since makes to solve the unemployment problem and production increasing via leading scattered capitals to activities which cause to increasing employment with improving Early returns small and average

*institutions of production. By the winter of 2005, executing regulations to develop Early returns economic institutions, provided and entrepreneur which is its goal is increasing employment and decreasing of the unemployment. So the government provided the model of small early returns institutions, via a part of banks resources, for setting them in different areas, especially in the poor areas, with the goal of fair distribution of income between different levels of the society and also increasing production and exportations. But rate of reaching to these goals depends on what allocate of resources and its controlling. The main goal of this project, improved resources allocating to Early returns models with using of goal programming model.*

*The next goals are:*

1. Studying about the rule which relates to the granted Early returns facilities in the provinces increasing employment.
2. Studying about facilities in the essential, related activities and compatibility with the provinces condition.
3. Studying about solving the unemployment via these facilities, in the Gilan.

## BACK GRAND OF THE SMALL AND AVERAGE INSTITUTIONS IN IRAN

Small industries are defined as industries they have less than fifty man power (Azar, 2009). Studying about quality and quantity change of industrial- producing units- either small or average- specially small producing units which developing of them in the real mean started by 1964 (rule 19), is the important evidence that experts and governors- regarding to inductor conditions and especially small and average industrial units in the country developing- suggested "cooperation to create and developing the small and average units in the third developing programs, via modeling of gained results of the industrial change of the industrial advanced countries (the economic studying-reaching center of Iran's room, 2003).

At the beginning of the fourth program, the organization of the small industries and industrial areas be found with the goal of cooperation to create and developing of the average and small industries and be replaced for these organizations and be responded for leading the investors- either small or average- like Tehran. In 1977, the duties of the small industries organization and Iran industrial areas diverted to this organization base on the rule of Iran's small industrial organization.

In 1981, above organization be dissolved and duties developed to the ministry of industries. In 1998, according to suggesting of the organizational council, the duties of this organ diverted to the company of the industrial small cities of Iran. Finally, the sanctioned law of 2000 constitution of Iran's small industry organ ratified, via mixing the ministry of the industry-mine, and ministry of foundry together and base on the sanctioned law 8 of industry-mine focus and forming the ministry of industries-mines.

Regarding to the function of "Iran's small industry and industrial areas" and also "Iran's small industry organ", governors in the ministry of industry- during years of dissolving and mixing the organ in the ministry of industry- reaccepting the importance and condition of the small and average industries in the industrial developing of country and- caused by it- increasing employment, decreasing production, creating and leading expressed that investors of the small and average invests must be done.

Discussion about financial support for institutions is one of the universities projects, because if they do not support these economic institutions, nearly 30- 70 percent of those will meet these challenges.

Also, government takes action for support of average and small businesses and also increasing employment over the country.

Via providing bank facilities for financial support of early returns institutions and increasing employment. The model of early returns institutions creation and developing, discussed in the head of the economic programs of government and costs above 180000000000.

This model for success must be done and executed in the frame of a comprehensive and correct system and regarding to its effect on the other important goals of the bank resources efficiency.

Attending to this issue, if the early models, are based on the correct and exact expertise, executive and managerial and be companion of the financial controlling. Have positive effects on the economy, but if the transfers be out of this circle, will result in wasting national capitals and instability of the employment- of course in the larger paths make more increasing of irregularity liquidity and inflation.

## SOCIETY OF STATISTICAL

Society of Statistical the entire group of individuals, events or things refer to the researcher wants to research on them shall (Skaran, 2001). Our review of the research, all design early returns and entrepreneur of Gilan province from 2005 to 2009.

The population studied in this research according to statistics released by the Ministry of Labor and Social Affairs and the Deputy Governor of Gilan plan has been prepared.

## QUESTIONS AND HYPOTHESES OF THE RESEARCH

The main question of this study is that if can use the model of the goal programming for the problem of the resource allocation of the early returns patterns, which can keep the different goals and omit the limitations and give a good response to the problem?

The project theories are follow:

**H1:** uses of the linear goal programming to produce the result in the better resources allocation of Early returns than the traditional allocation in Gilan.

**H2:** there is no meaningful relationship between the political- regulatory package Central Bank and the allocated resources of Early return patterns.

**H3:** executing of the early returns patterns has produced the result in the increasing employment at Gilan.

## GOAL PROGRAMMING

Idealized planning is one of the most multi-objective decision-making methods; the first was introduced in 1961 by Charles and Cooper. They Ederhis book Patterns management and linear programming approach to introducing three different multi-objective problems addressed. They Ederhis book Patterns management and the introduction of linear programming. Three approaches discussed different multi-objective problems (Hadi-Pour, 1996). The purpose of the idealized planning Issue is one type planning decisions. In view of the function ideal is the square of the idealized limits. (Sharei, 2006). Goal programming shows the way of simultaneous movement to the several goals. In this way, a number be fixed for each of the goals, then the related goal subject is designed, then a response be searching which decreases total weight of each goal's deviation than specified aim for that goal. We suppose that  $x_1, x_2, \dots, x_n$  are variables of the specified goals.  $C_{jk}$  is the index of ( $j=1, 2, \dots, k$ )  $x_j$  in the goal subject  $k$ .

( $k=1, 2, \dots, k$ ) and also  $g_k$  is the specified aim for this goal. We are looking for the answer which reaches us to the all aims by definition of the supporting variables  $y_k$  as positive deviations  $y_k^+$  of the specified goals ( $g_k$ ).

At the result, the goal programming model is as follow:

$$\text{Min: } Z = \sum_{k=1}^k (y_k^+ + y_k^-)$$

Subject to

$$\sum_{j=1}^n C_{jk} X_j - (y_k^+ + y_k^-) = g_k, \quad k = 1, 2, \dots, k$$

$$y_k^+ > 0, y_k^- > 0, x_j > 0 \quad (j = 1, 2, \dots, n)$$

Almost, some goals have more importance than the others. Moreover, (about one goal), may be deviation in one direction has more importance than the other one. We can formalize such differences with the weight indexes (formula of page 4) which relate to  $y_k^+, y_k^-$ . These weight indexes measure the result importance of the deviations.



The limitations are same as above model.

The model of this study allocates the related budget to the issue the not 1, rule3 of execute regulation of developing Early returns and increasing employment economic small institutions. to the fallow Banks and activities.

Tejarat bank, Melli bank, Saderat bank (exportations), San'atvama'dan bank (industry and mine), Maskan bank, Keshavarzi bank, Sepah bank, RefaheKargaran bank. Mellat bank. Tose'evasaderat bank.

This model is linear and is produced base on goal programming. So it is able to determine allocations base on priorities. Model parameters has been determined base on governor programming's office of an assistance and Deputy Governor and Planning Department of Labor and Social Affairs of the Gillan's data. To solve the model is used from the model of the (LINGO) software.

## THE PROPOSED MODEL

**St:**

$$\begin{aligned}
& \sum_{i=1}^4 \sum_{j=1}^{10} X_{ijn} + d_1^- - d_1^+ = yyy && \text{The total budgetary funds designs return soon} \\
& \sum_{i=1}^4 X_{i1n} + d_2^- - d_2^+ = yyy && \text{Tejarat Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i2n} + d_3^- - d_3^+ = yyy && \text{Melli Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i3n} + d_4^- - d_4^+ = yyy && \text{Saderat Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i4n} + d_5^- - d_5^+ = yyy && \text{San'at va ma'dan Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i5n} + d_6^- - d_6^+ = yyy && \text{Maskan Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i6n} + d_7^- - d_7^+ = yyy && \text{Keshavarzi Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i7n} + d_8^- - d_8^+ = yyy && \text{Sapah Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i8n} + d_9^- - d_9^+ = yyy && \text{Refahe Kargaran Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i9n} + d_{10}^- - d_{10}^+ = yyy && \text{Mellat Bank budget designs return soon} \\
& \sum_{i=1}^4 X_{i10n} + d_{11}^- - d_{11}^+ = yyy && \text{Saderat Bank budget designs return soon} \\
& \sum_{j=1}^{10} X_{i1jn} + d_{12}^- - d_{12}^+ = yyy && \text{Agriculture section budget designs return soon} \\
& \sum_{j=1}^{10} X_{2jn} + d_{13}^- - d_{13}^+ = yyy && \text{Mining and Industry section budget designs return soon} \\
& \sum_{j=1}^{10} X_{3jn} + d_{14}^- - d_{14}^+ = yyy && \text{Services section budget designs return soon} \\
& \sum_{j=1}^{10} X_{4jn} + d_{15}^- - d_{15}^+ = yyy && \text{Housing section budget designs return soon} \\
& \frac{\sum_{j=1}^{10} X_{i1jn}}{aaa} + d_{16}^- - d_{16}^+ = zzz && \text{Approved employment in agriculture} \\
& \frac{\sum_{j=1}^{10} X_{2jn}}{aaa} + d_{17}^- - d_{17}^+ = zzz && \text{Mining and Technology section of Employment Adopted} \\
& \frac{\sum_{j=1}^{10} X_{3jn}}{aaa} + d_{18}^- - d_{18}^+ = zzz && \text{Services section of Employment Adopted} \\
& \frac{\sum_{j=1}^{10} X_{4jn}}{aaa} + d_{19}^- - d_{19}^+ = zzz && \text{Housing section of Employment Adopted}
\end{aligned}$$

## LIST OF PARAMETERS INDEX OF

Appropriation of Credit	$X_{ijln}$
Total budget surplus (the sum of the total budget allocation is less)	$d_{11}$
Total Budget deficit (the sum of the total budget allocated more)	$d_{11}$
Tejarat Bank budget surplus	$d_{11}$
Tejarat Bank of Budget deficit	$d_{11}$
Melli Bank of budget surplus	$d_{11}$
Melli Bank of Budget deficit	$d_{11}$
Saderat Bank of budget surplus	$d_{11}$
Saderat Bank of Budget deficit	$d_{11}$
Sanat&madan Bank of budget surplus	$d_{11}$
Sanat&madan Bank of Budget deficit	$d_{11}$
Maskan Bank of Budget Surplus	$d_{11}$
Maskan Bank of Budget deficit	$d_{11}$
Keshavarzi Bank of Budget Surplus	$d_{11}$
Keshavarzi Bank of Budget deficit	$d_{11}$
Sepah Bank of budget surplus	$d_{11}$
Sepah Bank of Budget deficit	$d_{11}$
RefaheKargaran bank of Budget surplus	$d_{11}$
RefaheKargaran bank of Budget deficit	$d_{11}$
Mellat Bank of Budget surplus	$d_{11}$
Mellat Bank of Budget deficit	$d_{11}$
Tose'evasaderat bank of Budget surplus	$d_{11}$
Tose'evasaderat bank Budget deficit	$d_{11}$
Budget surplus section of Agriculture	$d_{11}$
Budget deficit section of Agriculture	$d_{11}$
Budget surplus Sector & Mine	$d_{11}$
Budget deficit Sector & Mine	$d_{11}$
Budget surplus services sector	$d_{11}$
Budget deficit services sector	$d_{11}$
Budget surplus building sector And Housing	$d_{11}$
Budget deficit in building sector and Housing	$d_{11}$
Additional employment in the agricultural sector	$d_{11}$
Fraction of employment in agriculture	$d_{11}$
Additional employment in the industry& Mine	$d_{11}$
Fraction of employment in the industrial sector & Mine	$d_{11}$
Excess employment in the service sector	$d_{11}$
Fraction of employment in the service sector	$d_{11}$
Additional employment in the housing sector	$d_{11}$
Employment deficit on Housing Sector	$d_{11}$
Budget assigned to to the department or relevant Bank	yyy
Average annual employment in relevant section	avbdaa
Approved employment in relevant section	ZZZ
Weight or index data To Each department or Bank	

## INDEX OF

Agriculture's activity (keshavarzi)	i=1
Industry and Mine (San'atvaMa'dan)	i=2
Services (Khadamt)	i=3
House (SakhtemanvaMaskan)	i=4
Tejarat bank	j=1
Melli bank	j=2
Saderat bank	j=3
San'atvama'dan bank	j=4
Maskan bank	j=5
Keshavarzi bank	j=6
Sepah bank	j=7
RefaheKargaran bank	j=8
Mellat bank	j=9
Tose'eSaderat bank	j=10

Rightdigitinvestigatedthe year

n=4, 5,6,7,8

## DESCRIPTION OF THE GOALS AND LIMITATIONS

- 1- Limitation of the whole budget: the minister's tumult is responsible to approve the share of the provinces and sub- activities, and the share of each province has the certain maximum, although is not equal at the different years. In the first limitation, the total of whole allocations in different activities and banks for any kind of applicants is unify with all specified budget and any kind of positive or negative deviation is undesirable.
- 2- Limitation of budget of the Tejarat bank: Total of the all allocated credits of the Tejarat bank to different activities such as agriculture, Mining and Industry, servicing and housing for any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 3- Limitation of budget of the Melli bank: Total of the all allocated credits of the Melli bank to different activities such as agriculture, Mining and Industry, servicing and housingfor any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.

- 4- Limitation of budget of the Saderat bank: Total of the all allocated credits of the Saderatbank to different activities such as agriculture, Mining and Industry, servicing and housingfor any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 5- Limitation of budget of the San'atvaMa'dan bank: Total of the all allocated credits of the San'atvaMa'danbank to different activities such as agriculture, Mining and Industry, servicing and housing for any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 6- Limitation of budget of the Maskan bank: Total of the all allocated credits of the Maskanbank to different activities such as agriculture, Mining and Industry, servicing and housing for any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 7- Limitation of budget of the Keshavarzi bank: Total of the all allocated credits of the Keshavarzibank to different activities such as agriculture, Mining and Industry, servicing and housingfor any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 8- Limitation of budget of the Sepah bank: Total of the all allocated credits of the Sepahbank to different activities such as agriculture, Mining and Industry, servicing and housing for any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 9- Limitation of budget of the RefaheKargaran bank: Total of the all allocated credits of the RefaheKargarnbank to different activities such as agriculture, Mining and Industry, servicing and housingfor any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 10- Limitation of budget of the Mellat bank: Total of the all allocated credits of the Mellatbank to different activities such as agriculture, Mining and Industry, servicing and housing for any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 11- Limitation of budget of the Tose'eSaderat bank: Total of the all allocated credits of the Tose'eSaderat to different activities such as agriculture, Mining and Industry, servicing and housingfor any applicant, must be equal to the certified top and any different positive and negative deviations is undesirable.
- 12- Budget limitation of inthe Departmentof Agriculture (Keshavarzi): This limitation specifies total of the all allocated credits of in the Departmentof Agriculturefor all banks and all the applicants and any positive and negative deviation is undesirable.
- 13- Budget limitation of in Section of Mining and Industry: This limitation specifies total of the all allocated credits of in Section of Mining and Industry for all banks and all the applicants and any positive and negative deviation is undesirable.
- 14- Budget limitation of the Servicing activity: This limitation specifies total of the all allocated credits of servicing activity for all banks and all the applicants and any positive and negative deviation is undesirable.
- 15- Budget limitation of in the housing sector (Maskan): This limitation specifies total of the all allocated credits of in the housing sectorfor all banks and all the applicants and any positive and negative deviation is undesirable.
- 16- Limitation of the employment in the Departmentof Agriculture (Keshavarzi): This limitation specifies the rate of employment for in the Departmentof Agriculturein the different banks. As the goal of these models is increasing employment, models which are more desirable, so  $d_{16}$  is undesirable.
- 17- Limitation of the employment in Section of Mining and Industry (San'atvaMa'dan): This limitation specifies the rate of employment for in Section of Mining and Industryin the different banks. As the goal of these models is increasing employment, models which are more desirable, so  $d_{17}$  is undesirable.
- 18- Limitation of the employment in the Services activity (khadamat): This limitation specifies the rate of employment for Services activity in the different banks. As the goal of these models is increasing employment, models which are more desirable, so  $d_{18}$  is undesirable.
- 19- Limitation of the employment in the housing (Maskan) sector: This limitation specifies the rate of employment for in the housing sectorin the different banks. As the goal of these models is increasing employment, models which are more desirable, so  $d_{19}$  is undesirable.

## THE OBJECTIVE FUNCTION

Goal subject describes the total deviations of the specified goals. As the priorities be provided in the model, in the goal subject be specified indexes for deviation of goals, which are proportional with order of priorities. So for the first priority which is increasing employment in different levels and deviation of its goals be specified by  $d_{16}, \dots, d_{19}$ , in the goal subject by index  $p_1=10$ , so the next priority is related to budget of banks and different activities, and any deviation of the goal (either positive or negative) is undesirable and be specified by index  $p_2=10$  (in the goal subject).

## ANALYSIS OF THE GOAL PROGRAMMING MODEL SOLUTION RESULTS

In this chapter we consider to results of the goal programming model and provide the improved allocations for 5 years (2005-2009) regarding to budget and available limitations.

2005 is the first year of study. In this year the share of Gilan's credits of Early and entrepreneur models is 21159900 Rials, and the share of each bank is as follow: Tejarat bank 246200 million Rials. Melli bank 457900 million, Saderat bank 324000 million, San'atvaMa'dan bank 32400 million, Keshavarzi bank 237600 million, Maskan bank 216000 million, Sepah bank 216000 million, Refahekargaran bank 101500 million, Mellat bank 313200 million, Tose'eSaderat 15100 million Rials. According to the super visionary- policy package of the bank set of country about allocation of the granted facilities recources, banks must allocate 25 percent of their granted facilities to the water and agriculture (Keshavarzi), 35 percent in Section of Mining and Industry (San'atvaMa'dan), 20 percent to the Servicing activity (KHadamat), and also 20 percent in the housing sector (Maskan).

TABLE 2-DISTRIBUTION OF PROCEDURE EXTENDES CREDIT TO SMALL BUSINESSES, DEPENDING ON THE POLITICAL ECONOMY-REGULATION2005

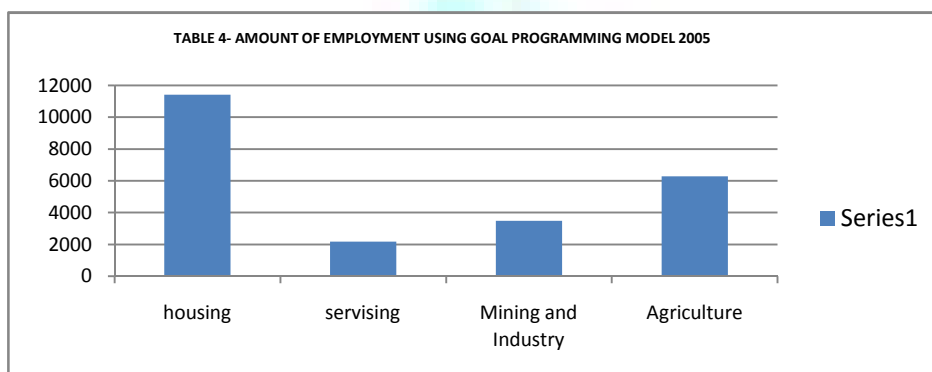
Total	Section					
	housing	Servicing	Mining and Industry	Agriculture		
246,200	49,240	49,240	86,170	61,550	Tejarat	Bank
457,900	91,580	91,580	160,265	114,475	Melli	
324,000	64,800	64,800	113,400	81,000	Saderat	
32,400	6,480	6,480	11,340	8,100	San'atvaMa'dan	
216,000	43,200	43,200	75,600	54,000	Maskan	
237,600	47,520	47,520	83,160	59,400	Keshavarzi	
216,000	43,200	43,200	75,600	54,000	Sepah	
101,500	20,300	20,300	35,525	25,375	RefaheKargaran	
313,200	62,640	62,640	109,620	78,300	Mellat	
15,100	3,020	3,020	5,285	3,775	Tose'eSaderat	

The table 2 shows bank's credits which be distributed by the central bank super visionary- policy package and the table 3 provides the improved allocations base on suggested models which is a linear model and be resulted with 24 repeat in the simplex method. The result is a whole improved result. Comparing of the tables shows that according to the suggested model, the improved all location of credit distribution of the Early returns of Tejarat bank must allocate 100% of credits in the housing sector, Melli bank to the Servicing activity and in the housing sector as order 272/120 and 185/780 million Rials, Saderat bank in Section of Mining and Industryand to the Servicing activityas order 164140 and 159860 million Rials, San'atvama'dan bank and Maskan bank, and Keshavarzi bank 100% in Section of Mining and Industry, Sepah bank to the Departmentof Agricultureand in Section of Mining and Industryas order 110175 and 105825 million Rials, Refahekargaran, Mellat, and Tose'eSaderat 100% to the Departmentof Agriculture.

TABLE 3-OPTIMUM DISTRIBUTION OF CREDIT TO SMALL BUSINESSES IN ECONOMIC DEVELOPMENT OF PROCEDURE 2005 YEARS

Total	Section					Bank
	housing	Servicing	Mining and Industry	Agriculture		
246,200	246,200	0	0	0	Tejarat	
457,900	185,780	272,120	0	0	Melli	
324,000	0	159,860	164,140	0	Saderat	
32,400	0	0	32,400	0	San'atvaMa'dan	
216,000	0	0	216,000	0	Maskan	
237,600	0	0	237,600	0	Keshavarzi	
216,000	0	0	105,825	110,175	Sepah	
101,500	0	0	0	101,500	RefaheKargaran	
313,200	0	0	0	313,200	Mellat	
15,100	0	0	0	15,100	Tose'eSaderat	

As you see in the diagram according to this model we will have 6277 employments to the Department of Agriculture 3489 employments in Section of Mining and Industry, 2170 employments in the Servicing activity, 11411 employments in the housing sector.



The whole credit of the early return and increasing employment models has been 5400000 million Rials in 2006, it increases 50 percent, and share of each bank is as follow:

Tejarat bank 6804000 million Rials. Melli bank 1209600 million, Saderat bank 891000 million, San'atvaMa'dan bank 86400 million, Keshavarzi bank 648000 million, Maskan bank 216000 million, Sepah bank 569700 million, Refahekargaran bank 259200 million, Mellat bank 804600 million, Tose'eSaderat 35100 million Rials.

According to the super visionary- policy package, resource allocation of the granted facilities is base on the table 4.

TABLE 5-DISTRIBUTION OF CREDIT PROCEDURE EXTENDS TO SMALL BUSINESSES, DEPENDING ON THE POLITICAL ECONOMY-REGULATION 2006

Total	Section					Bank
	housing	Servicing	Mining and Industry	Agriculture		
580,400	136,080	136,080	238,140	170,100	Tejarat	
1,209,600	241,920	241,920	423,360	302,400	Melli	
891,000	178,200	178,200	311,850	222,750	Saderat	
86,400	17,280	17,280	30,240	21,600	San'atvaMa'dan	
216,000	43,200	43,200	75,600	54,000	Maskan	
648,000	129,600	129,600	226,800	162,000	Keshavarzi	
569,700	113,940	113,940	199,395	142,425	Sepah	
259,200	51,840	51,840	90,720	64,800	RefaheKargaran	
804,600	160,920	160,920	281,610	201,150	Mellat	
35,100	7,020	7,020	12,285	8,775	Tose'eSaderat	

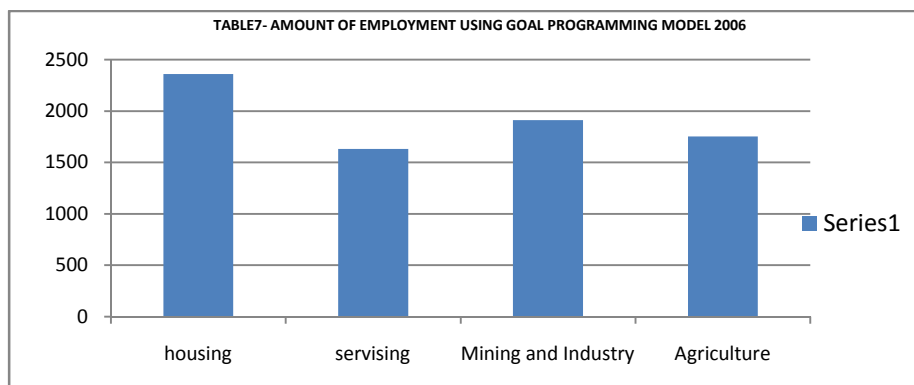
The table 5 shows bank's credits which be distributed by the central bank super visionary- policy package and the table 5 provides the improved allocations base on suggested models which is a linear model and be resulted with 24 repeat in the simplex method. The result is a whole improved result.

Comparing of the tables shows that according to the suggested model, the improved allocation of credit distribution of the Early returns of Tejarat bank must allocate 100% of credits in the housing sector, 100% of Melli bank in Section of Mining and Industry, Saderat bank to the in the housing sector and Servicing activity as order 491400 and 399600 million Rials, San'atvama'dan bank -100% to the Servicing activity, Maskan bank-100% in Section of Mining and Industry, Keshavarzi bank in Section of Mining and Industry and Servicing activity as order 145800 and 502200 million Rials, Sepah bank to the Department of Agriculture and in Section of Mining and Industry as order 251100 and 318600 million Rials, Refahekargaran, Mellat, and Tose'eSaderat 100% to the Department of Agriculture

TABLE 6-OPTIMUM DISTRIBUTION OF CREDIT TO SMALL BUSINESSES IN ECONOMIC DEVELOPMENT OF PROCEDURE 2006 YEARS

Total	Section					Bank
	housing	Servicing	Mining and Industry	Agriculture		
680,400	680,400	0	0	0	Tejarat	
1,209,600	0	0	1,209,600	0	Melli	
891,000	399,600	491,400	0	0	Saderat	
86,400	0	86,400	0	0	San'atvaMa'dan	
216,000	0	0	216,000	0	Maskan	
648,000	0	502,200	145,800	0	Keshavarzi	
569,700	0	0	318,600	251,100	Sepah	
259,200	0	0	0	259,200	RefaheKargaran	
804,600	0	0	0	804,600	Mellat	
35,100	0	0	0	35,100	Tose'eSaderat	

As you see in the fallow diagram according to this model we will have 12586 employments in the Department of Agriculture, 3593 employments in Section of Mining and Industry, 3538 employments in the Servicing activity, 13583 employments in the housing sector.



The whole credit of the early return and increasing employment models has been 4995000 million Rials in 2007, it decreases 7/5 percent, and share of each bank is as follow:

Tejarat bank 709290 million Rials. Melli bank 1363635 million, Saderat bank 959040 million, San'atvaMa'dan bank 74925 million, Keshavarzi bank 524475 million, Maskan bank 239760 million, Refahekargaran bank 199800 million, Mellat bank 924075 million Rials.

According to the super visionary- policy package, resource allocation of the granted facilities is base on the table 6.

**TABLE 8- DISTRIBUTION OF CREDIT PROCEDURE EXTENDS TO SMALL BUSINESSES, DEPENDING ON THE POLITICAL ECONOMY – REGULATION 2007**

Total	Section					
	housing	Servicing	Mining and Industry	Agriculture		
709,290	141,858	141,858	248,252	177,322	Tejarat	Bank
1,363,635	272,727	272,727	477,272	340,909	Melli	
959,040	191,808	191,808	335,664	239,760	Saderat	
74,925	14,985	14,985	26,224	18,731	San'atvaMa'dan	
239,760	47,952	47,952	83,916	59,940	Maskan	
524,475	104,895	104,895	183,566	131,119	Keshavarzi	
199,800	39,960	39,960	69,930	49,950	Sepah	
924,075	184,815	184,815	323,426	231,019	RefaheKargaran	

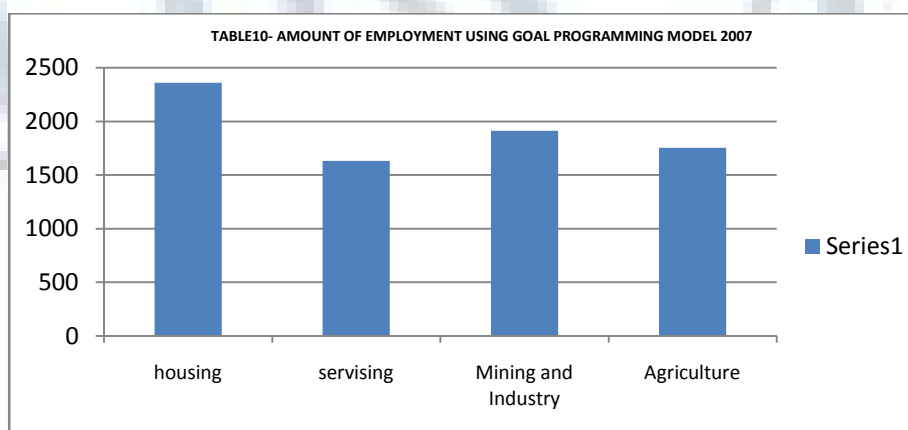
The table 6 shows bank's credits which be distributed by the central bank super visionary- policy package and the table 7 provides the improved allocations base on suggested models which is a linear model and be resulted with 18 repeat in the simplex method. The result is a whole improved result.

Comparing of the tables shows that according to the suggested model, the improved allocation of credit distribution of the Early returns of Tejarat bank must allocate 100% of credits to Maskan bank, Melli bank in Section of Mining and Industry and Servicing activity and in the housing sector activity as order 74925 and 999000 and 289710million Rials,, Saderat and San'atvaMa'dan and Maskan bank -100% to the San'atvaMa'dan, Keshavarzi bank in Section of Mining and Industry and to the Department of Agriculture as order 124875 and 399600, Refahekargaran, Mellat bank -100% to the Department of Agriculture.

**TABLE 9 - OPTIMUM DISTRIBUTION OF CREDIT TO SMALL BUSINESSES IN ECONOMIC DEVELOPMENT OF PROCEDURE 2007 YEARS**

Total	Section					
	housing	Servicing	Mining and Industry	Agriculture		
709,290	709,290	.	.	.	Tejarat	Bank
1,363,635	289,710	999,000	74,925	.	Melli	
959,040	0	0	959,040	.	Saderat	
74,925	.	.	74,925	.	San'atvaMa'dan	
239,760	0	0	239,760	0	Maskan	
524,475	0	0	399,600	124,875	Keshavarzi	
199,800	0	0	0	199,800	RefaheKargaran	
924,075	0	0	0	924,075	Mellat	

As you see in the fallow diagram according to this model we will have 7296 employments in the Department of Agriculture, 6590 employments in the Section of Mining and Industry, 1548 employments in the Servicing activity, 20774 employments in the housing sector. With ought to using of the model, the rate of employment to have been 894 in the Department of Agriculture, 2829 in Section of Mining and Industry, 49540 in the Servicing activity, and 440 in the housing sector. (Year2007)





The whole credit of the early return and increasing employment models has been 2362510 million Rials in 2008, it increases 53 percent and share of each bank is as follow:

Tejarat bank 371250 million Rials. Melli bank 486000 million, Saderat bank 506250 million, San'atvaMa'dan 40500 million, Keshavarzi bank 168750 million, Maskan bank 131630 million, Refahekargaran bank 118130 million, Mellat bank 540000 million Rials.

According to the super visionary- policy package, resource allocation of the granted facilities is based on the table 11.

**TABLE 11-DISTRIBUTION OF CREDIT PROCEDURE EXTENDS TO SMALL BUSINESSES, DEPENDING ON THE POLITICAL ECONOMY-REGULATION 2008**

Total	Section					
	housing	Servicing	Mining and Industry	Agriculture		
371,250	74,250	74,250	129,938	92,812	Tejarat	Bank
486,000	97,200	97,200	170,100	121,500	Melli	
506,250	101,250	101,250	177,187	126,563	Saderat	
40,500	8,100	8,100	14,175	10,125	San'atvaMa'dan	
131,630	26,326	26,326	46,071	32,908	Maskan	
168,750	33,750	33,750	59,063	42,188	Keshavarzi	
118,130	23,624	23,624	41,342	29,530	RefaheKargaran	
540,000	108,000	108,000	189,000	135,000	Mellat	

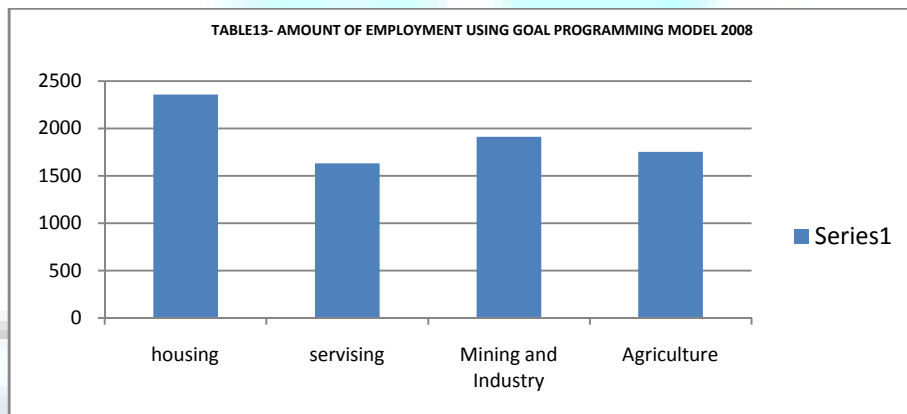
The table 11 shows bank's credits which be distributed by the central bank super visionary- policy package and the table 12 provides the improved allocations base on suggested models which is a linear model and be resulted with 18 repeat in the simplex method. The result is a whole improved result.

Comparing of the tables shows that according to the suggested model, the improved allocation of credit distribution of the Early returns of Tejarat bank must allocate 100% of credits in Section of Mining and Industry, Melli bank to the in Section of Mining and Industry and in the housing sector as order 13498 and 472502 million Rials, Saderat bank in Section of Mining and Industry, and Servicing activity as order 442131 and 64119 million Rials, San'atvaMa'dan, Maskan, Keshavarzi, and Refahekargaran bank -100% to the Department of Agriculture, and Mellat bank to the Department of Agriculture and Servicing as order 131617 and 408383 million Rials.

**TABLE 12 - OPTIMUM DISTRIBUTION OF CREDIT TO SMALL BUSINESSES IN ECONOMIC DEVELOPMENT OF PROCEDURE 2008 YEARS**

Total	Section					
	housing	Servicing	Mining and Industry	Agriculture		
371,250	0	0	371,250	0	Tejarat	Bank
486,000	472,502	0	13,498	0	Melli	
506,250	0	64,119	442,131	0	Saderat	
40,500	0	0	0	40,500	San'atvaMa'dan	
131,630	0	0	0	131,630	Maskan	
168,750	0	0	0	168,750	Keshavarzi	
118,130	0	0	0	118,130	RefaheKargaran	
540,000	0	408,383	0	131,617	Mellat	

As you see in the follow diagram according to this model we will have 1753 employments in the Department of Agriculture, 1912 employments in Section of Mining and Industry, 1632 employments in the Servicing activity, 2359 employments in the housing sector. With ought to using of the model, the rate of employment to have been 260 in the Department of Agriculture, 2645 in Section of Mining and Industry, 449 in the Servicing activity, and 3 in the housing sector. (Year 2008)



The whole credit of the early return and increasing employment models has been 2362510 million Rials in 2009, it increases 50 percent and share of each bank is as follow:

Tejarat bank 333010 million Rials. Melli bank 651185 million, Saderat bank 1114290 million, Keshavarzi bank 811221 million, Sepah bank 280909 million, Refahekargaran bank 497872 million, Mellat bank 1333311 million Rials.

According to the supervisory- policy package, resource allocation of the granted facilities is based on the table 9.

**TABLE 14 – DISTRIBUTION OF PROCEDURE EXTENDS CREDIT TO SMALL BUSINESSES, DEPENDING ON THE POLITICAL ECONOMY – REGULATION 2009**

Total	Section					
	housing	Servicing	Mining and Industry	Agriculture		
333,010	66,602	66,602	116,554	83,252	Tejarat	Bank
651,185	130,237	130,237	227,915	162,796	Melli	
1,114,290	222,858	222,858	390,000	278,574	Saderat	
811,221	162,244	162,244	283,929	202,804	Keshavarzi	
280,909	56,182	56,182	98,318	70,227	Sepah	
497,872	99,573	99,573	174,252	124,467	RefaheKargaran	
1,333,311	266,662	266,662	466,659	333,328	Mellat	

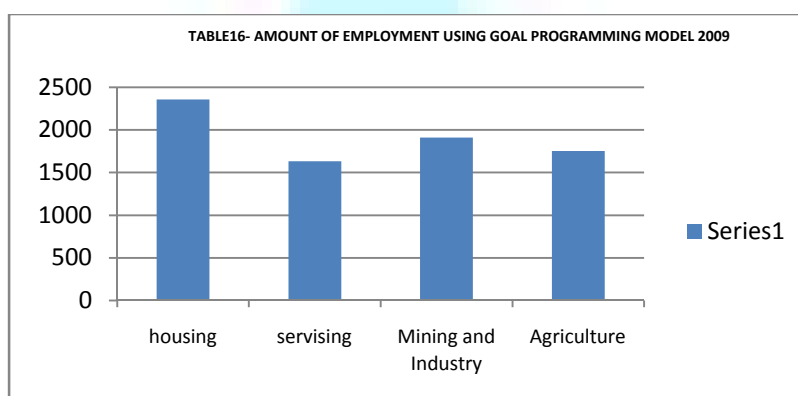
The table 9 shows bank's credits which be distributed by the central bank super visionary- policy package and the table 10 provides the improved allocations base on suggested models which is a linear model and be resulted with 20 repeat in the simplex method. The result is a whole improved result.

Comparing of the tables shows that according to the suggested model, the improved allocation of credit distribution of the Early returns of Tejarat and Melli bank must allocate 100% of credits to in Section of Mining and Industry, Saderat bank to the Section of Mining and Industry, and Servicing activity as order 109931 and 1004259 million Rials, Keshavarzi bank to the Section of Mining and Industry, Maskan as order 585643 and 225578 million Rials Sepah, and Refahekargaran bank -100% to the in housing sector, and Mellat bank to the Department of Agriculture and Section of Mining and Industry as order 125545 and 77861 million Rials.

**TABLE 15 - OPTIMUM DISTRIBUTION OF CREDIT TO SMALL BUSINESSES IN ECONOMIC DEVELOPMENT OF PROCEDURE 2009 YEARS**

Total	Section				Bank
	housing	Servicing	Mining and Industry	Agriculture	
333,010	0	0	333,010	0	Tejarat
651,185	0	0	651,185	0	Melli
1,114,290	0	1,004,259	109,931	0	Saderat
811,221	225,578	0	585,643	0	Keshavarzi
280,909	280,909	0	0	0	Sepah
497,872	497,872	0	0	0	RefaheKargaran
1,333,311	0	0	77,861	125,545	Mellat

As you see in the fallow diagram according to this model we will have 9828 employments in the Department of Agriculture, 6044 employments in Section of Mining and Industry, 2165 employments in the Servicing activity, 10043 employments in the housing sector. With ought using of the model, the rate of employment to to has been 140 in the Department of Agriculture, 1337 in Section of Mining and Industry, 2670 in the Servicing activity, and 0 in the housing sector (Year2009).



## LIMITATION OF THE PROJECT

There is a problem about executing of the project that provided goal programming is limited with the resources which are related to the Early return models of Gilan. They expect that this project can provide a new model to allocate capital budgets.

## RESULT

### FIRST THEORY: USING OF THE GOAL LINEAR PROGRAMMING MAKES TO THE BETTER ALLOCATING OF THE EARLY RETURN MODELS THAN TRADITIONAL ALLOCATION IN GILAN

Results of the goal programming show that this model makes to increase employment in the Department of Agriculture, in Section of Mining and Industry, Servicing, and in the housing sector. For example, according to this model (year 2005), 6277 employments in Department of Agriculture, 3489 employments in Section of Mining and Industry, 2170 employments in Servicing activity, 11411 employments in the housing sector. With ought using of the model, the rate of employment has been 271 in the Department of Agriculture, 442 in Section of Mining and Industry, 2860 in the Servicing activity, and 68 in the housing sector, (year 2005). As the main goal of the Early return models is increasing employment, so we result that using of the goal programming model to distribute facilities of the early return models is better than traditional distributing facilities, and have more effect to decrease of the unemployment.

### SECOND THEORY: THERE IS NO MEANINGFUL RELATIONSHIP BETWEEN DISTRIBUTING OF THE SUGGESTED RESOURCES IN THE SUPER VISIONARY-POLICY PACKAGE CENTRAL BANK AND ALLOCATED RESOURCES OF EARLY RETURN MODELS

At the first the linear goal programming model be written for the years 2005-2009 and then using of the software (LINGO) the model studied and for instance(2005), it allocated 84% credits of Tejarat bank to The housing sector, credits of Melli bank to the Section of Servicing and housing sectors as order 272120 and 185780 million Rials, credits of Saderat bank to the Mining and Industry and Servicing activity as order 164140 and 159860 million Rials, Credit of San'atvaMa'dan and Maskan and Keshavarz banks -100% to the Section of Mining and Industry, credits of Sepah bank to the Section of Mining and Industry and Agriculture as order 110175 and 105825 million Rials. Credit of RefaheKargaran, Mellat and Tose'e Saderat banks -100% to the Department of Agriculture. These results do not have any meaningful relationship with the super visionary-policy package Central bank's suggested data.

### THIRD THEORY: EXECUTING OF THE EARLY RETURN MODELS MAKES TO INCREASE EMPLOYMENT IN GILAN

At the first the linear goal programming model be written for the years 2005-2009 and then using of the software (LINGO) the model studied and for instance(2005), 6277 employments in Department of Agriculture, 3489 employments in Section of Mining and Industry, 2170 employments in servicing activity and 11411 employments in the housing sector. So, using of these models makes to increase employment in Gilan.

## REFERENCES

1. Azar, A. and GHaytasi, fatemeh. (2009), "Allocation indicators small businesses and early returns", Monthly magazine of labor and society, number 107, pp.10.
2. Hajjipor, B. (1996) "Goal Programming model for complex transportation problems with flexible supply and demand limitations (distribution of sugar levels- provincial centers)."
3. Iran Chamber of Commerce and Economic Research Center (2004), "Economic development and small and medium-sized businesses a comprehensive strategy for economic development", Journal of the Iranian Chamber of Commerce, Industries and Mines, No. 7.
4. Schumacher, F, E (1973), "Small is beautiful", Type Hardcover, Pages 188 pages.
5. Shareei, M. (2006) "Goal Programming and some of its applications."
6. Skaran, Uma-Translator Shirazi, Mahmoud (2001) "Research methods in management", Centre for Public Management Education.

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