

Investigating the Existing Industries' Status in Sistan and Baluchestan Province in Terms of Four Indices of Productivity, Production, Productivity of Labor and Raw Materials

Abdol Ali Keshtegar¹ and Ehsan Namdar Joyami^{2*}

- ¹ Department of Management, University of Sistan and Baluchestan. Iran.
- ² Public Administration (HRM), University of Sistan and Baluchestan. Iran.

ABSTRACT

For proper understanding of the current state of industry, there is no way other than investigating the current situation through economic indicators and market based on official statistics and the need for a comprehensive plan in this regard. The present study aims to assess the economic feasibility and market industries in Sistan and Baluchestan that have been made in the province. The research method is descriptive and causalcomparative survey. The study is an applied research and questionnaires were used as the tool and information also are gathered from agent banks, the tax affairs office, companies and workshops of Sistan and Baluchestan province. The data in this study were used by reviewing documents and official documents. The population of this plan include all industrial sites in urban and rural areas of Sistan and Baluchestan province that their employees during the years 1997 to 2004 were 10 or more people. In this study, numerous questions were taken into account such as Sistan and Baluchestan industrial base compared to other economic activities, evaluation of the future status of Sistan and Baluchestan province in terms of economic and market justification and the market based on official statistics from the Statistical Center of Iran. In general, we can say the Sistan and Baluchestan province is in a relatively good state but problems and multiple risks threaten it. Detailed results will be discussed in related chapters.

Keywords: Industries, Productivity, Sistan and Baluchestan, Index, Economic Feasibility and Market ISIC Codes.

1. INTRODUCTION

Productivity literally means production and fertility and in Persian literature has become synonymous with the benefit of earning. The comparison of the plausibility of industrial units (forerunner) showed that the majority of industrial units not have any economic feasibility, and this results in the future market be quite vague and we cannot predict the situation that industries will be in a region. For this reason, there is always the question of the status of existing industries in terms of plausibility and the market condition? Knowing this information can help them to overcome their weaknesses and reinforce strengths, and can guarantee the survival and the success of the industrial units in the province in this regard. Thus, with the knowledge that providing accurate estimates of the plausibility of the technical, economic, financial factors of market and industrial units, not only prevents of dispersed costs and identifies investment opportunities, but also provides protection from stagnating or failure of investment (Nouri,2000; Mir Motahari, 2004). Limited resources requires the optimal use of available resources and capital that may be the most appropriate way. Improper use of capital investment have not only missed opportunities to develop, but also make it be faced with irrecoverable losses (Molaei,2004).

 $^{^* \} Corresponding \ Author: {\it davood.joyame@gmail.com}$

Therefore, investigating the current situation of industries in Sistan and Baluchestan province, according to the right time sequence (like assessing the situation in the province during the years 1997 to 2004) could show us valuable results in terms of industry influenced by the environmental conditions, and convey us the role of industries in the province in valueadded(Amini, 2003). Also, it can specify that in future, if existing conditions or improve those conditions remain, Sistan and Baluchestan province could be more promising in which type of industry, and using its protection plans, lead the investors towards projects with high economic and market. Therefore, since based on a system point of view, the success of the industrial units in the economy and the market depends on several factors, for proper understanding of the current state of industry, there is no choice but to investigate the current status of indices based on official statistics. The problem reveals the need for a comprehensive plan in this regard. In just on study, we cannot examine all industrial units of the province with high precision in terms of economic and market factors. For this reason, in this research the industries existed in ISIC 2, 3 and 4-digit codes were extracted and on the basis of statistics published by the Statistical Center of Iran, investigation and analysis of the economic and market situation of industries in terms of plausibility is done (Abbaszadegan, 2004: Azizi, 1987; Hosni Sadrabad, 2006).

2. REVIEW OF THE LITERATURE

The industry is an important factor in each country and province. In this section we examine several theories discussed in this context.

2.1 Goldrat Theory of Constraints (TOC)

While studying physics, Goldrat in the seventies, became interested in the production scheduling issues. And it was then that he realized that the current planning system for raw materials, is based on the assumption that the production capacity is to be fully accessible and will be readily available. But in practice production bottlenecks limit the production efficiency and Goldrat found that excessive production or the presence of plants, without bottlenecks doesn't increase the sales but only increases the goods during construction. Following the publication of the famous and best-selling book of "the missing target" by Goldrat and Cox, it met with widespread public welcome. Readers who are familiar with the idea of JIT production can make sense some of the similarities of these two ideas. These two ideas are similar since they both reduce inventory masses and mass production have emphasized only when needed. But while IIT production is based on that all inventory is reduced to zero, the idea of a secure storage bottlenecks in production is supported for the bottleneck devices. Description of productivity is considered very important as sales revenue minus materials (partly close to the sales revenue minus variable cost of production). This is description of the inventory, machinery and factory buildings as well. And therefore the accountants may see it unusual. Finally, operating costs include all costs of the total working hours of workers, either directly or indirectly, whether in production or in production downtime. The only costs are not considered part of operating costs, is the material costs, which is part of the yield. Thus, a relationship as simple as the following is obtained:

Operating costs - productivity = Net profit = Return on investment rate

Galway and Valderanin their third article introduced the basic ratio. They, instead of describing the profit as productivity gains minus the cost of factory chose the following ratio. Galway and Valderan found that a time-based criteria for assessing circles is more favorable:

The cost of circles budget over the time * Standard Time of productivity = circles productivity.

"Material value, or the value of some symbols of the cost of production" (Azerbaijani, 2001; Amini, 2002; Atai, 2003; Kazemi, 2002)

Then by showing how to develop products based on cost accounting principles, they concluded:

Material cost + cost central point in time * time required for central point = charges of product

Where Goldrat insists that managers should wipe out cost world of ideas and replace it with a new world of productivity, perhaps he is right. Although methods to maximize productivity for all is known and understood, and there is little evidence to proof the organized use of them in some companies, but there is ample evidence that proves the rule of total cost. The rule of financial accounting even on managerial field, is the main subject of Johnson and Kaplan and Druy's articles. It shows the failure of traditional methods of budgeting, standards and attractable costing. Bawels, Gordon & Sickat offered new and evolved concept of efficiency. In their view, production is not merely a mechanical process of combined production machinery, labor, and technology. The key to understanding the production process, is understanding how people interact with machines and technology. Factors such as national zeal and homeland patriotism, hard work, innovation and business innovation, productivity management practices are the Constituent elements of new concept of efficiency. Kindle Berger believes there should be developments in human factors that cause in worthy of achieving economic growth. He sees a strong association between literacy and economic development and believes literacy by improving the quality and productivity, and through it impacts on economic development (Kindle Berger, 1958). More than a century later, Litter (1833) defined the concept of efficiency in production capacity or the desire to produce. In the early 1900s the productivity was defined as "the relationship between output and factors used in the production". In 1950, OECD Europe has provided a more precise definition of efficiency and introduced it as output to a fraction of factors of production. International Labor Organization (ILO) knows the efficiency as productivity relationship with one of the factors of production between capital, labor and management. And efficiency of Europe (EPA) knows it as "the effective use of each of the factors of production" and believes that the efficiency, before anything, is a vision and approach to the issues. Davis knows productivity as changes in the product obtained caused by the resources spent and Fabry Kent as "the ratio of output to input".

3. METHODOLOGY

The research method is descriptive and on the other hand, it is a causal-comparative survey. The population of this plan includes all industrial sites in urban and rural areas of Sistan and Baluchestan province that their employees during the years 1997 to 2004 were 10 or more people. So that the survey was conducted by the Statistics Center of Iran and information items were used to study and analyze the industry in Sistan and Baluchestan province in terms of economic plausibility and market participants (over the 2,3 and 4-digit codes of ISIC). The study is an applied research and questionnaires were used as the tool and information also are gathered from agent banks, the tax affairs office, and companies and workshops of Sistan and Baluchestan province. The data used in this study by reviewing documents and official documents were used. Incoming data from the Statistical Center of Iran is considered as the primary data and with edits made on these created secondary data obtained by the researcher. Primary data are descriptive data and secondary data are suggested as analytical indicators.

Numerous questions are considered in this study. What is the position of Sistan and Baluchestan province industry compared to other economic activities in the country? What was the situation of Sistan and Baluchestan province in comparison with the industry in the country, during the codes 2, 3 and 4-digit ISIC, during the 1997-2004 period? And what we can predict a future for them? What are the components and items of information available and evaluation of

existing industries in Sistan and Baluchestan province in terms of economic and market plausibility based on official statistics of the Statistics Center of Iran?

Research in terms of statistical methods and data analysis, is divided into 2 parts: A) analytical indicators used to evaluate existing industries in Sistan and Baluchestan province in terms of economic and market plausibility; B) the number of descriptive and analytical consists of 21 descriptive indicators and 18 analytical indicators as well as use of statistical tools modulators and compounds.

It is required to the above criteria through some analytical data such as regression, time series, and so on be investigated more precisely (Molaei, 2004; Khaki, 2000).

4. RESEARCH FINDINGS

4.1 Explaining the Status of Industry Sector, Compared to Other Major Economic Sectors

Sistan and Baluchestan province with 22 164 square kilometers is located in one of the most prone geographical areas and based on existing comparative advantages has important economic roles in the country. In this province because of the existing infrastructure, mobility in playing a real role in the national economy is offered and due to having comparative advantages and capacity of infrastructure equipment, is of absorbent provinces of capital.

- i. During the years 2000 to 2003, the share of value added in total value added industry in the province of Sistan and Baluchestan fluctuated between 20 and 23 percent. So that in the years 2000, 2001 and 2002 had a decreasing trend in 2003, this share increased.
- ii. The share in the country level, as the provincial trend, provincial between 30 to 33 percent. However, the share of industrial sector in the country, is at least 10 percent more than the share of industry in Sistan and Baluchestan province. It shows that the province has failed to keep pace with the country.
- iii. In next to industrial sector, agricultural sector, alongside it and a bit ahead of it moved and its contribution to added value ranges of between 22 to 24 percent. However, in comparison with country, that share of agriculture in total value added in the country is between 10 to 12 percent, this shows that at least the province is 12 percent higher with regard to the share of agricultural value added. In other words, in comparison with the industrial sector, the province has developed in agricultural industry. In conclusion, we can say that despite the potential for higher capacities in Sistan and Baluchestan province, however, during the years 1379 to 1382 rank of Sistan and Baluchestan province in terms of major economic value added activities among the other provinces was not favorable and was in swing between 18 to 26 percent. Moreover, in this regard the industry sector has relatively favorable position compared with other major economic sectors of other provinces and its rank is between 18 -20.

4.2 comparison Overview of the Existing Industries in the Country and the Province

B-1) compared descriptive variables industries in the country and the province

 $\textbf{Table 1} \ \, \textbf{Description of Sistan and Baluchestan province, according to official statistics, during the years} \\ 1997 \ \, \textbf{to 2004}$

Indicator	Description of the studied index	1997	1998	1999	2000	2001	2002	2003	2004	No	
The number of factories	Workshops, more than 10 employees	146	149	145	166	172	170	192	197	1	
The number	Formal company, but the state and cooperativ e sectors	112	119	120	133	133	138	146	160		
of factories with Legal	Cooperativ e sector	4	3	5	10	9	6	7	6	2	
Status	Public company	11	8	8	11	7	6	6	3		
	Informal individual companies	19	19	12	12	23	20	33	28		
	Public	18	16	13	15	14	13	13	11	3	
number of workshops with managemen t	Private	128	133	132	151	158	157	179	186		
	Non- productive	3965	3910	4154	4148	4659	4313	4408	552+		
Number of employees	Productive	8556	530	1085 6	1271 2	1323 7	1383 5	1470 4	14833	4	
employees	number of persons employed	12521	13440	1501 0	1688 0	1799 6	1814 8	1911 2	20359		
number of	Engineers	223	352	413	661	520	673	616	609		
persons	Technicians	381	432	576	758	1082	710	607	666		
employed, broken	Skilled workers	3223	3648	3819	4267	4809	7196	6734	6185	5	
down by type of skill	Simple workers	4729	5098	6048	6926	6926	5256	6747	7 3 7 3		

Table 2 Comparison of descriptive variables and industries in the province of Sistan and Baluchestan

Country	Number	13904	14236	11002	11200	10987	16305	16649	16283
Sistan and	Number	146	149	145	166	172	170	192	197
Baluchestan	Percent of								
Province	the	10501	10447	13179	14821	15655	10465	11523	12099
	country								
Sistan and	Number	92	93	90	102	111	111	130	123
Sistan and Baluchestan city	Percent of the	63.014	62.416	62.69	61.446	64.535	65.294	6.708	67.513
	province								
Abhar city	Number	48	49	48	57	56	52	52	54
Abilal City	Percent of	32.877	32.886	33.103	34.337	32.558	30.588	27.083	27.411

	the province								
	Number	2	3	3	3	2	3	2	2
Khoramdeh City	Percent of the province	1.3699	2.0134	2.69	1.8072	1.1628	1.7647	1.417	1.152
	Number	3	3	4	4	3	4	5	4
Khodabande City	Percent of the province	2.0548	2.0134	2.7586	2.4096	1.7442	2.3529	2.6042	2.0305
	Number	-	-	-	-	-	-	2	2
Ijroud City	Percent of the province	-	-	-	-	-	-	1.0417	1.0152

5. SUMMARY CONCLUSION

In this section matches necessary to the followings are available: The final ranking based on the 3-digit codes of ISIC in terms of economic and market plausibility (based on the integration and comparison of all indicators and variables). The results are available in the summary table.

Table 3 The final ranking based on the 3-digit codes of ISIC in terms of economic and market plausibility (based on the integration and comparison of all indicators and variables)

Final ranking	Number of rows in tables	activity code	industrial activity	regression equation	The slope of the equation	Rating of the slope (growth)	The mean average of total index results	Index ranking in total years of integration
			Production of electricity					
1	24	242	distribution and control	y = 2.168x +	2.160	4	5 6	1
1	31	312	apparatus	74842	2.168	4	56	1
			Production of precious and base metals and non-ferrous base	·· - 2 17F·· ·				
2	23	272	metals and non-terrous base	y = 2.175x + 25898	2.175	3	7.84	2
	23	2/2	Distribution of insulated wire	y = 1.223x +	2.173	3	7.04	
3	32	313	and cable	y = 1.223x + 25898	1.223	37	10.52	3
	32	313	Spinning, weaving and finishing	y = 1.588x-	1.223	37	10.52	<u> </u>
4	6	171	of textiles	14931	1.558	18	12.26	4
		1/1	Production of parts and	11701	1.550	10	12.20	
			accessories for motor vehicles	y = 1.737x +				
5	37	343	and their engines	481.2	1.737	14	13	6
6	38	352	Repair of railway equipment	******	***	***	12.64	5
			Glass production and glass	y = 1.548x +				
7	20	261	products	2091	1.548	19	13.28	7
			The production of special-	y = 1.609x +				
8	28	292	purpose machinery	1815	1.609	17	14.32	8
			Non-metal mineral products not					
9	21	269	classified elsewhere	y = 2.102x + 178	2.102	5	16.04	12
10	35	331	Production of medical tools and	y = 2.491x-4811	2.491	1	17.72	18

			special equipment for					
			measuring, control, testing and					
			navigation except for optical					
			devices					
			Production Machinery with					
11	27	291	general application	y = 1.880x + 804	1.88	9	15.68	11
			Manufacture of plastics					
12	19	252	products except footwear	y = 1.413x-574	1.413	24	14.44	9
				y = 1.894x +				
13	15	241	Production of basic chemicals	2213	1894	8	16.64	14
			Ground-seeds and products for					
			the production of starch and					
			starch products and prepared					
14	3	153	food for animals	527-y = 1.797x	1.797	11	16.88	15
			Production of other metal	<u>, </u>				
			products factory, metalworking	y = 1.627x +				
15	26	289	service activities	1449	1.627	16	16.6	13
			Production of electric motors,	y = 1.177x +				
16	30	311	generators and transformers	44577	1.77	28	15.56	10
17	7	172	Production of other textiles	y = 1.398x-5806	1.398	25	17.4	16
		-/-	Production of other food	y = 1.319x +	1.070		4/11	
18	4	154	products	24857	1.319	30	17.68	17
	•	101	Tanning and dressing of leather,	2 1037	1.017	50	17.00	
			manufacture of luggage, saddles					
19	10	191	and gear	y = 1.271x + .985	1.271	35	183.16	19
	10	171	Production of other chemical	y 1.271X 1.300	1.271	55	100.10	17
20	14	342	products	y = 1.542x + 477	1.542	20	19.6	20
	- 11	312	Production of iron and steel	y = 1.312x + 177 y = 1.461x +	1.5 12	20	17.0	
21	22	271	products	1137	1.461	23	19.92	21
		2/1	Production of refined oil	y = 1.510x +	1.101	23	17.72	
22	14	232	products	1246	1.51	21	2.64	22
	17	LJL	Production of wood, cork, straw	1240	1.51	21	2.01	
23	12	202	and mat material	y = 2.209x-697	2.209	2	238	27
	12	202	TV and radio production and	y = 2.209x-097	2.209		230	27
			broadcasting audio and video					
			recording devices and related					
24	34	323		y = 2.029x-698	2.029	7	23.52	26
	34	323	goods	y = 2.029x-090	2.029	7	23.32	26
			Production of other transport	y = 1.228x +				
25	39	359	equipment not elsewhere	•	1.228	26	21.4	23
	39	339	classified	4606	1.220	20	21.4	23
			Production, processing and					
			preservation of meat, fish, fruit, vegetables, oils and fats of	v = 1 21 4 ·				
26	1	151	9	y = 1.314x +	1 21 1	21	21 4	24
26	1	151	corruption	1467	1.314	31	21.4	24
27	24	272	Matal anatin-	y = 1.280x +	1 20	22	21 72	25
27	24	273	Metal casting	1590	1.28	32	21.72	25
20	0	101	Garment manufacturing, with	2070 05	2.05	_	25.00	24
28	9	181	the exception of furs	y = 2.070x + 9.5	2.07	6	25.08	31
20	10	240	Production of paper and paper	y = 1.358x +	1.050	27	22.00	20
29	13	210	products	1758	1.358	27	23.88	28
2.5				y = 1.496x +			0 . = -	•
30	40	361	Furniture production	367.4	1.496	22	24.52	29
31	5	155	Production of beverages	y = 1.634x965	1.634	15	25.8	30
			Production of structural metal					
			products, tanks, batteries and					
32	25	281	steam generators	y = 1.832x-1731	1.832	10	25.84	33
			Production of fabrics knitted					
33	8	173	and crocheted goods	y = 1.758x-378.4	1.758	13	25.96	34

			Production of rubber products					
34	18	253	except footwear	y = 1.775x-365.0	1.775	12	27.68	35
35	2	152	Production of dairy products	y = 1.142x-268	1.142	40	25.68	32
				y = 1.166x +				
36	11	192	Shoe production	Shoe production 172.5		39	31.92	36
			Household appliances	*				
			production unclassified	y = 1.275x +				
37	29	293	elsewhere	107.2	1.275	36	328	37
			The manufacture of artificial					
38	41	269	unclassified elsewhere	y = 1.377x-71.5	1.377	26	35.16	39
			Body production, for building					
			and construction for motor					
			vehicles and semi-trailers	y = 1.345x +				
39	26	342	trainer	25.89	1.345	29	35.12	38
40	17	262	Production of synthetic fibers	y = 1.349x + 46.4	1.349	28	36.68	40
			Production of other electrical					
			equipment not elsewhere					
41	33	319	classified	y = 1.277x + 0.0	1.227	33	406	41

Table 4 Classification of industrial activities on the basis of ISIC 3-digit code in terms of plausibility economic and market (based on the integration and comparison of all indicators and variables)

The final ranking of c	Number of rows in tables	activity code	industrial activity	The regression equation	average of normal average index b	Normalized slope (difference of average of slope) a	The total normalized slope and the average of normalized indices	Category Activities in 4 groups according to the degree of plausibility d
			Production of electricity distribution and control	y = 2.168x +				
1	31	312	apparatus	74842	15.4	2.59	17.46	Α
			Production of precious and					
			base metals and non-ferrous	y = 2.175x +				
2	23	272	base metals	25898	13.16	2.83	15.24	A
			Spinning, weaving and	y = 1.588x-				
4	6	171	finishing of textiles	14931	8.64	0.104	8.744	Α
			Production of parts and					
			accessories for motor vehicles	y = 1.737x +				
5	37	343	and their engines	481.2	8	0.606	86.6	<u>A</u>
_			The production of special-	y = 1.609x +				
8	28	292	purpose machinery	1815	6.68	0.175	6.855	A
0	0.4	260	Non-metal mineral products	2422 472	4.06	4 005	6505	
9	21	269	not classified elsewhere	y = 2.102x + 178	4.96	1.837	6797	<u>A</u>
			Production of medical tools					
			and special equipment for					
			measuring, control, testing and navigation and other except					
10	35	331	for optical devices	y = 2.491x-4811	3.28	3.148	6.428	A
	33	551	ior optical acvices	J 2.171A 1011	5.20	0.110	0.120	- 11

			Duo du ati an Ma ahin amu with					
11	29	291	Production Machinery with	y = 1.880x + 804	5.32	1.088	6.408	۸
	29	291	general application	•	3.32	1.000	0.400	<u>A</u>
13	15	241	Production of basic chemicals	y = 1.894x + 2213	4.36	1.126	5.496	٨
	13	241	Ground-seeds and products	2213	4.30	1.120	3.490	<u>A</u>
			for the production of starch					
			and starch products and					
14	3	153	prepared food for animals	527-y = 1.797x	4.12	0.809	4.929	Α
		133	Production of other metal	327-y = 1.777X	7.12	0.007	7.727	
			products factory,					
			metalworking service	y = 1.627x +				
15	26	289	activities	y = 1.027x + 1449	4.4	0.225	4.635	A
	20	207	activities	y = 1.223x +	7.7	-	4.033	
3	32	313	Distribution of cable	25898	10.48	1.127	9.353	В
6	38	352	Repair of railway equipment	*****	8.26	0	8.26	В
	30	332	Glass production and glass	y = 1.548x +	0.20		0.20	
7	20	261	products	2091	7.72	0.031	7.689	В
	20	201	Manufacture of plastics	2071	7.72	0.031	7.007	
12	19	525	products except footwear	y = 1.413x-574	6.56	0.468	6.76	В
	17	323	Production of electric motors,	y = 1.113x 37 1 y = 1.177x +	0.50	-	0.70	
16	30	311	generators and transformers	44577	5.44	1.282	4.158	В
	30	311	generators and transformers	11377	5.77	1.202	4.130	
17	7	172	Production of other textiles	y = 1.398x-5806	36	0.537	3.63	В
		1/2	Production of other food	y = 1.319x +	30	- 0.557	3.03	
18	4	154	products	24857	3.32	0.803	2.517	В
		101	Tanning and dressing of	2 1037	3.32	0.003	2.517	
			leather, manufacture of	y = 1.271x +		_		
19	10	191	luggage, saddles and gear	.985	2.84	0.965	1.875	В
	10	1/1	Production of other chemical	1700	2.01	-	1.075	
20	16	242	products	y = 1.542x + 477	1.4	0.051	1.249	В
	10	212	Production of iron and steel	y = 1.312x + 177 y = 1.461x +	1.1	- 0.031	1.217	
21	22	271	products	1137	1.08	0.326	0.756	В
		2/1	Production of refined oil	y = 1.510x +	1.00	-	0.750	
22	14	232	products	1246	0.26	0.159	0.201	В
			Production of wood, cork,	1210	0.20	0.107	-	
23	12	202	straw and mat material	y = 2.209x-697	-28	2.198	0.602	С
			TV and radio production and	y 2.203A 037		2.170	0.002	<u> </u>
			broadcasting audio and video					
			recording devices and related				_	
24	24	323	goods	y = 2.029x-698	-252	1.591	0.929	С
			Garment manufacturing, with	<u> </u>			-	
28	9	181	the exception of furs	y = 2.070x + 9.5	4.08-	1.729	2.351	С
31	5	155	Production of beverages	y = 1.634x965	-4.8	0.529	-3821	C
			Production of structural metal			-		
			products, tanks, batteries and				-	
32	25	281	steam generators	y = 1.832x-1731	-484	0.927	3.913	С
			Production of fabrics knitted				-	
33	8	173	and crocheted goods	y = 1.758x-378.4	-4.96	0.677	4.283	С
			Production of rubber products				-	
34	18	251	except footwear	y = 1.775x-365.0	-6.68	0.724	5.946	С
			Production of other transport					
			equipment not elsewhere	y = 1.228x +				
35	39	359	classified	4606	-0.04	-1.11	-1.15	D
			Production, processing and					
			preservation of meat, fish,					
			fruit, vegetables, oils and fats	y = 1.314x +				
36	1	151	of corruption	1467	-0.4	-0.82	-1.22	D
37	34	273	Metal casting	y = 1.280x +	-0.72	-	-	D
			υ					

				1590		0.943	1.654	
			Production of paper and paper	y = 1.358x +		-	-	
39	13	210	products	1758	-228	0.672	3.552	D
				y = 1.496x +		-	-	
30	40	361	Furniture production	367.4	-352	0.206	3.726	D
35	2	152	Production of dairy products	y = 1.142x-268	-4.68	-1.4	-6.08	D
				y = 1.166x +		-	-	
36	11	192	Shoe production	172.5	-1092	1.319	12.24	D
			Household appliances					
			production unclassified	y = 1.275x +		-	-	
37	29	293	elsewhere	107.2	-128	0.951	13.75	D
			The manufacture of artificial		-	-	-	
38	41	269	unclassified elsewhere	y = 1.377x-71.5	14.16	0.607	14.77	D
			Body production, for building					
			and construction for motor					
			vehicles and semi-trailers	y = 1.345x +	-	-	-	
39	36	342	trainer	25.89	14.12	0.715	14.84	D
				y = 1.349x +	-	-	-	
40	19	343	Production of synthetic fibers	46.4	15.68	0.702	16.38	D
			Production of other electrical					
			equipment not elsewhere			-	-	
41	23	319	classified	y = 1.277x + 0.0	-196	0.945	20.54	D

a: to calculate the normalized slope, first the number of slopes is deducted of overall slopes average, and given that 18 analytical indicators in the calculation of the mean average result of the indicators were used, normalizing the slope from the regression model 4 to 1 ratio between the average total index results and is intended slope is considered.

b: To calculate the average mean of the normalized indicators, each number is deducted corresponding to the average mean of the average total.

c: the final ranking was based on total normalized slope and the average mean index.

d: The activities grouped in 4 groups according to the degree of plausibility in this case as follows:

- i. In each of the centers a and b are both positive number indicates the plausibility of all indices and the slope of the regression model.
- ii. In each of the centers a and b in which a is positive and b is negative, it indicates the plausibility of all indices and lack of plausibility in terms of the slope of the regression model.
- iii. In each of the centers a and b in which a is positive and b is negative, it indicates no plausibility in terms of indicators and plausibility of the slope of the regression model.
- iv. In each of the centers a and b are both negative number indicates a lack of plausibility in terms of all indicators and the slope of the regression model.

Therefore, industrial investment managers and custodians of Province, in order to the necessity of investing in a particular activity or support it, can in addition to the final rating obtained, consider For each activity in the first column to Category Activities in 4 groups according to the degree of plausibility and put the priority to A, B, C and D. In the final analysis, three examples as a guide for experts and investors to analyze the results of the activities during the years 1997 to 2004 based on the results of the plausibility acceptable level is presented. Explaining that with the exception of the items listed below, other activities at the provincial level were justified. The examples related to them in Table 3 and 4 in the 3 digit code ISIC have been mentioned more specifically.

5.1 Production of Basic Metals

The activity under code No. 27 is located in between activities ISIC 2-digit code and in terms of descriptive variables such as the number of workshops, the value of manufactured products, sales, data value, the value of manufacturing output and employment rate, Respectively ranked 4, 3, 3, 4 and 6 but in the export index is ranked 1. Moreover, in terms of the important analytical indicators such as labor productivity and employment based on the location coefficient (in comparison with the country's provinces), The activity have rank 1 And in terms of labor force competitiveness indices, the index of the capital, advertising and value-added indicators ranked second; in terms of location coefficient indices based on value added, employment and location coefficient on the basis of profitability index Rated 3; in terms of location coefficient indices based on value added (in the division of the country), the real index of added value, productivity, and the index of dependence on foreign sources is rated 4. Also in terms of industrial activities in the 3 digit code ISIC only a subset of these activities (production of non-ferrous base metals precious and base metals), has been quite in favorable situation; and ranked second among 41 activities in their 3 digit code assigned. But two other activities include primary iron and steel production and casting metals have scores of 21 and 27, respectively.

Machineries & Equipment generation and electricity transmission, not classified elsewhere. The activity is under ISIC two-digit code No. 31 among the activities And in terms of descriptive variables such as the number of workshops, exports and were valued Report 8, 2 and 2, But the value of the product, the sales value of the manufacturing output and employment rate, ranked 1. In other words, according to these indicators, its rank is better than the other activities available in 2-digit code. Moreover, in terms of important analytical parameters such as value added, Location coefficient on the basis of value added, employment-based spatial index, the index of the capital, advertising and value-added indicators workshop, the activity has ranked first, and in terms of labor productivity indices, location coefficient on the basis of value added (in the division of the country), Location coefficient on the basis of employment (in the division of the country), and index of dependence on foreign sources Rated 2, And in terms of labor productivity index (province divided by country), Rated-3.

In addition, the lower ranks in productivity indices, the real index of added value, productivity, raw materials, creating value index index product output, labor competitiveness index, profitability index, employment index and the rate of growth of intraregional research, dedicated to respectively ranked 11, 13, 13, 13, 11, 7, 18, 17 and 16, and to the low levels of the same indicators – which are important factors - despite the extraordinary indices, this activity is allocated to the second rank. Also in terms of industrial activities subset of the activities, two activities distribution of electrical power and control systems, insulated wire and cable, its situation is quite favorable and respectively ranked 1 and 3 among 41 activities available in the 3 digit code. But two other activities include electric engines, generators and transformers and other electrical equipment scores are 16 and 41, respectively. In other words, it seems the final rankings produced by industrial activity other electrical equipment not elsewhere classified, caused reducing the total number of industrial activity in ISIC 2-digit code and despite competencies and favorable conditions of work, this activity has been in second place of ISIC 2-digit code.

5.2 Textile Production

The activity under code No. 17 is located in between activities ISIC two-digit code and in terms of descriptive variables such as the value of manufactured products, sales, exports, value of manufacturing output and employment rate respectively ranked second, 2, 3, 2 and 7, but in terms of indices of workshops and valued its rank is 1. In other words, according to these indicators it is in a good condition towards the production of base metals and other activities included in ISIC 2-digit code. With this difference that the number of workshops held in the

highest, and food and beverage industries in this regard, was in second place, and activities such as production machinery and power generators, and the electrical appliances are ranked 8. This can also affect the indicator value-added of workshop.

Production machinery and power generating units have ranked first in terms of value added measures and textile production is rated 3. Moreover, in terms of important analytical parameters such as location coefficient on the basis of value added (in the division of the country), this activity has ranked first, and in terms of labor productivity index (province divided by country), competitiveness of labor (the division of the country), location coefficient based on the location coefficient based on value added and employment, Rated 2; and in terms of value added index, index of dependence on foreign sources, advertising and value-added indicators workshop, Rated 3.

In addition, the lower ranks in labor productivity indices, the index of real value added, labor productivity, the productivity of raw materials, product output, labor competitiveness index, the capital, profitability index, employment index and the rate of growth of intraregional research, allocated to it, which included scores of 15, 14, 9, 15, 15, 14, 10, 12, 13, 8 and 6 respectively, and to the low level of the indices, this activity is allocated to the third rank. Also in terms of industrial activities subset of these activities in ISIC 3-digit code the only activity of spinning, weaving and finishing textiles has been in quite favorable situation and ranked fourth among the 41 activities in the 3 digit code. But for two other activities including produce other knitted and crocheted clothing and Production of fabrics and producer, the scores are 17 and 33, respectively.

To complete this context, it is noteworthy that the Report examined in this section based on the results contained in the frequency tables that have been recorded in the fourth section, and beside the importance of this rating, it must be said that the distance between ranks and their real numbers is more important. For example, a business may rank lower in comparison with another activity (eg grade 3 compared with grade 2) and be in a higher rank compared to other activities (e.g. Rank 3 in comparison with rank 4). But the real distance between the numbers be in such a way that these activities be very close to each other, and be more far from the rated 4 activities (e.g. real numbers 6.27, 2.28 and 3.56 for activities with rank 4, 3 and 2). The aim of the researcher to provide supplementary tables with ranking them in the fourth section and providing an indication of the numbers, is therefore, that in practice, anencyclopedic be provided to all investors, researchers, experts and relevant authorities to act with knowledge and full control over the results. In other words, the volume of data in this study is high enough that, for comparative analysis with other activities at an industrial activity code 2-digit ISIC, 19*31 comparisons including 329 paired with each other and the real numbers with each other, must be examined, and concepts of each indicator at the level of provinces and cities must also be considered. It is obvious that the number of paired comparisons at the level of industrial activities in Sistan and Baluchestan province is equal to 41 multiplied by 31 compared ISIC 3digit code, including 1271 paired comparisons, and in 4-digit code ISIC, it is equal to 77 multiplied by 31 comparisons, consisting of 2201 comparisons.

That taking into account the actual numbers and rank, the amount increases 2-fold, If the results of these comparisons and the country goes up, the number of comparisons will be much, much more. It is preferred forbrevity, the preliminary description above to be included as early analysis, and experts in accordance with the tables and data provided, have particular analyzes for each industrial activity. While these numbers are only for studies in Sistan and Baluchestan province.

And to carry out investigations in the province of Sistan and Baluchestan, Paired comparisons also with respect to the number of each of the activities Code 2, 3 and 4 ISIC digits in each city, must be taken. In any case, this study due to the abundant documentary information in the

period 1997 to 2004 and in terms of numerous indices and focused by investors and administrators and experts, and considering all the activities involved in codes 2, 3 and 4-digit ISIC in the country, and Sistan and Baluchestan province and its districts can be considered as a comprehensive encyclopedia and to be considered as the basic source of many future research.

6. SUGGESTIONS FOR FUTURE RESEARCH

According to the results of research and steps and processes that have been provided, it is recommended that further investigation be considered as follows:

- i. Given that the number of industrial activities in the country during the years 1997 to 2004, were based on codes 2, 3, 4-digit ISIC, respectively, and an average of 23, 59 and 136 kind of activity were there, and in Sistan and Baluchestan province, these figures were respectively 19, 41 and 77, it is recommended to study in this regard that why in the codes 2, 3 and 4-digit ISIC, Sistan and Baluchestan province in comparison with thecountry level, has respectively less industrial activities, and whether some activities may be missing in the province as the missing link in clusters and production chains of other industries.
- ii. Given that one of the difficulties in forecasting industry in the province in the years that followed is managerial and motivational factors and circumstances external environment (provincial, national and international) and especially of sanctions and natural disasters, it is recommended based on the results of the researches a research be conducted to show that which justified or unjustifiable industrial activities in the province during the years 1376 to 1383 and then, influenced by environmental conditions and unexpected and also subsides and special protection. Then, we can based on the results of that research removing the effects of them, reach to purer results in economic and market conditions in the industries of the province in terms of plausibility.
- iii. According to the information items included in the Statistical Center of Iran and the lack of information items related to the assessment industry plausibility of the province in terms of technological, market and some items of economic and financial indicators, it is suggested that to conduct research and more accurate results, a comprehensive study be taken to ensure coordination with the Statistical Center of Iran, the items that can be extracted from the plant.
- iv. Given that in this study, only the current situation of industries in in terms of economic and market justifiably been considered by researcher, rather than the main factors in plausibility and lack of plausibility; It is suggested either in whole or in terms of any of the industrial activities (at least 2-digit code ISIC) research be conducted for main factors of success or failure (or lack of effectiveness of projects) so that investors and analysts and administrators based on them seek to strengthen the prevention or elimination of weaknesses and the resultant injuries and the past experience not be experienced again.
- v. Given that the study started in late 2004, and during the years of study only the information about the 1997-2003 were obtained from Statistical Center of Iran (all data are available), to update and complete the study, it is suggested every three years similar studies in this area be done at the provincial level and findings and predictions be compared with previous results, and based on scientific principles and objective facts, more detailed reasoning be obtained, and investors, experts and administrators of the province use the information.
- vi. Since the study used 21 indicators of descriptive and 18analytical indices, and more than 250 table in the fourth chapter showed in summary, their results in provinces and cities in codes 2, 3 and 4-digit ISIC for the 1997-2004 period, it is recommended that research(s) about more comprehensive analysis results for each indicator or set of

- indicators be conducted, so that each industry based on all evaluation activities, to be considered, an hidden aspects and causes of positive and negative results of each activity in each index be under scrutiny.
- vii. According to one of the emphasis on the necessity of project-driven rather than demand-driven scheme it is proposed a comprehensive study be conducted to offer supportive policies and specific strategies to expand or contract the breakdown for each of the industrial activities, in view of the expected consequences of the policies adopted in each of the activities of the industries studied. In this field we suggest that, the strengths and weaknesses internal and external challenges and opportunities of any policy be also investigated. And on the basis of SWOT analysis matrix and QSPM the guidelines and strategies be scrutinized and prioritized.
- viii. Due to that for the combination of 17 analytical indexes in this research factor analysis was used, it is suggested that in similar research in the coming years, this is also taken into consideration and be studied that whether or not these measures will be combined in seventh overall index. This, if be true and reconfirmed, can be used in scientific and other researches and instead of referring to the results of 17 indicators, the results of seven composite index be used.
 - ix. With regard to the need to establish a balance in the main economic activities, especially in communication and production chains between industry, agriculture and services and intermediary services in the activities of agricultural and industrial production, it is recommended that a special study on the link between industrial and agricultural production, and pathological study of the issue in terms of production because of weak links in the province be conducted according to any of the industrial activities (at least 2-digit code) to other major economic activities (agriculture and services), so that, the missing rings of industrial activities about the lack of plausibility be found and guidelines for solving problems and connecting them to each other be provided.

REFERENCES

Abbaszadegan, Mohammad. (2004). "Management of troubled organizations." Tehran, Kavir.

Amini, AR. (2002). "Productivity measurement and analysis of productivity growth in the transport sector production growth in the Third Development Plan". Management and Planning Organization of Hormozgan Province.

Amini, AR. (2003) "Productivity measurement and analysis of its influencing factors in industrial workshops relative to the province and the country." Management and Planning Organization of Hormozgan Province.

Atai, J., brother, R. & ideas, Abu Turab. (2003). "Industrial development strategies and Sistan and Baluchestan province.

Azerbaijani, Karim, "Measuring and analyzing productivity of the country's industries." Isfahan, Isfahan Plan and Budget Organization, research a merchant, No. 190, summer 2001.

Azizi, A. (1987). "Analysis of the financial statements in firms'. Sazman program and budget, Persian date Aban.

DEA (2005). "A look at economic developments, social and cultural Sistan and Baluchestan province 83-1376 (to commemorate the week)." Department of Economic Affairs and Planning in cooperation with the Department of Statistics and additional information, Sistan and Baluchestan, Management and Planning Organization.

Ebrahimi-Nejad, M. (2000). "Strategic management in commerce and industry." Tehran, The study and development of Humanities Books (left), First Edition.

Hosni Sadrabad, MH. (2006). "Economic evaluation of the project." Publisher: Tehran, Mohammad Hossein Hsnysdrabady.

Kazemi, Abbas'. (2002). Productivity and analysis in organizations. "Tehran, the study and development of Humanities Books (left), First Edition, Fall.

- Khaki, Gholamreza. (2000). "A way to measure the value added productivity." Publisher: Institute of Studies and Educational Planning.
- MIMT (2006), "The list of advantages industrial and mining investments in the different provinces." Ministry of Industries and Mines Office of Planning, Department of Studies.
- Mir Motahari, Sayyed Ahmad. (2004). "Evaluation of economic planning, guidance and preparation of the feasibility of industrial projects." Broadcast journalist Nick, LAHIJAN.
- Mirsepassi Nasser. (1994). "Human resource management and labor relations." Pearl Publishing, Thirteenth Edition.
- Molaei, M. (2004). "factors affecting profit small industries in Iran". Quarterly Journal of Commerce, 31. Summer of 2004.
- Nouri Boroujerdi, Peyman 'financial evaluation of investment projects. (2000).