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Financial analysis of efficiency indicators and their impact on investment policies: a case study of the Arab Qatari Agricultural Production Company in 2013-2020

Abstract. Financial analysis of efficiency indicators is significant for companies that develop and implement their investment policies since such indicators reflect the economic and financial standing. The research reveals that the Arab Qatari Agricultural Production Company achieved net profits over the 2012-2016 period; then it had a large loss in 2017. The percentage change in the net profit achieved was negative for the later years (2017-2020). The revenues generated from the commercial activity ranged between QAR 18.4-25.5 million. The rate of change was positive in all the years of study. A rate of 95-98.4% from the total revenues came from the commercial activities. The results show that the rate of change in total assets, fixed and variable, was upbeat throughout the study period, indicating an improvement in general assets. The conducted analysis shows that the gross profit margin was fluctuating during the study period, which indicates a fluctuation in the efficiency of operating resources. The rate of return on assets was volatile and low in general. The authors of the research recommend to pay more attention to the results of the analysis in order to identify the failures and weaknesses of performance and address them.

Keywords: Investment Policy; Arab Qatari Agricultural Production Company; AQCAP; Economic Institutions

JEL Classifications: G40; P45

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Фінансовий аналіз показників ефективності та їх вплив на інвестиційну політику: приклад арабська катарська компанія з виробництва сільськогосподарської продукції у 2013-2020 роках

Анотація. Фінансовий аналіз показників ефективності є важливим в інвестиційній політиці компаній, оскільки ілюструє фінансовий та економічний стан. Дослідження показує, що арабська катарська компанія з виробництва сільськогосподарської продукції досягла чистого прибутку за період 2012-2016 років, після чого зазнала великих збитків у 2017 році. Зміна відсотків чистого прибутку наступних років (2017-2020) була негативною. Доходи, отримані від комерційної діяльності, коливалися між 18,4-25,5 мільйонами катарських реалів. Динаміка змін була позитивною протягом усього досліджуваного періоду. Комерційна діяльність забезпечувала ставку 95-98,4% від загальних надходжень. Результати дослідження показують, що темпи зміни загальних активів були позитивними

протягом усього періоду дослідження, що свідчить про збільшення загальних активів. У той самий час валовий прибуток коливався протягом досліджуваного періоду, що свідчить про нестійкий характер ефективності використання ресурсів. Рівень рентабельності активів також зазнавав змін і був загалом низьким. Автори дослідження рекомендують приділяти більше уваги результатам аналізу з метою виявлення недоліків роботи та їх усунення.

Ключові слова: інвестиційна політика; арабська катарська компанія з виробництва сільськогосподарської продукції; AQCAP; економічні інститути.

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Финансовый анализ показателей эффективности и их влияние на инвестиционную политику: пример арабской катарской компании по производству сельскохозяйственной продукции в 2013-2020 годах

Аннотация. Финансовый анализ показателей эффективности играет важную роль в инвестиционной политике компаний, поскольку она иллюстрирует финансовое и экономическое положение. Исследование показывает, что арабская катарская компания по производству сельскохозяйственной продукции достигла чистой прибыли в период 2012-2016 годов, а затем понесла значительные убытки в 2017 году. Изменение процентов чистой прибыли, полученной в последующие годы (2017-2020) было отрицательным. Доходы, полученные от коммерческой деятельности, колебались в пределах 18,4-25,5 миллионов катарских реалов. Динамика изменений была положительной на протяжении всего исследуемого периода. Доля коммерческой деятельности от общей выручки составила 95-98,4%. Результаты исследования показывают, что скорость изменения общих активов была оптимальной на протяжении всего исследуемого периода, на что указывает увеличение общих активов. В то же время объем валовой прибыли колебался в течение исследуемого периода, о чем свидетельствует неустойчивый характер эффективности использования ресурсов. Рентабельность активов также была нестабильной и в целом низкой. Авторы исследования рекомендуют уделять больше внимания результатам анализа, чтобы выявить недостатки производительности и устранить их.

Ключевые слова: инвестиционная политика; инвестиционная политика; арабская катарская компания по производству сельскохозяйственной продукции; AQCAP; экономические институты.

1. Introduction

Nowadays, the process of making investment decisions in economic institutions, especially productive institutions, is among the tasks that require integration and accuracy of information. The effective reliance on the financial indicators that result from the analysis of financial statements is considered the main source of information through the tools used in the correct and realistic expression of the institution's financial position (Abdella et al., 2021). Achieving investment goals in the optimal use of economic projects' financial capabilities requires the use of financial performance indicators. The study of these indicators depends on the level of economic rationality in the financial decision with the ability to determine the financial factors affecting the situation of economic institutions. The importance of studying the financial indicators of the AQCAP in identifying weaknesses to address them and diagnose strengths to strengthen them (Albasoos et al., 2021; Al-Homoud & Krarti, 2021).

Financial analysis is defined as the study of the financial statements after their classification, to show the correlations between their components and the changes occurring in these elements, the size and impact of these changes, and the derivation of a set of indicators that help study the status of the production unit in terms of operation and financing, evaluate its performance as well as provide the necessary information to the parties benefiting from In order to make sound investment decisions (Bafarasat & Oliveira, 2021). It is the means aimed at defining a set of relationships or measures in the form of financial ratios or trends that summarize the project's operational, investment, and financing activities as shown by the financial statements and other information sources with their explanation and interpretation (Albasoos et al., 2021; Majerowska & Spigarska, 2021; Ibrahim & Shirazi, 2021).

Financial analysis is also defined as «a mathematical analysis of the financial statements by using mathematical formulas and numerical, analytical standards that work to find relationships between the elements of the financial statements and determine their trends and the percentage of change in them to reach the information that is used as a basis for decision-making and clarifies the position of the economic unit» (Almarri, 2020; Selim & Saeed, 2021).

The failure to periodically analyze the financial indicators of the AQCAP will prevent from accessing a proper evaluation of its activities and will not enable the company to stand at the strengths to support it and address the weak points. Thus the aims of the research are to determine the values of the financial indicators that clarify the AQCAP performance in managing inventory, the level of profits, and providing indicators that enable the company's management to make financial decisions in using assets in a manner that achieves higher rates of return.

2. Research Methodology

The statistical analysis and the descriptive-analytical approaches were adopted that relies on the use of financial ratios in analyzing financial statements, depending on:

1. Reports of the financial statements approved by the external auditor accredited to evaluate the performance efficiency of the AQCAP, which includes the approved budget items for each year of research.
2. Annual administrative reports issued by the company cover the activities carried out for all years of research (2013-2020).
3. Published scientific literature on financial analysis.

The Arabic-Qatar Company for Agricultural Production (AQCAP)

The AQCAP was established in 1989 and started production in 1992 as a large-scale agricultural company. The main objectives of the company are:

1. Producing vegetables in air-conditioned greenhouses for the purpose of producing crops out of their normal seasons.
2. Producing silhouette plants and producing services of planning and coordinating gardens, parks, and roads.
3. The commercial activity in trading and marketing of agricultural supplies, such as seeds, fertilizers, pesticides, etc., and things that related to the agricultural mechanization, such as tools, equipment, machinery, pumps, etc.
4. Supplying, installing, and maintaining agricultural greenhouses.

2.1. The Objectives of Financial Analysis

The financial analysis aims, in general, through the use of financial ratios to reach the following goals:

- a. Evaluating the financial position of the economic unit to reach indicators to measure performance and determine the volume of changes that occurred to the various activities during a specific period.
- b. Preparing necessary information for making economic, financial, and investment decisions.
- c. Determining the ability of the economic unit to fulfill its financial obligations in the long and short term.
- d. Evaluating profitability of the economic institution and assessing the economic feasibility of investment.
- e. Study, the possibility of economic unity, to continue.
- f. Evaluating the economic unit's performance efficiency in utilizing its available resources to strengthen the positive elements and address their weaknesses.
- g. Effective planning and control.

3. Results and Discussion

3.1. The Net Profit Criterion

It is evident from [Table 1](#) that the AQCAP has achieved net profits in a fluctuating manner in the direction of decline throughout the period 2013-2017, although it was gradually moving, however, the general trend was towards decline. The highest profit achieved was 1.146 million QR (Qatari Riyals) in 2013, and the lowest profit was 33.9 thousand QR in the year 2017. The large loss in the net profit was in 2018 by 2.4 million QR, increased in 2019 to be 27.9 thousand QR, then to relapse again in 2020 to be 6.8 million QR.

The percentage change in the net profit realized over 2013-2017 fluctuated and was negative for 2018-2020. The company achieved a large loss in the years 2018 and 2020, which illustrates the weakness of the company's efficiency in achieving increasing net profits. **Annual percentage change = $\frac{\text{The element's value in the comparison year}}{\text{The element's value in the base year}} * 100$** (Almarri, 2020; Selim & Saeed, 2021).

3.2. Revenue from commercial activity

It is clear from the data contained in Table 2 that:

- The revenues of the commercial activity of the AQCAP were characterized by its affinity during the research years, at an annual rate of about 22,3 million QR, ranged between a maximum value of 25.5 million QR in 2014 and a minimum value of 18.4 million QR in 2017.
- The rate of change in commercial activity revenues was positive throughout the research period, fluctuating with a downward trend over two periods: the first from 2014-2017 and the second from 2018-2020, ranging from a minimum rate of change of 89 million QR in 2017 to a maximum rate of change of 125.31 million QR in 2014.
- Revenue values took the same direction as the annual commercial activity revenues of 22.9 million QR, ranging from a minimum value of 19.0 million QR in 2017 and a maximum value of 26.1 million QR in 2020, then took an upward trend during the period 2017-2020.
- The percentage of revenues generated from commercial activity to total revenues took a close trend, with an annual rate of 97%, ranging from a minimum rate of 94.5% in 2019 to a maximum rate of 98.4% in 2014. This means that the relative importance of commercial activity revenues has formed high percentages of total revenues, which indicates weakness of the company's revenues from the other activities.

3.3. Total Assets

The data contained in Table 3 shows the following:

- The total assets values for the period 2013-2020 were closed, ranging from a minimum value of 46.6 million QR in 2017 to a maximum of 50.7 million QR in 2019.
- The fixed assets values ranged between a minimum value of 20.7 million QR in 2018 and a maximum value of 24.1 million QR in 2019.
- The variable assets are revenue-generating assets. The values of variable assets ranged between a minimum a value of 24.4 million QR 2013, and a maximum value of 26.6 million QR in 2019.
- The rate of change of total, fixed, and variable assets were positive throughout the period of study, which indicates an improvement in the company's assets.

Table 1:

Net profit α Annual percentage change of the Arab Qatari Agricultural Production Company for the years 2013-2020

Year	Annual percentage change	Net profit QR
2013	0	1146591
2014	35.63	408525
2015	24.48	100020
2016	218.39	218431
2017	15.50	33861
2018	-7185.22	(2432986)
2019	-11.48	279235
2020	-2437.87	(6807385)

Source: The Table prepared by researchers based on the financial reports approved by the external auditor of the Arab Qatari Agricultural Production Company for the years 2013-2020

Table 2:

Revenue from commercial activity and The rate of Total revenue of the Arab Qatari Agricultural Production Company for the years 2013-2020

Year	The rate of commercial activity to Total revenue	Total revenue (QR)	Rate of change	Revenue from commercial activity (QR)
2013	97.85	20817238	0	20370636
2014	98.43	25934763	125.31	25526690
2015	97.79	22256571	85.26	21763639
2016	97.41	21208702	94.93	20660092
2017	96.78	18999127	89.00	18387531
2018	95.66	22322753	116.14	21354914
2019	94.49	26055235	115.29	24619250
2020	97.52	26123778	103.48	25476070
Average	97.0	22964770.9		22269852.8

Source: The Table prepared by researchers based on the financial reports approved by the Arab Qatari Agricultural Production Company's external auditor for the years 2013-2020

- e. The ratio of variable assets to total assets reached a minimum of 51.7% in 2013, increased steadily during the period 2013-18 to be 56.2% in 2018, then decreased during the last two years of study (2019 and 2020) to be about 52% and 51%, respectively.

3.4. Net Assets

The net assets are extracted according to the following equation:

$$\text{Net assets} = \text{Total assets} - \text{Total liabilities}$$

It is evident from Table 4 that the net assets of the AQCAP for the period 2013-2020 were positive throughout the study period, with values close to a maximum in 2017, whose maximum value was about 44.9 million QR, and minimum value of 35.9 million QR in 2020. This shows that the company maintained total assets and net assets during the study period to indicate the stability of assets in general and relatively net assets.

3.5. Profitability Ratios

Profitability ratios measure the company's efficiency in utilizing the available resources optimally to achieve the targeted profits, that is, the maximum profit (Al-Homoud & Krarti, 2021). They are also described as the set of ratios that link profits to sales to express the ability of the sales activity to generate profits (Donnelly et al., 2018; Almarri, 2020) as follows:

Gross profit margin: The increase in this ratio gives an indication of the efficiency of the operations of resources. The percentage of gross profit margin is extracted as follows:

$$\text{Gross Profit Ratio} = \text{Gross Profit} / \text{Net Sales} * 100$$

From Table 5, the gross profit margin for the years 2013-2015 shows positive values in a decreasing trend. In 2016 there was a clear loss of about 17.8 million QR, with a ratio that reached an

Table 3:

Total assets α fixed assets α Variable assets of the Arab Qatari Agricultural Production Company for the years 2013-2020

Year	Ratio of variable assets to total assets	Variable assets (QR)	The ratio of fixed assets to total assets	Rate of change	Fixed assets (QR)	Rate of change	Total assets (QR)
2013	51.67	24400045	48.33	0	22826322	0	47226367
2014	52.68	25420513	47.32	100.03	22832972	97.87	48253486
2015	53.15	25390038	46.85	98.03	22382241	101.01	47772279
2016	54.00	25620566	46	97.49	21820735	10.07	47441301
2017	55.55	26059643	44.45	95.55	20849852	1011.33	46909496
2018	56.20	26514518	43.80	99.12	20666347	99.42	47180865
2019	52.51	26609770	47.49	116.43	24061881	93.11	50671651
2020	51.87	24817057	48.13	95.71	23029441	105.90	47846498
Average	53.5	25604018	46.5		22308724		47912743

Source: Financial reports approved by the external auditor of the Arab Qatari Agricultural Production Company for the years 2013-2020

Table 4:

Net Assets α Total assets α Total Liabilities of the Arab Qatari Agricultural Production Company for the years 2013-2020

Year	Net Assets QR	Total Liabilities QR	Total assets QR
2013	41048449	6177918	47226367
2014	42075568	6177918	48253486
2015	44012736	3759543	47772279
2016	40830254	6611047	47441301
2017	44864115	2045381	46909496
2018	42432129	4748736	47180865
2019	42711364	7960287	50671651
2020	35903979	11942519	47846498
Average	41734824.3	6177918.6	47912743

Source: Based on the financial reports approved by the external auditor of the Arab Qatari Agricultural Production Company for the years 2013-2020

Table 5:

The rate of change in the gross profit margin of the Arab Qatari Agricultural Production Company for the years 2013-2020

Year	The rate of change in the gross profit margin	Gross profit Margin (QR)	Net Sales (QR)	Gross profit (QR)
2013	0	56.1	4310128	2416460
2014	97.37	54.6	4361739	2381061
2015	78.14	42.7	3624837	1546141
2016	-254.9	-143.01	1312262	-18766435
2017	-12.9	-7.26	1149116	-835232
2018	-63.10	-35.4	1465664	-518684
2019	150.160	84.2	12548839	10564491
2020	146.530	80.0	9916991	7932643

Source: The Table prepared by researchers based on the financial reports approved by the external auditor of the Arab Qatari Agricultural Production Company for the years 2013-2020

average of (-143). The loss continued for the next two years. The total profits increased in 2019 by 10.6 million QR (the percentage of gross profit amounted to 84%), then to fall in the year 2020 to be 7.9 million QR. The rate of change in the gross profit margin took a declining trend in the years 2014-2015, reached negative values in the years 2016-2018, then rose to 150 and 146 for the years 2019 and 2020, respectively. This shows the inability of the selling activity in the company to generate increased profits during the study period.

4. Conclusions

1. Indicators of the performance efficiency of the AQCAP generally show a clear weakness as follows:
 - a. The net profit index shows weak efficiency of the company in increasing net profits and inability to maintain a high level of net profits, as the percentage of change in the net profits was negative in the years 2018-20.
 - b. The commercial activity revenue index reveals the weakness of the company's efficiency in improving the revenues of commercial activity more than the level reached. The index reveals the higher relative importance of commercial activity revenues out of the company's total revenues, as it ranged between 94% in 2019 and 98% In 2014. This means that the company's non-commercial revenues, such as production, marketing, training, consulting, and other activities, were weak.
 - c. Profitability ratios confirm the inability of selling and marketing activities of the company to achieve increased profits and the low efficiency of the company in investing its financial assets to maximize profits.
 - d. The activity efficiency ratio of the company shows weakness in converting sales into cash and in the exploitation of fixed assets.
2. The lack of interest of the company in the financial analysis, especially in the analysis of performance efficiency, looking for the reasons behind the low efficiency, and identifying weaknesses and defects in activities.

4.1. Recommendations

1. Study the reasons for fluctuations in the volume of sales and identify factors that led to the decline in inventory management efficiency.
2. Searching for ways that lead to raising the efficiency of the company's exploitation of funds that invested in the assets.
3. Pay attention to the financial analysis indicators when analyzing the company's performance's efficiency and relying on its data in evaluating activities.
4. Addressing weaknesses in performance in a way that improves sales, increases various revenues and maximizes profits.

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