

Summary

This study targets the following:

1. Study of the current situations of fresh product dairy projects .
2. Measure the respective capabilities of technology, distribution systems and factors of cost at the specialized dairy projects.
3. Identify the amount of resources that can achieve economic efficiency of the specialized dairy projects, and accordingly estimate levels of profuse and shortage in milking heads, size of green, concentrated and dry meals and as well the size of the human resources used therein.

To achieve its goals, this study has used the quantitative economic analysis methodology, mainly the Data Envelopment Analysis (DEA) model. This model depends on linear programming to establish folders of data. It also depended on the initial data that had been collected from the questionnaire's form. The subject questionnaire was distributed to 28 specialized dairy projects. Only 10 of the targeted population had responded, representing 35% of projects operating in the Kingdom of Saudi Arabia 2005.

The study consists of five chapters. Chapter One forms the study's general frame. Chapter Two reviews previous studies. Chapter Three studies the current situations at the active specialized and conventional dairy projects. Chapter Four measures the respective capabilities of technology, distribution systems and factors of cost at the small and big dairy projects. Lastly, Chapter five handles size of resources that can achieve economic efficiency under fixed and variable capacity returns.

Main findings of the study are as follows:

Firstly: as for the current production of dairy in the Kingdom:

1. The majority of specialized dairy projects concentrates in the Riyadh Region where 19 projects are operating there. The market share of these projects was 74.31% of the mean product of specialized dairy projects during 2001-2005 period. Other projects, which are nine, distribute among other regions (Eastern Province, Tabouk, Qassim, Hail and Najran).

2. Domestic annual growth of dairy products was 6.7% against a consumption growth of 5.2% pa throughout the term from 1990 to 2004.
3. Specialized dairy sector is the main supplier of raw milk. It provides the market with 65.93% of requirements leaving only 34% to the whole convectional sector.

Secondly: as for technological and economic efficiency :

1. Technological efficiency of the big dairy projects is magnificently higher than that of the small. Currently smaller projects can improve and increase production capacity by up to 14% while big project may never be able to increase current productivity by more than 1%.
2. Distribution efficiency of the economic resources used in big dairy projects is higher than that of the smaller, recording 0.75 and 0.81 respectively.
3. Production cost efficiency of dairy products by big projects is higher than that of the small projects.
4. There are no material variations between means of technological, distributional and cost efficiency at the small and big specialized dairy projects in 1427H (2006).

Thirdly: as for resources that can achieve the economic efficiency in dairy production at the specialized projects under the change of return against capacity, findings of the study follow:

1. Excess in the number of milking heads over that required for achieving economic efficiency of both small and big specialized projects at 17.8% and 13.2% respectively.
2. Shortage in green meal for small projects at 8.65% of the mean quantity used, while big projects use about 8.3% over the mean quantities that can be used to achieve the economic efficiency.
3. Profuse in concentrated meals over the mean that can achieve the economic efficiency of both small and big projects at 43.3% and 33.7% of the quantity of the concentrated animal feed used respectively.

4. Profuse in dry meals over the mean that can achieve the economic efficiency of both small and big projects at 12.8% and 3.97% of the quantity of the dry animal feed used respectively.
5. Shortage in the size of human resources used in small projects is 17.86% while excess of the same element used in big projects is 2.3%.

Recommendations

1. Study of product, marketing and organizational problems of the specialized dairy projects.
2. Review production policy running small dairy projects to uplift productivity by 14% to operate at full production capacity.
3. Apply scientific models in managing different size specialized dairy projects, redistribute the economic resources with assurance to give the same production levels with less costs at 25% and 19% for small and big projects respectively under change of return against capacity.
4. Increase the human resources used in small specialized projects by 18% to compensate the current shortage under change of return against capacity.
5. Utmost benefit from the current excess of the economic resources used in different size specialized dairy projects to establish new optimal productive projects.