



EFFECTIVENESS OF GRANTED CREDITS OF SADERAT BANK ON INVESTMENT AND EMPLOYMENT IN THE AGRICULTURAL SECTOR (CASE STUDY: GUILAN PROVINCE)

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ABSTRACT

Among investment in various sectors of the economy, investment in agriculture has a special place of importance. The significant contribution of this sector on the economic growth of the country, despite reducing its share from stocks capital, in comparison with other sectors caused many policymakers believe that this sector can be a suitable base for job creation. Due to strategic importance of agriculture sector in national economy as well as the significant role of country's banks in financing, this section of the study aims to investigate the efficiency of granted credits of Saderat Bank of Guilan on increased employment and investment in agriculture sector.

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1. INTRODUCTION

The major economic goal of any country is sustainable development and growth. The most important criterion and measure of economic growth is gross domestic product [GDP] growth and the main driver of production is investment rate [1]. Therefore, the monetary and financial markets in the economy system of the country are very important and are the most important requirements to achieve sustainable growth in economic development literature; so that the researchers consider appropriate and optimal development of monetary and financial markets as an important tool for development. In fact, monetary and financial markets are sources of funding for various economic activities. Financing production units whether in the point of working capital view or from developing activities and new investments perspective are the most important issues in the managing a system. Getting loans and credits and transferring money from one person to another or

from one entity to another entity plays a key role in financing different economic activities. Credits and loans influence on production units' employment and new job opportunities directly and indirectly. Credit and loan injection into production flow in the form of working capital in short-term due to constant capital will increase employment, but it will be along with technological change in long term as the credit and loan flow changes into a constant capital. If these changes are neutral, the employment will remain constant, otherwise it will cause change in employment. So as can be observed, from the theoretical aspect point of view, proper and optimal employment of credit flow has some positive effects such as increased investment, production, income, and employment. However, effectiveness of monetary and financial system in each country and the way of financial managing economic units are necessary and sufficient condition to achieve these positive economic effects. If there is a lack of efficiency in this process whether in granting credits or using credits, there may be not optimal and expected effects [2].

Among investment in various economic sectors, investment in agriculture is of special significance [3]. So that the significant contribution of this sector in economic growth of the country, despite reducing its contribution from capital stock compared with other sectors, has caused many policymakers believe that this sector could be a good place for job creation [4]. Investment in the agricultural sector, due to the continuous increase in demand for food and other agricultural products, can stimulate the growth of output and employment in this sector. In fact, increased demand leads to higher price levels, and higher price levels lead to increased incentive to invest. Therefore, more investment is followed by higher production and employment growth. Moreover, pre-and post links to other agricultural sectors contribute in their output and employment growth [3].

In agriculture sector, supplying funds for investment are financed through farmers' saving, bank facilities, and general state budgets, among which granting bank facilities is of special importance. Without receiving bank facilities, farmers can hardly equip sufficient funds to produce. Therefore, in all countries to increase investment in agriculture sector, special facilities for farmers are considered. These facilities include the ease of getting bank loans of agriculture sectors to other sectors and payment of loan interests. Thereby, incentives for increasing investment in agriculture are provided [5]. Since using facilities, whether on new investment or providing working capital, increases production and by providing investment opportunities for developers it provides development of employment opportunities for job seekers [6].

Therefore, due to banking system development in recent years and also increasing bank facilities and services, the effect of bank system performance on net employment in economic sectors has become more important. What is important is the efficiency of this type of facilities to create new job opportunities. So, this study examines the impacts of bank credit allocation of Saderat Bank (as one of the financial institutions and also the premier bank of the country due to Banker rankings) to agriculture sectors and measurement of employment trends in them. In this regard, the variables such as value added, investment in agriculture, current and capital credits of Saderat Bank and employment in agriculture have been used.

2. LITERATURE

Employment can be important in terms of practical aspects of the human personality, identity origin, and tools to achieve happiness of humankind. Useful and productive work is very important in philosophical, religious, psychological, and political dimensions. Generally, in recent years, employment and reduced unemployment in terms of economic concerns and as the most necessary goals for governing the country and economic plans have been considered in organizing country level as well as economic, social and cultural plans. Efficient use of existing resources and facilities to meet human needs and demands including increased production, income, employment and social welfare is the most important development objective of any country. So, it is usually tried to achieve this goal using various executive tools and policies in development programs [2].

The goal of full employment among macroeconomic goals in developing countries is important, and unemployment and lack of jobs are the main outcomes of poverty for them. Despite campaign promises of political leaders of poor countries, achieving impressive growth and full employment was only a mirage. High unemployment rate, poor economic growth, and poverty are among other common problems [7].

According to official statistics in 2010, the unemployment rate among 15-24 year olds was over 40%. Therefore, solving real output and employment growth in developing countries is essential for reducing poverty and more wisely income distribution [8]. The mean of employment and growth during 2001-2010 in the ECO countries of Azerbaijan were 16.43 and 37.46, Iran 5.09 and 34.07, Kazakhstan 8.44 and 42.06, Kyrgyzstan 4.67 and 39.24, Pakistan 4.68 and 40.51, and Turkey 3.44 and 32.51, respectively. Evidence suggests that the relationship between changes in economic growth and unemployment rate substantially over time and over the economic cycle varies depending on the country or regions of the country. This relation is not constant, but based on what was said, depending on time and conditions of the countries it can be so different. For example, increased productivity in an economy may lead to changes in this relationship. Inconstancy of this relationship has been observed in many economies, like the United States of America, Indonesia and etc [8].

One of the latest researches was conducted by the International Labor Organization, and the results show there is no consistent relationship between economic growth and unemployment in short term. The relationship between economic growth and unemployment in may not be significant. No wonder after measuring other extensive factors, the unemployment rate showed a continuous decrease. In long-term there is a strong relationship between changes in real GDP growth and the unemployment rate. This long-run relationship between two economic variables was called "Ocan Act" by an economist, Arthur Ocan, in early 60s. It is included in a list of basic ideas and is accepted in economics. Long-term relationship key between changes in GDP growth rate and employment growth rate is in potential output. In summary, the potential production is an imperceptible scale of economy capacity to produce goods and services during productivity of existing resources such as labor and capital. The potential economic growth is a function of potential productivity growth and employment when the economy is in full employment. In absence of productivity growth, as long as any increase in labor takes place, GDP growth will be equal to employment growth. If growth rate is less than labor force growth, no new jobs will be

provided for job seekers, so unemployment rate will be higher. If economic growth rate becomes more than labor force growth, some of the new jobs created by the staff for growing demands for goods and services are fulfilled by unemployed workers. As productivity increases over time, fewer workers to provide goods and services will be required. If output growth is equal to labor and productivity growth, more than required people enter into labor force and required goods and services are produced, resulting in reduced employment of the labor force and higher unemployment rate. As long as output growth is higher than combined labor and productivity growth, productivity levels will be reduced in the long term. Being informed of the nature of economic growth for policy makers interested in adopting stimulus to reduce the unemployment rate will be useful. As mentioned, output growth rate required to reduce unemployment rate needs knowledge of labor force and productivity growth [2].

2.1. Employment Policies

Employment policies can be divided into four categories:

- a. Active labor market policies: These policies provide directly or indirectly balance in the labor market. These policies include a mechanism of searching for jobs, educating the unemployment, job creation directly or through subsidies (self-employment schemes). These policies usually will affect the quality of labor supply and demand. The main elements of active market policies include:
 1. Mobility in the labor supply by job creation, wage subsidies and etc.
 2. Developing employment by creating new skills and variety of techniques such as re-training.
 3. Increased labor market efficiency by providing services to labor force such as counseling, assistance in compliance with skilled labor force jobs.
- b. Regulatory labor market policies: these policies result in more flexibility in labor market and will influence on entry and exit flow of labor force caused by laws and regulations. These policies address issues such as how to maintain employment, change in work time through paying attention to part-time and temporary work, how to determine wages, minimum wage, and early pension.
- c. Macroeconomic policies affecting the labor market: these policies through fiscal and monetary policies and as a result of growth and economic production (increased aggregate demand) for labor force will create demand.
- d. Passive and supportive labor market policies: these policies include issues such as financial support for the unemployed, reforming unemployment pension system, paying subsidies to low-wage, tax exemptions, tax deductions on wages, and helping people with low wages to increase well-being and provide minimal living.

Thus, in terms of time "macro politics" will be implemented for long term, "active policies" for short and medium term, "regulatory policy" for medium and long term, and "supportive policies" for short and medium term [9].

2.2. Agriculture Sector and Employment

Achieving sustainable development in agriculture is a fundamental issue that governments and countries with low and middle income are facing. Creating such a growth depends on governments' tendency to poverty eradication, necessity to supply enough food, and paying attention to the key role that agriculture plays in inclusive economic developing of the countries. Currently global food supply has become a crisis in agriculture. Some causes of this phenomenon are:

- a. Population growth and per capita income in newly industrialized countries and populated countries and also alarming situation of low-income countries (which mostly faced food shortages) will increase food demand, and it has influenced on global food supply and food availability and current prices. " Despite the decline in population growth rates in some countries, it has been predicted that the world population will reach 3 billion in 2025 of which 84 percent will belong to developing countries [10].
- b. The current food supply and prices is such that many poor people do not have proper diets.
- c. Despite advances in technology over the past few decades that could remove supply constraints and increase production of important food items, these technologies have not been compatible with the conditions of all products. In addition, for some basic commodities, manufacturing technologies have made the product close to potential output (coincided with the first Green Revolution in Asia). Thus, production and productivity growth has declined through available technologies.
- d. Over past two decades the total cultivated land in the world has been constant or decreased due to use change. In other words, per capita arable lands have been associated with reduction. This is especially critical for populated countries (such as China, India, etc.) that are in the early stages of economic development and have experienced sharp increases in food demand due to rapid growth of per capita income and urbanization phenomenon. By increasing urbanization, dietary patterns would change and protein consumption would increase. It is predicted by 2020 demand for food in industrialized countries will increase by 25% and it will increase by 100% in developing countries.
- e. There is no appropriate policy framework and basic economic infrastructure to support sustainable investments (financially) and financing agricultural technologies in various regions of the world (especially in Africa).
- f. Trade and price policies tended to improve agricultural products trade conditions and international markets have created better but more competitive conditions [10].

2.3. Factors Affecting Investment in Agriculture

In terms of theoretical foundations, factors such as sales or revenue, price indices and capital cost on investment demand are effective in the economy of Iran, which should be followed. Therefore, the following parameters are analyzed:

- a) Supplying credits (public and specialized banks) to agricultural sector
- b) Country's oil revenues (prior period)
- c) Inflation with relative price index in agricultural products (profitability)
- d) Capital stock in the agricultural sector (prior period)

A) Supplying credits to agricultural sector

This part includes main credits supplied by official sources of the country to agricultural sector and one of its components is state credits. These credits are mainly the construction costs of the government that belong to state companies by the budget law and are mainly spent on infrastructure projects such as irrigation canals, dams and buildings, etc. they cause private sector investment be attracted into economic activities. Another component of the supplied credits is bank credit to the private agricultural sector. Commercial banks due to late return of investment projects in agriculture and its risk are reluctant to grant loans to this sector, and in this sector private and specialized banks are mostly active. So with their adequate monitoring during loan payments, the loan will be spent on capital and production costs in agricultural. Therefore, it is expected that in this model, demand for investment in agriculture has a positive relationship with the supply credits to this sector.

B) Oil Revenues (With Interruptions)

Country's oil revenues of prior period cause that real revenue and hence the total demand increase in society. Therefore, it is expected that country's oil revenues have a positive impact on investment demand in agriculture [11].

C) Inflation Impact with Relative Price Index in Agricultural Products

The theoretical justification for the effects of inflation on the investment process stems from these two ideas as follows [1].

- 1- Keynes income theory
- 2- Quantity theory of money

According to Keynes, inflation will reinforce economic growth in the two following ways:

- Redistribution of incomes of workers and peasants who have marginal propensity to low savings, manufacturer and capitalist class who have marginal propensity to high savings and investments.
- Increase the rate of return on investment than the interest rates, which will encourage investment. In other words, the marginal efficiency of capital should be much higher than the interest rate in order to increase investment. However, it should be noted that both of these conventional assumptions are incorrect empirically because not only financiers and manufacturers feel inflation but also social classes feel it.
- Inflation rate on investment has different effects, i.e. inflation has different effects in high levels compared to low levels. Low inflation makes no dent in investment and probably due to a temporary rise in profits it will bring greater incentive to invest. Since inflation is high in developing countries, it is regarded as an indicator of economic instability by investors, which destroys the incentive to invest.

Since the price increase in macroeconomics will spread to other goods, and in fact in some areas increased price indicates inflation in other commodities as well. Thus, raising product prices increases production price as well, and therefore the behavior of manufacturing firm will change. In

this case, an agricultural investor shows a positive reaction to increased profit from index increases of agricultural product prices.

D) Capital Stock of Prior Period

In a growing economy, positive change in capital stock is a necessity that caused for a long time the high level of net investment to be preserved. Positive growth of capital stock increases real income and through the mechanism of acceleration it will increase investment demand. If some factors reduce the capital stock and investment, they will reduce the real income and thus savings and investment, so there is a positive relationship between capital stock and real income with investment demand [11].

3. RESEARCH METHODOLOGY

This is an applied research in terms of purpose, and it is a causal research in terms of nature and method. It is looking for conclusions about the hypothesis using library-field studies. The theoretical foundations of the research were collected using library studies. Then, using bank documents and statistical data published by the Census and Budget Planning Organization, required data for analysis and decision-making on research hypotheses have been collected.

Research Hypotheses:

- The first main hypothesis: There is a significant relationship between granted banking facilities of Saderat Bank and employment in agriculture sector in Guilan.
- The second main hypotheses: There is a significant relationship between granted banking facilities of Saderat Bank and investment in agriculture sector in Guilan.

Sub-Hypotheses:

- There is a significant relationship between capital credits of Saderat Bank and increased investment in agricultural sector in Guilan.
- There is a significant relationship between capital credits of Saderat Bank and increased employment in the agricultural sector in Guilan.
- There is a significant relationship between capital credits of Saderat Bank and increased added value in the agricultural sector in Guilan.
- There is a significant relationship between current credit of Saderat Bank and increased investment in the agricultural sector in Guilan.
- There is a significant relationship between current granted credits of Saderat Bank and increased employment in the agricultural sector in Guilan.
- There is a significant relationship between current granted credits of Saderat Bank and increased added value in the agricultural sector in Guilan.

4. FINDINGS

Table-1. Description of variables

	Number	minimum	Maximum	Mean	Standard deviation
Total credits	4	283075	1007533	480093	352287.6963
Current credits	4	110920	391815	232272.75	121698.71
Capital credits	4	79731	615718	247820.25	249248.59
Value Added	4	6114803	12046205	9362855	2891998.17
Employment	4	154515	172020	163163	7533.66

Credits: Statistics revealed that minimum and maximum total credits were 283075 (2007) and 1007533 (2009), respectively. Also, minimum current and capital credits were 110920 and 79731, respectively, and maximum current and capital credits were 391815 and 615718, respectively. The mean was 232272.75 and 247820.25, respectively.

However, the mean of paid credits by Saderat Bank to agriculture sector was equivalent to 480093 million Rls. As we know, investments in agriculture are financed by two poles of banking facilities and government assistance.

Therefore, compared to figures corresponding granted credits of Saderat Bank with the total amount of banking facilities paid to agricultural sector, which was 2672116 in 2006, 3118131 in 2007, 2308146 in 2008, 3642163 in 2009, and the mean of 2935139, also compared to government assistance and private investments in agriculture sector, and also with notability of figures corresponding private investments, it was observed that Saderat Bank's share in financing paid loans to farmers was very poor.

Value added: The minimum score for this variable was 6114803 (2006) and the maximum score was 12046205 (2009), and the mean value of value added in agricultural sector over study period was 9362855.

Employment: According to findings, employment in the agricultural sector during the study period had a decreasing trend so that the least employment rate was 154515 (2009) and the most rate was 172020 (2006).

Investment: The investment trend in agricultural sector during the study period was an upward trend so that the least investment rate in 2006 was 891413 and the highest rate was 1411716 in 2009. The mean value of investment in this sector was 1154283. The least and highest rates of investment were in agriculture sector of Guilan and its mean during the study period. According to the chart, it is found that the lowest rate was in 2006 and the highest rate was in 2009.

5. ANALYZING ASSUMPTIONS AND CONCLUSIONS

Assumptions results and their regression test results are presented in table 4.

Table-2. Results of regression test

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
Credits and increased employment	-.016	.010	-.735	-1.534	.265
Credits and investment	.470	.358	.681	1.314	.319
Current credits and increased employment	-.022	.041	-.357	-.541	.643
Capital credits and increased employment	-.026	.011	-.865	-2.436	.135
Current credits and investment	.581	1.353	.290	.429	.710
Capital credits and investment	.801	.395	.820	2.027	.180
Current credits and value added	1.033	16.788	.043	.062	.957
Capital credits and value added	7.516	6.250	.648	1.202	.352

According the significance level, it can be said:

- The first main hypothesis: Based on the results of multiple linear regressions at 95% confidence level, the significance level is equal to 0.518 or greater than 0.05. Thus, the hypothesis saying that there is a significant relationship between granted bank credits of Saderat Bank of Guilan and employment is rejected.
- The second main hypothesis: Based on the results of multiple linear regressions at 95% confidence level, the significance level is equal to 0.319 and greater than 0.05. Thus, the hypothesis saying that there is a significant relationship between granted bank credits of Saderat Bank of Guilan and increased investment in agriculture is rejected.
- The first sub-hypothesis: Based on the results of multiple linear regressions at 95% confidence level, the significance level is equal to 0.685 and greater than 0.05. Thus, the hypothesis saying that there is a significant relationship between granted current credits of Saderat Bank of Guilan and increased employment is rejected.
- The second sub-hypothesis: Based on the results of multiple linear regressions at 95% confidence level, the significance level is equal to 0.615 and greater than 0.05. Thus, the hypothesis saying that there is a significant relationship between capital credits of Saderat Bank of Guilan and increased employment in the agricultural sector is rejected.
- The third sub-hypothesis: Based on the results of multiple linear regressions at 95% confidence level, the significance level is equal to 0.710 and greater than 0.05. Thus, the hypothesis saying that there is a significant relationship between granted current credits of Saderat Bank of Guilan and increased investment in the agricultural sector is rejected.
- The fourth sub-hypothesis: Based on the results of multiple linear regressions at 95% confidence level, the significance level is equal to 0.180 and greater than 0.05. Thus, the hypothesis saying that there is a significant relationship between capital credits of Saderat Bank of Guilan and increased investment in the agricultural sector is rejected.
- The fifth sub-hypothesis: Based on the results of multiple linear regressions at 95% confidence level, the significance level is equal to 0.957 and greater than 0.05. Thus, the hypothesis saying that there is a significant relationship between granted current credits of Saderat Bank of Guilan and value added in the agricultural sector is rejected.

- The sixth sub-hypothesis: Based on the results of multiple linear regressions at 95% confidence level, the significance level is equal to 0.352 and greater than 0.05. Thus, the hypothesis saying that there is a significant relationship between granted capital credits of Saderat Bank of Guilan and value added in the agricultural sector is rejected.

The agricultural sector is an important economic sector that should help to deal with the challenges of national employment despite lack of some basic requirements considering the global situation. Capital and investment in agricultural sector are key elements of growth and development. So that lack of investment in agriculture sector has led to low productivity of production factors. One way of funding the agriculture sector is to grant credits. Several sources of funding agriculture sector are involved in Iran among which commercial banks and specialized agriculture bank are known as conventional sources, bankers, shopkeepers, brokers and intermediaries are known as on-conventional sources. Amount of loans paid to agriculture sector by banks of Guilan over 2000-2009 showed that total amount of credits paid from 2000 to 2007 has an upside trend, but in 2008 loans experienced reduced and negative growth rate. In 2002 and 2006 paid loans had the highest rates of growth.

Hence, due to negligible granted credits of Saderat Bank during the study period, also the strategic importance of agriculture and food products in the world today, as well as development of banking system and intense competition between banks and financial institutions, it is recommended that using strategic plans and long-term objectives Saderat Bank should increase contribution and scope of its activities in the agricultural sector and also play a more prominent role in the implementation of agricultural projects.

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