ROLE OF TENURE IN THE FESIBILITY OF WHEAT PRODUCTION PROJECTS IN DHI- QAR GOVERNORNORATE

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ABSTRACT

Projects of various sizes and types are the most important factors for the success of economic development plans in general. Agricultural projects and agricultural cooperatives are also considered as the basis for agricultural development in the economies of many countries. One of the most important targets of development is to fight poverty and famine, and achieving that depends on how to deal with agricultural lands with good management and scientific methods. The aim of this research is to identify the economic feasibility of one of the agricultural activities in the province of Dhi Qar. The study included 132 farms specialized in the cultivation of wheat crop in the province of Dhi Qar for the agricultural season 2017-2018. The results of the research showed that the projects in the province have economic and technical efficiency and proved the results of the economic feasibility criteria of investment in such projects. The researchers found that the size of the possession 30-50 dunums has both productive and technical efficiency, while the farmers with holdings of more than 50 dunums has the best economic efficiency in the use of available resources, despite the low productivity if the return on investment about 188% in small farms, while the profitability of about 119% dinars, while the capital productivity amounted to about 2.081 dinars, and therefore the researchers recommended the need to encourage investment in the large plants given their ability to absorb technology, reduce average production costs and intensify other resources.

Keywords: profitability, capital productivity, economic efficiency, agricultural development

دور الحيازة في جدوى مشروعات انتاج القمح في محافظة ذي قار

ضرغام سلمان برباز
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دائرة وقاية المزروعات / وزارة الزراعة

المستخلص

تعد المشروعات الزراعية والتعاونيات الزراعية اساسا للتنمية الزراعية في اقتصاديات الكثير من الدول. وتحقيق ذلك يعتمد الى حد كبير على كيفية التعامل مع الاراضي الزراعية ، لذلك هدف البحث الى التعرف على الجدوى الاقتصادية لأحدى الانشطة الزراعية في محافظة ذي قار ألا وهو زراعة محصول القمح فضلا عن بيان اثر حجم الحيازة على تلك المشاريع من حيث تحقيقها الجدوى الاقتصادية والفنية في ضوء نتائج معايير التقييم التي تناولها البحث ، وقد اشتمل البحث 132 مزرعة متخصصة في زراعة محصول الحنطة في محافظة ذي قار للموسم الزراعي 2017–2018 ، وقد اظهرت نتائج البحث ان المشاريع في المحافظة تتمتع بكفاءة اقتصادية وفنية واثبتت نتائج المعايير الجدوى الاقتصادية من الاستثمار في مثل تلك المشاريع ، وقد وجد الباحثان ان حجم الحيازة 30–50 دونم يتمتع في كفاءة انتاجية وفنية ، فيما حققت مزارع ذات الحيازات الكبيرة اكثر من 50 دونم افضل كفاءة اقتصادية في استخدام الموارد المتاحة بالرغم من انخفاض انتاجيتها اذا بلغ عائد الاستثمار نحو 188% في المزارع الصغيرة بينما بلغت نسبة الربحية نحو 1.22 دينار، اما انتاجية راس المال فقد بلغت نحو 2.940 دينار ، وبناءا على ذلك اوصى الباحثان بضرورة تشجيع الاستثمار في المزارع الكبيرة لما لها من قدرة على استيعاب التكنولوجيا وتخفيض متوسط تكاليف الانتاج وتكثيف الموارد الاخرى

الكلمات المفتاحية : دليل الربحية ، انتاجية راس المال ، الكفاءة الاقتصادية ، التنمية الزراعية.

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INTRODUCTION

The agricultural system is an integrated set of activities carried out by farmers in the fields under the conditions of agriculture to achieve the maximum production and net income on a sustainable basis through the types of agricultural systems and assess these possibilities to increase farm income through the distribution of resources (3). The objective of economic development is to eradicate poverty and optimize the use of productive resources. Achieving this depend on a large extent on how to deal with the land through proper management and using the scientific method to achieve safe and equitable access to these resources and control them so as to ensure the provision of adequate food and sustainable rural development. Living for current and future generations (9). The ability of our planet to produce enough food for the world's population based on agriculture was the subject of many researchers who concluded that irrigated agriculture covers about 275 million hectares worldwide and produces about 40% of food crops. Despite this relatively high irrigated area, the level of productivity has not improved, not at a slight level. This increase was accompanied by high costs, which indicates reliance on old methods on the one hand and the lack of scientific management on the other (3) .Economic efficiency is a term used in microeconomics and expresses the production of an economically efficient unit when the unit is produced at the lowest possible cost (17). There are three conditions sufficient to achieve that. First, achieving the marginal benefit of all consumers. Second, all producers must work at the same marginal cost. Finally, the profit margin for each producer is equal to the marginal cost of each resource (10). We conclude from this that the concept of economic efficiency is relative. It may refer to achieving the greatest amount of agricultural production with the same amount of resources, and there is insufficient and accurate information on the degree of economic efficiency in different sizes of farms. The problem of research is that the projects in the province of Dhi Qar face many obstacles and problems, which stand in the way of benefiting from the available possibilities and the achievement of profitable returns, and the research assumes that despite the possibilities available in the province, the success of agricultural units in the province depends on large holdings only. Therefore, the aim of the research is to determine the effect of the size of cultivated areas of wheat yield in Dhi-Qar province on achieving efficiency in the use of resources available in the governorate, as well as to show farm returns and the feasibility of investment in these farms through some criteria of financial and economic evaluation, to avoid them and to discover weakness to strengthen it.

MATERIALS AND METHODS

The data requirements were met by using a questionnaire form of random sample of wheat farmers in Dhi Qar governorate. The number of farmers reached about 132 farmers. The data collection process continued in a year to cover the entire agricultural activities of each farm. The research sample was divided into three categories according to the farm size. The first category included wheat crop farms with a size of less than 30 dunums, representing a sample of small farms, which constituted 35.6% or 47 farmers of the total sample size. The second category included the farmer with a size of 30-50 dunums, and the number of farmers were about 42 farmers, which constituted about 31.8% of the sample size. The third category only included large farms with more than 50 dunums of land and more. For the categories to be consistent, research sample included a third category of some of the farmers who grow the crop with areas exceeding 100 dunums to 500 dunums who were17 farmers. In addition to 26 farms who grow the crop areas below 100 acres, the number of farmers in the third category about 43 farms, which make up about 32.5% of the sample.

Theoretical framework

The PAS level reflects the extent to which society is perfected and rationalized in facilitating its affairs and represents the tool through which we recognize reality to improve it (21). Project evaluation is increasingly important in light of the State's tendency to reduce the role of the public sector and the increasing role of the private sector and to optimize the use of available resources by

channeling these resources to the best available uses or so-called rational use (5). Economic efficiency is defined as the use of resources of wealth in the form that can be achieved one of two things. First to achieve greater production with the same previous production costs (12), and the second achieving the previous production itself at lower production costs. It is also known as maximizing the profit within the production unit by the ideal use of production elements (6). The process of studying the efficiency of performance in the economic project is closely related to the evaluation process and the feasibility of the projects. The objectives of the project, which are expected to be achieved in the near and distant fields, are determined according to the criteria and foundations adopted in evaluating the projects. That makes the process of the study and evaluation of farms a comprehensive and integrated process by nature. Therefore, determining the appropriate criteria for agricultural activities is one of the most important bases in the process of evaluating the efficiency of agricultural activity in these projects (1). The evaluation process is carried out in all economic activities, whether agricultural, industrial or service activities, and there is no significant difference in the evaluation of these activities, but rather the difference in how the appropriate criteria are chosen for each activity (14). The research adopted a set of economic criteria:

Net cash income criterion: In order to measure the net income and the change in it, changes in the prices of certain production activities that may decrease and return to the normal level according to the annual change in productivity (13) must be taken into consideration. It is calculated by the following equation (15):

Net cash income = Cash Revenue - Cash Costs.

Economic profit criterion: This is the difference between total farm income and farm costs. Calculated using the following law (6):

Economic profit = total revenue - total cost.

Profitability Ratio: The difference between the revenues and the costs of the project, i.e. the net profit after paying all the other costs and expenses as calculated as a percentage of the annual return of the capital which consists of fixed capital and working capital and calculated using the law (20):

$$\textbf{Profitability Ratio} = \frac{\textbf{annual net profit}}{\textbf{Capital invested}} \times \textbf{100}$$

Productivity of the capital invested: This criterion shows the productivity or the degree of success of the project in the use of the agricultural assets. It is calculated by dividing the value of the annual production or revenue of the project on the value of the agricultural assets at present value both in terms of revenues or costs (17).

Pay-Back period: the period required to recover the capital invested in the project (2) the length of time in which the revenue can pay the amounts invested in the farm and uses the law below to calculate(6) (16):

$$\textbf{Pay} - \textbf{Back period} = \frac{\text{Capital invested}}{\text{Annual profit}}$$

Simple rate of return: This criterion is sometimes called the accounting rate of return since it depends on predicting what the results of the profit and loss accounts in the accounting entries will be and calculated using the law **(**4):

$$\textbf{Simple rate of return} = \frac{\textbf{Annual profit}}{\textbf{Capital invested}} \times \textbf{100}$$

Total efficiency ratio: This criterion shows the relationship between the total output and all the elements of production used to achieve it. The total efficiency takes all inputs and outputs into account. The total efficiency can be achieved by equation **(18):**

$$\textbf{Total efficiency ratio} = \frac{\textbf{Total output value}}{\textbf{Total production costs}}$$

Variable capital productivity: This criterion can assess the efficiency of the use of variable assets for each farm, since the efficiency of the use of these resources largely determines the profitability of the production process and therefore the use of economic incentives in the use of these assets will optimize their use. To measure this criterion, the equation is used (13):

$$\textbf{Variable capital productivity} = \frac{\textbf{Total Revenue}}{\textbf{Total direct costs}}$$

RESULTS AND DISCUSSION

First: Investment costs

The investment costs in the sample farms included equipment, machinery, pumps and farm support installations from the farmers' warehouses and houses. The total investment

costs in the sample were about 3.769 billion dinars, an average of about 28 million dinars per farm, while the average share of one dunum of investment costs about 0.4 million dinars in the research sample. The investment costs in the first category of the research sample amounted to 1.1 billion dinars, which is the category of small farms (with a size of less than 30 dunums) with an average of 24 million for each farm, a sample The total investment per dunum of the investment cost was about 1.06 million dinars, which is more than 142 dunums per dunum. This is due to the increase in the share of dunums due to the small holdings in this category. Possession of less than 50 dunums reached about 1.1 billion dinars, an average of about 26 million dinars per farm, which did not differ significantly from the average of the farm is similar in terms of requirements, machinery, equipment, buildings and facility needed by each farm and this is clear in the efficiency of the use of these machines and equipment. The share of one dunam of these costs is reduced to about 249 thousand dinars in the category of large farms (with a size of possession of more than 50 acres), although the total investment costs in this category amounted to about 1.5 billion dinars, an average of about 35 million per farm of large farms category. Which shows the impact of the expansion of the investment process and its role in reducing the average long-term investment costs, which encourages the optimal use of the economic resource capital represented by the investment costs as shown in tables 1. 2. 3. 4.

Second: Operational costs

The total operating costs in the research sample were about 1.9 billion dinars, with an average of about 14 million for each farm of the sample of the research, while the share of one dunum of the total costs about 229 thousand dinars. The mechanical labor was about 23.8% of the total costs because of the nature of the crop, which depends on agricultural mechanization to carry out the agricultural operations of plowing, settlement and softening, sowing, and harvesting so most agricultural operations depend on machinery and equipment considering technological progress in various agricultural equipment. The cost of manual labor is about 4.3% of the total cost. The second place is the cost of urea fertilizer, which is about 17% of the total cost which was a result because of the expansion of the crop cultivation and the intensification of the use of various fertilizers to ensure a fruitful harvest. Fixed costs accounted for 21.5% of total operating costs, while variable costs accounted for 78.4% of total operating costs. Crop farming depends on the variable costs more than the other crops.

Table 1. Cost items in sample farms

Item	Cost per dunum (IQD)	Cost per Farm (IQD)	Total Cost (IQD)	Relative importance
Investment costs	**437502.6**	**28560303.0**	**3769960000**	
Rent Land	**3500.8**	**228531.1**	**30166100**	**1.5%**
Depreciation	**32925.1**	**2149363.6**	**283716000**	**14.3%**
Interest on capital	**13125.1**	**856809.1**	**113098800**	**5.7%**
Seeds	**25532.4**	**1666764.7**	**220012943**	**11.1%**
NPK fertilizer	**17227.0**	**1124581.1**	**148444700**	**7.5%**
Urea fertilizer	**39438.1**	**2574530.3**	**339838000**	**17.2%**
Pesticides	**1172.0**	**76505.7**	**10098750**	**0.5%**
Fuels	**11291.6**	**737121.2**	**97300000**	**4.9%**
maintenance	**4176.0**	**272613.6**	**35985000**	**1.8%**
Mechanical Labor	**54643.1**	**3567121.2**	**470860000**	**23.8%**
Hand Labor	**9814.3**	**640681.8**	**84570000**	**4.3%**
Marketing costs	**16786.6**	**1095833.3**	**144650000**	**7.3%**
Total	**229632.2**	**14990456.8**	**1978740293**	**100.0%**

Source: Prepared by researchers based on the questionnaire

In order to show the effect of the farm in the various cost items, the research sample was divided into three categories in terms of size of tenure: small farm (less than 30 dunums), medium-sized farming (less than 50 dunums) (The size of possession of 50 acres and over), and the total operating costs category small farms 361 million dinars, an average of about 7.7 million dinars per farm, while the share of one dunum about 229 thousand dinars of operating costs, has recorded the highest contribution rate amounted to about 22% of total operating costs due to lower cost items, because of the increase in the share of the unit area. The cost of mechanical labor came second in terms of relative importance, amounting to about 16.5%, followed by the costs of urea fertilizer and seeds, while the cost of pesticides was the lowest and recorded 0.6% of the total operating costs because the crop needs of some pesticides and bush. The Department of Plant Protection distributed a quantity of free pesticides on wheat crop crops such as the Atlantis pesticide. The relative importance of fixed costs in this category compared with the sample average was about 33.1%, compared with the average of the sample. While variable costs accounted for about 66.9% of total costs.

Table 2. Cost items in the category of small farms (1- 30 dunums)

Item	Cost per dunum (IQD)	Cost per Farm (IQD)	Total Cost (IQD)	Relative importance
Investment costs	**1060897.3**	**24400638.3**	**1146830000**	
Rent Land	**5379.4**	**123725.5**	**5815100**	**1.6%**
Depreciation	**73552.3**	**1691702.1**	**79510000**	**22.0%**
Interest on capital	**31826.9**	**732019.1**	**34404900**	**9.5%**
Seeds	**35159.0**	**808657.4**	**38006900**	**10.5%**
NPK fertilizer	**17424.3**	**400758.5**	**18835650**	**5.2%**
Urea fertilizer	**38237.7**	**879468.1**	**41335000**	**11.4%**
Pesticides	**1906.8**	**43856.4**	**2061250**	**0.6%**
Fuels	**25411.7**	**584468.1**	**27470000**	**7.6%**
maintenance	**9310.8**	**214148.9**	**10065000**	**2.8%**
Mechanical Labor	**55308.0**	**1272085.1**	**59788000**	**16.5%**
Hand Labor	**14445.0**	**332234.0**	**15615000**	**4.3%**
Marketing costs	**26827.0**	**617021.3**	**29000000**	**8.0%**
Total	**334788.9**	**7700144.7**	**361906800**	**100.0%**

Source: Prepared by researchers based on the questionnaire.

As for the medium size farms, the total operational costs amounted to about 385 million dinars, which is not different from the small farms. The share of one dunam of those costs, as this category was about 260 thousand dinars because of the expansion of the size of farm areas by crop, and that led to distribute costs on larger areas enhanced the optimal use of production components and the production of the obvious relationship in the low average cost by increasing the production capacity, which is clear in the value of the depreciation, which accounted for about 20% of the total costs bigger than category of small farms. The mechanical labor on the farm accounted for 20.7% of the relative importance of the total costs and came in first place, followed by the costs of extinction and then the costs of urea fertilizer and seeds. The relative importance of fixed costs amounted to about 30.9% of the total operating costs. The relative importance of variable costs was about 69.1% of the total costs. The largest farms recorded the lowest average cost per dunam which was about 198 thousand dinars although the total operating costs amounted to about 1.2 billion dinars, as the average share of one million of operating costs depreciation by 10% compared to the average sample, and shows the impact and the large role of increasing the size investment in reducing cost averages and all their items, which encourages the optimal use of economic resources, and is clearly shown in the low cost per dunum in this sample as shown in Table 4.

Although the relative importance of these items is not very different from the sample average, Table 1. The mechanical labor was the highest percentage of about 27.6%, mainly for the large farms, mainly for agriculture, as well as manual labor, which is very important in some agricultural operations such as irrigation and pesticide spraying, which constitutes about 4% of the total costs. Followed by the cost of manure urea if it form about 20.2% and has exceeded the sample average by about 1.5%. Fertilizers are used in low-fertility land cultivation in the light of the expansion of the production process on the one hand and the commitment of the farmers to the fertilizer recommendations. On the other hand, that led to a slight difference in the average cost Urea fertilizer in acres, it has relative importance of fixed costs as it accounted for only about 15.6% of the total overall costs due to lower depreciation in large farms, while use of production inputs decreased so variable costs accounted for about 84.4% of about 7 % of the average variable costs in the research sample.

Table 3. Cost items in the category of medium-sized farms (30- 50 dunums)

Item	Cost per dunum (IQD)	Cost per Farm (IQD)	Total Cost (IQD)	Relative importance
Investment costs	749459.5	26409523.8	1109200000	
Rent Land	4558.1	160619.0	6746000	1.8%
Depreciation	53500.0	1885238.1	79180000	20.5%
Interest on capital	22483.8	792285.7	33276000	8.6%
Seeds	25795.9	909000.0	38178000	9.9%
NPK fertilizer	17583.5	619608.3	26023550	6.8%
Urea fertilizer	37846.6	1333642.9	56013000	14.5%
Pesticides	1615.7	56934.5	2391250	0.6%
Fuels	21621.6	761904.8	32000000	8.3%
maintenance	7077.7	249404.8	10475000	2.7%
Mechanical Labor	53968.9	1901761.9	79874000	20.7%
Hand Labor	14320.9	504642.9	21195000	5.5%
Marketing costs	20000.0	704761.9	29600000	7.7%
Total	260372.8	9175042.9	385351800	100.0%

Source: Prepared by researchers based on the questionnaire

Table 4. Cost items in the category of large farms

Item	Cost per dunum (IQD)	Cost per Farm (IQD)	Total Cost (IQD)	Relative importance
Investment costs	249988.4	35207674.4	1513930000	
Rent Land	2907.0	409418.6	17605000	1.5%
Depreciation	20645.0	2907581.4	125026000	10.4%
Interest on capital	7499.7	1056230.2	45417900	3.8%
Seeds	23749.7	3344838.2	143828043	12.0%
NPK fertilizer	17104.6	2408965.1	103585500	8.6%
Urea fertilizer	40041.3	5639302.3	242490000	20.2%
Pesticides	932.3	131308.1	5646250	0.5%
Fuels	6246.7	879767.4	37830000	3.1%
maintenance	2550.4	359186.0	15445000	1.3%
Mechanical Labor	54689.2	7702279.1	331198000	27.6%
Hand Labor	7886.4	1110697.7	47760000	4.0%
Marketing costs	14209.0	2001162.8	86050000	7.2%
Total	198461.3	27950737.0	1201881693	100.0%

Source: Prepared by researchers based on the questionnaire

Third: Revenues

Wheat crop income consists of selling wheat crop as a primary product and the sale of plant waste for yield as a secondary crop. The average price of selling one ton of wheat crop is about 540 thousand dinars. The price of wheat in the sample is between 420 thousand dinars and 650 thousand Dinars, depending on the degree of marketed product of the crop, while the average price per ton of plant waste about 137 thousand dinars. The total quantity of the wheat crop was about 7185 tons, which is the quantity produced from the cultivation of about 8617 dunums. The total revenue in the research sample was about 4.1 billion dinars with an average of about 31 million for each farm of 132 farms. The average category of medium-sized farms recorded the highest rate of production of about 88 kg / dunum, which was reflected in recording the highest revenue per dunum of about 499 thousand dinars, which differed much of the revenue per dunum in the small farmer, about 498 thousand dinars. While the income per dunam in the larger than average farm. The sample was about 469 thousand dinars, because the increase in the size of cultivated areas led to marginal or low-fertility land cultivation, which was reflected in production, or that the increase of areas planted with crop caused a decrease in efficiency of the most important factors of production, namely management.

Table 5. Total income of wheat cultivar by categories of research sample

Category		Plant residues (tones)	Quantity of production (tons)	Area (dunun)	Revenue (IQD)
Small Farm	Total	376	912.75	1081	538738000
	Average per farm	8.00	19.42	23	11462510
	Average per dunum	0.35	0.84	1	498370
The medium size farmer	Total	335.5	1305.3	1480	739634000
	Average per farm	7.99	31.08	35	17610333
	Average per dunum	0.23	0.88	1	499752
Large farms	Total	1924	4966.5	6056	2840998000
	Average per farm	44.74	115.50	141	66069720
	Average per dunum	0.32	0.82	1	469121.202
Sample Farms	Total	2636	7185	8617	4119370000
	Average per farm	19.97	54.43	65	31207348
	Average per dunum	0.31	0.83	1	478051

Source: Prepared by researchers based on the questionnaire

Financial and Economic Assessment Results

The success of the evaluation process depends on the selection of indicators and standards appropriate and appropriate to the nature of the project to be evaluated, as each project specific privacy distinguish it from the rest of the other projects, and after the study of investment costs and operational costs and total income in the production of wheat crop province of Dhi Qar it is possible to use some criteria of efficiency and financial assessment to determine the level of technical and economic efficiency enjoyed by the sample farms and to ascertain the feasibility of such projects. The results of the indicators and evaluation criteria were drawn in Table 7. The sample farms achieved a gross positive income of about 2.5 billion IQD at a rate of 19.2 million dinars per farm while the share of one dunum was about 294 thousand dinars of the net farm income of the sample farm. The medium large farms recorded the highest net cash income per dunum of 298 Thousand dinars followed by medium farms, while small farms recorded the lowest net cash income per dunam of about 268 thousand dinars. Large farms recorded the highest gross net income amounted to about 1.8 billion dinars because of the large volume of investments in these farms. As for the economic profit criterion, it reached about 2.1 billion dinars in the farms of the research sample with an average of 17 million dinars per farm. The share of the dunums of profits reached about 248 thousand dinars. The large farms registered the highest economic profit of about 1.6 billion dinars on the total level. The level of one dunam has reached about 270 thousand dinars, while the lowest rate of economic profit at the level of one dunam has reached about 163 thousand dinars in small

farms, and the return of this increase in profits to the efficiency of investment resources available and increase the value of Commercial profits farms if the sample farms attest which is a large percentage reflecting the profitability of this activity, and this is evident in the large farms, where the rate of profitability of commercial high if it reached about 119.5%, which is an indicator of the commercial profitability by large farms and benefit from the of large production and return this increase. The increase in profits was due to efficient investment of economic resources in an efficient manner, while profitability in small farms decreased to about 25.4%. The results of this criterion are consistent with the results of the return on investment criterion if the return on investment of the research sample is about 109%, which is a large return when compared to the interest rates prevailing in the financial markets and a clear indication of the feasibility of investing in such projects, especially on large farms that increase with a yield of more than 50 dunums with an investment yield of about 188% and a decline of about 47% in small farms. The results of the simple return rate criterion were consistent with the return on investment, with a simple return rate of 74.8%, and scored above in the big farm. The lowest value of the simple yield criterion in small farms was about 47% and compared to the alternative opportunities which are often the interest rate granted by the banks on the money, which ranges from 8-15% in developing countries. The sample categories of research had the economic feasibility of investing in them. The results of the total efficiency criterion in the wheat crop farms amounted to about 2.081 dinars in the sample farms, which is greater than the one to indicate the feasibility and efficiency of wheat production in the study area. Each IQD spent in the sample farms achieves a net return of 1.081 dinars. The efficiency of the technical and economic farms in the use of economic resources. All the sample groups achieved a total efficiency of more than one. The above record in the large farms amounted to about 2.363 IQD, which exceeds the total efficiency of the average sample, while the small farms recorded a total efficiency of about IQD 1.363 evidence to increase the efficiency of investment in large areas because of the nature of the wheat crop, as revenues will rise by 37% compared to investment in small areas of less than 30 dunums, has shown the criterion of productivity of variable capital that wheat farms have the efficiency of using variable production requirements As each dinar invested in it generates a return of 2.654 IQD at the sample level, the above record in the category of large farmers amounted to about 2.802 dinars, which reflects the short period of recovery of money invested in large farms if the farmer recovered the invested money in a period not exceeding. While the smaller farms recorded the longest recovery period of about five and a half years if the value of the recovery period is about 3.94 years, due to the large volume of investments compared to with the returns achieved. Based on the results obtained based on the results of the criteria applied in the research researchers conclude that there is a feasibility of investment in wheat production projects in the province of Dhi-Qar, and that farmers use economic resources efficiently based on the limited arable land, and the cultivation of wheat crop areas more than 50 dunums more economically efficient in the exploitation of fixed investment resources, despite the decline in productivity compared with the cultivation of the crop areas 30-50 dunums of higher productivity with a productivity rate of about 3.5 tons. Farms wheat crop on the one hand and the price of state policy supporting the wheat crop and accessories production prices on the other hand, it has recommended that researchers need to determine the size of the farm for the cultivation of wheat crop by the state of economic sizes of more than 30 acres, as well as continue to support farmers in wheat crop in the province.

Table 6. Net cash income and economic profit in the research sample farms

Category		Net cash income (IQD)	Profit (IQD)
Small Farm	Total	290746100	176831200
	Average per farm	6186087	3762366
	Average per dunum	268960	163581
The medium size farmer	Total	437138200	324682200
	Average per farm	10408052	7730529
	Average per dunum	295364	219380
Large farms	Total	1809560207	1639116307
	Average per farm	42082796	38118984
	Average per dunum	298805	270660
Sample Farms	Total	2537444507	2140629707
	Average per farm	19223064	16216892
	Average per dunum	294470	248419

Source: Prepared by researchers based on Tables data1.2.3.4

Table 7. Results of evaluation indicators and criteria in the research sample farms

the value				criterion
Sample Farms	Large farms	The medium size farmer	Small Farm	
%67.3	%119.5	%39.4	%25.6	Profitability Ratio
%109	%188	%67	%47	Return on investment
1.486	0.837	2.537	3.944	Payback period
%74.8	%127.8	%46.5	%32.3	Simple rate of return
2.081	2.363	1.782	1.488	Total efficiency ratio
2.654	2.802	2.500	2.224	Variable capital productivity

Source: Prepared by researchers based on Tables data1.2.3.4

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